



**Challenges Experienced When Outsourcing Logistics in South Africa: A Case of Lolli
Supermarkets**

by

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Master of Commerce Degree in Supply Chain Management**

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Abstract

The effective and efficient operation of distribution centres is a goal for all retailers using the distribution centre strategy. It therefore becomes imperative to strategically position all available resources in order to achieve a smooth operation. This has led to the emergence of outsourced logistics service providers in South Africa to enhance efficiencies while retail organisations focus on the core functions of their business. Lolli Supermarkets makes use of third party logistics (3PL) service providers to achieve delivery efficiencies and cost saving in the distribution centre. The aim of the study is to identify challenges and determine where 3PL service providers are fulfilling their strategic role and where they experience challenges that result in the provision of suboptimal services to distribution centres. This study further attempts to achieve the following: firstly, to identify the challenges Lolli Supermarkets experience with its reliance on 3PLs. Secondly, to determine whether 3PL service providers are fulfilling their strategic role to improve order replenishment. Lastly, to determine whether Lolli Supermarkets are experiencing challenges with 3PL service providers with regards to product availability and as a result provision of suboptimal services by the 3PL service provider. This allows the study to analyse the impact of outsourcing in retail organisations while also evaluating any changes that may be encountered under developing economy conditions. An exploratory design was used to identify the challenges that result in suboptimal services provided by 3PL service providers. Thematic analysis was used to analyse the data collected from sixteen respondents who form part of Lolli Supermarkets management and two respondents who form part of management of the 3PL. The main findings reveal that 3PL service providers commit to creating efficiencies for the distribution centre through adhering to outbound plans, having service levels agreements in place, meeting the set key performance indicators, maintaining information flow to align goals of both parties, and operating in the most flexible manner to achieve efficient product delivery and enhance customer satisfaction. However, there are challenges that arise due to fluctuations in outbound volumes, communication breakdown, unpunctuality and the limited number of trucks available for use.

Keywords: *Retail distribution strategy, logistics, third party logistics, order replenishment, product availability, customer satisfaction*

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List of Abbreviations

3PL	Third Party Logistics
KPI	Key Performance Indicator
SCM	Supply Chain Management

CHAPTER 1: INTRODUCTION TO THE STUDY

1.1 Introduction

This chapter introduces the research topic, the background of the study, and presents the research objectives and questions. The chapter further gives a brief description of the research methodology utilised to conduct the study. This study explores the logistics function which is a crucial part of supply chain management (SCM) as a whole. SCM is an important component of businesses across the world because it integrates manufacturing operations, purchasing, transportation, physical distribution and return processes. Supply chain management is defined as “the science and art of integrating marketing, production, logistics and financials throughout the entire chain, from the supplier’s supplier to the customer’s customer” (Langley *et al.*, 2009:17). Organisations are working towards improving their supply chains through effective management of the flow of resources. According to Ballou (2004:5), SCM is “a set of activities that involves the movement and production of goods from extraction to the final product that reaches the end consumer”.

Most retail organisations have chosen the route of using distribution centres as a strategy to conveniently supply goods to their individual stores. Strategically, these organisations outsource the logistics function to third party logistics (3PL) service providers to distribute to the individual retail stores. Ikediashi and Aigbavboa (2019:281) define outsourcing as “a management model whereby in-house services previously performed in-house are contracted out to an external service provider with a view towards improving organisational efficiency and effectiveness”. This study proposes to identify the challenges experienced by Lolli Supermarkets regarding 3PL service providers and maintaining of inventory availability at individual retail stores. It further questions the frequency with which 3PL service providers fulfil their strategic role of order replenishment to ensure product availability. This allows the study to analyse the impact of outsourcing in retail organisations while also evaluating any changes that may be encountered under developing economy conditions.

1.2 Background of the Study

This study makes use of a pseudonym, Lolli Supermarkets, to protect the image of the organisation that the researcher gathered the data from. Lolli Supermarkets was established in the 1970s in KwaZulu-Natal, South Africa. The company expanded over the years and was

acquired by its current parent company in 2002. According to the 2019 Summarised Audited Group Annual Financial Statements, Lolli is consistently providing great turnover improvements for its parent company through its commitment to providing basic commodities, fresh meat, fruit and vegetables. Lolli Supermarkets distributes products to its individual retail stores through the distribution centre strategy using 3PL service providers to ensure that there are no gaps in the order cycle in terms of delivering loads to the individual retail stores. The distribution centre strategy is intended to provide frequent order replenishment and to maintain product availability in different stores through efficient and effective service providers. In the history of Lolli Supermarkets, the organisation has never performed its transport function as an in-house activity, the organisation only makes use of outsourced logistics services.

1.3 Research Problem

Distribution centres supply individual retail outlets to ensure that goods get to customers on time and in good condition. Organisations assign the distribution function to 3PL service providers who transport products from the distribution centres to individual retail stores in order to achieve delivery efficiencies and cost savings. Operating a distribution centre reflects a strategic intent to improve accessibility to products for the organisation and to increase flexibility in the management of products. Organisations often choose to outsource certain non-core functions to the organisations that specialise in those functions with the aim of improving operations and processes in place. In some instances, the use of third party logistics service providers does not only introduce progressive changes to the organisations but it also comes with various changes that tend to not benefit the third party logistics demand organisations. In South Africa there are organisations that have changed from outsourcing the logistics functions to using in-house resources. This raises an area of concern for the researcher to conduct a study that intends to scrutinise the challenges experienced when outsourcing logistics in South Africa,

Outsourcing of the logistics functions tends to lead to the organisation having less control over these functions. Since the majority of research has been conducted in developed economies, there is scope for different challenges to be encountered under developing economy conditions. The study focuses on identifying challenges and determining where 3PL service providers are fulfilling their strategic role; and where they are experiencing challenges that result in the provision of suboptimal services. In the case of Lolli

Supermarkets, the study will be guided by the level of control that the service provider has over Lolli Supermarkets in terms of the service level agreements in place that stipulate the functions of the service provider.

1.4 Research Questions

- ❖ What are the challenges that Lolli Supermarkets experiences with its reliance on 3PL service providers?
- ❖ To what extent are 3PL service providers fulfilling their strategic role to improve order replenishment?
- ❖ To what extent is Lolli Supermarkets experiencing challenges with 3PL service providers with regard to product availability and as a result provide suboptimal services?

1.5 Research Objectives

- ❖ To identify the challenges that Lolli Supermarkets experiences with its reliance on 3PL service providers.
- ❖ To determine whether 3PL service providers are fulfilling their strategic role to improve order replenishment.
- ❖ To determine whether Lolli Supermarkets is experiencing challenges with 3PL service providers with regard to product availability and results to the provision of suboptimal services by the 3PL service provider.

1.6 Literature Outline

1.6.1 Nature of Supply Chain Management

According to Davis and Heineke (2005:104), supply chain management is “a relationship between an organisation and the supplier to achieve competitively priced goods and services that are delivered in time”.

1.6.1 Logistics

According to Hsiao, Kemp, Van der Vorst, and Omta (2010:78) logistics is the key to creating value for the customer. Pienaar and Vogt (2012:29) place emphasis on the importance of accessibility, transit time, security, flexibility and reliability in maintaining

good logistics practices. Business practices changed over time and technology grew rapidly, therefore the concept of outsourcing expanded and the concept of 3PL was introduced in the 1980s (Leuschner *et al.* 2014).

1.6.2 Third party Logistics

According to Wisner, Tan and Leong (2005:10), logistics outsourcing and 3PL originated in the 1980s. The aim was to improve supply chain effectiveness and achieve low costs. Waters (2003:22) highlights the benefits of utilising 3PL by stating that this results in lower fixed costs, allows specialised personnel to use their expertise to yield the best results for the organisation and the flexibility which allows the organisation to manage backlogs.

1.6.3 Distribution Centres

A distribution centre is a type of warehouse that is not necessarily used for storage but receives, breaks the product down, repacks and distributes to customers. This allows organisations to keep products while being able to send out deliveries faster and more frequently (Wisner *et al.*, 2005:288).

1.6.4 Order Replenishment

Effective order replenishment offers organisations the opportunity to reduce cost and overstocking while maintaining inventory availability for customers to make purchases at all times and boost customer service levels (Kinyanjui and Noor, 2017). The framework used by the study displays how organisations that use the distribution centre strategy attempt to achieve an uninterrupted flow of products when replenishing their individual retail stores.

1.6.5 Product Availability

The aim of manufacturing products is to satisfy the needs and wants of a customer in order to generate a profit. When products are available, customers have access to purchase those products to satisfy their needs and generate an income for the business. This transaction allows the business to continue with its operation (Lee, 2004). However, product availability can mean a cost when the demand rate for that specific item is low, making it important to forecast before replenishment (Hugo, Badenhorst-Weiss and van Biljon, 2006:173).

1.6.6 Customer Satisfaction

Customer service is achieved through meeting and exceeding the customer expectations, but it is hard to meet and exceed when customer feedback is missing (Greenberg, 2001:6). The level of customer expectations is increasing; customers are knowledgeable about the products, suppliers, low prices, high quality and better service (Waters, 2003:21). The conceptual framework of this study shows how organisations use distribution centres as a strategy to enhance customer satisfaction.

1.7 Research Methodology

Research methodology is defined by McGregor and Murnane (2010:420) as “the rationale and the philosophical assumptions that underlie any natural, social or human science study, whether articulated or not”. It varies from research methods which present how the data was collected, analysed and interpreted.

1.7.1 Research Design

The research design is a comprehensive technique that is used to carry out the collection of data and analysis in a research study (Melnikovas, 2018:33). This study used an exploratory research design to gather data in order to enhance understanding of a phenomenon, formulate definitions and clearly develop concepts. In most cases there is a limited number of the same issue solved in the past (Sekaran, 2003:119). The researcher conducted an inductive study to fulfil the aim of building a theory as opposed to testing an existing theory through a deductive study (Bhattacharjee, 2012:3). As a result, the interpretivism philosophy was adopted.

1.7.2 Research Approach

There are three major approaches that a researcher can use to conduct a study; qualitative, quantitative and mixed (Terrell, 2016:67). Vanderstoep and Johnston (2009:165) define the qualitative approach as an approach that seeks to explore and understand the individuals or groups linked to a human or social problem and to define, describe and make sense of it. The quantitative approach is deductive; it starts with a particular research problem understood through the thorough review of literature (Terrell, 2016:69). The mixed approach comprises a combination of the qualitative and quantitative approach when collecting and analysing the data (Creswell, 2009:3).

This study used the qualitative approach which aligned with the understanding of the complexities of individual interviewees known as the interpretivist philosophy (Babbie, 2014:199). The qualitative research was used to discover information as opposed to testing variables, which aligned with the aim of this study (Corbin and Strauss, 2008:12). In order for the study to gather the required data, a case strategy approach was applied as it allowed the researcher to conduct empirical investigations collecting data from interviewees who belong to a single organisation. Ponelis (2015:535) affirms that the use of a single case provides “an intensive, holistic description and analysis of a single, bounded unit situated in a specific context to provide insight into real life situations”. This study focused on the challenges experienced by Lolli Supermarkets to allow empirical investigation of the phenomenon.

1.7.3 Study Site

Simons (2009:89) defines the study site as the geographical area where the study takes place and the target population exists (Simons, 2009:89). This study took place at the Lolli Supermarkets Distribution Centre in Durban, KwaZulu-Natal, South Africa.

1.7.4 Target Population

The target population is the total number of units that the researcher could possibly use to gather relevant data for the study (Terrell, 2016:69). The target population for this study was made of thirty seven (37) possible participants who form part of the Cato Ridge Lolli Supermarkets distribution centre management and transport service providers’ representatives

1.7.5 Sampling

Sampling is a statistical procedure of setting aside a subset from the target population. This is accomplished through two types of sampling; probability and non-probability sampling (Bhattacharjee, 2012:66). This study used the non-probability sampling that allowed the researcher to sample the participants with the most relevant information in order to obtain in-depth understanding of the phenomenon.

1.7.6 Sample Size

The sample size is the total number of units selected from the target population to participate in the study (Babbie, 2014:202). This study gathered data through the following eighteen (18)

respondents out of the target population of thirty seven (37) possible respondents who form part of the Lolli Supermarkets distribution centre management and transport service providers: one Supply Chain Executive; one Demand Planning Executive; one Demand Planning Head of Department; two Demand Planning Managers; one Distribution Centre Manager; one Warehouse Manager; two Shift Floor Manager; one Continuous Improvement Officer; one Customer Service Manager; one Inventory and Replenishment Manager, two members of the third party service provider; one Finance Manager; one Supply Chain Analyst; one Outbound Demand Planner; and one Inventory Supervisor.

1.7.7 Data Collection Methods

This study was carried out through a qualitative method. Individual in-depth interviews were conducted to gather data from 11 interviewees. The researcher also conducted three focus group discussions which involved 7 interviewees. Focus group discussions allowed the researcher to focus on the views, feelings and thoughts of the interviewees without limiting their opinions. Prior to the start of the study the researcher requested meetings with the potential participants via emails and informed them that taking part in the study was voluntary and interviews would be held in a private room at Lolli Supermarkets distribution centre. Each interview was conducted its own slot and all data collected was treated with high confidentiality.

1.7.8 Data Analysis

Data analysis is the process of establishing what respondents meant during the collection of data, creating summaries, and finding patterns (Creswell, 2009:183). After the data had been collected, the researcher made use of thematic analysis to analyse the data and to form themes. Thematic analysis is a data analysis structure that allows the researcher to focus on identifiable themes within a case and utilise these themes to arrange and present the case (Rule and John, 2011:123). This study relied on the identified themes that are underpinned by subthemes for extensive analysis of data. The coding process greatly assisted with capturing and organising the analysis to create a sequential analysis flow. The researcher made use of the NVivo software, a software tool that assists the researcher to find links in the collected data and grants the researcher a chance to discover the deeper meaning of the collected data (Babbie, 2014:419).

1.8 Ethical Considerations

The researcher obtained the ethical clearance from the University of KwaZulu-Natal Ethics Research Committee after Lolli Supermarkets management granted the gatekeeper's letter. All interviewees gave consent to participate in the study and were informed that the identity of every interviewee would be protected. The researcher ensured that the objectives of the study were well explained and that the interviewees understood prior to signing the consent form.

1.9 Dissertation Structure

Chapter 1: Introduction

This chapter presents an introduction to and the background of the study. It presents the research problem, research objectives, research questions and the significance of the study.

Chapter 2: Literature Review

This chapter presents the literature review on the concepts relating to this study, discussing different perspectives on the concepts. It will further present the conceptual framework underpinning the study.

Chapter 3: Research Design and Methodology

This chapter presents the research methodology which comprises the research design, sampling, research tools, data collection processes, data quality control and limitations of the study.

Chapter 4: Analysis and Presentation

This chapter presents the organised data and its interpretation and analysis.

Chapter 5: Conclusion and Recommendations

This chapter concludes the research, provide recommendations and suggest possible ways of furthering this study.

CHAPTER 2: LITERATURE REVIEW

2.1 Introduction

This chapter reviews relevant literature on 3PL and the possible challenges encountered when supporting a distribution centre strategy with the aim of achieving efficiencies. The purpose of the review is to present a better understanding of the concept of 3PL and why 3PL service providers are used as a strategy for efficient operations. The review explores the constructs of this study: distribution centres, logistics, order replenishment, product availability, and customer satisfaction. Logistics is a huge responsibility which is key in operating any form of business. To successfully manage logistics, organisations find it strategic to make use of specialised personnel to coordinate this function leading to outsourcing of logistics.

Lolli Supermarkets makes use of the distribution centre strategy and outsourced logistics services to achieve a successful distribution of products to their individual retail stores. This strategy is well known for its cost saving benefit in the long run. Kučera and Chocholáč (2016:1) state that logistics outsourcing represents a process whereby an organisation trusts an external specialised service provider to have control over the logistics function of an organisation. In the past, researchers have raised concerns regarding loss of control when using 3PL. Wang and Regan (2003:4), Kučera and Chocholáč (2016:8) and Kiliç, Günsel and Çekmecelioğlu (2016:236) view the use of 3PL as a risky strategy with regards to control as organisations may lose control over their logistics function. This study looks at the challenges relating to the product flows existing after outsourcing the logistics component in the supply chain network. The literature review considers the gap between conditions and competitive levels of developed economies, and South Africa in particular as a developing economy. This study solely focuses on logistics management as defined by Bowersox, Closs and Cooper (2007:4): “the function that creates value in the supply chain through moving and positioning the inventory”.

2.2 Meaning of Supply Chain Management

Supply chain management is “the science and art of integrating marketing, production, logistics and financials throughout the entire chain, from the supplier’s supplier to the customer’s customer” (Langley *et al.*, 2009:17). It is an important component in organisations across the world as it integrates manufacturing operations, purchasing, transportation, and physical distribution and return processes to achieve a free flow of

resources in and across organisations. Organisations aim to improve the flow of resources through effective management of supply chains. In every supply chain that exists, all elements are interdependent. According to Min, Zacharia, and Smith (2019:45) SCM is “the systematic, strategic coordination of the traditional business functions within a particular company and across businesses within the supply chain, for the purposes of improving the long-term performance of the individual companies and the supply chain as a whole”. It is a strategy that allows organisations to collaborate to achieve efficiencies and successful free flow of products throughout the supply chain.

Through interorganisational collaboration organisations are able to collectively attain a better understanding of future demands and plan on how to best satisfy these demands (Attaran and Attaran, 2007:393). Mentzer *et al.* (2001:7) suggest that when viewing SCM from an integrative philosophy perspective, it “directs supply chain members to focus on developing innovative solutions to create unique, individualised sources of customer value”. In order to effectively manage a supply chain there is a need for well planned and executed logistics services. Logistics stands as that crucial element of SCM as it carries out the shipping of the goods throughout the supply chain. It is a strategy that manages a network of activities with the main aim of creating an uninterrupted flow of inventory within a logistics channel and enabling organisations to meet the needs of the customer (Stock and Lambert, 2001:4). This study focuses on logistics as it is the element of SCM that facilitates the physical distribution of products in order to satisfy the needs of the customer.

2.3 The Importance of Logistics

Logistics is an essential strategic element of every supply chain that exists. Havenga, De Bod, and Simpson (2016: 1-7) highlight the importance of logistics in a country’s economy, stating that “logistics is a strategic resource for the South African economy and key to providing a global competitive advantage”. The movement of products from the point of origin to the point of consumption requires efficient logistics activities to be in place to support the goal of business which is to meet the needs of customers. The distribution of products throughout supply chains has rapidly increased as it greatly impacts on the economy of the country. Havenga (2018: 1-10) states that the importance of logistics in South Africa is emphasised by the logistics costs incurred in the country, contributing 11.2 percent of the country’s gross domestic product (GDP) in 2014. South Africa is a developing country so therefore it is crucial for organisations to manage logistics in an efficient manner in order to stimulate

economic growth. Folinas, Tsolakis, and Aidonis. (2018:1) state that economic development and logistics are intertwined in the sense that economic development drives the demand for logistics services.

2.4 Nature of Retail Distribution Strategy

A distribution centre is a type of warehouse that is not necessarily used for storage but receives, breaks the product down, repacks and distributes to customers (Cidell, 2015:17). A warehouse is a facility used to store inventory for a certain period of time (Murphy and Knemeyer, 2018:168). Distribution centres allow organisations to perform breakbulk activities which allows them to send out product deliveries faster and more frequently to customers (Wisner, Tan and Leong, 2012:514). In the retail industry, distribution centres are common for non-storage where such a space is non-existent at these facilities. Ballou (2004) defines distribution centres as facilities that “accumulate and consolidate products from various points of manufacture within a single firm, or from several firms, for combined shipment to common customers”. The distinctive element is that of ‘put away’ and ‘accumulate’ whereby products are secured in the facility to achieve a successful replenishment of stores at all times.

A retail distribution centre differs from common distribution centres as they can be partially used as cross-docking processes in a sense that incoming product truck loads can be either entirely put away or partially sent straight to outbound delivery (Buijs, Danhof and Wortmann, 2016:213). Heizer, Render and Munson (2017:414) define cross docking as “avoid[ing] placing materials or supplies in storage by processing them as they are received”. This process reduces stock holding costs and product handling that may result in product damage in the facility (Heizer, Render and Munson, 2017:414). There are various elements that result in differences between distribution centres, including the type the products stored in each distribution centre or the temperature of the distribution. The location decision strategies create distinct efficiencies of a distribution centre. Strategically locating a distribution centre does not only save cost and time but it can increase customer service levels. Onstein, Tavasszy and van Damme (2019:243) substantiate that logistics layouts are important to organisations to achieve balance between customer service levels and logistics costs.

Organisations bear the responsibility to decide on whether to prioritise customer service levels by locating the distribution centres at close proximity to customers through

decentralisation of the centres or to prioritise logistics cost through centralisation and distribute from only one single warehouse to customers, eliminating the fixed cost of maintaining multiple distribution centres. It is crucial that these options are carefully considered as they still need to allow organisations to operate efficiently and effectively while aligning to the goals of the organisation (Badenhorst-Weiss, van Biljon and Ambe, 2017:287). A centralised distribution strategy can be used for an organisation competing on a price basis to achieve low cost where products are distributed from one geographical location to multiple customers. On the other hand, a decentralised distribution strategy can be used if an organisation is operating on the basis of convenience and customer service to optimise responsiveness whereby proximity to customers is a priority. Organisations can also make use of a hybrid strategy that allows an organisation to make use of both a centralised strategy and a decentralised strategy simultaneously (Trab *et al.* 2018:704).

2.4.1 Centralised Distribution Strategy

Centralised distribution is a strategy that exists to reduce the overall cost of distribution while providing good quality service to the ultimate customer. It is structured in a manner that every product is received and dispatched from only one distribution centre (Becker *et al.*, 2016:699). When organisations use this strategy, high transport costs caused by long distances to deliver are compensated for by the reduced warehouse operations cost as there is only one fixed distribution centre cost (Gammelgaard, van Hoek and Stefansson, 2006:80). A centralised distribution strategy yields competitive advantage on price for organisations as it allows more inventory control, reduced inventory management cost, and reduced inventory holding. It is a strategy that allows an organisation to perform its logistics activities from a central geographical location (Badenhorst-Weiss *et al.*, 2017:15). When products are stored in one distribution centre, there is more visibility on stock holding and demand trends. This makes it easier for Demand Planners to forecast inbound volumes for the distribution centre and avoid waste caused by overstocks on certain product lines that turn into expired products.

2.4.2 Decentralised Distribution Strategy

Onstein *et al.* (2019:245) define a decentralised distribution strategy as one where multiple distribution centres exist in multiple geographic locations. Such a strategy is structured so that every product is received and dispatched from all existing distribution centres in the organisation (Becker *et al.*, 2016:699). This strategy is known for its great impact on high

quality customer service (Badenhorst-Weiss *et al.*, 2017:287). In retail distribution, organisations are able to share products amongst all distribution centres in cases where one centre is overstocked on a specific item so that other distribution centres can be replenished from the overstocked distribution centre positive financial implications. Logistics costs-benefits are often yielded through a centralised distribution strategy which is often used by a low-cost driven organisation. However, for retail organisations that aim at satisfying the needs of the customers to achieve the retention of customers, the decentralisation of distribution centres becomes a beneficial strategy. Ribas, Lusa and Corominas (2019:2108) view decentralisation as a “strategy that focuses on the quality of delivery”. The decentralised distribution centre strategy allows organisations to have close proximity to customers in order to maintain timely deliveries and be close enough to fulfil emergency orders with the right products at the right time when the need arises. Close proximity to customers yields a financial gain for organisations through shorter travel distances which are relatively inexpensive (Gammelgaard *et al.*, 2006:79)

2.5 Nature and Scope of Logistics

Badenhorst-Weiss *et al.* (2017:201) define logistics as “the process of planning, implementing, and controlling procedures for the efficient and effective transportation, and storage of goods including services, and related information from the point of origin to the point of consumption for the purpose of conforming to customer requirements”. Folinas *et al.* (2018:2) recognises logistics “as a set of integrated functional areas facilitating the efficient movement and handling of goods across supply networks, including: warehousing, transportation and distribution, procurement, inventory management”. The logistics function comprises various elements of which transportation is the essential element as it involves the movement of people and products. The importance of transportation is reflected by the reliance of organisations on transport to link facilities, resources, partners, and products located in geographically separated locations (Coyle *et al.*, 2017:419). The transportation of goods is carried out through different modes of transport, namely, water, air, rail, pipeline and road (Wisner *et al.*, 2012:304).

In order for these modes to effectively benefit the business, it is crucial for organisations to have appropriate logistics management in place. Kiliç *et al.* (2016:234) define logistics as “the management of the flow of resources between the point of origin and the point of consumption in order to meet requirements of the final customers”. An effective logistics

strategy put in place by an organisation yields positive support to the operation, enabling the organisation to attract and utilise that which enhances productivity (Murphy and Knemeyer, 2018:60). The quality of logistics is imperative to maintain the connection of all participants in the supply chain therefore logistics quality is a determinant when making location decisions. Hsiao *et al.* (2010:78) emphasise the importance of logistics, stating that logistics is the key to creating value for the customer. This correlates with the observation by Zhao, Droge and Stank, (2001:92) that logistics has evolved into a source of competitive advantage. Pienaar and Vogt (2012:29) emphasise the importance of accessibility, transit time, security, flexibility and reliability in maintaining good logistics practices so as to meet customer needs.

2.5.1 Insourcing Logistics Activities

Some organisations choose to keep the logistics functions in-house which can be referred to as insourcing, this being the most popular strategy in electronic commerce (e-commerce) (Kawa, 2017:430) Badenhorst-Weiss *et al.* (2017:302) state that organisations often do not prefer to have transport and logistics functions fully controlled by 3PL service providers due to the belief that such service providers lack a sense of dedication compared to in-house transport and logistics professionals. According to a study conducted by Damanpour, Magelssen and Walker (2019: 1-24), insourcing is often a result of failed outsourcing whereby contractors fail to provide satisfactory services, sufficient cost savings, and sufficient improvements on organisational efficiencies. Logistics is a complex function and requires a sense of dedication to achieve a smooth flow of products in the supply chain in order to fulfil the needs of the end customer. There are various reasons why organisations choose to keep the logistics function in-house, including cost, specialised transport requirements, stability and reliability of services, management control, numerous collection and delivery points, and adaptability over time (Badenhorst-Weiss *et al.*, 2017:302).

Firstly, for organisations that aim at operating in a less costly manner, the use of in-house transport and logistics services is less costly provided that the fleet is operated efficiently and effectively. When these services are outsourced to service providers more cost may be incurred in cases where service providers are focused on generating profit as opposed to creating efficiencies for the client, where there is a lack of expertise to create efficiencies and when a service provider has undisciplined staff that fail to keep time resulting in late deliveries. Secondly, organisations often want to take full control over logistics functions when special transport requirements arise such as emergency orders and uplifting of products

from stores. The use of service providers often put organisations in a position whereby long-term contracts are binding and do not allow organisations to action drastic changes on existing outbound plans. This may result in termination of existing contracts due to limited opportunities to test the market, try new operational techniques, and expose the business to better ways of operating. Thirdly, flexibility is an important element when running any operation that involves a customer. When the transport and logistics function is insourced, the organisation is free from binding contracts that limit the fulfilment of emergency orders. Management is able to plan, execute, and manage deliveries that match the fluctuating the demand of products at any given point without breaching any existing contracts with external service providers.

Lastly, management has full control and all employees including drivers are insourced which makes it easy for organisations to achieve an unbreakable chain of customer service as drivers are there to also market the business to customers.

2.5.2 Outsourced Logistics Activities

In the 1980s the concept of outsourcing expanded due to rapid growth in technology which led to advancement of business practices and the introduction of 3PL (Leuschner *et al.* 2014:22). This led to the evolution of logistics from second-party logistics service providers defined as an organisation that has the means to transport the first-party logistics provider's goods that need to move from one point to the other (Skender, Host and Nuhanović, 2016:22). The continuous rapid growth in technology led to the expansion of 3PL service providers. This introduces fourth-party logistics service providers which comprise integrators of technology, resources, and capabilities to create more effective supply chain solutions to their customers while achieving the maximum utilisation of the resources of organisations at the lowest cost (Skender, *et al.*, 2016:23). Fourth-party and fifth-party logistics service providers only offer administrative services to customers (Gammelgaard *et al.*, 2006:81).

Fifth-party logistics service providers are firms that are more advanced than fourth-party logistics service providers in the sense that logistics solutions are developed, implemented and controlled in close consultation with the customer (Horzela *et al.* 2018:302). The advancement of logistics services creates efficient and effective supply chains. Erkan (2014:1246) states that logistics activities play a significant role in economic and productivity growth. The introduction of outsourcing in logistics gave organisations the opportunity to make logistics decisions on whether to outsource or insource the logistics functions. Logistics

decisions are made based on various factors. Firstly, the mode of transport needs to be known, whether the organisation prefers road rail, pipeline, hand delivery, water or the air transportation mode (Jacobs and Chase, 2017:461). In some instances, organisations may use intermodal transportation whereby multiple modes of transportation are used to convey products from one point to the other. When a mode of transport has been chosen, an organisation can then decide on whether to keep the logistics in-house or outsource the logistics function to another organisation that specialises in logistics.

Secondly, it is essential for an organisation to scrutinise the possible efficiencies in regard to both insourcing and outsourcing. Cost is an essential element in any operating business as it directly impacts on profits, therefore cost analysis on both options becomes imperative, looking at the short run and how it fits in with the succession plan of the organisation. Thirdly, effectiveness needs to be tested. An organisation can put one option to the test to make a decision that best suites the needs of the organisation. Most organisations do not have their own fleet when starting a business so they are automatically in a position to utilise outsourced transportation. This period presents the best time to test the efficiencies and effectiveness of outsourcing, allowing the organisation to calculate cost and decide thereafter whether to continue to outsource or rather insource the logistics functions. Lastly, it is important for organisations to make sustainable decisions. When deciding on whether to insource or outsource, organisations need to ensure that the decision made will remain viable in the ever-changing business practices and technology environment. Business decisions are costly, it is therefore essential that organisations make decisions that are not harmful to the productivity and finances of the business in the long run.

This study identifies challenges faced by businesses when outsourcing logistics. It further determines where 3PL service providers are fulfilling strategic roles and where challenges are experienced and as a result provide suboptimal services. The issue of distributing products is complex, so an organisation has to consider the delivery cost, speed and flexibility of adapting to any changes that may occur in demand. The main decision is the mode of transport that an organisation utilises to deliver the products. Organisations choose the mode of transport based on the attractiveness of the mode attractiveness is created by various attributes such as cost, speed, reliability, capability, capacity, and flexibility (Murphy and Knemeyer, 2018:219). In South Africa, most organisations choose to transport their products by road to achieve timeous deliveries and the use of trucks to their maximum capacity. The estimated rate for the transportation of products by road is at 80 to 90 percent as opposed to

rail rated at 9 to 18 percent and air freight services rated at 1 to 2 percent in South Africa (Badenhorst-Weiss *et al.*, 2017:309).

2.5.3 Role of Logistics Outsourcing

Logistics evolved throughout the years until the concept of outsourcing was introduced into logistics. Outsourcing is “the contractual service to transfer one or more business functions to a third party provider, where the third party service provider manages the entire process for that assigned function” (Patel and Aran, 2005:7). Logistics outsourcing is a strategy that most organisations have adopted, trusting external logistics service providers to perform all or part of the logistics functions (Yuan and Qiao, 2018:283). The aim is to improve supply chain effectiveness and achieve low costs. Waters (2003:22) highlights the benefits of logistics outsourcing by stating that this results in lower fixed costs, specialised personnel to use expertise to yield the best results for the organisation, and flexibility which allows the organisation to manage backlogs.

The use of logistics service providers allows organisations to pay for the needed functions only and reduce the need to hire and train specialised staff themselves. Vijayvargiya and Dey (2010:405) highlight the importance of service quality, flexibility and timeliness for 3PL service providers in order to close any gap that exists in the supply chain in terms of shipping. In an ever-changing business environment, due to social and economic pressures, organisations outsource to 3PL service providers trusting the expertise that they offer (Vasiliauskas and Jakubauskas, 2007:69). Trends in supply chain management are forcing organisations to be flexible in order to meet customer demands, so outsourcing is the current trend in supply chain management which allows the organisations to optimise core activities so as to meet customer expectations (Jacobs and Chase, 2017:439). Through innovation of business practices, the number of organisations outsourcing logistics functions is increasing. Nowadays, organisations prefer outsourcing the logistics functions to experience the efficiency and effectiveness of outsourcing.

Badenhorst-Weiss *et al.* (2017:303) state that organisations outsource transport and logistics functions so as to: make use of greater specialisation; benefit from the efficiency objectives of service providers; cut down on overheads; gain return on investments; make use of skilled manpower; reduce labour costs; and focus on core functions of the business. Despite the positive impact that outsourcing has on organisations, Damanpour *et al.* (2019:1-24) emphasise the importance of effective management over the outsourcing process to enhance

efficiencies. It is imperative for retail distribution centres to maintain control over their logistics function to eliminate any reasons to restructure sourcing strategies.

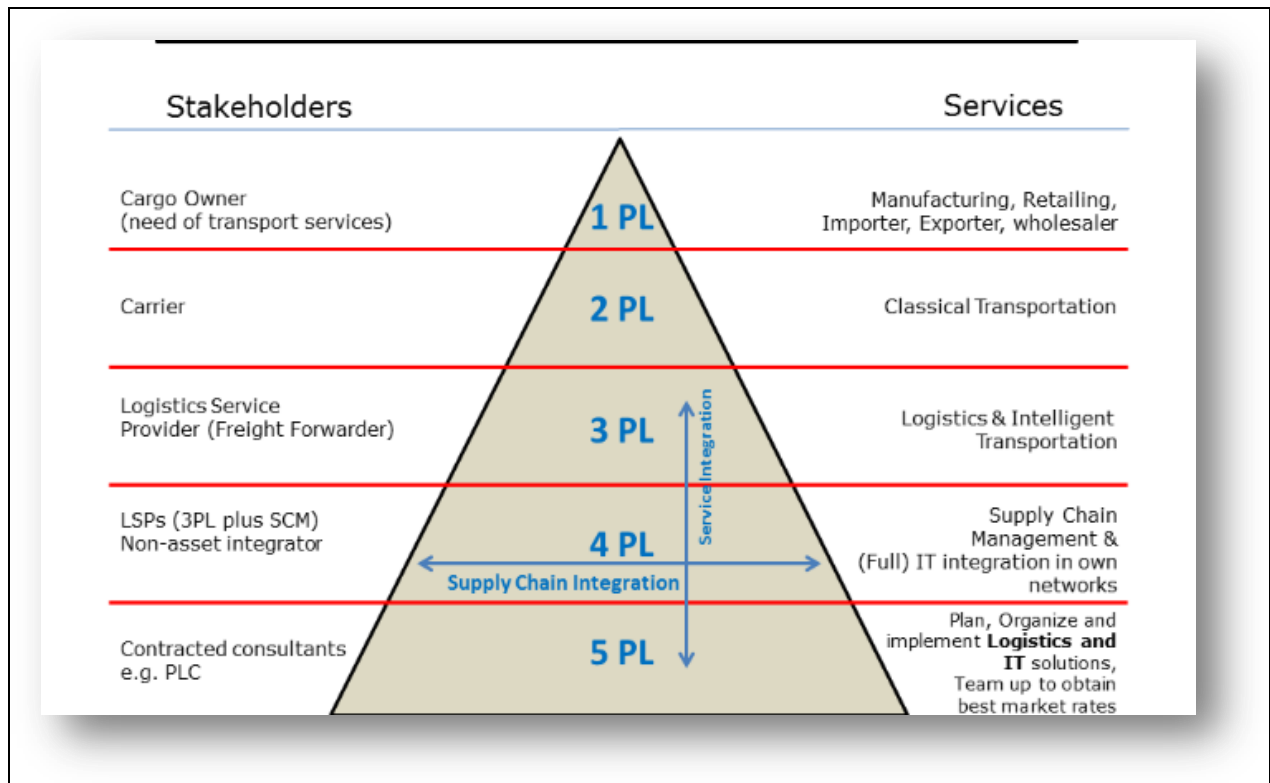
2.5.4 The Concept of Third party Logistics

The concept of 3PL becomes broader as business practices and technology advance. Third party logistics is defined as an “arrangement in which a firm with long and varied supply chains outsources its logistical operations to one or more specialist firms, the third party logistics providers” (BusinessDictionary.com, 2015). Coyle *et al.* (2017:489) define a 3PL firm as “an external supplier that performs or manages the performance of all or part of a company’s logistics functions”. El Mokrini, Benabbou, and Berrado (2016:1-6) describe 3PL as the use of external service providers characterised by a mutual beneficial long term relationship to carry out logistics functions. According to Coyle, Novack and Gibson (2016:395), a logistics service provider is “an external supplier that performs or manages the performance of all or part of a company’s logistics functions”. The definition of 3PL is broad as it involves a wide range of activities such as financial services, distribution, warehousing, and transportation (Coyle *et al.*, 2017:489).

The different views on 3PL display the act of entrusting an external logistics service provider to play a strategic role in meeting the operational goals of a logistics demand organisation. This requires both the logistics supply organisation and the logistics demand organisation to align strategies to establish effective and efficient ways to meet a common goal. Arabzad, Ghorbani and Tavakkoli-Moghaddam (2015:1040) state that the strategic role for 3PL service providers is implemented as the request for logistics services increases. This requires the 3PL providers to engage in continuous improvement to meet the ever-changing expectations of clients. Organisations are looking for logistics providers that consistently meet key performance indicators (KPIs). The common KPIs of good logistics services are reliability, flexibility, timeliness, accessibility, and sustainability (Pienaar and Vogt, 2012:29).

There are various logistics parties in a supply chain such as: first-party, second-party, third party, fourth-party, and fifth-party logistics (Horzela *et al.*, 2018:302). The 3PL has been advanced by including value adding services which have led to the fourth-party and the fifth-party parties as displayed in Figure 2.2.

Figure 2.1: The evolution of logistics services

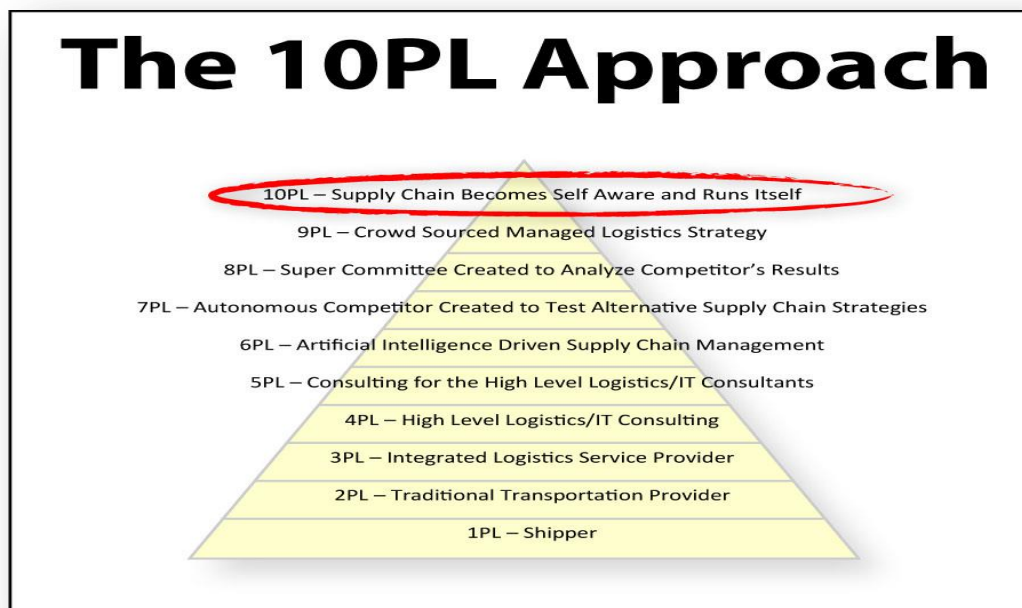


Source: Serge Bill Logistics (2017)

Figure 2.2 reflects the evolution of logistics service providers and the differences amongst the service providers. First-party logistics comprises the organisations that receive the services from logistics service providers. Second-party logistics comprises logistics service providers who own a fleet, equipment and other resources to transport products in the supply chain. Third party logistics comprises all firms that perform or manage the logistics functions such as warehousing, inventory management, information related activities, value adding activities, and transport functions of the customer (Ekeskär and Rudberg, 2016:178). Fourth-party logistics comprises firms that provide a broader scope of administrative functions to assist customers with the management of logistics functions and integrate their capabilities, resources, and technology systems with those of the customers to fulfil a common goal (Gammelgaard *et al.*, 2006:81). Fifth-party logistics comprises firms that combine the demands of 3PL into large volumes to negotiate less costly logistics rates with other logistics service providers to create efficiencies for the customer (Coyle *et al.*, 2017:490).

The rapid growth in technology creates a distinction in the above logistics services offered to logistics demand firms. The enhancement of information technology solutions allows service providers in the fourth-party and fifth-party logistics to create efficiencies for customers through administrative activities only as opposed to the traditional second-party and 3PL where activities offered involve the physical movement of products. As a result of the rapid growth in information technology systems, logistics services have expanded from fifth-party to tenth-party logistics as displayed in Figure 2.3.

Figure 2.2: The evolution of logistics (from 5PL to 10PL)



Source: EDI Matters (2013)

Figure 2.3 displays the evolution of logistics, introducing the sixth-party, seventh-party, eighth-party, ninth-party, and ultimately the tenth-party logistics. These emerging logistics approaches are a result of advancement of technology, creating a free flow of information amongst organisations in the supply chain. The development of technology, information and communication technology in particular allows logistics service providers to offer logistics services that yield enhanced supply chain efficiencies (Horzela *et al.*, 2018:305). At the same time, it allows organisations to integrate and coordinate information in a manner that yields the ultimate success for all participating organisations. Şahin and Topal (2019:815) state that “the ultimate success of organisations is based on their ability to manage the integration and coordination capabilities they can exhibit with the other members of the chain and the whole of the chain as a member of the supply chain”. Figure 2.3 presents emerging approaches that

aim at eliminating congestions in information flow that result in operational breakdown (Horzela *et al.*, 2018:306).

2.5.5 Functionality of 3PL Providers

Third party logistics service providers are external organisations that perform logistics activities on behalf of the shipper (Sremac *et al.*, 2018:305). These organisations vary based on resources possessed to carry out the transport and logistics activities of the customer. There are asset-based providers that possess all or most necessary assets to carry out transport and logistics activities required by the customer. Asset-based service providers comprise organisations that own vehicle fleets, warehouses, terminals, information sharing systems and other necessary resources required to fulfil transport and logistics activities (Coyle *et al.*, 2016:396). In most instances, organisations outsource logistics functions to asset-based providers to take advantage of the permanent human resources employed by the service provider to carry out the daily tasks and maintain the flow of products in the supply chain.

In contrast, non-asset based providers are those that utilise other companies' assets to carry out the transport and logistics activities of the customers. The non-asset based service providers are viewed as the most flexible, have the ability to negotiate services with other logistics service providers at the most reasonable prices to form a suitable package to meet the customer's transport and logistical needs. Service providers vary based on primary area of expertise, namely: transport based, distribution based, forwarder based, financial based, and information based service providers (Coyle *et al.*, 2016:398). Transport based service providers specialise in the movement of products from one point to another. This category expanded throughout the years as business needs evolved. Nowadays transportation has been merged with developing logistics solutions to create a more conducive working environment for the customer.

Distribution based service providers are the experts in storage of products that offer warehousing services, order fulfilment, and inventory management. There are instances where these providers add transportation services to achieve timeous deliveries as per customer expectation. Forwarder-based providers comprise agents, brokers and freight forwarders. These organisations do not own equipment to carry out logistics services but facilitate the flow of less than truckload shipments on behalf of customers (Coyle *et al.*, 2016:399). Financial based service providers offer services that assist customers with financial issues in the supply chain, ensuring the flow of freight audits, billing, rating and all

accounting activities of the customer. Information based service providers specialise in digitising many activities that were manually performed in the past, providing online cargo planning, scheduling, routing, and freight brokerage services (Coyle *et al.*, 2017:492).

2.5.6 Strategic Role of 3PLs in Retail Distribution Centre Operations

The main aim of a distribution centre is to receive, put away, order pick and ship products to customers (Wisner *et al.*, 2012:514). A need for logistical support arises during the movement of products from the supplier to the distribution centre and from the distribution centre to the customers. This requires an organisation to decide on whether to insource or outsource the logistics function. In retail distribution, organisations prefer to make use of 3PL as it eliminates focusing on non-core functions so that it can focus on their own core functions such as time, technology, labour, expertise, and administration. Retail distribution is highly competitive and demands operational flexibility to fulfil distribution activities. Logistics outsourcing offers flexibility that allows organisations to match the fluctuations in demand (Marchet *et al.* 2018:141). In order for distribution centres to achieve the main goal of product availability in the individual retail stores, a need for reliable transportation and logistics experts arises.

The retail industry and society at large has become more technologically oriented; therefore, organisations are entitled to use specialised personnel to carry out certain business functions to enhance efficiencies (Heizer, Render and Munson, 2017:44). The use of 3PL grants organisations the opportunity to utilise specialised expert knowledge on the logistics function while focusing on core functions of the business. Logistics is a very complex function yet required by every business that exists (Badenhorst-Weiss *et al.*, 2017:203). If an organisation chooses to manage its own logistics function, it has to hire and train human resources, purchase equipment, develop or rather purchase logistics management systems to facilitate the logistics, and have the ability to control the flow of products. This results in more cost and financial risk to the organisation as it remains accountable for a function that is a non-core function in the business. 3PL service providers are the solution to carry out many or all logistics activities, increase resource capacity, and most likely reduce costs in the long run (Coyle *et al.*, 2016:406).

The relationship between retail distribution centres and 3PL service providers is controlled by the service levels agreements that exist, entitling service providers to make each delivery a timeous delivery that arrives at each store in full and in good condition (Buijs *et al.*,

2016:220). The communication of the importance of floor space between the retail distribution centre and the 3PL provider is essential as it enables the distribution centre to eliminate congestion on the outbound floor. The use of 3PL service providers is crucial for retail distribution centres to advance their supply chains activities through integration. Arabzad *et al.* (2015:1040) attest that 3PL service providers have developed from being movers of products to being providers of strategic value adding services. This positively impacts on the operations of retail distribution centres as they operate in a highly competitive environment, so continuous improvement is a priority to efficiently and effectively serve the customers.

The growth of 3PL requires all service providers to provide high quality services in order to consistently conquer the competition that exists. The higher the quality provided to the retail distribution centres the higher the quality of services provided to the individual retail stores. It is necessary for organisations to work with other organisations to eliminate congestion in supply chains so as to meet the customer needs and improve organisational performance. Retail distribution centres are customers of 3PL providers and the goal of a service provider is to align with the goals of the customer. Well-coordinated supply chains yield competitive advantage for organisations in terms of customer service value creation (Heizer, Render and Munson, 2017:44). When retail distribution centres make use of 3PL providers, it becomes easy to maintain a certain level of service that satisfies customers concerns through amendments of KPIs and revised service level agreements.

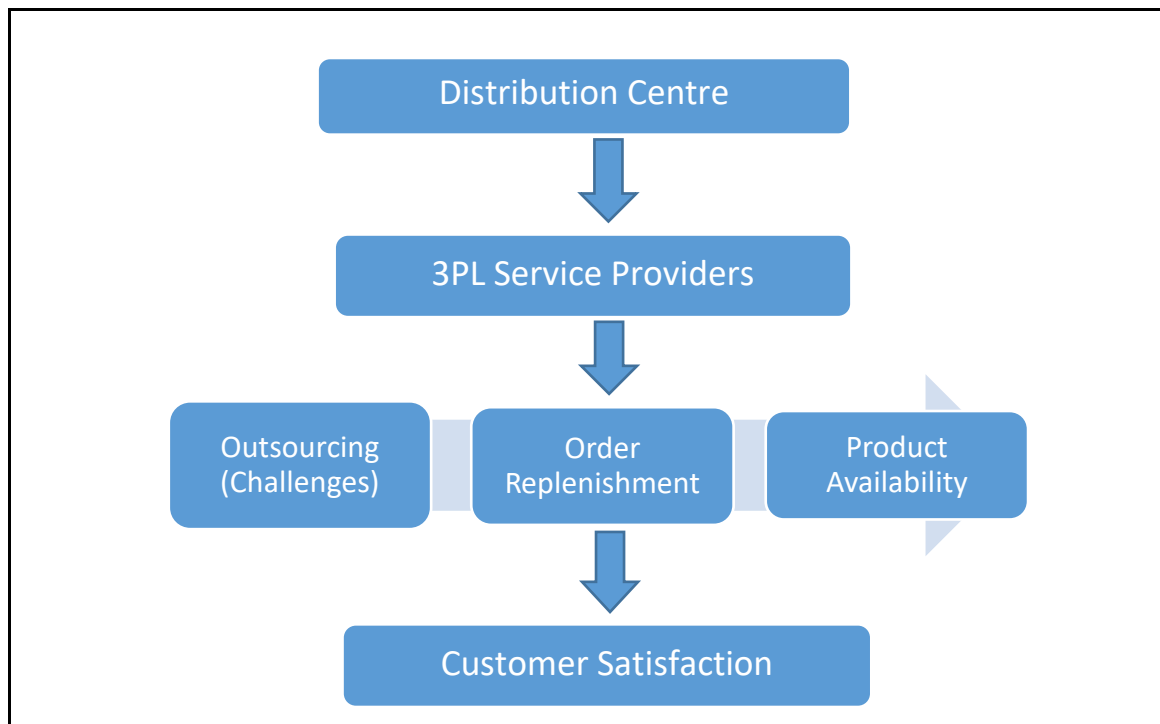
Folinas *et al.* (2018:11) place emphasis on the importance of continuous evaluation of business partners as this strengthens the relationship and the quality of services provided. The growth in information technology puts organisations at an advantage to share information and capabilities to achieve integrated workforces that ultimately yield positive results on organisational performance when partnering in supply chains (Yuan and Qiao, 2018:285). Retailers utilise distribution centres as a strategy to successfully distribute products to their stores in the most efficient and effective manner; the integration of workforces between retail distribution centres and 3PL service providers assists retail organisations to achieve this goal (Yuan and Qiao, 2018:283). According to a study conducted by Uzair and Siddiqui (2018:18), the use of 3PL service providers results in low physical assets, low human assets, and lower partnerships. The study concluded that the mentioned factors have a significant and positive role on organisational performance on the basis of financial benefits.

Retail organisations decide whether to centralise or decentralise their distribution centres based on organisational goals such as to compete on a price or customer service basis. Third party logistics accommodates both centralised and decentralised distribution strategies as it saves costs, provides specialised personnel; and has customer satisfaction as a goal. The use of 3PL is a viable strategy to increase efficiency and responsiveness for most distribution centres in the retail industry. Organisations aim at operating in successful supply chains in order to achieve business goals. Therefore, there is high importance for organisations to effectively align processes, people, and key technologies for planning of all operational activities. In a supply chain, alignment is the process in which parties with common functionality and purpose are brought together to effectively and efficiently achieve a common goal (Coyle *et al.*, 2017:479). In retail distribution, organisations align with 3PL service providers so as to achieve the common goal of successfully fulfilling most or all transport and logistics goals.

2.6 Conceptual Framework

A conceptual framework is a structure which the researcher believes can best explain the natural progression of the phenomenon to be studied (Camp, 2001:27). Kumar (2019:31) states that “a conceptual framework describes the aspects selected from the theoretical framework to become the basis of enquiry”. It is the basis of the research problem as it presents an integrated way of looking at a problem under study. It is used in studies to serve as a map guiding the researcher towards the set objectives. This study presents the conceptual framework on the strategic role of 3PLs and the possible challenges experienced in the distribution of goods to individual retail stores. The framework displays how organisations that use a distribution centre strategy do so in order to achieve an uninterrupted flow of products when replenishing individual retail stores. It further depicts how organisations use distribution centres as a strategy to enhance customer satisfaction.

Figure 2.3: The strategic role of 3PL



Source: Researcher (2018)

Figure 2.4 reflects how the organisations that use a distribution centre strategy outsource the logistics function to the 3PL service providers. It further illustrates how 3PL service providers use capabilities to achieve order replenishment, maintaining product availability and ultimately to satisfy the needs of the customers at the individual retail stores. Outsourcing and insourcing are strategies that organisations use to perform functions of the business. Insourcing is the use of in-house resources to perform activities in the organisation, allowing the organisation to have full control over its functions (Schniederjans, Schniederjans and Schniederjans, 2015:3). Outsourcing is the total opposite; it is a management strategy to transfer the internal activities management responsibility of some activities to external organisations, while the organisation focuses on its core functions (Patel and Aran, 2005:7). This conceptual framework demonstrates the relationship between distribution centres and 3PLs. Consequently, it maps the need to identify and determine the challenges experiencing by the superstore in order replenishment, and product availability to satisfy customers and prevent suboptimal service.

2.7 Order Replenishment

Replenishment is an essential element of inventory management that serves the purpose of ensuring that the flow of inventory throughout the supply chain takes place with no congestion by maintaining the efficiency of orders and fill rates of line items. Effective order replenishment offers organisations the opportunity to reduce cost and overstocking, as well as to maintain inventory availability for customers to make purchases at all times and boost customer service. The framework used by the study displays how organisations that use the distribution centre strategy attempt to achieve an uninterrupted flow of products when replenishing their individual retail stores. The standards of replenishing orders in SCM have advanced in order to achieve customer satisfaction; order processing is a basic logistics function and it is essential that it is executed in an accurate manner (Kiliç *et al.* (2016:234).

In retail distribution, individual retail stores are the customers of the distribution centres and it is essential that the set replenishment standards are met in order to satisfy the needs of the end customer. Order fulfilment must be executed in the sense that orders are received on time, complete, damage free, filled accurately and billed accurately (Coyle *et al.*, 2017:60). Retail distribution centres replenish individual stores more frequently as replenishments are guided by forecasts. These distribution centres make use of tactical forecasts, which allow short term decisions on volumes to replenish each individual store (Jacobs and Chase, 2017:46). Efficient store replenishment is a key factor for retailers to achieve a free flow of products and uninterrupted sales in the business. It is therefore crucial for organisations to have order management strategies in place to control all activities that take place from the time stores place their order for replenishment to the point where products are delivered to the store (Murphy and Knemeyer, 2018:114).

The responsibilities of logistics do not come to an end when the products are delivered to the end user, there are circumstances that sometimes arise whereby products do not meet the expectation of the end user resulting to reverse logistics (Stock and Lambert, 2001:24). Reverse logistics involves the return of defective, worn out and excessive products from the customers (Jacobs and Chase, 2017:7). In retail distribution, organisations utilise reverse logistics to also create a green supply chain by allowing the individual retail stores to send back waste to the distribution centres for scheduled recycling. Reverse logistics does not only exist due to returns but retail organisations request backhauls to replenish distribution, save costs, enhance order fulfilment, and reduce order cycle time. Order entries initiate the

logistics process in the supply chain as it requires the organisation to replenish the order as per customer request ensuring that the products are delivered in correct quantities, at the right time and in correct quantities (Stock and Lambert, 2001:165).

2.7.1 The Reliability of 3PLs in Order Fulfilment

It is essential that organisations have performance measures in place to ensure that 3PL providers deliver expected quality of service as the reality is that you cannot control what you cannot measure (Murphy and Knemeyer, 2018:123). In defining a 3PL firm, Coyle *et al.* (2016:396) highlight that a 3PL services provider should go beyond just providing basic logistics services and match services rendered with the customer's logistics activities. The 3PL users can then determine the level of reliability of the service provider through KPIs as per service levels agreements. The use of warehouse management systems, transport management systems and other systems creates visibility of the service provider performance. This creates the need for retail distribution centres to invest in information technology. Logistics information systems are crucial for organisations to create information visibility throughout the organisation and the supply chain network at large (Stock and Lambert, 2001:45). This allows all partners in the supply chain network to work in a coherent manner allowing logistics service providers to plan effective and efficient ways of meeting the customer needs.

2.8 Product Availability

Product availability is an essential element in running a successful business, and is the result of good inventory management skills. According to Coyle *et al.* (2017:264), product availability is often a basic output of the logistics and order management systems of an organisation. It is the result of effective order replenishment, if stores are replenished in full and on time, products are available for customers to purchase. Product availability maintains the profit, business image, and customer satisfaction. The aim of manufacturing products is to satisfy the needs and wants of a customer in order to generate a profit. When products are available, customers have access to purchase, satisfy their needs, and generate income for the business. This transaction allows the business to continue with its operation. It is imperative for organisations to have software in place to enhance information sharing so as to maintain product availability.

In a distribution centre setup, warehouse management systems and transport management systems are key in monitoring the movement of inventory in the supply chain from the time inventory is received, put away, ordered, picked, shipped, in transit to the time it is delivered at the customer (Murphy and Knemeyer, 2018:30). A warehouse management system is a system that allows organisations to automatically and remotely manage warehousing inbound, inventory movement within the warehouse, and outbound activities using barcodes or radio frequency identification (Alyahya, Wang and Bennett, 2016:16). The use of a warehouse management system allows organisations to easily monitor product availability of each product item in the warehouse and know when to replenish the warehouse so as to achieve order fulfilment at all times. It is effective to use warehouse management systems and transport management systems concurrently as this allows the organisation to track loads in transit and be aware of when certain products are to be received into the warehouse.

A transport management system is a system that automates the management, control, and optimisation of the physical movement of loads using the global positioning system (GPS). It is designed to coordinate, plan, and combine loads to optimise truck utilisation and track loads on particular routes (Vanderroost *et al.*, 2017:19). These systems are essential to monitor product availability and avoid product stock outs that negatively impact on customer satisfaction. The retail industry is a highly competitive industry which makes product availability an essential component to maintain and enhance customer retention. Distribution centres hold more inventory to achieve consistent order fulfilment for the individual retail stores and retail stores hold more inventory in order to achieve product availability on shelf for customers to make purchases. This means product availability has a great impact on the profitability of the organisation. It is crucial that organisations maintain product availability through effective demand planning and forecasting.

Heizer, Render and Munson (2017:146) define forecasting as “the art and science of predicting future events”. There are three major types of forecasting that are used in planning for operations, namely, economic forecasts, technological forecasts, and demand forecasts. In the case of product availability, organisations execute demand forecasts to project future demands of different product lines during different periods of the year in order to achieve successful timely replenishments of shelves at store level and eliminate waste (Heizer, Render and Munson, 2017:148). It is crucial that distribution centres comprise specialised planning and forecasting teams in order to maintain product availability in distribution

centres. This allows successful order fulfilment resulting in product flow throughout the supply chain of the organisation.

2.8.1 Suboptimal Services on Product Availability

In a case whereby the transport function is facilitated by 3PL service providers, the responsibility of timeous deliveries shift to the service provider after dispatch is complete. The challenge is imposed when service providers fail to play the expected roles to ensure that products are efficiently moved throughout the supply chain and as a result fail to provide optimal services. Logistics service providers fail to move products from the distribution centre to stores on time due to breakdown of trucks, truck schedule errors, and lack of communication. Such failure to deliver creates an operational breakdown in retail distribution which directly impacts store replenishment, leading to product unavailability on the shelf and results in financial implications due to loss of sales. The unsuccessful replenishment of stores has consequences that hinder the whole aim of the distribution centre strategy – store shelves are empty and end customer needs are not met.

Logistics service providers provide suboptimal services if they are failing to meet the operational needs of the organisation. This failure contradicts the aim of logistics which is to efficiently and effectively transport products from point of origin to point of consumption and conform to customer needs (Badenhorst-Weiss *et al.*, 2017:201). Business relationships are interrupted when KPIs are not met. This creates the need for organisations to review the set KPIs to improve productivity of 3PL service providers. Heizer, Render and Munson (2017:51) emphasises the importance of productivity stating that “only through increases in productivity can the standard of living improve”.

2.9 Customer Satisfaction

Customer satisfaction is a priority in most retail organisations as it is used as a firm’s performance measure (Leuschner and Lambert, 2016:247). Kotler and Keller (2009:789) define customer satisfaction as “a person’s feelings of pleasure or disappointment that results from comparing a product’s perceived performance or outcome with his/her expectations”. Customer satisfaction is the result of customer service; in order for organisations to achieve this there are essential elements of customer service that have to be considered namely, the pre-transaction elements, transaction elements, and post-transaction elements (Badenhorst-Weiss *et al.*, 2017:111). Firstly, the pre-transaction elements comprise all the planning and

management activities that takes place prior to the business transaction with the customer. In a retail distribution centre, the pre-transaction elements comprise the communication of the documented departmental standard operation procedures (SOP), forecasting, order placements with suppliers, space creation for inbound orders, the receiving of products into the distribution centre to ensure product availability, and all inventory management activities that take place in a warehouse.

Secondly, the transaction elements comprise the effort required when executing a business transaction by managing cycle times for order fulfilment. In a retail distribution centre, the transaction elements are the acknowledgement of order receipts, order picking and checking, dispatch, and timeous deliveries of the correct products as per placed order. Lastly, the post-transaction elements are made up of all the interactions that take place after the business transactions, namely, customer claims handling, recalling of hazardous products, and attending to customer complaints. Distribution centres have customer service departments that aim to provide quick response customer services. In cases whereby products are short delivered, the distribution centre takes it upon itself to investigate and rectify such mistakes. In cases where customers receive damaged products, trucks are planned for reverse logistics accordingly. The post transaction elements are crucial elements to indicate the satisfaction and dissatisfaction of the customers.

Enhanced customer service levels are achieved through meeting and exceeding the customer expectations, but it is hard to meet and exceed when customer feedback is missing (Greenberg, 2001:6). The level of customer expectations is increasing; customers are nowadays more informed about the products, suppliers, low prices, high quality and better service (Waters, 2003:21). The framework used in this study demonstrates how organisations use distribution centres as a strategy to achieve customer satisfaction. In retail distribution, customer satisfaction is essential to maintain and increase the clientele to sustain the business. Towill and Christopher (2002:299) state that “customer satisfaction and market-place understanding are crucial elements for consideration when attempting to establish supply chain strategies”. Therefore, distribution centres are bound to conform to the specific needs of the individual retail stores, support and maintain product availability in the distribution centres as well as at store level, and enhance information sharing systems in order to give customers a high quality customer service experience (Badenhorst-Weiss *et al.*, 2017:115).

High quality customer service contributes to the ability to yield competitive advantage in the market and increase profit in the long run. Customer satisfaction is not only maintained by ensuring that the product is available for a customer to purchase but by also creating a relationship with a customer. It is crucial that organisations maintain and enhance customer satisfaction as Min, Zacharia, and Smith (2019:46) highlight that “Channel power has shifted even more towards the end-customer in the increasingly global economy”. Customer satisfaction is an element that is not easily measurable. Customers do not do justice when it comes to answering any form of survey, and the only time they answer is when they have encountered a problem (Wisner *et al.*, 2012:360). This puts emphasis on the need for organisations to improve the relationships that exists with their partners

In retail supply chains where a distribution centre strategy exists, the individual retail stores are the customers of the organisation’s distribution centre. The distribution centre bears the responsibility of providing good quality service to its individual retail stores. Customer service is the procedure for providing remarkable value-added services to ensure that the supply chain is operating in the most possible cost-efficient manner. The level of services is monitored through the interaction between the two participants as service cannot be physically weighted (Jacobs and Chase, 2017:8). In the retail industry logistics plays a significant role in ensuring that the right product is delivered at the right price to the right place. This assists with fulfilling the 3Ps of the marketing mix: product, price and place (Leuschner and Lambert, 2016:247). In order to achieve customer satisfaction, organisations have expanded the customer service elements into the outputs of logistics namely, product availability, order cycle times, logistics operations responsiveness, logistics system information, and post-sale product support (Coyle *et al.*, 2017:263).

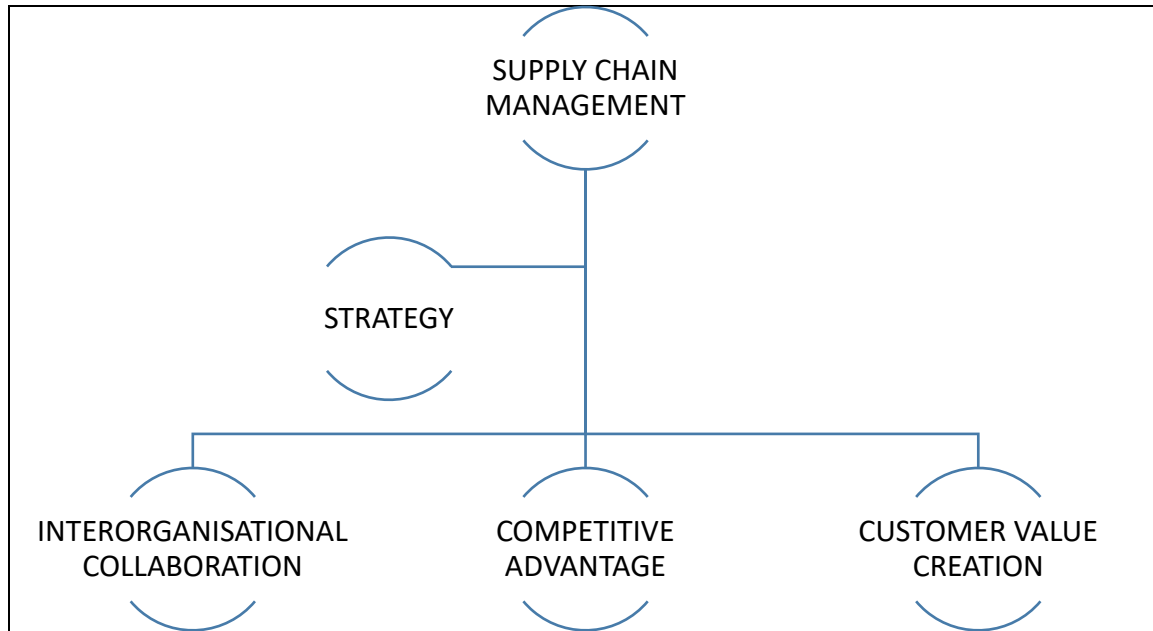
It is essential that organisations measure the value of logistics services provided to customers by the logistics service providers in order to enhance customer satisfaction (Leuschner and Lambert, 2016:247). There is a significant relationship between the logistics services rendered and customer satisfaction. Leuschner and Lambert (2016:247) suggest that organisations need to re-evaluate the common practice of rendering services to customers on the basis of yielding more profit and focus on the satisfaction of the customer needs.

2.10 Conclusion

This chapter explored different meanings of SCM and how SCM is used as a strategy in supply chains. The design of this literature review presented the importance of

interorganisational collaborations in supply chain management as illustrated in figure 2.4 developed by the researcher.

Figure 2.4: Supply chain management as a strategy



Source: Researcher, 2019

Figure 2.4 illustrates how SCM is used as a strategy to achieve inter-organisational collaboration, competitive advantage, and customer value creation. Davis and Heineke (2005:104) define SCM as “a relationship between an organisation and the supplier to achieve competitively priced goods and services that are delivered in time”. This definition supports the illustration on Figure 2.4 as it highlights the collaboration of different organisations that work together to be positioned in a manner that allows value creation for the customer. The success of each organisation in the supply chain relies on the actions of the other organisations in the supply chain (Safaei *et al.* 2010:4043). Therefore SCM is an imperative strategy to achieve competitive advantage as it allows organisations to collaborate and work interdependently to create customer value.

This chapter also defined distribution centres operating with centralised and decentralised strategies. Logistics and logistics outsourcing was discussed, highlighting the strategic role of 3PL and how 3PL service providers can negatively impact operations when providing suboptimal services. The following chapter will present the research methodology for this study and justification of methodology selected, research design, sampling, and the thematic analysis approach used for this study.

CHAPTER 3: RESEARCH METHODOLOGY

3.1 Introduction

This chapter presents the research methodology and methods that were used by the researcher to gather, analyse, present and interpret the data collected. Mackenzie and Knipe (2006:5) suggest that there is a difference between a research methodology and a research method stating that a research methodology “is the overall approach to research linked to the paradigm or theoretical framework while the method refers to systematic modes, procedures or tools used for collection and analysis”. All the research methodology and methods components used in this study will be discussed in this chapter.

3.2 Research design

The research design is a comprehensive plan used to organise the data collection in an empirical research project (Tashakkori and Teddlie, 2010:239). There are different purposes for carrying out of a study, according to Levitt *et al.* (2018:41). There are three common purposes of research: exploration, description and explanation. Babbie (2014:94) states that exploratory research design is an effective means to gain new insight. According to Melnikovas (2018:41), a descriptive research design “may be associated with a forecasting approach and deductive reasoning as it primarily aims at exact description of future events”. The third purpose is the explanatory research design which is a design that focuses on explaining a phenomenon in a more detailed manner (Baskerville and Pries-Heje, 2010:273). This study uses an exploratory case study design to gather data in order to enhance understanding of a phenomenon then formulate definitions and clearly develop concepts. In most cases there is a limited number of examples where the same issue has been solved in the past (Sekaran, 2003:119). The current study is an inductive study as it aims to build a theory as opposed to testing an existing theory through a deductive study (Bhattacharjee, 2012:3). As a result, the interpretivism philosophy was adopted in this study as the researcher relied on the views of the interviewees based on their experiences (Mackenzie and Knipe 2006:3). Ponelis (2015:538) states that the “interpretive research paradigm is characterised by a need to understand the world as it is from a subjective point of view and seeks an explanation within the frame of reference of the participant rather than the objective observer of the action”.

3.2.1 Explanatory Research Design

The explanatory research design is a design that allows the researcher to explain a problem or a situation with the aim of identifying issues and key variables related to the phenomenon (Rahi, 2017:2). Tumele (2015:73) highlights the importance of internal validity when using an explanatory research design, stating that “it aspires to establish a causal relationship whereby certain conditions are shown to lead to other conditions, as distinguished from spurious relationships”.

3.2.2 Descriptive Research Design

The descriptive research design allows the researcher to identify patterns, behaviours and characteristics of the phenomenon (Göttfert, 2015:24). The main aim of this design is to describe the phenomenon (Tumele, 2015:72). This design is used to address issues that are specific and allows the researcher to describe the characteristics of people, objects, groups, organisations and environments by answering the who, what, when, where and how questions (Zikmund *et al.*, 2009:55).

3.2.3 Exploratory Research Design

According to Tumele (2015:71), an exploratory research design defines and explores the research objectives of the study. It is beneficial for a study that aims to analyse a problem or establish new ideas on the phenomenon (Göttfert, 2015:24). The exploratory case study design allows the researcher to make use of interviews and focus group discussions to gather data from verbal communication (Lewis and McNaughton Nicholls, 2013:55). This design is often used by researcher conducting a qualitative study (Muijs, 2004:3). This design seeks new insight on the phenomenon and does not aim to provide definite evidence but allows the researcher to identify areas that require further investigation (Mayer, 2015:53). This study used the exploratory case study design to allow the researcher to analyse the logistics challenges that are experienced at Lolli Supermarkets.

3.3 Research Approach

The research approach is a plan that consists of steps to follow when collecting, analysing and interpreting the data (Creswell, 2009:3). Aspers and Corte (2019:156) suggest that there are three research approaches that can be utilised by a researcher to conduct a study, namely: the qualitative, quantitative and mixed research approach. This study used the qualitative

approach which aligned with the understanding of complex data provided by the interviewees which is consistent with the interpretivism philosophy (Babbie, 2014:199). The researcher aimed at obtaining the in-depth understanding of the logistics challenges that are experienced by Lolli Supermarkets when using 3PL service providers. The qualitative approach enabled the researcher to achieve this as Hayashi, Abib and Hoppen (2019:98) assert that “qualitative research strives to firmly demonstrate its scientific nature to obtain an in-depth understanding of the phenomena studied without losing sight of the subtlety of the immersed researcher’s subjectivity in a context that is in constant change and development”.

The researcher aimed at gaining insight into one organisation and made use of the case of Lolli Supermarkets in order to do so. Greener and Martelli (2015:101) state that the use of a single organisation as a case allows the researcher to “investigate a single subject at a micro level, which is the unit of analysis of one subject, whether it is a person, organisation or institution”. Lolli Supermarkets is the single subject that the researcher aimed at investigating at a micro level. This study focuses on identifying challenges and determining where 3PLs are fulfilling their strategic role. Thus, the exploratory research design was the most suitable approach for this study as it allowed the researcher to discover deeper understanding of the challenges experienced.

3.3.1 Qualitative Research Approach

Teherani *et al.* (2015:669) define the qualitative research approach as “the systematic inquiry into social phenomena in natural settings”. It is an approach that allows the researcher to understand and interpret the data collected from the interviewees while granting the researcher the opportunity to observe the attitude, behaviour and motivations of the interviewees (Aspers and Corte, 2019:147). The data collected using this approach is analysed inductively forming the data collected into general themes and allowing the researcher to interpret the meaning of the data (Bhattacharjee, 2012:3). This approach relies on the integrity of the researcher as it involves the observation of the attitudes and experiences of the interviewees (McCusker and Gunaydin, 2015:538:537). Rose and Kroese (2018:129) state that “qualitative research is concerned with the quality of the phenomenon (what is it like?), rather than its quantity (how much? Or how much difference?)” Based on the aims of this study, the researcher utilised this approach as it allowed the researcher to first understand the phenomenon and then make speculations on what the interviewees were trying

to say during the interviews through the observation of their attitudes and behaviour during the interviews and focus group discussions.

3.3.2 Quantitative Research Approach

The quantitative research approach allows the researcher to numerically quantify the data in order to select the information that is required to fulfil the objectives of the study (McCusker and Gunaydin, 2015:538). This approach plays a significant role in a study whereby the researcher aims to measure the collected data in order to make conclusions on the phenomenon. The quantitative approach to a study is most appropriate when the researcher aims at explaining a phenomenon and generate a body of knowledge in a manner that allows the researcher to foretell what will take place under a specific condition (Rose and Kroese, 2018:129).

3.3.3 Mixed Research Approach

The mixed approach comprises both the qualitative and quantitative approach which allows the researcher to interpret and present data based on figures and the experiences shared by interviewees during data collection (Mackenzie and Knipe, 2006:7). This allows the researcher to explore the phenomenon more thoroughly compared to relying one approach only.

Table 3.1: A comparison of the quantitative and qualitative research approach

Characteristic	Quantitative Research	Qualitative Research
Type of data	Phenomena are described numerically	Phenomena are described in narrative fashion
Analysis	Descriptive and inferential statistics	Identification of major themes
Scope of inquiry	Specific questions or hypotheses	Broad, thematic concerns
Primary advantage	Large sample, statistical validity, accurately reflects the population	Rich, in-depth, narrative description of sample
Primary disadvantage	Superficial understanding of participants' thoughts and feelings	Small sample, not generalisable to the population at large

Source: Vanderstoep, and Johnston (2009:27)

3.4 Sampling Design

Sampling is a statistical procedure for setting aside a subset from the target population. This is done through two types of sampling; probability and non-probability sampling (Bhattacharjee, 2012:66). Terrell (2016:69) defines probability sampling as an effective

means of selecting a group that relatively epitomises the population it was elected from and is customarily associated with quantitative research but is not limited to it. Probability sampling is achieved through the use of simple random sampling, stratified sampling or systematic sampling (Bailey, 2007:63). Non-probability sampling is defined as the purposeful selection of a sample that will provide data that will help the researcher understand more on the phenomenon that the study seeks to explore (Creswell, 2009). This study used the non-probability sampling that allowed the researcher to sample the participants with the most relevant information in order to obtain in-depth understanding of the phenomenon. The researcher also used the purposive sampling technique to ascertain most pertinent information on the outsourcing challenges experienced by Lolli Supermarkets with 3PLs.

3.4.1 Non-Probability Sampling

In non-probability sampling, the researcher chooses participants based on characteristics possessed, and people in the target population have no equal chance to participate in the study (Vanderstoep, and Johnston, 2009:27). This allows the researcher to make use of participants who have more knowledge and experience on the phenomenon.

3.4.2 Probability Sampling

In probability sampling all people in the target population stand an equal chance of being selected to participate in the study. Vanderstoep, and Johnston (2009:29) state that “in random sampling each member of the sampling frame has an equal chance of being chosen to participate in the study”.

3.5 Target Population

The target population is the total number of units that the researcher could possibly use to gather relevant data for the study (Terrell, 2016:69). The target population for this study was made of thirty seven (37) possible participants who form part of the Cato Ridge Lolli Supermarkets distribution centre management and transport service providers’ representatives.

3.6 Sampling

This study used the non-probability sampling that allowed the researcher to sample the participants with the most relevant information in order to obtain in-depth understanding of

the phenomenon. This study aimed at identifying the challenges that are experienced in the distribution centre regarding the reliance on third party logistics services. A managerial level perspective was required to also explore the phenomenon at a strategic point of view. The researcher chose the sample for this study based on the needs of this study.

3.6.1 Sample size

The sample size is the total number of units selected from the target population to participate in the study (Babbie, 2014:202). The sample size is the total number of units selected from the target population to participate in the study (Babbie, 2014:202). The researcher purposively gathered data through the following eighteen (18) respondents out of the target population of thirty seven (37) possible respondents who form part of the Lolli Supermarkets distribution centre management and transport service providers as listed on the below table.

Table 3.2: Sample size

Sample Size: Eighteen (18) Interviewees	
Job title	No. of Interviewees
Supply Chain Executive	1
Demand Planning Executive	1
Demand Planning Head of Department	1
Distribution Centre Manager	1
Warehouse Manager	1
Demand Planning Manager	2
Inventory and Replenishment Manager	1
Finance Manager	1
Customer Service Manager	1
Continuous Improvement Officer	1
Supply Chain Analyst	1
Outbound Demand Planner	1
Floor Manager	2
Contract Manager (Transport)	1
Transport Supervisor (Transport)	1
Inventory Supervisor	1

Members were interviewed in groups and some were interviewed individually. The study made use of non-probability sampling, purposive sampling in particular. This allowed the researcher to select knowledgeable participants. The researcher considered the different

levels of management; years of service in the organisation; years of experience in the industry; and the availability of each member to take part in the study and as a result eleven members participated in the individual interviews and seven members participated in the focus groups. The participation of eleven members in individual in-depth interviews allowed the researcher to gain a multiple number of perspectives that are not influenced by the opinions of others. The in-depth interviews assisted the researcher to get different perspectives from each manager based on their own experiences and knowledge regarding the logistics function of the organisation as opposed to a focus group where each manager may not feel comfortable to share their opinion. The participation of the seven members in the three focus groups exposed the researcher to discussions on the perceptions of each member regarding the logistics activities, challenges and efficiencies. The focus groups raised arguments that allowed the researcher to gain more insight into the distribution and logistics functions of the organisation. The researcher chose to discuss the phenomenon in three different focus groups so as to observe the attitude and body language of each interviewee in each group during the discussions and also save time as interviewees still had to perform their duties following different work schedules.

3.7 Data Collection

This study was carried out through the qualitative method. In-depth interviews were conducted to gather data from 11 interviewees. This allowed the researcher to capture the solid perspectives of interviewees on the challenges experienced when organisations rely on 3PL service providers. The researcher ensured that areas in which interviews were conducted gave the ambience that was needed to stimulate an interrogative mood for both the researcher and interviewees. The researcher also considered the time availability for interviewees and time-taken away from normal duties. Data collection also took place in focus group discussions. A focus group is a qualitative data collection tool that is dynamic in nature as it allows a group of interviewees to express their views about a particular topic, and allows the researcher to engage in a discussion with interviewees to gather data on a particular concept (Creswell, 2009:175). The researcher engaged in three different focus groups, focus group A comprised two interviewees who form part of the management team of the third party logistics service provider; focus group B comprised two interviewees; and focus group C comprised three interviewees. Focus group discussions allowed the researcher to focus on the views, feelings, and thoughts of the interviewees without limiting their opinions.

3.8 Data Analysis

Thematic analysis was employed in the analysis of data to identify and analyse patterns within the data. The researcher analysed the data in an inductive manner in order to allow themes to relate to the research questions as the data was collected specifically for this study (Braun and Clarke, 2006:12). The data analysis software NVivo was used to analyse the data and adhered to the six phases of Braun and Clarke's six phase thematic analysis approach (2006:16-23).

3.8.1 Six-Phase Thematic Analysis Approach

Phase 1: Familiarising with the collected data: This is imperative when data has been collected. The researcher read the data collected to gain deeper understanding of the data provided by the interviewees. Furthermore, the researcher transcribed the data from the recordings of the interviews and discussions, notes were taken down of the ideas that were presented by the interviewees.

Phase 2: Generating initial codes: The researcher generated codes in order to collate the data and organise data to its matching code.

Phase 3: Searching for themes: The researcher collated the data into possible themes and gathered the data together according to its relevance to each possible theme.

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Phase 4: Reviewing themes: The researcher then reviewed the themes to check if the themes related to the coded data as well as the entire data obtained. Once this was done, a process of categorising was done, displaying all themes that were selected from the raw data.

Phase 5: Defining and naming themes: The researcher repeatedly refined each theme to generate clear explanations and names of the themes.

Phase 6: Producing the report: Ultimately, the researcher analysed the data associating it to the research questions, objectives and literature in order to produce a sound report on the phenomenon.

3.9 Ethical Considerations

The researcher ensured that the interviewees were given informed consent declarations and understood the nature of the study by explaining the objectives of the study and explaining why their participation was required. The researcher also ensured that the interviewees were aware that the identity of all interviewees would be protected. The University of KwaZulu-Natal Ethics Research Committee provided the ethical clearance for the study after Lolli Supermarkets management granted the gatekeeper's letter. This study does not expose the financial information of organisations and adheres to company privacy and confidentiality policies of the target population. It refrains from exposing information that might defame the character of the interviewees. Only authorised data appears in this study.

3.10 Conclusion

This chapter explained the methods that the researched used to successfully conduct this study. It presented and explained the research approach, research design, target population; sampling techniques used, sample size, data collection processes, data analysis, data quality control, limitations and delimitations of the study. It clearly explained the thematic analysis process that was utilised in order to generate themes and attain answers to the research questions. The following chapter will present the data collected from the interviews as well as focus group discussions that were conducted.

CHAPTER 4: DATA ANALYSIS AND INTERPRETATION OF THE FINDINGS

4.1 Introduction

This study aims to answer all research questions and achieve all research objectives presented in Chapter 1. The area of concern in this study, the challenges of logistics outsourcing, is a crucial topic for all existing organisations as it scrutinises a strategy that is used and considered by many organisations with the aim of enhancing operational efficiencies. It is, therefore, imperative that all research objectives of this study are achieved in order to identify challenges that exist, thus allowing organisations to remodel this strategy should the need arise, and making recommendations for further research on this topic.

4.1.1 Research Objectives of the Study

The research objectives presented in Chapter 1 were as follows:

- a) To identify the challenges that Lolli Supermarkets experiences with its reliance on 3PL service providers.
- b) To determine whether 3PL service providers are fulfilling their strategic role to improve order replenishment.
- c) To determine whether Lolli Supermarkets is experiencing challenges with 3PL service providers with regard to product availability and results to the provision of suboptimal services by the 3PL service provider.

Chapter 2 reviewed the relevant literature regarding logistics outsourcing, outlining the importance of the logistics component in existing supply chains. Chapter 3 presented the research design and methodology used to gather all the data and which will be analysed and interpreted in this chapter. In-depth analysis of data will be presented in this chapter to achieve the research objectives, making use of all data collected from in-depth interviews that the researcher conducted.

4.2 Overview of Logistics Outsourcing at Lolli Supermarkets

Logistics is a strategic resource for the economy of South Africa as it contributes 11.2 percent towards the gross domestic product of the country (Havenga, 2018:1-10). It is, therefore, crucial for organisations to take decisions that create and support efficient execution of logistics activities in order to achieve operational goals and sustain the economic

performance of the country. Logistics outsourcing is currently trending as a strategy used by organisations to eliminate operational inefficiencies and to enhance existing efficiencies in order to allow a free flow of products in the supply chain. Lolli Supermarkets is amongst the organisations that make use of outsourced logistics services to move products throughout the supply chain. The company performs its distribution function through distribution centres using 3PL service providers to ensure that there are no gaps in the order cycle in terms of delivering to the individual retail stores. The distribution centre strategy is intended to provide frequent order replenishment and to maintain product availability in different stores through efficient and effective 3PL service providers.

4.3 Biographical Information of Respondents

The interviewees in this study have been named as P1, P2 up to P11 and those who took part in focus group discussions are named as F1, F2 up to F7. F1 and F2 form part of the service provider and all other interviewees form part of Lolli Supermarkets. This has been done to align this study to the confidentiality terms that binds this study as per the ethical clearance granted. The researcher collected demographic information on each interviewee so as to best describe the sample that best suited this study. The demographic data collected comprised gender; age, race, educational qualifications, years of work experience in the organisation, and job titles of the interviewees as presented in Figures 4.1 to 4.6.

Figure 4.1: Gender

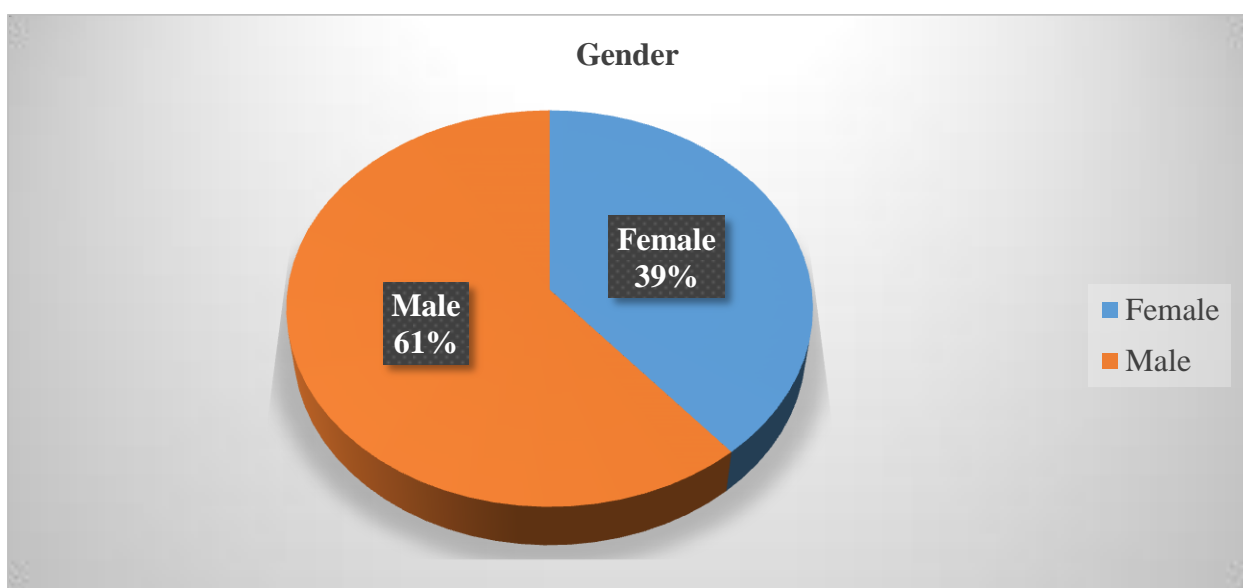


Figure 4.1 shows that 7 of the interviewees were female and 11 were male.

Figure 4.2: Age group

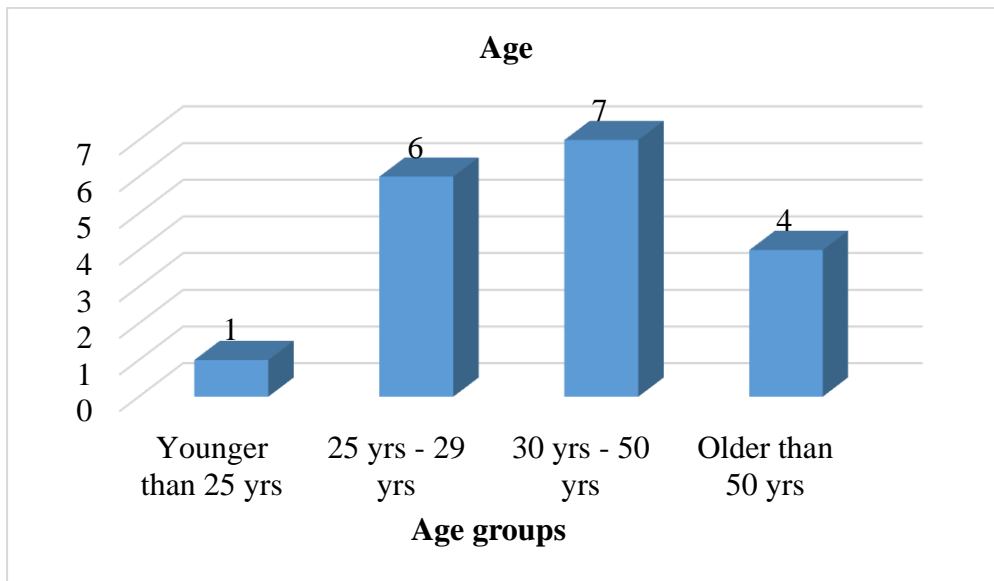


Figure 4.2 shows that the age group with the most interviewees was 30 years – 50 years (7) followed by 25 years – 29 years (6), Older than 50 years (4) and lastly younger than 25 years (1).

Figure 4.3: Racial group

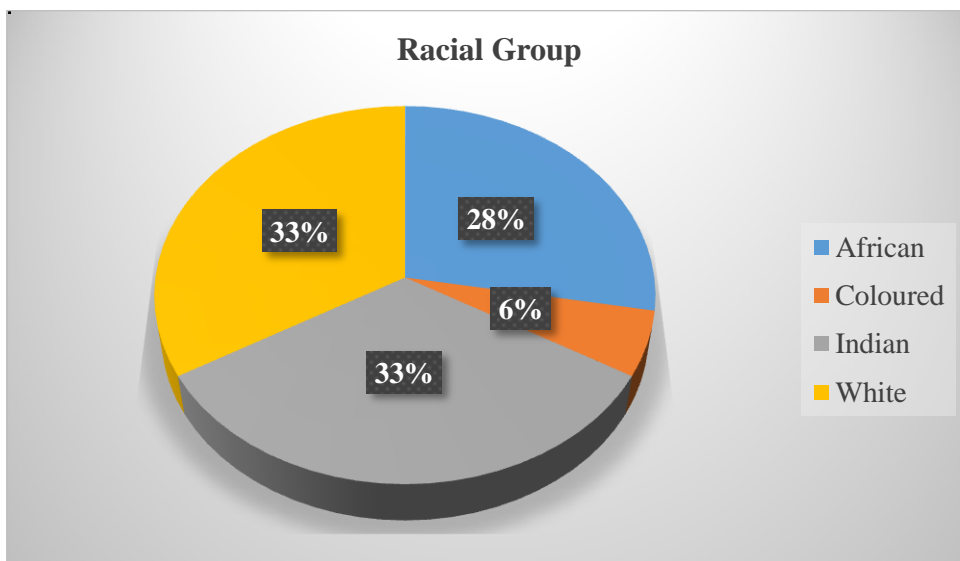


Figure 4.3 represents the diversity of the interviewees: 33% (6) were White, 33% (6) were Indian, 28% (5) were African, and 1 interviewee (6%) was Coloured.

Figure 4.4: Educational qualifications

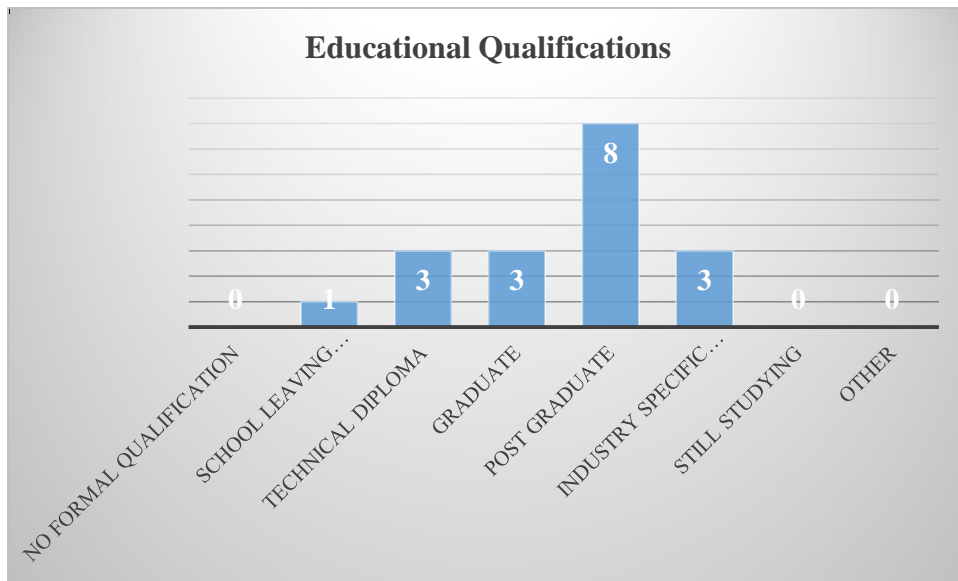


Figure 4.4 indicates that the majority of interviewees (8) have postgraduate qualifications, 3 interviewees are graduates, 3 interviewees have technical diplomas, and 3 interviewees have industry specific certification. One interviewee had a school leaving certificate only.

Figure 4.5: Years of work experience in the organisation



Figure 4.5 shows that the majority (45%) of the interviewees have worked in the organisation for 3-5 years, 22% for 6-10 years, and 11% for 1 year or less, 2 years, and 11 or more years.

Figure 4.6: Job title

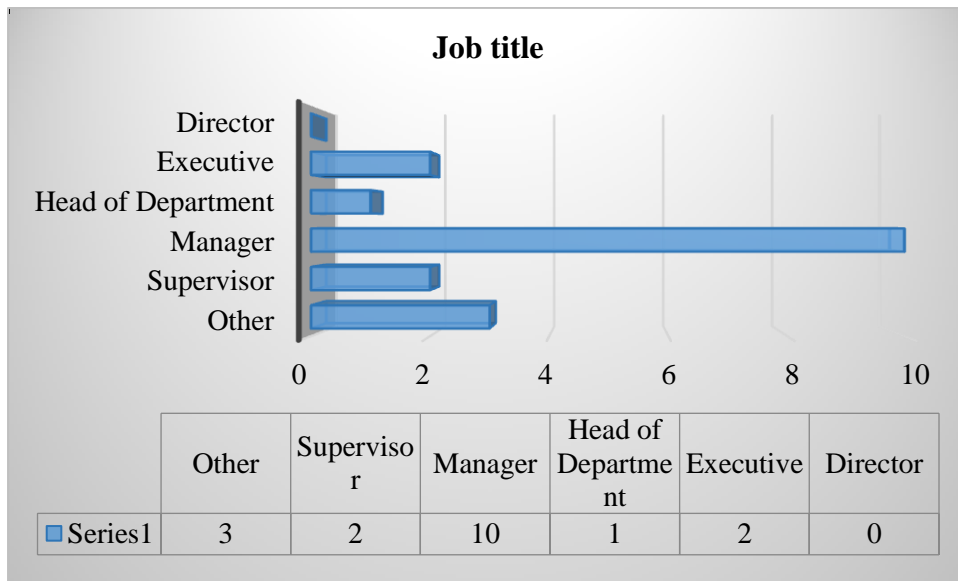


Figure 4.6 represents the different levels of management of the interviewees. no one was at the level of Director. There were two Executives; one Head of Department; ten Managers; two Supervisors and three interviewees who form part of the management team at Lolli Supermarkets.

4.4 Thematic Analysis

The study collected primary data using in-depth interviews and focus groups. Thematic analysis was performed using the NVivo version 12. The character and form of data collected was shaped by the study's problem statement and the study aims and objectives. A total of 11 interviewees took part in individual interviews and 7 in 3 focus groups with focus group A consisting of 2 interviewees, focus group B 2 interviewees, and focus group C 3 interviewees. A thematic analysis is a methodology for analysing data collected in a qualitative study in order to assist with interpretation of the data collected. Qualitative research requires comprehension and collection of assorted views and data. Thematic analysis allows the researcher to form themes that contribute to the accuracy of the interpretations presented in a study (Alhojailan, 2012:40).

Figure 4.7: The process of categorising

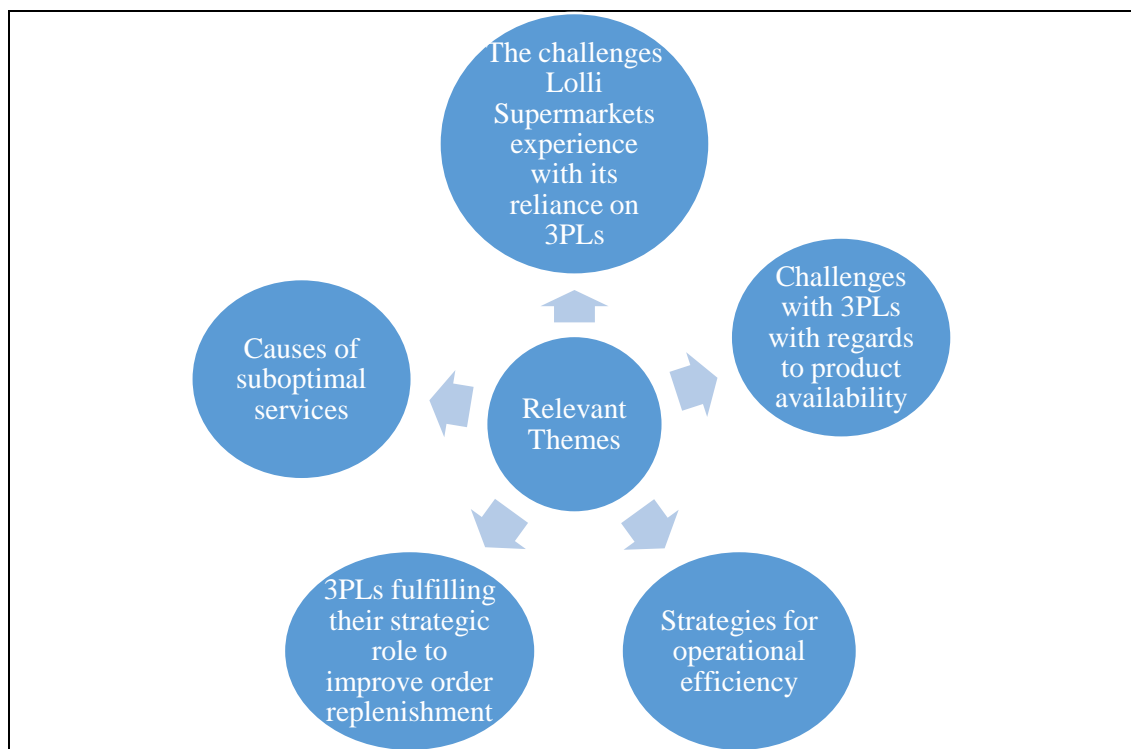


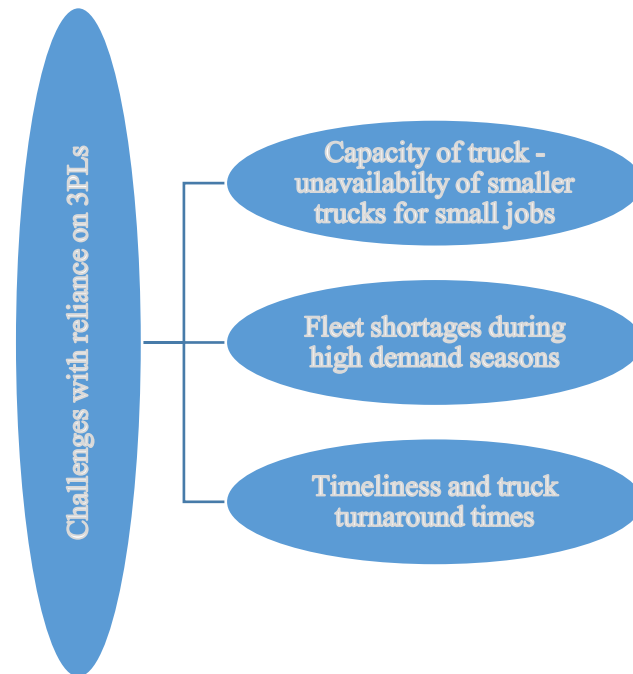
Figure 4.7 presents all the relevant themes that were generated by the NVivo software during the analysis of all the data collected. This study comprised three research objectives and generated two additional themes. This was due to responses that the researcher received from interviewees based on questions regarding strategies utilised by the organisation to achieve operational efficiencies. The themes are presented and analysed in Table 4.1.

Table 4.1: Analysis of themes

Theme	Sub-theme	Category	Objective
1. Challenges	Capacity Fleet Shortages Timeliness	<ul style="list-style-type: none"> • Transport functionality • Third party logistics commitment • Evolving transport function • Stock availability • Level of control • Logistics challenges • Alternative strategies • Performance measurement tools 	1
2. Order Replenishment	Automated order Backhauling Conditions of service Level of efficiencies	<ul style="list-style-type: none"> • Store replenishment • Frequent order replenishment • Direct influence on store order fulfilment 	2
3. Product Availability	Breakdown of trucks Bridging stock and fleet management Flexibility Direct Control	<ul style="list-style-type: none"> • Impact of outsourcing and insourcing • Dynamic capabilities • Attributes of product availability • Optimal services 	3A
4. Suboptimal Services	Poor planning Subjective impossibilities System shutdown		3B
5. Operational Efficiency	Demand planning and forecasting Flexi cycles Improved communication Performance management Restriction of contracted fleet		3C

4.4.1 Theme 1: Challenges

Figure 4.8: Challenges of reliance on 3PL



Source: Researcher, 2019

- **Truck Capacity**

P10 presented a challenge regarding the fleet offered to Lolli Supermarkets by the service provider, stating that *“The amount and types of trucks that are offered by the service provider are a challenge. There is a need for smaller trucks”*.

In a focus group discussion F5 and F7 agreed that *“There is a challenge that exists whereby the service provider works on cost saving basis which sometimes contradicts service delivery to the stores which is the primary goal of the distribution centre”*. In the contrary to what F5 and F7 stated, the service provider believes that it is offering what Lolli Supermarkets need to achieve a smooth operation of the distribution centre. F1 stated that *“We are here to give the distribution centre the reason to always choose us”*. F2 supported F1 and stated that *“We are here to ensure that we align our goals with the goals of the Lolli Supermarkets distribution centre”*.

- **Fleet Availability**

P11 presented the challenge of truck availability, saying that *“There is a need for extra vehicles during peak seasons”*.

The fluctuations in demand of products affect fleet utilisation, according to P7: *“Fluctuations in demand affect the use of trucks and filling up the vehicle to maximum capacity is an issue during quiet times of the month”*.

P10 suggests that *“The types of trucks in use need to be swapped to smaller trucks to accommodate the small orders that we would like to send to stores more often”*.

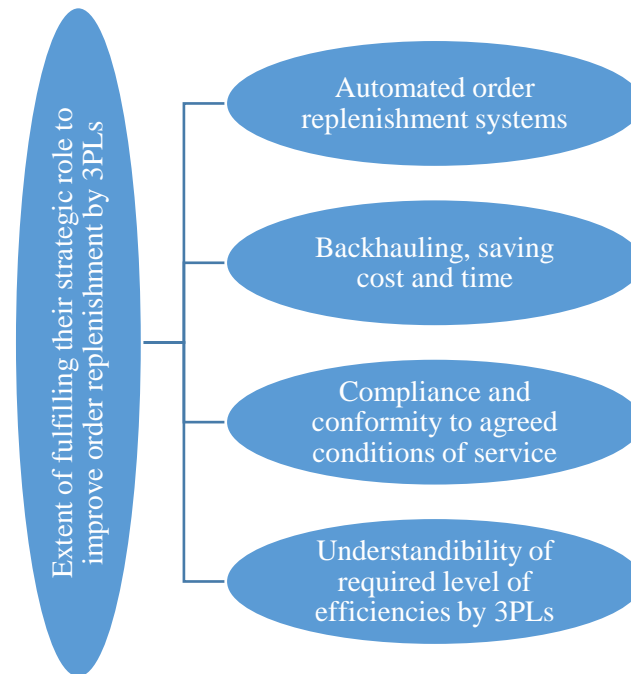
- **Timeliness**

F5 stated that *“Sometimes our deliveries to stores are not done on time”*. This poses a challenge for Lolli Supermarkets as F3 stated that *“If the deliveries are late then stores don’t have products to replenish the shelves when they run out of products”*. P3 highlighted the importance of meeting times of arrivals at stores, stating that *“Once you cannot meet the estimated time of arrivals that means you cannot use the truck for second deliveries of the day, with this being said turnaround times are important”*.

F7 presented that the logistics service provider is aware of the importance of timeliness and stated that *“The signed service levels agreements demands the service provider to understand and commit to timeous product deliveries to the stores”*.

4.4.2 Theme 2: Order Replenishment

Figure 4.9: Order replenishment



Source: Researcher, 2019

- **3PL Influence on Order Replenishment**

P1 stated that *“The logistics service provider does not have direct influence on order replenishment as the order requests are only visible on the internal systems that are not shared with the logistics service provider”*. P3, P5 and P6 shared the same belief, they all stated that *“The third party logistics service provider has no direct influence on order replenishment”*. In the focus group discussion with the service provider, F1 and F 2 stated that *“The service provider provides trucks to deliver all distribution centre loads to their individual retail stores, the distribution centre staff have to load products into the trucks”*. F2 further stated that *“The responsibility of the loads is on us as soon as the products are loaded to the point of offloading at the stores”*. It is the responsibility of Lolli Supermarkets to ensure that replenishment is well executed as the 3PL service provider performs the transportation function for products to get to the individual retail stores.

- **Automated Order Replenishment Systems**

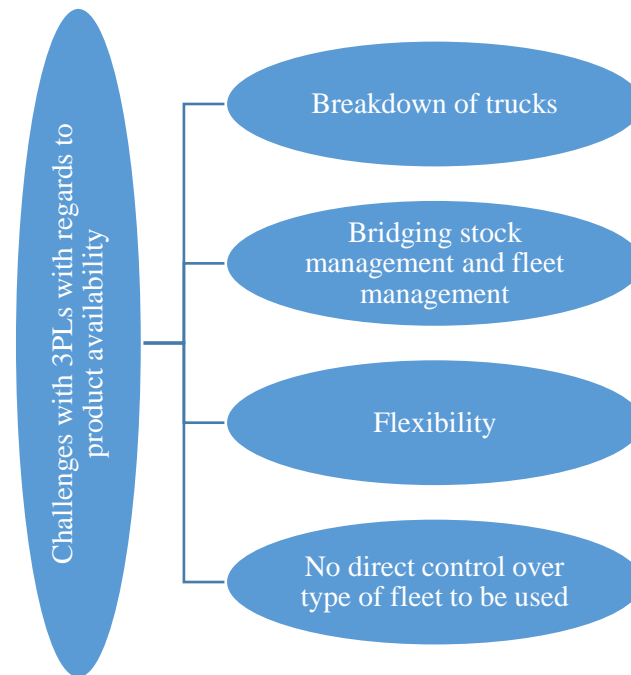
P10 stated that *“Stores have replenishment systems in place that automates orders through a calculation of the store’s stock on hand”*. P4 highlights that *“The service provider understands the replenishment and they commit to have a positive impact on it”*.

- **Compliance, Conformity, and Understanding of Required Levels of Service**

P11 states that *“Our logistics service providers are executors of deliveries; they are not fully involved with replenishments and order fulfilment. They just know what they need to do”*. P9 revealed that *“There is communication and service providers sit with us to strategise on how to execute loads. This enhances effectiveness of the work relationship between the service providers and Lolli Supermarkets, allowing both organisations to yield efficiencies in operations”*. P7 highlighted the strategy that creates a free flow of information between the service provider and Lolli Supermarkets, stating that *“We use collaboration as a technique to ensure that our service providers are aligned to our needs. The supply chain collaboration allows us to share our forecasts, key performance indicators (KPIs), reviews on performance and continuous improvement”*. The set key performance indicators assist Lolli Supermarkets in measuring the performance of the service provider as P7 stated that *“The commitment from the service provider is good. They have managed to uphold and meet the set KPIs”*.

4.4.3 Theme 3: Product Availability

Figure 4.10: Product availability



Source: Researcher, 2019

- **The Involvement of the 3PL in Maintaining Product Availability**

Lolli Supermarkets also relies on backhauls from suppliers in order to replenish the distribution centre and the service provider picks up products from the suppliers. This is presented by P1 who said that *“Service providers are taking part in ensuring that backhauls from suppliers are executed on to maintain product availability in the distribution centre”*.

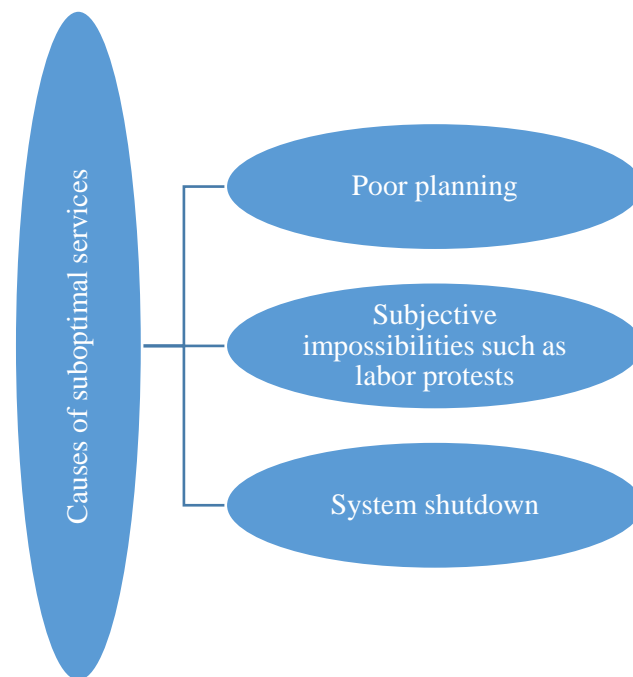
P4 stated that *“Orders from our suppliers that are delivered through backhauling have to be at the distribution centre on expected time so as to replenish and maintain product availability”*.

The service provider is playing a significant role in the execution of backhaul of products from suppliers to maintain product availability as stated by P2: *“We involve service providers in executing the physical movement of our products”*. However, P8 stated that *“The service provider does not control product availability in the distribution centre”*. P5 brought to light

the following challenge that has an impact on the maintenance of product availability:
“Breakdown of trucks negatively impact on operations”.

4.4.4 Theme 4: Suboptimal Services

Figure 4.11: Suboptimal services



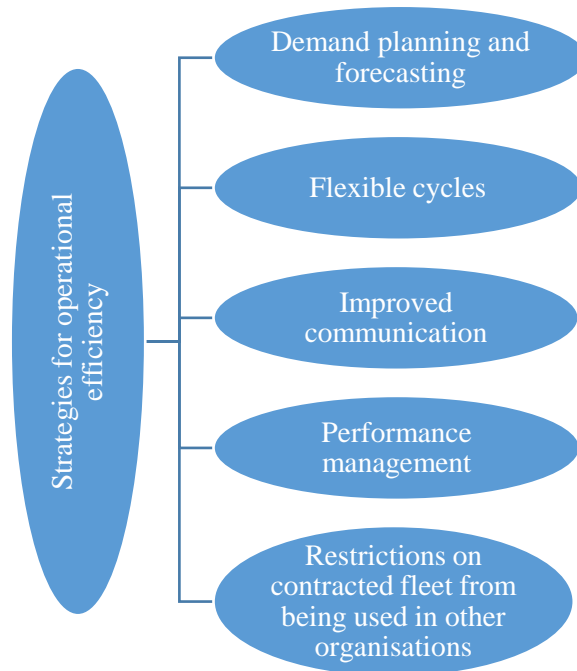
Source: Researcher, 2019

- **Causes of Suboptimal Services**

P11 presented a root cause of suboptimal services, stating that *“Backhauls are sometimes not planned and this affects product availability at the distribution centre and there are insufficient products to send out to stores”*. The importance of timeliness is brought forward by P7 who said that *“The distribution centre ensures that planned orders are fulfilled accurately. Service providers must ensure that the deliveries are executed on time”* This highlights the importance of timeliness in the supply chain of Lolli Supermarkets as delays result in serious operations break down. P2 brought to light that *“The warehouse management system shut down delays operations and results to delayed deliveries to stores that affects sales”*. This is an internal issue at Lolli Supermarkets that is not caused by the service provider.

4.4.5 Theme 5: Operational Efficiency

Figure 4.12: Operational efficiency



Source: Researcher, 2019

- **Demand Planning and Forecasting**

P10 stated that *“The demand planning department is centralised and now working closer with the buying department to form and maintain good relationships with suppliers as a strategy to enhance communication amongst all participants of the Lolli Supermarkets operations”*. P10 also brought to light that Lolli Supermarkets is continuously improving their strategies to enhance operational efficiency, indicating that *“There are new systems in place to enhance forecasting”*.

- **Flexible Cycles**

Lolli Supermarkets is working towards achieving operational efficiency as P11 stated that *“Lolli Supermarkets also uses flexible cycles in order to achieve successful product deliveries with the assistance of extra transporters to execute timely deliveries to stores”*. F7 also stated that *“The distribution centres does arrange to work outside the outbound plan and also*

organise milk runs to ensure product availability in stores and request extra vehicles to execute these deliveries". Lolli Supermarkets delivers products on set delivery days to stores when the stores run out of product items before the allocated order dates.

- **Improved Communication**

P9 highlighted that *"Communication has improved"*. In the focus group discussion, F5 emphasised the importance of communication and highlighted that *"Communication is key"*.

- **Performance Management**

Performance measurement is an essential component when improving business practices. P8 stated that *"There are set KPIs and transport cost targets to measure the performance of the service providers"*. In support of this, P11 states that *"Everything is measured and there are constant reviews of performance"*.

- **Contractual Terms Binding 3PL on Fleet Utilisation**

In implementing all these strategies, Lolli Supermarkets also uses its binding contractual terms to ensure that the continuous improvements in logistics are not hindered by the service provider. This is done through restricting the service provider from the use of the contracted fleet to service other external logistics service demand organisations. P10 attested that *"The contracted logistics service provider is not allowed to use the vehicles that they offer to us in other organisations that they render services to"*. Lolli Supermarkets has access to all the trucks at all times, including the times when the trucks are not scheduled to deliver products to the individual retail stores.

Lolli Supermarkets makes efficiency and their view is that the strategies that are in place are effective to ensure that efficiency is achieved, as stated by P7: *"There is a massive evolution that is consistently taking place in the organisation. In the past we used the vehicles of the service providers and managed it ourselves and that was not efficient enough. A new outsourced specialised vendor has been brought into the organisation to increase the level of efficiency. In a space of about six months, the fleet has been aligned to our demands and cost reduction has been achieved. The vendor has been the best change thus far"*.

4.5 Conclusion

The views of the interviewees indicate that there are challenges that are experienced by Lolli Supermarkets regarding the 3PL service providers. Based on past experiences and the level of expertise in the retail distribution industry, the interviewees shared opinions on how the organisation ensures that the service provider was aware when they were not performing and what was expected of the service provider. The interviewees further revealed how achieving efficiencies is a priority for the organisation.

CHAPTER 5: DISCUSSION OF RESULTS AND RECOMMENDATIONS

5.1 Introduction

The first chapter of this study presented the research problem that this study aimed to address. The aim of the study was to identify and determine whether 3PL service providers were fulfilling their strategic role and where both organisations are experiencing challenges that result in the provision of suboptimal services to distribution centres by the 3PL service provider. It is imperative that these challenges are identified and addressed in order to achieve a free flow of products in the supply chain. The logistics component is of high importance in every supply chain that exists as it facilitates the physical movement of the products throughout the supply chain of Lolli Supermarkets. The previous chapter presented the data analysis and interpretations of the data that were collected through interviews and focus group discussions. This chapter presents how the objectives have been achieved for this study and what the conclusions are that the researcher has drawn after careful analysis of the data collected from the interviewees.

5.2 Overview of Research Objectives

This chapter presents how the objectives of this study have been achieved through critical analysis of the information obtained throughout this research. Upon the fulfilment of the research objectives of this study, conclusions on the phenomenon will be drawn and recommendations presented to contribute to the literature that already exists. The following discussion attempts to identify the challenges facing Lolli Supermarkets as a result of relying on 3PL service providers, and how best to overcome these challenges.

5.2.1 Objective One

To identify the challenges that Lolli Supermarkets experiences with its reliance on 3PL service providers.

The first objective of this study was to identify the challenges that Lolli Supermarkets experiences as a result of trusting 3PL service providers to perform part of their basic business function. The identification of challenges allows an organisation to develop strategies to overcome the identified challenges. Identifying challenges helps an organisation such as Lolli Supermarkets implement continuous improvement and maintain growth. Logistics is a crucial function in an organisation and in any existing supply chain it functions

as the link of all supply chain partners from the point of manufacturing of products to the point of consumption and reverse logistics where a need arises. The growing trend of logistics outsourcing is said to be perpetrated by the focus on cost reduction, the use of specialised personnel to create efficiencies, to meet customer expectations, and allows the third party logistics demand organisations to optimise core activities (Jacobs and Chase, 2017:439). Failure to create efficiencies by 3PL service providers poses a challenge for the 3PL demand organisations as this defeats the whole purpose of outsourcing the logistics function.

Interviewees presented various challenges experience at Lolli Supermarkets due to truck issues. One issue that most managers felt that had to be resolved was that related to the type of trucks that the service provider provides to Lolli Supermarkets. The fluctuation in demand requires different sizes and numbers of trucks to accommodate the orders picked for deliveries. During quiet periods when there is a low demand for products in the individual retail stores, there are less products requested from the distribution centre resulting in less outbound volumes planned for delivery to stores. The issue is that of the need for smaller trucks that can be utilised to maximum capacity during less busy periods in the business as opposed to making use of bigger trucks that cannot be used to maximum capacity. The decision of not using trucks to full capacity defeats the goal of efficient operations.

Interviewees also presented time keeping as a challenge. It is imperative that the service provider deliver products to stores on time as per plan, as this has a great impact on the operations of the business. Pienaar and Vogt (2012:29) state that the common performance indicators of good logistics services comprises reliability, flexibility, timeliness, accessibility, and sustainability. Timeliness is essential because it eliminates congestion in the operation of the business, in the sense that when deliveries are executed on time, stores have products to sell and trucks are available to perform the next assigned task for the day. The data collected reveals that there are challenges that exists when logistics services are outsourced to firms with specialised personnel and are not performed in house.

5.2.2 Objective Two

To determine whether 3PL service providers are fulfilling their strategic role to improve order replenishment.

The second objective sought to gain insight into the strategic role played by the 3PL service providers in contributing towards an improved order replenishment system. The objective aimed to explore how 3PL service providers create efficient and effective replenishment of the stores. According to the data gathered from the interviewees, Lolli Supermarkets makes use of a system that automatically generates orders for store replenishment and the 3PL service providers have no influence on this. The responsibility for store order replenishment is shifted to the 3PL service providers once the products are picked, checked and staged for dispatch to individual retail stores. Once the shipments are loaded, it is up to the 3PL to ensure that the deliveries get to the stores on time and in full.

Although the 3PL service provider has no direct influence on order picking, checking and staging for the dispatch, Lolli Supermarkets contracted the service provider to ensure that the products are delivered to the stores on time and in full. The interviewees reveal that order replenishment is the responsibility of Lolli Supermarkets. According to the interviewees, the 3PL service provider is only responsible for physical movement and the strategies related to which trucks to use and utilising them to full capacity in order to achieve replenishment at store level. To ensure that the service provider understands and is aware of what is expected at all times, Lolli Supermarkets has a set of key performance indicators that allows the organisation measure the performance of the service provider. The key performance indicators are essential in order for Lolli Supermarkets to measure the performance of the service provider on the role played to make order replenishments a success at all times. Murphy and Knemeyer (2018:123) states that you cannot control what you cannot measure therefore it is imperative for Lolli Supermarkets to ensure that the service provider complies with the set expected standards of performance.

5.2.3 Objective Three

To determine whether Lolli Supermarkets is experiencing challenges with 3PL service providers with regard to product availability and results to the provision of suboptimal services by the 3PL service provider.

The last objective focused on finding the root causes of suboptimal services provided by the 3PL service provider that negatively impact on product availability. This objective also aimed to analyse the areas of concern regarding the service providers ensuring that there is constant product availability at store level to achieve customer satisfaction at all times.

Interviewees highlighted an issue of breakdowns of trucks while on route to deliver products to stores that result in late deliveries and totally unsuccessful deliveries on assigned dates of delivery, resulting in suboptimal services rendered to Lolli Supermarkets. Failed deliveries ultimately result in loss of sales coupled with the possibility of losing customer loyalty due to empty shelves. Therefore, it is of high importance that Lolli Supermarkets continuously measures the services rendered by the service provider in order for the service provider to improve where there are shortfalls in their service. Leuschner and Lambert (2016:247) suggest that the value of logistics services is measured in order to improve and maintain the satisfaction of customer needs.

- **Suboptimal services**

This theme was formed through the thematic analysis that was performed through NVivo whereby the causes of suboptimal services were identified as a main theme derived from Objective Three. Interviewees presented the root cause of suboptimal service which negatively impacts on product availability. The issue of inaccurate planning of the fleet does not only result in late deliveries to stores but also affects the relationship that exists between suppliers and Lolli Supermarkets, which occurs when trucks do not show up at the supplier to pick up the ordered products due to inaccurate planning. Interviewees presented inaccurate planning as a root cause for suboptimal services provided by the 3PL service provider.

Interviewees also raised concerns about the protest actions that are beyond the control of every stakeholder. When there are community protests in areas where products are being delivered to, trucks are delayed and end up not making it on time for their next stops. An issue of warehouse management system shutdown was also raised as it delays the entire order

processing and preparations of orders to be dispatched. This results in the delivery sequence not being followed and some stores not receiving their products on time.

- **Operational efficiency**

During the interviews the researcher had an opportunity to ask questions regarding operational efficiency. The interviewees presented various strategies that Lolli Supermarkets are implementing to ensure that operational efficiencies are achieved and enhanced at all times. Lolli Supermarkets is working on strategies to create closer relationships with the suppliers of products.

Interviewees also revealed that the organisation has improved its systems of forecasting the demand of various line items that the distribution centre provides to the individual retail stores. The improved forecasting is aimed at assisting the organisation to avoid product out of stock in the distribution centre that results in failure to fulfil store order requests.

It was also brought to the attention of the researcher that Lolli Supermarkets makes use of flexible cycles in periods related to high demand of products in the individual retail stores, when orders are processed out of the calling cycle. In addition to this, the management of Lolli Supermarkets does authorise that extra fleet from other service providers be requested to deliver products when there is a high demand for one specific item that has to be delivered to stores immediately. Efficiencies involve operating at the lowest cost possible, therefore Lolli Supermarkets aims at maintaining operational efficiency. To achieve this, Lolli has key performance indicators set based on cost.

5.3 Data Quality Control

Reliability and validity are used in this research to ensure the trustworthiness of the study. Reliability is the measurement of characteristics that emphasises the precision, accuracy and consistency of the data and information used in the study, it is crucial and key in trustworthiness (Cooper and Schindler, 2008:352). In this study, the researcher ensured that the obtained information was error free. Making use of qualitative research that is of high quality maximises the trustworthiness of the research findings. During the collection of data, the researcher explored multiple options to ensure that the data was of high quality and relevant to the study. Throughout data collection the researcher paid attention to credibility, transferability and dependability to gather data of high quality. To maintain credibility in this

study, the researcher made use of triangulation during data collection which allowed the researcher to make use of in-depth interviews, focus groups and the analysis of documents. The researcher asked questions in multiple different ways to ensure that the interviewees were giving honest answers and enhance credibility of this study. The researcher also worked on transferability whereby the interviews and focus group discussions were recorded and then transcribed by the researcher. The findings of this study can be used by other supermarkets to identify logistics outsourcing challenges and establish ways that can assist to eliminate challenges that exist. The research design used in this study was interpretivism, methods were overlapping. The data presented is of pure quality as the same results can be obtained, provided that the same sample is covered.

5.4 Contributions of the Study

This study has contributed towards the identification of challenges and provision of recommendations on how to best overcome these challenges. Lolli Supermarkets is a growing brand in the retail industry; it was therefore imperative to conduct a study that analyses whether outsourcing is effective and efficient for a growing organisation. The dependable way to understand the efficiencies that distribution centres yield from outsourcing certain functions to 3PL service providers is through a study that examines the role of 3PL service providers; assess the contributions of 3PL service providers; and establish the challenges between the supermarkets, distribution centres and the 3PL service providers. The use of 3PL is currently viewed as an efficient way of distributing products. This study added to the literature that exists supporting this concept, and also presented a different view than information presented by other researchers by analysing the efficiencies provided by the use of 3PL. There were challenges presented by the interviewees but from the data collected, it is brought forward that the use of third party logistics service provider is an efficient strategy to facilitate the physical distribution of products.

5.5 Recommendations of the Study

Logistics is a crucial component of every supply chain and organisations make use of 3PL service providers so as to take advantage of the expertise that these service providers possess. This is done to facilitate the smooth physical movement of products and to achieve operational efficiencies. To make sound recommendations on this topic, specifically for Lolli

Supermarkets, the researcher will make use of the data collected from the interviewees during the interviews and focus group discussions.

The interviewees of this study repeatedly mentioned the issue of time, communication and appropriate execution of the planned activities. The distribution business is built with the aim of achieving a free flow of products throughout the chain. In the case of Lolli Supermarkets, the distribution centre was introduced into the company in order to make successful timeous deliveries to stores and all this being controlled by an experienced team. In order to overcome the mentioned challenges, there is a need for information sharing platforms whereby there will be visibility for both the third party logistics service provider and Lolli Supermarkets.

Information sharing has become a good strategy to achieve effective supply chains. It is therefore imperative that Lolli Supermarkets makes use of more information distribution systems in the supply chain that will manage accuracy in the information that is being shared from each party. This will allow transparency which will allow all stakeholders to be fully aware of what is expected of them in the execution of all tasks assigned. In ensuring that all new strategies are well executed, communication becomes an important factor and investing in information technology systems that will control the information that is being shared and how it is being shared will strengthen working relationships in the present and future. Information systems

Operational efficiency is essential in organisations so as to sustain the growth of the business. It is therefore crucial for the organisations to not focus mainly on cutting the costs of carrying out primary business functions but also explore the capacity that can be reached through strategically positioning available resources and facilities (Madanhire and Mbohwa, 2016:225). This suggests that the organisation should looking beyond the cost factor to provide the expected services to the individual retail stores and perhaps even incurring extra costs to ensure that the stores are replenished on time and customer satisfaction is maintained at all times.

5.6 Limitations and Delimitations of the Study

The main limitation to the study was time; the interviewees had limited time to accommodate the interviews. This could not be avoided as interviewees had to also perform their duties since interviews took place during work hours. The researcher explained the questions in detail to ensure that the interviewees understood the interview questions. This was done in

order to gather relevant data from the brief answers that were provided due to time constraints.

The time assigned for data collection was not enough to explore Lolli Supermarkets as it is a growing brand. New strategies are still being tested to identify ways in which the organisation can survive in the industry. To delimit this limitation, the researcher asked interviewees questions on how the organisation is planning to sustain its growth in the near future.

5.7 Conclusion

This chapter presented the findings and recommendations to contribute to successful management of outsourced logistics functions. The researcher presented how the data collected fulfilled the objectives of the study. The increasing use of the 3PL service providers by distribution centres created the need for this study. The researcher saw an opportunity to study logistics outsourcing and the impact it has on distribution centre operations. The findings of this study revealed that outsourcing logistics is still a dependable way of carrying out logistics activities. Third party logistics service providers play a significant role in ensuring that the tasks assigned are carried out as per the request of the third party logistics demand organisation. The study also revealed that third party logistics providers have no direct influence on the replenishment of stores and maintenance of product availability in both the distribution centre and the individual retail stores. This study has created the need for a future study which will seek to test how best the performance of the third party logistics demand organisations can improve if the demand and replenishment planning functions are outsourced to logistics service providers.

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LIST OF APPENDICES

Appendix A: Interview Guide

INTERVIEW GUIDE:

INDIVIDUAL INTERVIEW AND FOCUS GROUP DISCUSSION

(Proposed interview time: 30 minutes)

Date: -----

Organisation: -----

Participant: -----

Topic: Challenges Experienced when Outsourcing Logistics in South Africa: A Case Study of Lolli Supermarket.

Masters in Commerce (Supply Chain Management)

School of Management, IT and Governance

College of Law and Management Studies

University of KwaZulu-Natal

Researcher: Siphindile A. Gwala

Supervisor: Mr E. Ncube

Co-Supervisor: Dr T. P. Mbhele

Introduction

The main intent of this interview is to accumulate information in order to identify the challenges Lolli Supermarket experiences with third party logistics in maintaining inventory availability at individual retail stores. It is to further question the frequency with which 3PLs fulfil their strategic role of order replenishment to ensure product availability at store level. This will allow the study to analyse the impact of outsourcing in retail organisations while also evaluating any changes that may be encountered under developing economy conditions.

Confidentiality will be applied to all responses provided.

SECTION A: BACKGROUND OF THE RESPONDENT

This section of the questionnaire refers to your background information. The information will enable me to compare respondents.

1. Gender?

- ☐ Male
- ☐ Female

2. Age

- ☐ Younger than 25 years old
- ☐ Older than 25 but younger than 30
- ☐ Older than 30 but younger than 50
- ☐ Older than 50
- ☐ I do not wish to answer

3. Race?

- ☐ African
- ☐ Coloured
- ☐ Indian
- ☐ White
- ☐ Another-Group (specify): _____
- ☐ I do not wish to answer

4. Your educational qualifications?

- ☐ No formal qualification
- ☐ School leaving certificate
- ☐ Technical Diploma
- ☐ Graduate

- ☐ Post Graduate
- ☐ Industry specific certification
- ☐ Still studying (Please specify) _____
- ☐ Other (Specify): _____

5. How long have you worked in the organisation?

- ☐ Less than 12 months
- ☐ More than 1 year but less than 2 years
- ☐ Over 2 years
- ☐ Over 5 years
- ☐ Over 10 years

6. What is your position in the organisation?

- ☐ Director
- ☐ Executive
- ☐ Head of Department
- ☐ Manager
- ☐ Supervisor
- ☐ None of the above (please specify): _____

SECTION B: INDIVIDUAL JOB PROFILE

1. Please provide a brief overview of your job description.
 - ❖ Daily tasks or activities.....
 - ❖ Decisions to take on a daily basis.....
2. Provide brief overview on your operational processes in the distribution centre.
3. Provide brief overview of logistics changes and challenges in the distribution centre.

SECTION C: RESEARCH QUESTIONS

A. What are challenges Lolli Supermarket experiences with its reliance on 3PLs?

This study stems from the emerging use of third party logistics as a strategy in distribution centres. The aim of the following questions is to gather information on the roles played by the third party logistics, identify challenges faced by the organisation regarding the logistics service provider.

1. Please provide an insight on the transport function in your distribution centre.
2. Please provide an insight on the commitment of the logistics service providers in your distribution centre.
3. Please provide an overview of the evolution of the transport function in your distribution centre.
4. How does your organisation ensure that the service providers know and understand the importance of stock availability at the individual retail stores?
5. Does the organisation have any control over the logistics function? If yes, please provide an overview on the level of control the organisation has over this function. If no, is the service provider held accountable for failure to deliver?
6. What are the common logistics challenges that you face frequently that affect the operation of the business?
7. What alternative strategies does the organisation utilise to close gaps that negatively impact on maintaining stock availability at the individual retail stores?
8. Does the organisation have performance measurement tools to monitor the performance of the service provider?

B. To what extent are the 3PLs fulfilling their strategic role to improve order replenishment?

The strategy of third party logistics is well known for its contribution to cost saving and granting access to the use of specialised personnel. The aim of the following questions is to gather information on how this strategy creates efficient and effective replenishment of the individual retail stores.

1. What do you understand about store replenishment and order fulfilment?
2. Do the current logistics service providers understand these terms and commit to positively contribute towards frequent order replenishment of the individual retail stores?
3. Do the current logistics service providers have direct influence on the store order fulfilment? Elaborate.

C. Where is Lolli Supermarket experiencing challenges with 3PLs with regard to product availability and as a result provide suboptimal services?

The aim of the following questions is to analyse the areas of concern about the service providers when ensuring that there is constant product availability at store level to achieve customer satisfaction at all times.

1. Do you think outsourcing the logistics function has an impact on maintaining product availability at store level as opposed to insourcing the logistics function?
2. What are the dynamic capabilities of the current logistics service providers in your distribution centre?
3. What are the essential attributes required by your distribution centre to maintain and enhance the product availability at store level? Are the current service providers meeting these requirements?
4. Are there instances where the service providers are failing to provide optimal services with regards to product delivery? If yes, how is this affecting the operation of the individual stores?

I greatly appreciate your valuable time and input. Thank you.

Appendix B: Informed Consent

Informed Consent Letter

**UNIVERSITY OF KWAZULU-NATAL
SCHOOL OF MANAGEMENT, IT & GOVERNANCE**

Dear Respondent,

M-COM Dissertation

Researcher: Ms S.A. Gwala (081 774 6096)

Supervisor: Mr E. Ncube (031 260 8805)

Co-Supervisor: Dr T.P. Mbhele (031 260 7524)

Research Office: Mariette Snyman (0312608350)

I, Siphindile A. Gwala, a MCOM (Supply Chain Management) student, at the School of Management, IT & Governance in the University of KwaZulu-Natal invite you to participate in research project “Challenges Experienced When Outsourcing Logistics in South Africa: A Case of Lolli Supermarkets.”

The main aim of the study is to identify the challenges and provide recommendations of how best to overcome these challenges. Lolli Supermarkets are a growing brand in the retail industry, it is therefore imperative to conduct a study analysing whether outsourcing is effective and efficient for a growing organization.

Your participation will be highly beneficial to the project as I look forward to getting an insight on the strategic role played by the logistics service providers in your organisation and how it impacts the primary goals of the distribution centre.

Your participation is voluntary, this allows you to refuse to participate or withdraw your participation at any time. Please note that confidentiality and anonymity of all data collected from you will be controlled by the School of Management, IT & Governance at the University of KwaZulu-Natal.

You are at liberty to question or raise concerns about your participation in this research project, and please do feel free to contact me or my supervisors for clarity.

Warm Regards,

Researcher's signature _____ Date _____

UNIVERSITY OF KWAZULU-NATAL
SCHOOL OF MANAGEMENT, IT & GOVERNANCE

M-COM Dissertation

Researcher: Ms S.A. Gwala (081 774 6096)

Supervisor: Mr E. Ncube (031 260 8805)

Co-Supervisor: Dr TP Mbhele (031 260 7524)

Research Office: Mariette Snyman (0312608350)

CONSENT

I..... (Full names of participant) hereby confirm that I understand the contents of this document and the nature of the study, and I consent to partake in the research project.

I understand that I have the right to withdraw from the project at any time, should I wish to withdraw.

SIGNATURE OF PARTICIPANT

DATE.....

Appendix C: Ethical Clearance



22 July 2019

Miss Siphindile Adora Gwala (210510282)
School of Management, IT & Governance
Westville Campus

Dear Miss Gwala,

Protocol reference number: HSSREC/00000029/2019

Project title: Challenges experienced when Outsourcing Logistics in South Africa: A case of Lolli Supermarkets (A pseudonym 'Lolli Supermarkets' is used by the researcher to protect the image of 'Boxer Superstores')

Full Approval – Expedited Application

This letter serves to notify you that your application received on 10 June 2019 in connection with the above, was reviewed by the Humanities and Social Sciences Research Ethics Committee (HSSREC) and the protocol has been granted **FULL APPROVAL**

Any alteration/s to the approved research protocol i.e. Questionnaire/Interview Schedule, Informed Consent Form, Title of the Project, Location of the Study, Research Approach and Methods must be reviewed and approved through the amendment/modification prior to its implementation. In case you have further queries, please quote the above reference number. **PLEASE NOTE:** Research data should be securely stored in the discipline/department for a period of 5 years.

This approval is valid for one year from 22 July 2019.

To ensure uninterrupted approval of this study beyond the approval expiry date, a progress report must be submitted to the Research Office on the appropriate form 2 - 3 months before the expiry date. A close-out report to be submitted when study is finished.

Yours sincerely,

Dr Rosemary Sibanda (Chair)

Humanities & Social Sciences Research Ethics Committee
Dr Rosemary Sibanda (Chair)
UKZN Research Ethics Office Westville Campus, Govan Mbeki Building
Postal Address: Private Bag X54001, Durban 4000
Website: <http://research.ukzn.ac.za/Research-Ethics/>

Founding Campuses: Edgewood Howard College Medical School Pietermaritzburg Westville

INSPIRING GREATNESS

Appendix D: Editing Certificate

DR RICHARD STEELE

BA, HDE, MTech(Hom)

HOMEOPATH

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EDITING CERTIFICATE

Re: Siphindile Adora Gwala

**Master's dissertation: CHALLENGES EXPERIENCED WHEN
OUTSOURCING LOGISTICS IN SOUTH AFRICA: A CASE OF LOLLI
SUPERMARKETS**

I confirm that I have edited this dissertation and the references for clarity, language and layout. I returned the document to the author with track changes so correct implementation of the changes and clarifications requested in the text and references is the responsibility of the author. I am a freelance editor specialising in proofreading and editing academic documents. My original tertiary degree which I obtained at the University of Cape Town was a B.A. with English as a major and I went on to complete an H.D.E. (P.G.) Sec. with English as my teaching subject. I obtained a distinction for my M.Tech. dissertation in the Department of Homeopathy at Technikon Natal in 1999 (now the Durban University of Technology). I was a part-time lecturer in the Department of Homoeopathy at the Durban University of Technology for 13 years.

Dr Richard Steele
27 November 2019
per email