



UNIVERSITY OF KWAZULU-NATAL

**The Influence of Supply Chain Management on Service Delivery
in KwaZulu-Natal Department of Transport**

By

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DECLARATION

I, Cynthia Vuyisile Dlamini, declare that:

- This research project on the influence of supply chain management on service delivery in the KwaZulu-Natal Department of Transport is my own work and that all resources that I have used or quoted are acknowledged through complete referencing.
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C.V. Dlamini

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Date: October 2017

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ABSTRACT

Supply chain management is the tool that was introduced by government to ensure that services are delivered effectively and efficiently through citizens of the country. Goods and services are provided to serve the interest of the people to deal with macroeconomic factors such as unemployment, poverty eradication, economic growth, health and education.

The Department of Transport's core functions are to construct, repair and maintain the provincial road network, as well as plan, regulate and provide an integrated transportation system. The Department is also responsible for managing road traffic systems. In conducting its business, the Department should ensure that it creates job opportunities and develops human resources and communities in support of the provincial growth and development plan. Supply chain management is the vehicle that will drive the department in fulfilling its mandate. If service delivery is compromised, the country could face huge protests, which often result in vandalising of the infrastructure that is very costly to the state. Supply chain management plays a crucial role in influencing service delivery. Hence, the decision to conduct this study to explore the influence of supply chain management on service delivery at KwaZulu-Natal Department of Transport.

Non-probability sampling, the purposive sampling method, was used to select 15 participants. Semi-structured in-depth interviews were used to generate data from participants to understand the phenomenon under the study. This data collection technique gave the researcher an opportunity to follow up on interesting issues that emerged during the interviews and it also enables valuable information to be gained through probing the participants. Data collected was analysed using a thematic method.

Findings revealed that proper planning is very important for linking demand management with the budget available. Accountability and responsibility is important when making decisions that will compromise service delivery. Supply chain management must be implemented to yield the results that will benefit all the stakeholders and necessary precautions should be taken to eliminate fruitless and wasteful expenditure.

Keywords: *Acquisition Management, Demand Management, Logistics Management, Disposal Management, Service Delivery, Supply Chain Management.*

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LIST OF ACCRONYMS

BAC	Bid Adjudication Committee
BBBEE	Broad-Based Black Economic Empowerment
BEC	Bid Evaluation Committee
BSC	Bid Specification Committee
CIDB	Construction Industry Development Board
DOT	Department of Transport
HDI	Historical Disadvantaged Individual
IDASA	Institute for Democracy in South Africa
JTSM	Journal of Transport and Supply Chain Management
KZN	KwaZulu-Natal
MFMA	Municipal Finance Management Act
PFMA	Public Finance Management Act
PPPFA	Preferential Procurement Policy Framework
SAHRC	South African Human Rights Commission
SALGA	South African Local Government Association
SARS	South African Revenue Services
SCM	Supply Chain Management
SCOPA	Standing Committee on Public Accounts
SIPDM	Standard for Infrastructure Procurement and Delivery Management
SMME	Small, medium and micro enterprise
SONA	State of the Nation Address
SOPA	State of the Province Address
WMO	World Meteorological Organisation

CHAPTER ONE: INTRODUCTION AND BACKGROUND

1.1 Introduction

This chapter presents the background to the study on the influence of supply chain management on service delivery in KwaZulu-Natal Department of Transport. This is followed by the phenomenon investigated, the significance, the main aim, the objectives and questions that will be explored through this study. The limitations on the investigation are also presented in this chapter. The research tools and instruments that were used are summarized. The main terms are also defined together with limitations. The outline of all the chapters in this study are also presented.

1.2 Background of the Study

The public sector is mandated to ensure that services are delivered effectively and efficiently to all communities. In a democratic country, government is voted by the citizens to ensure that it serves the interest of the people in providing goods and services to deal with macroeconomic factors such as unemployment, poverty eradication, economic growth, health and education. The government is responsible for social and economic stability. Failure of the government to honour their promises to serve public interest results in social ills and disorder which lead to protests. Economic disruptions that are caused by the protests in developing countries are associated with violent damage of infrastructure (Stevens, 2013).

The Department of Transport's core functions are building, repairing and maintenance of the provincial road network, and to oversee, enforce, implement and provide an integrated transportation system. The Department is also responsible for managing the road traffic system (DOT, 2015). It should ensure that it creates job opportunities and develops human resources and communities in support of the provincial growth and development plan. Supply chain management is the vehicle by which the Department can fulfill its mandate. Its main objective is to empower historically disadvantaged individuals, women and physically-challenged persons. Some service providers charge exorbitant prices that do not match the quality of the services provided. Government department's award tenders to service providers to ensure that they provide the required services amongst communities, yet in most cases the services that are

provided are of inferior quality (Godi, 2015). Supply chain management is thus faced with numerous challenges in service delivery.

These challenges include misinterpretations of the policies and legislature governing supply chain management, conflicts of interest, non-compliance with the rules and regulations and incomplete projects, amongst others. Hence society is inundated with country-wide service delivery protests (Goba, 2016).

South Africa has nine provinces, of which KwaZulu-Natal (KZN) is the second largest. Most of the population are black Africans who constitute 84, 9% of the entire population of KZN (STATSA, 2015). According to data from the 2001 population census of Statistics South Africa, most of the communities in the province reside in rural areas. The province faces huge challenges of poverty eradication, employment growth and human resource development, and most families are still struggling with basic needs such as clean water and sanitation, access to health facilities and education (Stevens, 2013).

Though measures have been put in place by the government to transform and change the lives of all communities through delivering of services, it cannot be disputed that some challenges emanate from poor service delivery by government institutions. The Constitution, as the supreme law of South Africa, states clearly that every citizen has the right to basic needs that should be provided by state institutions (South Africa , 1996). Supply chain management processes are also regulated by the Constitution. Section 27 of the Constitution outlines the basic principles of supply chain management. These are also re-emphasized in section 51 (1) (a) of the Public Finance Management Act 1 of 1999, which claims that departments should maintain appropriate procurement and provisioning systems that are efficient and effective.

The KwaZulu-Natal government has been given a mandate to deliver services according to their core function in providing communities with needs and annual budgets are tabled in the provincial legislature to ensure that departments are functioning effectively and efficiently. Yet there are continuous challenges in relation to service delivery issues.

The intention of the study was to find out how the supply chain management system influences service delivery in the public sector. The five core principles of behaviour which should guide the procurement processes are well explained in the general government procurement guidelines. They are value for money, transparency, fairness, accountability and justice. The supply chain management unit is one of the component sections that falls within the Finance Directorate. It has four sub-divisions:

- Demand Management where the needs are identified, assessed and ranked.
- Acquisition Management which deals with the compilation of bids documents, invitations, evaluation and adjudication of the potential bidders. The sourcing strategy is also identified in this sub-section.
- Logistic Management where orders are issued to successful bidders for goods and services required.
- Disposal Management where unused, obsolete, redundant and unserviceable assets are disposed. These units they provide supply chain management services (KwaZulu-Natal Provincial Treasury, 2006).

1.3 Research Problem

The research problem was to explore the influence of supply chain management on service delivery. Numerous complaints regarding the way supply chain management is implemented within government sectors have been raised by both communities and service providers. Supply chain management is an enabling tool that ensures that service delivery is not compromised. The issue of poor service delivery and non-compliance with the legal procurement processes framework is a concern (Heath, 2010).

This study explored the influence of supply chain management on service delivery focusing on the four elements of supply chain management that are depicted on the supply chain management model for government entities that is discussed in Chapter Two.

1.4 Research Questions

The research questions were as follows:

- What influence does demand management have on service delivery in KwaZulu-Natal Department of Transport?
- What are the major challenges that are encountered in acquisition management that influence service delivery in KwaZulu-Natal Department of Transport?
- How does logistics management influence service delivery in KwaZulu-Natal Department of Transport?
- How can disposal management be implemented effectively and economically in KwaZulu-Natal Department of Transport?

1.5 Research Objectives

The research objectives for this study are focused on the core aspects of Supply Chain Management. The objectives of the study were:

- To determine how Demand Management influences service delivery in KwaZulu-Natal Department of Transport.
- To identify the major challenges that are encountered in Acquisition Management that influence service delivery in KwaZulu-Natal Department of Transport.
- To determine how Logistics Management influences service delivery in KwaZulu-Natal Department of Transport.

To explore how Disposal Management can be effectively implemented to yield maximum benefit for the KwaZulu-Natal Department of Transport and service users.

1.6 Motivation of the Study

The escalating number of service delivery protest in the country because of poor and lack of quality services that are rendered by public institutions motivated the researcher to explore the challenges that are hindering the services to the people. Supply chain management processes should be an enabling tool that transmit and transform services effectively and efficiently. There is a correlation between supply chain management and service delivery. The study was aimed to distinguish and outline relationship between these two variables focusing on the four elements of supply chain management. KwaZulu-Natal Department of Transport has a very important role to play in ensuring that KZN's provincial road networks are constructed, repaired and maintained to enable communities to access various service centers such as schools and hospitals without difficulty. It should also create job opportunities in support of the provincial growth and development plan. This study was undertaken to highlight supply chain management issues that are contributing to the service delivery challenges.

1.7 Aim of the Study

The aim of the study was to examine the influence of the supply chain management system on service delivery in the KwaZulu-Natal Department of Transport focusing on the four elements of supply chain management model discussed in Chapter two.

1.8 Purpose of the Study

The purpose of the study was to understand the influence of supply chain management on rendering services in KwaZulu-Natal Department of Transport. It was also to explore best practices for improving service delivery in KwaZulu-Natal which could be of benefit to all stakeholders. The study further intended to help reduce irregular expenditure and ensure that public funds are used efficiently and effectively, thereby improving practices in the system.

1.9 Significance of the Study

The study will contribute to the existing body of knowledge. The findings of the study will also assist in putting interventions in place that will enable organisations to improve on the delivering of services. If the recommendations of the study are implemented they will assist officials and service providers to work effectively and efficiently. The study outlines the roles and responsibilities of public officials as outlined in the Public Finance Management Act. This will add to the existing body of knowledge by filling the gap in the empirical literature relating to the influence of supply chain management on service delivery issues. Its recommendations, if implemented, have the potential to reduce service delivery protests (Figure 1.1), which often lead to the damaging of both public and private property, and to improve the way public services are conducted.

Service delivery protests

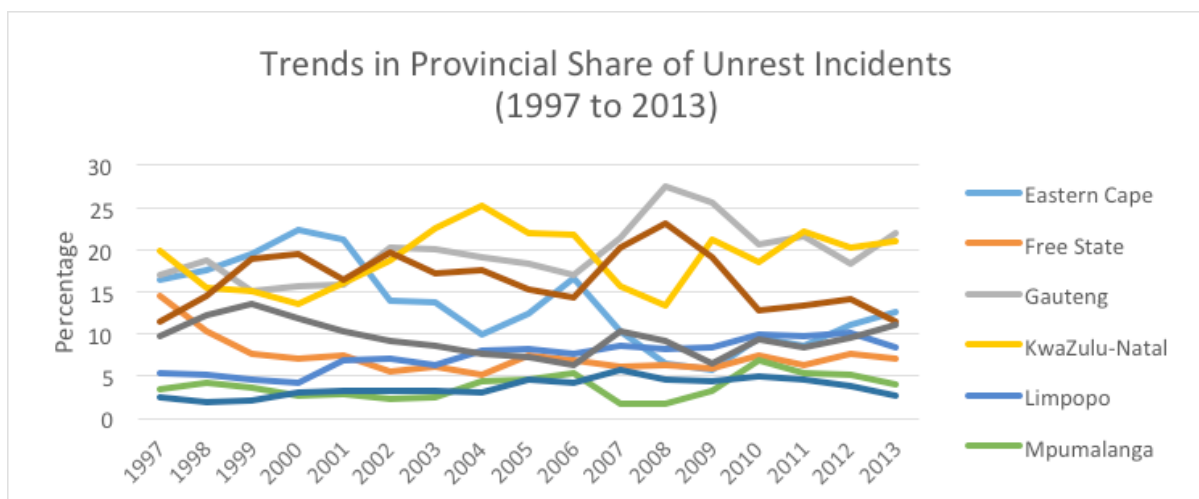


Figure 1.1 Provincial Unrest Incidents (1997 to 2013)

Source: (Alexander, Runciman, & Maruping, 2015).

1.10 Research Design

A research design provides a detailed outline of how the investigation will take place (Bhattacharjee, 2012). This study is descriptive as it provides insight on the influence of supply chain management on service delivery. A qualitative research approach was used to allow for more diverse responses as well as for adapting to new developments during the research.

1.10.1 Exploratory Research Design

This study on the influence of supply chain management in KwaZulu-Natal Department of Transport makes use of an exploratory research design as the researcher believes that this will provide useful explanations and clarify the understanding of the phenomenon between variables. This type of research design was used because no study has been conducted previously on the influence of supply chain management on service delivery in KwaZulu-Natal Department of Transport. It also tests the possibility of conducting a more extensive study. The aim of the exploratory research design is to gather information about a topic that has not been researched before (DuPlooy, Davis, & Bezuidenhout, 2014). This was deemed as the suitable approach to gather insight on the understanding of the phenomenon explored in this study. The study was conducted using a qualitative methodology. This approach is descriptive and interpretive as it consists of engaging with text to describe the research phenomenon (DuPlooy, Davis, & Bezuidenhout, 2014). A qualitative research methodology describes data in the participants' own words and gives the researcher an opportunity to encounter people as they confront their daily struggles through experience (Denscombe, 2007). The results of qualitative research study are less generalisable as opposed to quantitative research where the findings can be applied and generalised to other population (Johnson & Christensen, 2008). Purposive sampling was used as the researcher has knowledge of specific people that are involved in supply chain management. Sample size is smaller in qualitative research studies than in quantitative research (Wyse, 2011). This research used a descriptive narrative report and direct responses from the interviewees, unlike quantitative research where arithmetical and geometric reports with connections and relations are used (Johnson & Christensen, 2008).

Participants were deliberately selected with a specific purpose in mind. Only participants with the knowledge and experience in supply chain management environment were selected. Data was collected using semi-structured in-depth interviews and it was analysed using thematic analyses. In contrast, data from quantitative research is based on precise measurements using structured and validated data collection instruments (Wyse, 2011).

1.10.2 Study Site

The study was conducted at the KwaZulu-Natal Department of Transport in the head office and Pietermaritzburg region only. It was not feasible to include all the regions in KwaZulu-Natal due to time constraints. Pietermaritzburg was chosen as it is the headquarters of the Department and most supply chain management activities are centralized to it. Policies are formulated and strategic decisions are made in Pietermaritzburg. The fifteen participants that are involved in the supply chain management at the Department of Transport were purposively selected to participate in this study.

Table 1.1: Directorates in KZN DOT Pietermaritzburg

Head Office	Directorate
	Ministerial Services
	Strategic Management
	Financial Management
	Corporate Services
	Transport Infrastructure and Regional Services
	Communication

Source: Researcher

1.11 Literature Review

This section provides a glance synopsis of the supply chain management and service delivery challenges that are facing Government. Broad supply chain management and service delivery definitions are explored. Primary and secondary data was consulted and reviewed to provide insight into the supply chain management processes that hinders service delivery in government spheres. This shaped the direction of this study and the evidence collected was used to develop a semi-structured interview guide.

1.11.1 Definition: Supply Chain Management

Supply chain management (SCM) includes the flow of goods or services from raw material to the final completed product which is distributed to the end user (Thachil, Thomas, & Ottarackal, 2014). “Supply chain management is the design and management of a seamless value-added process across organization boundaries to meet the real needs of the end customer” (Institute for Supply Chain Management, 2002). According to (Heizer J., Render, & Barry, 2006), supply chain management is defined as the amalgamation of the events that are

performed from purchasing ingredients and services to convert, alter and change them into final products and distribute them to the end users.

According to (Thuo, 2014), the prolonged procurement processes have a huge negative impact on service delivery and have contributed to the demoralisation and dissatisfaction of the workforce. She suggested that heads of departments should be involved in the management of contracts. This affects the delivery of services to the community on time as acquisition management is delaying the issuing of orders to successful bidders so that they can continue with the work that needs to be done.

1.11.2 Service Delivery

To define service delivery requires that service should be defined first. Service is an invention or merchandise a motion that meet the user's expectations (Sakhuja & Jain, 2012). Service should have these features, characteristics and elements: available on time; trustworthy and consistent; operational and functioning; serviceable and sound; genuine and authentic; (WMO, 2015) [World Meteorological Organisation].

1.12 Theoretical Framework

Supply Chain Model for public entities was used to guide this study. The model has four elements that are critical in supply chain management processes which are demand management, acquisition management, logistics management and disposal management (National Treasury, 2004). The study focuses on two variables: service delivery and supply chain management as an enabling tool to ensure that services are provided to the communities that will enhance their well-being. The relationship between the two variables is crucial to validate the assumption that supply chain management has an influence on service delivery.

1.13 Limitations of the Study

The following limitations of this study should be noted:

1.13.1 Time delays

The study was conducted at a time when there were disruptions in the academic institutions due to the "Fees must Fall" campaign. Sometimes it was impossible to access the library and source information, as it was closed for security reasons. The academic calendar was affected and some lectures were cancelled.

1.13.2 Location

The study was conducted at the KwaZulu-Natal Department of Transport and not all regions were included due to time constraints. This has strong implications for the interpretation and generalisability of the data and the findings. The participants were drawn from the Department of Transport in the Pietermaritzburg region only, and were not representative of all the regions in KwaZulu-Natal. The findings therefore cannot be generalised to all regions. This study could lay the foundation for the development of a quantitative research survey that will include all regions or all Departments in the public sector.

1.14 Definition of Concepts

1.14.1 Supply Chain Management

Supply chain management is the “coordination of all the procurement processes that are involved in acquiring products or services. It is also defined as a process that encompasses the planning and management of all activities involved in sourcing and procurement, conversion and all logistics management activities” (Badenhorst-Weiss, 2011).

1.14.2 Procurement

Procurement is defined as the attainment, acquirement and sourcing of suppliers or services. The leasing or hiring of anything, the acquisition or granting of the right to the disposal of state property (Davis, 2014).

1.14.3 Purchasing Management

Purchasing is a process of deciding what needs to be sourced in what quantity, when to buy and how much it will cost. The purchaser should ensure that the goods or services required are bought on time according to the correct specification (Badenhorst-Weiss, 2011).

1.14.4 Corruption

According to Dike (2001), corruption is defined as a disruption and ruining of reputable and recognized rules, policies and procedures for personal gain. It entails the abusing of power to secure wealth through illegal means at the expense of the public.

1.14.5 Service Delivery

Service delivery refers to the provision and distribution of basic resources that add value to communities. It can be between a government institution and a community, or between an organisation and its clients (Kumar, 2014).

1.14.6 Capital Project

“A capital project is a new construction, upgrade, expansion, heavy rehabilitation or a replacement project for an existing facility, including public transport facilities” (Review, 2016).

1.14.7 Demand Management

Demand Management is the first phase of supply chain management. It is the process where needs are assessed to ensure that the goods and services required are delivered timeously (Manye, 2012). It deals with understanding future needs and their frequency. It also identifies critical delivery dates and link the resource requirements to the budget. That is where specifications are drawn and commodity and industry analyses are done (Dobler & Starling, 2012).

1.14.8 Acquisition Management

Acquisition management is the second phase of supply chain management, where bid documents are compiled, evaluated and adjudicated using the preferential policy objectives. The sourcing strategy for how the market will be approached is identified. This is the stage at which contracts are finalised (Dobler & Starling, 2012).

1.14.9 Logistic Management

Logistics management is the third phase of the supply chain management process, where orders are issued to the successful bidders for the goods and services required. It involves the receiving and distributing of goods, coding items, setting inventory levels and managing stores where stocks are kept (Manye, 2012). According to (Loxton, 2012), logistics management is the support management area used throughout the life of a product. Logistics management is a supply chain management element that ensures that the customers' expectations are met through the effective planning of the movement of the goods and services from their origins to their destinations. It helps in reducing the organisation's expenses and enhances the service delivery to the customer (Badenhorst-Weiss, 2011).

1.14.10 Disposal Management

Disposal management entails the disposal of movable and immovable state assets at the best monetary value that the state can obtain. Assets can be sold by public auctions or transferred to other organisations in need (Manye, 2012).

This is the final stage of supply chain management dealing with obsolete, redundant and unserviceable assets. These are disposed of using the most effective method that is recommended by the disposal committee appointed to ensure that value for money is gained.

1.14.11 Capacity

Capacity is defined as the ability of an organisation to function as a resilient, strategic and autonomous entity (Kaplan, 1999).

1.14.12 Quality

Quality refers to the unique attributes or features of the project that excel in all respects, thereby meeting the customer expectations which led to the project being undertaken (Juran & Gryna, 2013).

1.14.13 Emerging Contractor

An emerging contractor is a small enterprise within the Construction Industry Development Board (CIDB), which is graded between Grade 1 to 3, which is owned, controlled and managed by black people or women, youth, and persons with disabilities who are conducting business within the construction industry. Black persons should own at least fifty one percent of the enterprise, and possess and exercise authority to manage the assets and daily operations of the enterprise (Fuzile, 2015).

1.14.14 Output

Output is defined as the final measurable results obtained upon successful completion of a planned activity or tasks accomplished (Monczka, Handfield, Guinipero, & Patterson, 2009).

1.15 Structure of Dissertation

The study has five chapters that are outlined below:

➤ Chapter 1: Introduction

This chapter outlines the circumstances that prompted the study, together with the study objectives. The background to the study including research problem, research objectives and research questions are presented in this chapter. The significance and contribution of the study are highlighted. Finally, relevant research terms are defined.

➤ Chapter 2: Literature Review

This chapter reviews the relevant literature on the influence of supply chain management on service delivery. The aims of supply chain management are highlighted and the legislative framework governing it. The challenges facing supply chain management on service delivery are highlighted. Service delivery is defined in this chapter and the key elements of service delivery system are discussed.

➤ Chapter 3: Research Methodology

This chapter outlines the research design, research methodology, research population and the sample size, as well as the sampling techniques that were used in collecting and analysing the data. Study site, target population, accessible population, sampling method and sampling size are discussed in this chapter. Data collection techniques and data analysis methods are outlined and measures that were utilised to ensure data quality control are indicated. Ethical consideration issues are also discussed.

➤ Chapter 4: Data Presentation

This chapter presents the data generated in conducting the study on the influence of supply chain management on service delivery in the KwaZulu-Natal Department of Transport.

➤ Chapter 5: Data Analysis

This chapter presents the discussion and analysis of the collected data. The aim of this chapter was to establish the answers to the research questions that were presented in this study and suggest best practices that can assist in improving service delivery in KwaZulu-Natal Department of Transport.

➤ Chapter 6: Conclusion and Recommendation

This chapter summaries the evidence and findings of the researcher and it presents the researcher's conclusions regarding the influence of supply chain management on service delivery in the KwaZulu-Natal Department of Transport, as well as presenting recommendations.

1.16 Conclusion

This chapter provided an overview of the content of this research study. The concept of supply chain management and service delivery were discussed in general to provide a context for the study. The focus of this study is on the influence of supply chain management on service delivery rendered by the KwaZulu-Natal Department of Transport (DOT). DOT has a

constitutional mandate to deliver quality services to the citizens of the Republic of South Africa through ensuring compliance with the supply chain management framework that has been put in place to guide them in carrying out this mandate. The research objectives and the research methodology and design are discussed in this chapter. It is imperative for KwaZulu-Natal Department of Transport to render quality services in a cost effective and efficient manner that will benefit the communities at large. Supply chain management practices should be constantly monitored and effectively managed to improve the quality level of service delivery.

This concludes the first chapter. The second chapter deals with the aims, objectives of supply chain management. It also outlines the legislative framework governing supply chain management and challenges facing supply chain management. Service delivery is also defined and key elements are outlined as well as the importance of delivering excellent services to citizens.

The literature pertinent to supply chain management and service delivery is dealt with in the second chapter.

CHAPTER TWO: LITERATURE REVIEW

2.1 Introduction

This chapter presents a literature review by exploring the objectives of the supply chain management, the benefits and the core principles of the system. The literature that is pertinent to the objectives of this study is presented.

2.2 Aims of Supply Chain Management

The main aim of supply chain management is the effective, incorporation and amalgamation of suppliers (Thachil, Thomas, & Ottarakal, 2014). The combination of storerooms to ensure that the goods or services that are procured are distributed timeously in the relevant location and in terms of the quality that is expected (Heizer J., Render, & Barry, 2006). Supply chain management is the enabling tool to transform procurement and provisioning functions in government sectors to ensure compliance with the legislative mandates stipulated in the relevant acts that govern the framework.

Supply chain management is a crucial vehicle for service delivery to be achieved (James, 2014). Ineffective procurement systems are a factor contributing to poor service delivery. Value for money is crucial as most organisations operate on limited budgets. If the resources allocated to the institutions are optimally used, service delivery will improve and the protests will be minimal.

(Mbabazi, 2006), noted that public funds are often wasted due to the failure to implement sanctions against misconduct and mismanagement of state resources. This results in poor distribution of services delivery, and encourages poor quality of work and corruption amongst procurement officials. Loxton, 2012 believed that the basis of good corporate governance is founded in the following seven characteristics: “discipline, transparency, independence, accountability, responsibility, fairness and social responsibility”. Communities have the right to know about the service standards that they should expect when visiting government institutions (Loxton, 2012).

(Badernhost-Weiss, 2010), believed that supply chain management is a fundamental and an essential part of the buying procedure. South Africa is experiencing challenges of lacking skills and capacity. Violation of the national and provincial guidelines, policies, rules and

regulations. Poor planning and connecting resource requirements to the budget poses potential risks to the systems. Regularly monitoring of the SCM is important (VanRooyen, 2015).

Supply chain management practitioners are expected to conduct themselves ethically when performing their duties (Burt, Dobler, & Sterling, 2003). According to the international supply management principles document of 1992, there are three principles that all supply chain practitioners must uphold: loyalty to the organisations, justice to those whom they deal with, and faith in the profession they are in (Badenhorst-Weiss, 2011).

(Burt, Dobler, & Sterling, 2003), further stated that supply chain management practitioners should avoid the intent and appearances of unethical actions, portray professionalism and ensure compliance with prescribed policies and procedures. They should also declare conflicts of interest to the employer. They should not accept monies, loans, credits or prejudicial discount and gifts from potential bidders that might influence supply management decisions. Confidential information should be safeguarded and should not be shared. Supply chain management practitioners should not engage themselves in employer-funded and sponsored programmes of private and special purchases that are not business related to the organisation business. They should always uphold the organisations values and professionalism (Burt, Dobler, & Sterling, 2003). This will eliminate the expectations from the suppliers to return a favour as a manner of paying back tokens that were given. It will also protect them from being manipulated by service providers and they will be able to perform their functions ethically.

The effectiveness of procurement is a challenge in the field of acquiring goods and services. The organisation's effectiveness in carrying out its mandates is measured by two performance factors, which are value for money and cost-saving opportunities. Effective procurement processes will result in high cost savings as the departments are purchasing in bulk. Hence the demand management should be able to identify potential goods and service that can be allocated to the local communities to assist in creating job opportunities (Maki, 2012).

South Africans are becoming impatient with Government for failing to honor their promises to provide necessary services as guaranteed in the Constitution. Failure by government departments to deliver basic services such as electricity, water, roads and improved access to health services has resulted in an increasing number of service delivery protests around the country, as communities are expressing their disaffection to the authorities (Matebesi, 2015). KwaZulu-Natal citizens are dissatisfied with the services that are provided by the government sectors and tax payers' money is not utilised effectively or efficiently. The province spends

large sums of money on irregular expenditure and as a result people are deprived of their rights to satisfactory services (Auditor & General, 2015).

Tenders are awarded to service providers who do not care about quality but are mainly interested in enriching themselves at the expense of the community. The misuse of public resources has a huge impact on the development of the province and on economic development. Tenderpreneurs loot millions of rand from the taxpayer's due to the lack of proper monitoring and evaluation systems within government institutions (Heath, 2010).

The supply chain management process is an essential tool for service delivery. One of the Millennium Development Goals of the government is poverty eradication and job creation. Public procurement processes have a crucial role in ensuring that this goal is achieved. The Department of Transport should ensure during strategic planning processes, it aligns its strategic plan with provincial mandates and priorities to ensure development. The department is required to develop small-, medium- and micro-enterprises and historically disadvantaged individuals to ensure that new jobs are created and women and physically challenged people are empowered so that they can support themselves and be able to transfer skills to their communities to enhance the economic and social well-being of their fellow citizens (PPPFA, 2000).

Procurement regulations were introduced to make public procurement processes more effective and cost efficient. They also enhance the process of acquiring quality products or services and stimulate fair competition between various organisations in the market. The KZN provincial government annually spends large sums of money on goods and services to ensure effective service delivery within the province (Loxton, 2012).

Malpractices and unethical behavior by public officials within the supply chain management divisions of public entities have a great impact on service delivery. The supply chain management system is the backbone which should ensure that government objectives are achieved effectively and efficiently. Public procurement processes deal with the way goods and services are acquired. Departments rely on contractors, retailers and service providers to be the drivers of service delivery. The appointment of the right bidders or service providers to successfully deliver the desired objectives of the department is the key to achieving the desired results (KwaZulu- Natal Department of Transport, 2016). The KwaZulu-Natal Department of Transport's vision is "Prosperity through mobility". The activities of the Department should contribute to increasing the wealth and quality of life of all the citizens of the province. The

Department of Transport can only achieve its vision by focusing its energy and attention on performing its core function, which is providing the public with a road infrastructure system that is safe, integrated, regulated, affordable and accessible (KwaZulu- Natal Department of Transport, 2016). The KwaZulu-Natal Department of Transport is allocated R9.5 billion for the 2016/17 financial year, 73 percent of which is allocated to roads construction and maintenance (Treasury, 2016). It would be impossible for the department to carry out its mandates without supply chain management.

Supply chain management refers to the procurement of goods, products and services of the right quality in the right quantities at the right time (Badenhorst-Weiss, 2011). “Supply chain management is the integration of the activities that procure materials and services, transform them into intermediate goods and final products, and deliver them to customers” according to (Heizer J., Render, & Barry, 2006). (Fourie, 2009), explained that there are several elements in the supply chain management, namely demand management, acquisition management, logistic management and disposal management. The figure below illustrates the basic features and components of the supply chain management system. It depicts how processes are supported by policies, procedures and systems.

Supply Chain Management Model

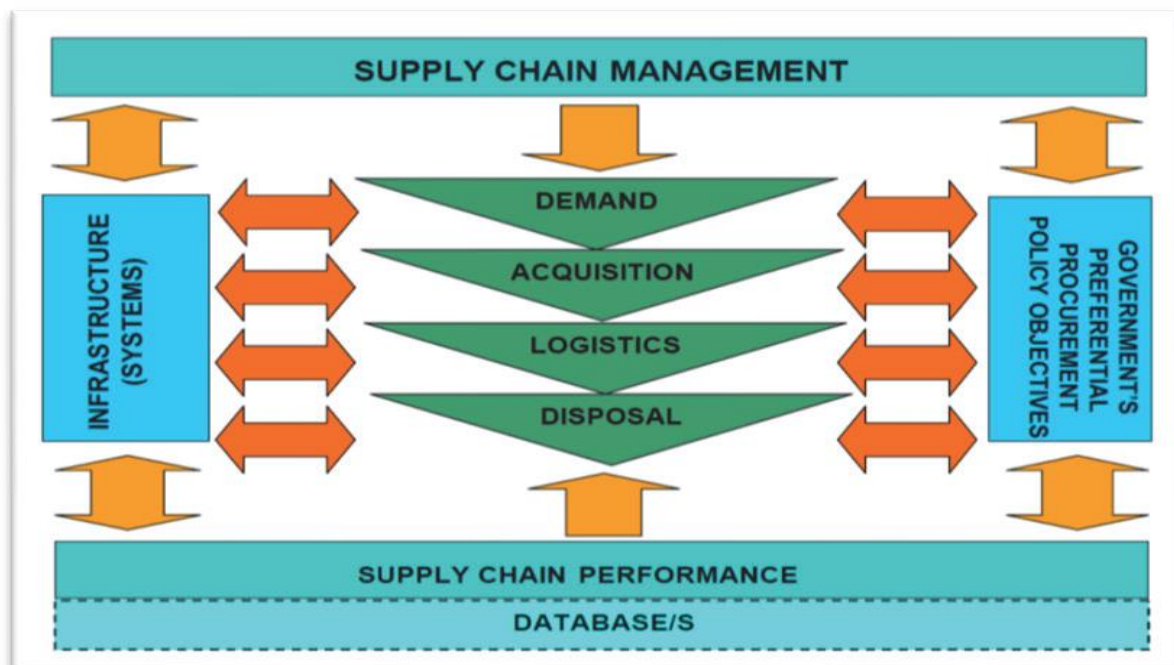


Figure 2.1 Generic Elements of Supply Chain Management Model

Source: (National Treasury, 2015) p. 28.

Demand Management is aimed at ensuring that goods and services required to support the strategic objectives of the organization are timeously delivered at the right place and value for money is achieved (National Treasury, 2015). Needs analysis and assessments informed by policies, norms and standards on service delivery are determined. Understanding the future needs and identifying critical delivery dates and linking the requirements with the budget is the important role that is played by demand management (Dobler & Starling, 2012).

Demand management is also defined as the pretender stage in the supply chain management cycle. It is involved with needs assessment, planning and budgeting. The suitable procurement strategy that will be used to approach the market is devised in this stage (Loxton, 2012).

In this stage, the procurement plan is compiled indicating what services will be delivered by the organisation in the short, medium and long-term. The KwaZulu-Natal DOT, planning cycle is depicted in Figure 2.2 below.

Planning Cycle

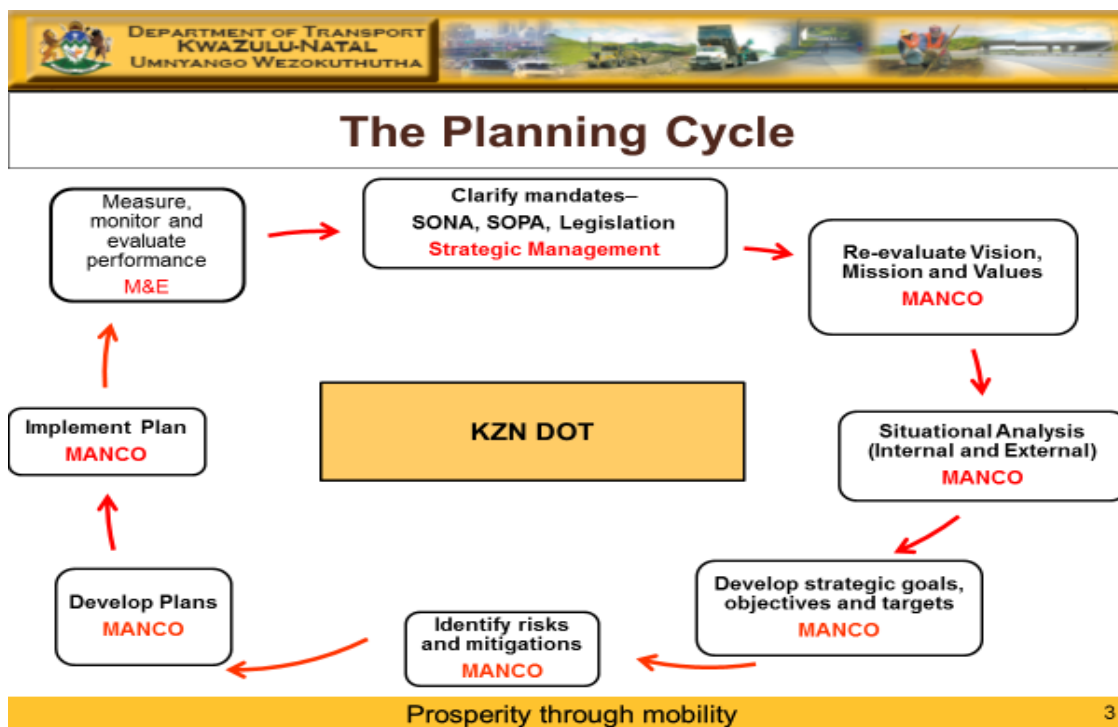


Figure 2.2 KZN DOT Planning Cycle

Source: DOT, 2015

Acquisition management outlines the procurement strategies that will identify how the market will be approached in executing the service delivery objectives of the organisation. Procurement plans indicating the timelines for advertising, closing tenders and awarding

contracts are outlined and major risks are identified as well as how they will be managed or mitigated to ensure that service delivery is not compromised (Badenhorst-Weiss, 2011). Bids or quotations are invited, evaluated and adjudicated in this stage. Information that is put in the quotation or bid documentation should be clear and must have the details of the product or services that are to be procured (Badenhorst-Weiss, 2011). Clear procedures for opening the quotation or bid box must be adhered to and the information should be disclosed to the public and be recorded in the bids register (National Treasury, 2015). Acquisition management is a critical aspect of the preferential procurement policy as it ensures meaningful participation of all the South Africans in the economy of the country (Robert & Engel, 2010).

Logistic management can be defined as the area of support management that entails the planning, implementing and controlling the effective and efficient flow of raw materials. It is involved with inventory processing, finished goods or completed products, services rendered and related information from the consumption point to conforming to service delivery requirements (Thachil, Thomas, & Ottarackal, 2014). Logistic management is also defined as the post-tender stage that entails contract management, issuing of orders to the successful bidders, and processing payments. This stage should be properly monitored to ensure the goods and services are delivered according to the specification (Naidoo, 2010).

Disposal management is the stage where obsolete, unserviceable and redundant assets are disposed or transferred to organisations that will benefit from utilising them (KwaZulu- Natal Department of Transport, 2016).

The supply chain management processes for providing and maintaining infrastructure are similarly illustrated in Figure 2.1, however there are differences between the supply chain for goods and services and infrastructure as illustrated in Figure 2.3.

SCM Model for General Goods and Services and Infrastructure

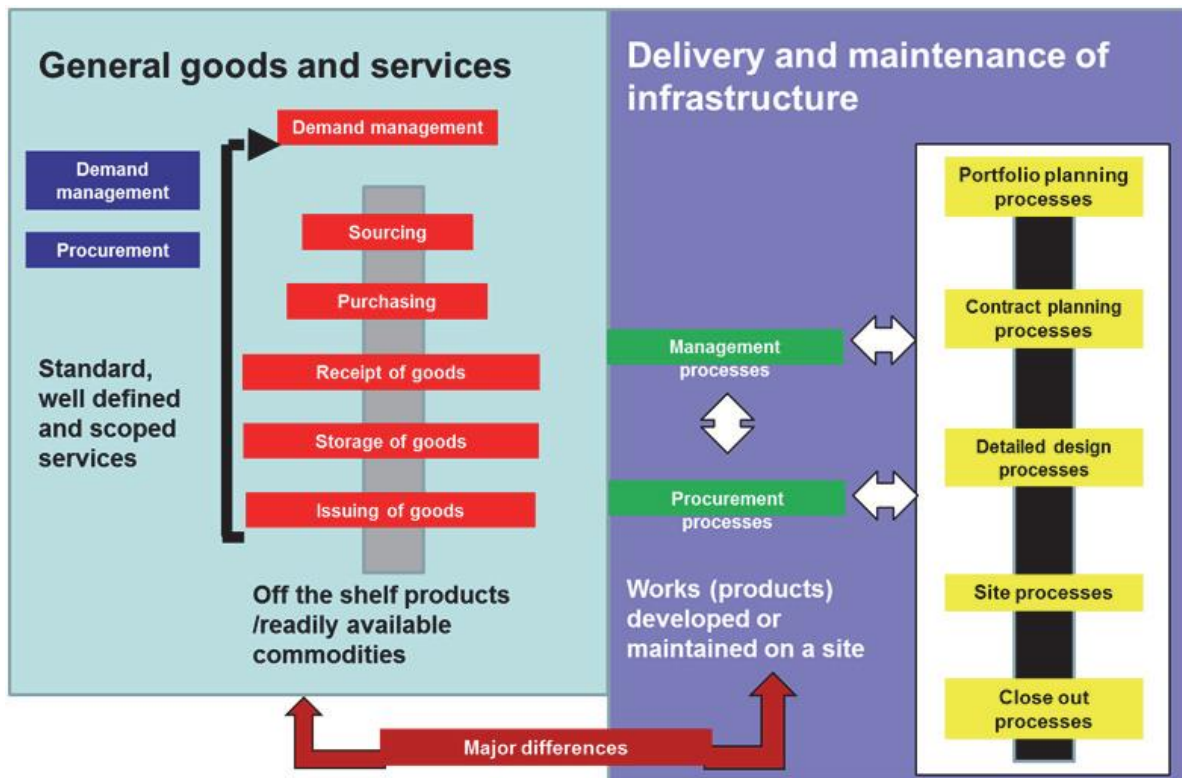


Figure 2.3 Differences between SCM for Goods and Services and for Infrastructure

Source: National Treasury, 2015, p. 28

The Construction Industry Development Board (CIDB) Act, established in 2000, promotes the “implementation of policies, programmes and projects to standardise and create uniformity in procurement documentation, procedures and practices within the construction framework of government procurement policy” (National Treasury, 2015).

Strategic sourcing is important as it enables supply chain managers to plan, manage and strategise. It also enables them to develop the supply base for intelligent procurement and informed business decisions. It allows for creation and classification of goods and services in government spending portfolio (Olson, 2010). It also allows for the leveraging points in the procurement areas where the government has a buying power to influence the industry and develop relevant sourcing strategies that will minimise cost and increase the benefits and value of the service to the government (Davis, 2014). The benefits of the strategic sourcing within the public sector include:

- Leveraging the government buying power;
- Reducing duplication of efforts;

- Reduction of inconsistency in prices between the government departments and private and public sectors;
- Encouraging common government policy positions;
- Encouraging the development and application of the uniform specification for common commodities;
- Creating expertise among the supply chain management practitioners and reducing complexity;
- Increasing government efficiency; and
- Improving vendor performance. (Salazar, 2012)

The supply chain management system is a tool that enables interfaces between service providers, suppliers and customers to ensure that goods and services are supplied (Salazar, 2012).

It is a chain that contributes to the exchange of information and the communication of orders and instructions that ensure that the goods and services required are made available. “Supply chain management is based on the five core principles of procurement, which are value for money, open and effective competition, ethics and fair dealings, accountability, and reporting and equity” (National Treasury, 2015).

The KwaZulu-Natal Department of Transport spends eighty percent of its budget annually on goods and services. The budget is spent mostly on capital projects, namely the construction, repair and maintenance of provincial roads (KwaZulu- Natal Department of Transport, 2016).

The most important thing to make supply chain management effective is to develop good relationships with service providers and develop good partnerships with them in realising the strategic goals of the organisation (Heizer J., Render, & Barry, 2006). Long term strategic relationships with the service providers will yield great benefits to the organisation. For the KZN Department of Transport to deliver on its core mandates, it is crucial that good relationships are established with its contractors and sustained to ensure that high quality services are delivered to the customers without any delays (DOT, 2015).

Open and transparent supply chain management is a powerful tool that can be used to ensure good governance, quality service delivery and value for money. The public has the right to access public sector supply chain management information (Ankerstjeme, 2015). The information that should be available for public consumption is highlighted in the table below:

Table 2.1 Information for Public Consumption

SCM Phase	Publication
Demand Management	Annual procurement plan
	Business plan or operational plan
Acquisition Management	Bidding documents
	Published bid opening registers
	Bid evaluation report
	Bid or quotation awards
Logistic Management	Amendments notices on the contracts
Disposal Management	Advert of the public auction sale

Source: Researcher

2.3 Legislative Mandates Governing Supply Chain Management

The KwaZulu-Natal Department of Transport supply chain management system is governed by various legislative frameworks, namely, the Constitution of the Republic of South Africa 108 of 1996 (Section 217), the Public Finance Management Act 29 of 1999, which promotes the objectives of good financial management in the National, Provincial and Local Structures of government, the Preferential Procurement Policy Framework Act and the Broad Based Black Economic Empowerment Act which together established a code of good practice to inform the development and implementation of preferential procurement policy, and the treasury regulations. These frameworks were introduced to ensure that supply chain management is conducted in a fair and transparent manner.

2.3.1 Constitution of the Republic of South Africa 108 of 1996

Section 217 of the South African Constitution stipulates that when an organ of state contracts for goods or services, it must do so in accordance with a system that is fair, equitable, transparent, competitive and cost effective. Fairness means that when a government entity is procuring goods and services, it should do so without discriminating against anyone; all people should be treated equally and without prejudice. However, the Constitution has made provision

for the “equitable or preferential treatment of certain contractors” when awarding government contracts (VanRooyen, 2015). Transparency means that the state procurement or sourcing procedure should be open. Goods or services should be advertised in a publication that is easily accessible to the public. The criteria on which tenders will be evaluated should be known, and the awards should be advertised (VanRooyen, 2015).

Section 217 of the Constitution deals with the way goods and services can be sourced effectively and efficiently without favoritism, giving everyone an equal opportunity. It articulates the well-known principles of fair and transparent procurement processes where people are accountable for their actions. If supply chain management were implemented as articulated in the Constitution of the Republic of South Africa, it would yield enormous benefits and boost economic growth. Those who rely on government for support would be developed and would become able to sustain themselves. Open and transparent bidding are critical elements of any public-sector supply chain management (National Treasury, 2015).

2.3.2 Public Finance Management Act 29 of 1999 (PFMA)

This bill promotes good governance in managing the public resources in all three spheres of government. The Public Finance Management Act (PFMA) also modernises the system of financial management in the public sector to enable officials in public sector management to manage and be accountable. The PFMA compels the supply chain management practitioners to manage tenders in an economical way. If they mismanage the funds of the government, they should be found guilty of misconduct (Fourie, 2009).

The Act further stipulates that accounting officers in different departments are responsible for the efficient, effective, transparent and economical use of the resources of the departments, and that they should take appropriate steps to prevent fruitless and wasteful expenditure. The Act requires the accounting officers to ensure that they do everything in their power to prevent irregular and unauthorised expenditure (Thachil, Thomas, & Ottarackal, 2014).

2.3.3 Preferential Procurement Policy Framework Act 5 of 2000 (PPPFA)

The PPPFA gives guidance on the implementation of preferential procurement policies as provided for in the Constitution. It also explains the formulas that are used to calculate the preferential points. The Act stipulates that departments should plan properly to estimate accurately the cost of the services provided. The preferential points used must be stipulated for all quotations, bids or tenders that are invited. The evaluation and adjudication process should be clear. Goods or services designated for local production or local content should be

determined. The two preference point systems that are used are 80/20 for functionality and capacity or 90/10 for goal related development objectives, depending on the estimated rand value of the services or goods required.

2.3.4 Broad Based Black Economic Empowerment Act 53 of 2003 (BBBEEA)

This legislation promotes black economic liberation and transformation. The main aim is radical economic transformation. It ensures that opportunities are given to advance the skills and meaningfully participation in the economy. Rural and local communities are developed and enabled to access finance that will assist them in participating in economic activities. Radical transformation in the management structures of the existing enterprises is encouraged. Historically disadvantaged individuals are given opportunities to develop their skills through training interventions. Programmes that educate and empower black people are designed. Laws that compel South African enterprises to employ black people are enforced (Campbell, 2014).

The KwaZulu-Natal Department of Transport has a responsibility to ensure that it promotes Small Medium Micro Enterprise (SMMEs), entrepreneurship and youth development. It should implement and enforce BBBEE and build capacity in and mentor small enterprises. The Department is also expected to strengthen the economic development of women and support women's entrepreneurship. The department must support and promote economic transformation through the awarding of R2 031 billion worth of contracts to emerging contractors in support of skills alignment to economic growth (DOT, 2015).

Empowerment also involves skills development and capacity building initiatives that create opportunities for women, youth and people with disabilities to participate in economic activities (Fuzile, 2015). The need for women's empowerment is because men and women have not been treated and given the same opportunities in our history, hence the act is aiming at providing skills and opportunities to women. Youth in our country also lack skills and are highly affected by unemployment. People with disabilities are excluded from the larger scheme of things (BBBEEA, 2003).

2.3.5 Prevention and Combating of Corrupt Activities Act 12 of 2004

This legislation strengthens and provides measures to combat and prevent fraud and corruption. It also establishes and endorses a register that will prohibit individuals or entities that have been convicted for fraudulent and corrupt activities relating to tenders and contracts, from being awarded further contracts. This piece of legislation also creates awareness of the importance of reporting fraud and corruption (Mdlongwa, 2014).

2.3.6 Municipal Finance Management Act 56 of 2003 (MFMA)

The Municipal Finance Management Act (MFMA) promotes the ethical behaviour of officials and all stakeholders involved in SCM. The Act also encourages the justifiable financial management that upholds treasury norms and standards in ensuring that supply chain management processes are followed by local governments when procuring goods and services. It further ensures that expenditure incurred by local governments is in line with the approved budget.

2.3.7 National Treasury Regulations

The National Treasury Regulations, issued in terms of the PFMA, prescribe the supply chain management system that should be followed by institutions. Supply chain management is the key mechanism that enables government to implement policy.

2.4. Objectives of Supply Chain Management

Supply chain management consists of the flow of goods and services from raw materials to end products by the integration of connected activities through sharing information and planning. The main objective of SCM is the effective amalgamation of suppliers. The retailers and storerooms with the intention to timeously distribution of materials to the right location in the right quantity to reduce the total system costs, face global competition, and meet customer expectations (Thachil, Thomas, & Ottarackal, 2014). According to (Chopra, 2013), the main objective of the supply chain management system is to improve the performance of the organisation and satisfy the needs of its customers by delivering quality goods and services. The objectives of the supply chain management are illustrated in Figure 2.4 below.

SCM Objectives

SCM Objectives		SCM Outcomes
<p>What? Establish objectives, policies, and operating footprint</p>	<p>Strategic</p>	<ul style="list-style-type: none"> • Objectives • Supply policies (service levels) • Network design
<p>How much? Deploy resources to match supply to demand</p>	<p>Tactical</p>	<ul style="list-style-type: none"> • Demand forecast • Production, procurement, logistics plan • Inventory targets
<p>When? Where? Schedule, monitor, control, and adjust production</p>	<p>Operational</p>	<ul style="list-style-type: none"> • Work center scheduling • Order/inventory tracking
<p>Do Build and transport</p>	<p>Execution</p>	<ul style="list-style-type: none"> • Order cycle • Material movement

Figure 2.4: Objectives of SCM

Source: (Brien, 2004), p. 206.

2.5 Benefits of Supply Chain Management

The benefits of supply chain management are to promote the use of targeted groups when procuring goods and services to comply with the preferential procurement act, and create an awareness of the upliftment of historically-disadvantaged individuals, create job opportunities and eradicate poverty by promoting South African-owned enterprises. It also emphasises the development of rural communities and empowers them so that they, too, can participate in the economic growth of our country (National Treasury, 2004). The targeted groups are black individuals, women, youth, disabled persons and co-operatives. To be able to benefit from the system, the targeted groups should meet certain requirements so that they can be considered for the preference point system or the contract participation goal. Their entities should be legal and they should be tax compliant (National Treasury, 2015).

2.6 Allocation of Preference Points

The Constitution of the Republic of South Africa requires that the implementation of supply chain management processes when procuring goods and services must be transparent, fair, competitive, equitable and cost effective (National Treasury, 2015). Within this framework, the application of preferential procurement points aims to ensure that socio-economic goals are achieved. The cabinet of the KZN province approved the supply chain management policy framework which introduced a preferential procurement system in 2005 (Thachil, Thomas, & Ottarackal, 2014). Formulae for calculating preference points were introduced in the PPPFA 5 of 2000. This system enables the demand management section to allocate the activities that can be given to local content when they are identifying and assessing the needs of the organisation that will help it to deliver services as their core mandates and ensure that the strategic goals are achieved. The allocation of preference points for the procurement of goods and services worth an estimated value of R30 000 up to R500 000 per transaction is calculated using an 80/20 preference point formula. The eighty percent is for price, including capacity, functionality and qualitative requirements, and twenty percent is for development objectives (PPPFA, 2000).

Table 2.2 Preference Point System

PREFERENCE POINT SYSTEM		80/20
PRICE (including Capacity, Specific Resource Requirements, Qualitative Requirements and Functionality)		80
DIRECT PREFERENCE POINTS	BLACK	7.5
	WOMEN	2.5
	DISABLED PERSONS	2.5
	PRIORITY POPULATION GROUP	2.5
	CO-OPERATIVES	2.5
	YOUTH	2.5
Total points for development objectives		20
Total adjudication points		100

Source: (KwaZulu-Natal Provincial Treasury, 2006).

For goods and services with an estimated value above R500 000, a 90/10 preference point formula is used. Ninety percent is allocated for price and ten percent is awarded on the basis of a contract participation goal related to development objectives.

2.7 Core Principles of Supply Chain Management

Supply chain management is based on five core principles of procurement which are “value for money, open and effective competition, ethics and fair dealings, accountability and reporting, and equity” (VanRooyen, 2015). These principles are the backbone of supply chain management and they were introduced by the South African government to grow and stimulate Small, Medium, and Micro Enterprises.

2.7.1 Value for Money

Value for money is one of the most critical foundation of supply chain management principles. The Department does not necessarily achieve value for money by awarding the tender to the lowest contractor; rather, it is necessary to scrutinise the entire relevant cost and benefit before the decision to award or not is made. Unnecessary delays and fruitless and wasteful spending should be avoided at all costs (National Treasury, 2015). All supply chain management

activities should be conducted in a cost-effective manner that will ensure that value for money is achieved.

The optimal use of public resources should ensure that good quality services are delivered economically to achieve the desired outcomes. Projects implemented should be aligned with the strategic goals of the departments, and budget plans should be thoroughly discussed to ensure that value for money is achieved according to Standard for Infrastructure Development Management (National Treasury, 2015). Departments should commit themselves to ensure that the best possible results are obtained from the money spent.

While striking the balance between the three E's, which are economy, efficiency and effectiveness, the fourth E, which is equity, should not be overlooked, as indicated in the diagram below.

The Three E's (Economy, Efficiency and Effectiveness)

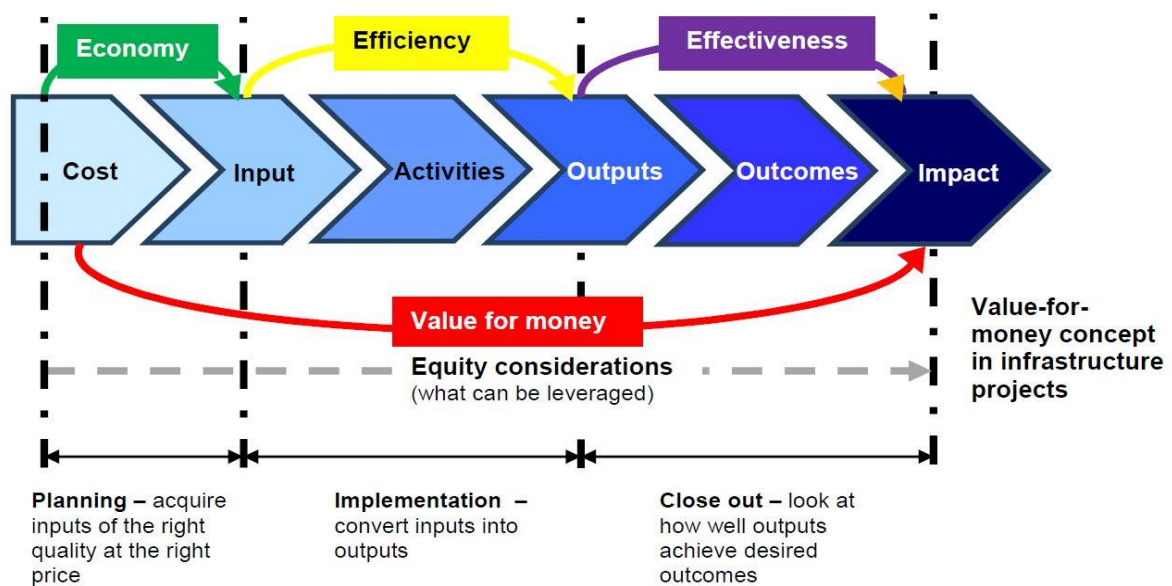


Figure 2.5 Value for Money

Source: (National Treasury, 2015), p. 6.

2.7.2 Open and Effective Competition

The policies and procedures that are followed in supply chain management should be transparent and accessible to all relevant stakeholders. Compliance with the rules should be maintained, and deviation from following the procedure should not be encouraged or accepted.

Departments should ensure that they put all their efforts into researching the best possible outcome from the market, thereby ensuring that favouritism and bias are eliminated. All potential contractors should be given an equal opportunity to compete fairly. Invitations for quotations or tenders should be advertised in the tender bulletin and in relevant media which are accessible to all contractors (National Treasury, 2004). In contradiction, (Hof, 2016) argued that open competition is not always effective competition.

He further states that open tender bidding processes were introduced as a measure to combat fraud prevention by providing all potential bidders with the opportunity to quote; he noted that this was not a fully proven method against fraudulent behavior. Open tender does not prevent suppliers from colluding together; some even offer an additional discount.

According to (Hof, 2016), supply chain management should aim to maximise competition as opposed to quantity of bidders to get value for money. Open tender is not the only method but it is one of the many methods available. Supply chain management practitioners should familiarise themselves with various supply chain management pathways available and be able to select the most appropriate method suitable for a specific bidding activity (Hof, 2016).

2.7.3 Ethics and Fair Dealings

Supply Chain Management practitioners should conduct the organisation's business in a fair and ethical manner. Conflicts of interest should be declared and any fraudulent or corrupt activities should be avoided and reported so that those activities can be dealt with accordingly (Hof, 2016). Careful consideration should be given to dealings that involve departmental resources. The gifts that are given to officials as tokens of appreciation should be declared, and approval for acceptance should be sought from the relevant delegated official. Ethical decisions are very important for the long-term success of any business. In supply chain management, there is a great deal of unethical behavior due to the temptations that are posed by service providers to gain favours from practitioners (Heizer J., Render, & Barry, 2006). The Institute for Supply Chain Management has derived principles and prescribed the way all supply chain practitioners should behave to ensure loyalty to the organisation that they are working for, to treat all potential bidders with justice and to respect their own profession. These principles are diligently complying with the best practices as outlined by the employer, conducting supply chain management activities in accordance with global and national legal frameworks, and promoting healthy supplier relationships through courtesy and impartiality. Practitioners are also expected to maintain and acquire professional competence and support SMMEs,

previously disadvantaged entities and minority owned businesses (Institute for Supply Chain Management, 2002).

2.7.4 Accountability and Reporting

According to Olson (2010), accountability means that all supply chain management decisions should be traceable and justifiable to ensure that tax payers' money is not wasted. Financial transactions should be traceable, and goods and services that are procured should be justifiable through different levels of supply chain management processes as per the International Defense Acquisition Resource Management (IDARM). Globally, accountability in supply chain management is a major challenge.

In many instances, goods and services are procured without considering the objectives of the departments. Bad decisions are taken and nobody is held responsible and accountable for the bad decisions. All individuals within the supply chain division should be accountable for their actions. Transparency and openness are the most important elements of accountability. Reporting requirements for supply chain management should be adhered to at all times. The head of department is accountable to the minister on the supply chain management activities for the department that he/she is heading. Supply chain management reports should be scrutinised and utilised by management to ensure that meaningful decisions and necessary steps are taken to eliminate wastage (PFMA, 2014).

2.7.5 Equity

Historically disadvantaged individuals should be empowered and given opportunities to advance themselves to participate in the economic growth of our country. Government departments should ensure that they implement the Preferential Policy Framework that is aimed at promoting women, local entrepreneurs, youth and physically disabled people (PPPFA, 2000). The Constitution of South Africa emphasises that government departments should apply and observe policies that are designed to promote disadvantaged individuals and give them opportunities to advance and empower themselves so that they can fully participate in the economic growth of our country (Badernhost-Weiss, 2010).

2.8 Functions of Supply Chain Management Committees in the KwaZulu-Natal Department of Transport

Sections 36 and 49 of the Public Finance Management Act (PFMA, 2014) clearly stipulate that the accounting officer is accountable for departmental supply chain management. The powers for determining the awarding of contracts with financial implications for the Department are solely vested in him.

Though the accounting officer is empowered to delegate decisions, he cannot delegate accountability and cannot distance himself as he is responsible for ensuring the effective and efficient running of the department. Supply chain committees are appointed in writing by the Head of the Transport Department (PFMA, 2014). All members of the supply chain committees and their families are prohibited to tender for any work which is considered by the committee.

2.8.1 Supply Chain Management Documentation Committee

The supply chain documentation committee is responsible for developing and reviewing tender documents to ensure that quality assurance standards are met in terms of the type of goods or services that are required by the department in accordance with the constitution of our country. Specifications should be developed in an unbiased manner to give all potential bidders an equal chance to compete fairly (KwaZulu- Natal Department of Transport, 2016). The chairperson should be an appropriately skilled employee from the Department of Transport and should be registered as a professional engineer for all infrastructure projects. The end user should also be included in the committee, and one or more officials from the supply chain management component.

2.8.2 Bid Evaluation Committee

The bid evaluation committee's function is to evaluate the bids or tenders received and verify the ability of the bidder to execute the contract from a managerial and financial perspective.

The committee should also check that the bidders are complying with the relevant legislative framework prescribed by the provincial treasury and the relevant statutory bodies. The committee should also ensure that bidders' entities are registered on the supply chain database and are compliant with South African Revenue Services (SARS) requirements. Value for money should be considered when evaluating tenders (KwaZulu- Natal Department of Transport, 2016).

The bid evaluation committee must have three or more members and the chairperson should be an employee of the KwaZulu-Natal Department of Transport with the necessary skills. Once bids have been evaluated according to the specified criteria stipulated in the supply chain management documentation, the bid evaluation committee should compile recommendations and report to the bid adjudication committee members regarding the award of bids. Allocation of preference points should be considered when evaluating bidders (KwaZulu- Natal Department of Transport, 2016).

2.8.3 Bid Adjudication Committee

The bid adjudication committee should carefully look at the recommendations made by the bid evaluation committee, verify that the supply chain management processes were followed, confirm the validity and reasonableness of the reasons provided for eliminating bidders, identify risks that were overlooked, and investigate these before making a final decision. Once they are satisfied that the proper processes were followed, they can award the bid or tender to the successful bidder. This committee should be chaired by the chief financial officer and should include three senior officials of the department. A member of the evaluation committee cannot serve on the adjudication committee, unless he is participating as a technical advisor or subject matter expert (KwaZulu- Natal Department of Transport, 2016).

2.8.4 Ad hoc Committee Members

The accounting officer, who is the head of department, may invite any members on an ad hoc basis to participate in the bid evaluation deliberations because their skill and expertise will be crucial to making decisions regarding the matter to be considered by the committee. The co-opted members will have the same duties and powers as bid committee members, but they do not have the right to vote on any matters under deliberation (National Treasury, 2004). All members serving in the supply chain management committees should be delegated in writing by the accounting officer. A quorum should be obtained for any meeting to be convened by supply chain management committees. All information relating to bids documents should be treated as confidential. Attendance registers are to be signed for all meetings, and members should declare their interest before the meeting commences.

Minutes for every meeting should be documented and stored in a safe place for easy reference. Committee members should ensure that they comply and adhere with the necessary rules and procedures as stipulated in the relevant prescripts guiding supply chain management (National Treasury, 2004).

2.8.5 Board of Survey Committee (BOS)

The Board of Survey Committee is responsible for ensuring that all the redundant or unused assets of the department are disposed of economically and effectively. This committee is also appointed in writing by the Head of Department (HOD), (National Treasury, 2004).

2.9 Challenges Facing SCM and Service Delivery

The Constitution, as the supreme law of our country, has emphasised the role of all three spheres of government in serving the interest of the communities and ensuring that they fulfill the developmental role within the new dispensation. The Millennium Development Goals (MDGs) should be achieved to promote good governance and be geared towards radical economic transformation (IDASA, 2010). Service delivery has a major impact on the daily lives of South Africans and should be aimed at improving the living standards and quality life of the people. Government officials are required to carry out their responsibilities with prudence and in an efficient, transparent and accountable manner that will enhance service delivery.

Several factors contribute to the complexity of supply chain management challenges. Customers demand quality and innovative products that can satisfy their needs at a reasonable price at the right time which poses challenges for some organisations (Loxton, 2012). Attention is given to supply chain management due to the mounting pressures faced by organisations when trying to meet the customers' expectations and needs. Many organisations have adopted best practices such as lean operations and total quality management to improve quality and eliminate the excess cost from their system (Stevens, 2013).

2.9.1 Globalisation

Most organisations are faced with the challenge of how to minimise supply chain management spending. Some companies are relocating their manufacturing bodies to low cost countries globally to reduce direct and indirect costs and taxes, to ensure that they satisfy the customer's price expectations (Stevens, 2013). He further stated that globalisation also has some disadvantages such as high transportation costs due to poor infrastructure, unskilled labour that may negatively impact on quality and productivity, import restrictions and international borders security slowing shipment to other countries. Globalisation can also come with potential risks such as political instability and unrest, economic instability and terrorism which poses a threat to many parts of the globe (Stevens, 2013).

Having global suppliers comes with the significantly increased complexity of extended delivery lead times. Customers are not prepared to wait; while they expect low prices, they also want their goods and services to be delivered timeously. A global procurement network that can effectively support organisation supply chain management is very important (Sakhuja & Jain, 2012). Selecting a strategic supplier that provides manufacturing locations with consistent global quality and reliable local service is challenging (Chopra, 2013).

According to Heizer & Render (2006), global organisations can attract and retain global talent by offering more employment opportunities, and they can easily relocate their employees to different countries when they experience an economic crisis in a country; however, they are still faced with the challenges of reconciling differences in social and cultural behaviour. Issues such as child labour, environment and bribery may pose a challenge to managers operating in a different culture. What is legal in one's own country may be deemed illegal to another country. A change in international laws and agreements also presents a challenge. Globalisation can be beneficial to some organisations and will enable them to deliver services to their customers quicker. Various incentives may also be offered by national, provincial and local government to attract businesses that will boost the local economy and create job opportunities for communities to eradicate poverty and empower the citizens (Stevens, 2013).

2.9.2 Safety and Quality Products

The huge number of cases reported against both the public and private sector on service delivery issues indicates that communities are not tolerating poor quality services. Supply chain management should ensure that poor quality goods and services are eliminated from the system as organisations are often sued for damages, which in turn increases their liabilities and damages their reputations and trust on their capability to deliver services. (Heizer J., Render, & Barry, 2006).

2.10 Meaning of Service Delivery

In South Africa, the term “service delivery” is used to describe the distribution of basic resources needed by the communities to enhance their lives such as housing, land, roads, infrastructure, water and electricity. If these basic resources are not provided, the lives of people are endangered and they reiterate by protesting (Campbell, 2014). Service delivery is then a continuous recurring practice and means for improving, developing and delivery of concentrated services (Kanyane, 2013). Service delivery can further be defined in four stages:

- First stage: Customer participation and engagement – understanding the needs of the user is very crucial;
- Second stage: Service design and development – this refers to the process of creating, designing and developing services that ensures that the consumers’ needs and expectations are met;
- Third stage: Delivery – communicating, producing and disseminating products and services.
- Fourth stage: Evaluation and improvement – getting opinion, inputs, criticism and performance metrics to evaluate and improve on products and services. (WMO, 2015).

Integration and collaboration of different service operations performed in various institutions to deliver services efficiently and effectively to meet the customers satisfaction is necessary (Sakhuja & Jain, 2012). This integration can be done through a service supply chain that includes different stakeholders connected by a network of activities within organisations (Sakhuja & Jain, 2012).

The public sector is pressurised to respond to the basic needs with limited financial resources and technical capacity. The need to transform the lives of the communities was underpinned by the government acceptance that service delivery is not a pleasure that should be appreciated and adored by a few but is the rightful and constitutional expectation for the people (Kanyane, 2013).

The escalation of violent service delivery protest across the country, with people frustrated at the slow pace of government to transform the lives of people, has become endemic in South Africa in recent years (Mdlongwa, 2014). The tedious supply chain management processes hamper the quality and effectiveness of service delivery which results in slow rollout of services (Mdlongwa, 2014).

2.11 Key Elements of Service Delivery System

The success of any organisation lies in its ability to satisfy its customers’ needs. It is very important for management to devise the service management model that will enable the organisation to execute and implement their strategic goals effectively and efficiently. “Designing the service delivery system should focus on what creates value to the core functions of the organization and how to engage frontline employees to deliver the ultimate customer

experience” (Ankerstjeme, 2015). He further suggested that for the service delivery system to be effective, four key elements must be in place, namely:

2.11.1 Service Culture

Service culture is built on elements of leadership principles, vision, mission and values of the organization. Culture is the overriding principle, to which management controls, maintains and develops the social process that manifest itself as service delivery and gives value to the customer, (Ankerstjeme, 2015).

2.11.2 Employee and Stakeholders Engagement

Employee engagement is the “moderator between the design and the execution of a service delivery model” (Ankerstjeme, 2015). It entails human resource processes including employee attitudes activities and purpose driven leadership (Ankerstjeme, 2015). It is very important for the Department to engage with all the stakeholders and build a good relationship that will assist in delivering services to the communities. The partnership with all the stakeholders will accelerate and improve service delivery as everybody will be working towards achieving one goal (Campbell, 2014).

2.11.3 Service Quality

This entails strategies that are devised to improve processes that will enhance performance management systems within the organisation. Service quality is important and essential. Attaining the mission and strategic goals of the organisation are the foundation of any service provider partnership (Ankerstjeme, 2015). Effective delivery of quality services by the Transport Department is crucial to the public as it ensure that the public funds are not wasted (Fuzile, 2015).

2.11.4 Customer Experience

Successful service delivery is based on meeting the customer expectations. Perception of the customer on service delivery is crucial for continuous improvement of an organisation’s processes and systems. Customer is king and customers’ perception on how the organisation’s goals are achieved is very important (Ankerstjeme, 2015).

2.12. Importance of Delivering Excellent Service

Creating organisation values is a journey. Service delivery should not be compromised and disrupted for the organisation to achieve its objectives efficiently and effectively (Weinzimer, 2014). The following seven steps should be followed to address service delivery challenges:

1. Identify business and community services required by business units;
2. Identify key stakeholders and priority for each business unit;
3. Develop enterprise list of business services;
4. Socialise across enterprise;
5. Develop and execute work plan;
6. Measure service delivery;
7. Continuously improve, (Weinzimer, 2014).

These steps will enable the organisation to deliver excellent services to its customers and gain a competitive edge. Trust is very important in delivering excellent services to the citizens. The White Paper on Transforming Public Service Delivery outlines the eleven “Batho Pele” service delivery principles to ensure effective service delivery: “(1) consultation; (2) service standards; (3) access; (4) courtesy; (5) information; (6) openness and transparency; (7) value for money, (8) redress, (9) encouraging innovation and rewarding excellence, (10) customer impact and (11) leadership and strategic direction” (Whitepaper, 2006). These principles were conceived with the intention to transform and improve service delivery within the public service. The need to honour promises made to the citizens who put authorities in power is very important to avoid service delivery protest (Moeletsie, 2017).

According to Max du Preez, “South African authorities have recorded a staggering of 3000 protest actions between January 2009 and August 2012” (Du-Preez, 2015). When South Africa’s police services are called to monitor the service delivery protests, they do not record them as protests but are recorded as crowd related incidents. These incidents are further divided into “peaceful” or “unrest-related” events. Police statistics revealed that the police recorded 14 470 crowd-related incidents in 2014/15.

Table 2.3: Crowd-related incidents

Crowd-related incidents	2012/13	2013/14	2014/15
Peaceful incidents	10 517	11 668	12 451
Unrest-related incidents	1 882	1 907	2 289
Total	12 399	13 575	14 740

Source: South African Police Statistics, 2014/15

Service delivery protest paints a negative picture of South Africa locally and abroad. The impression that that is given by the protests is that the government is failing to deliver basic services to the citizens (Heath, 2010). This affects the economic growth of the country.

Issues in transport and supply chain management that have been in the spotlight in 2015, include:

- “Continuous debates on the current e-toll system in Gauteng and potential e-toll system in Western Cape” (Godi, 2015);
- “A tragic consequence of the pedestrian bridge that collapsed in Sandton” (Matebesi, 2015);
- “Irregular expenditure at the Passenger Rail Agency of South Africa (PRASA) and the departure of its CEO” (Godi, 2015);
- Decline in the number of employees in the transport, storage and communications sector (STATSA, 2015);
- “Guarantees to South African Airways of almost R6, 5 billion to take the total guarantees granted to the airline to R14. 4 billion” (Gordhan, 2015);
- Hijackings and road crashes;
- Pedestrians accounting for 33% of the approximately 13 800 road deaths (WHO, 2015).

2.12.1 Service Delivery Protests Reasons

According to (Naidoo, 2010), service delivery issues can be solved through the improvement of supply chain management. He further stated that supply chain management has an inseparable link to long term quality service delivery. Poor monitoring of performance

management and failure to understand the dynamics of supply chain management result in major challenges on service delivery issues (David M, 2014). Some of the challenges that were identified by the research unit of Parliament were as follows:

Violation of supply chain management resulting in tender irregularities that fueled fraud and corruption that undermines service delivery (Godi, 2015).

Poor governance and lack of internal controls poses financial challenges facing the government institutions in ensuring that effective and efficient service delivery is achieved (Godi, 2015).

Political interference demanding accounting officers to take decisions that are contrary to the PFMA and supply chain management framework (Godi, 2015).

Political appointments resulting in appointment of personnel who do not meet the minimum requirements and professional qualification for attaining key positions within the government institutions, results in poor service delivery (Godi, 2015).

2.13 Summary

This chapter has presented a literature review on the aims and objectives of supply chain management. The core principles of supply chain management were discussed in this chapter. The legislative framework governing supply chain management was also discussed. Benefits and challenges facing supply chain management were discussed.

Functions of the supply chain management committees were highlighted. Supply chain management is a vehicle which aims to ensure that previously disadvantaged groups are empowered and developed so that they can fully participate in the economic growth of the country. It is critical for everyone who is involved in supply chain management to ensure that they behave in an ethically acceptable manner to yield the desired results that will benefit communities.

The meaning of service delivery is explained in this chapter. The key elements of service delivery are outlined and the eleven “Batho Pele” principles for transforming the public sector are outlined. The next chapter deals with the research methodology, research design and the sampling strategies that were applied.

CHAPTER THREE: RESEARCH METHODOLOGY

3.1 Introduction

This chapter clarifies the reasons why this study was conducted. The type of research methodology and the techniques that were utilised are discussed, and it highlights the research design, the samples that were chosen and the way in which the data was collected.

3.2 Research Design

Research design is the “blueprint or plan” that we use to find research participants and collect information from them on the phenomenon to be studied (Welman, Kruger, & Mitchel, 2005). It enables the researcher to specify and outline what needs to be done with the participants to reach a conclusion on the research problem that is studied. The research design should outline the data collection methods, the tool development processes and the sampling methods undertaken in conducting investigations.

The study was conducted using an exploratory research design and a qualitative approach as this was more appropriate than the quantitative methodology. Qualitative research deals with the essential, vital and necessary qualities of subjective experiences and the interpretation associated with the problem (DuPlooy, Davis, & Bezuidenhout, 2014). Qualitative data is descriptive and interpretive in nature as it is an open process of engaging with texts with an attitude of enquiry and aims to describe the research problem. It was deemed necessary to use a qualitative approach as it would enable an understanding of the subjective experience of the participants, to be gained. (Davis, 2014), stated that qualitative research approach provides for more diversity in the responses from the participants and it also build capacity to new developments during the investigation.

3.3 Research Methodology

Research methodology refers to the route pursued by a researcher when investigating a phenomenon to understand it better or find ways to solve it. It is a systematic way of solving the research problem. A qualitative approach and qualitative methodology was utilised in conducting this study.

(Denscombe, 2007), Defined qualitative research methodology as research whose procedure describes data in people's own words. Observations are not quantified and subjected to statistical analysis. He further maintained that qualitative research methodology gives the researcher an opportunity to encounter people as they confront their daily struggles in real life (Denscombe, 2007).

The empirical point of departure is the participant's idea, as it emphasizes and pay attention on the actual experience encountered by the person. A qualitative research methodology allows for the discovery of unanticipated findings and the possibility of altering the research plan in response to unexpected discoveries.

It was thought that a qualitative research design was best suited to this investigation because the data instruments could be prepared in advance and interviews would be conducted to obtain important information about the public officials', service providers' and suppliers' opinions on the influence of supply chain management on service delivery. The focus was wide and examined the breadth and depth of the phenomenon unlike in a quantitative research study where the focus is narrow and which tests a specific hypothesis (Wyse, 2011).

3.4 Study Site

The study was conducted at KwaZulu-Natal Department of Transport, in the Pietermaritzburg region. The total number of fifteen participants within the supply chain management environment background and setting were selected to participate in this study. Only participants from the Pietermaritzburg region were nominated. Participants were purposively selected as below:

Table 3.1: List of Participants

AREA	DESIGNATION/ ROLE
Head Office	Director: Supply Chain Management Director: Accounting and Financial Services Deputy Director: Finance and SCM Control Engineering Technician: Pietermaritzburg Region Control Engineering Technician: Ladysmith Region Control Engineering Technician: Durban Region Control Engineering Technician: Empangeni Region Control Engineering Technician: Transport Infrastructure and Regional Services
Cost Centre PMB	Assistant Director: SCM Control Engineering Technician: Naidu Consulting
Cost Centre Ixopo	Senior Administrative Officer: SCM Control Engineering Technician: Samani Consulting
Pietermaritzburg	Sinothando Construction: Contractor Kerush's Transport: Contractor Goplan Homes: Contractor

Source: Researcher

3.5 Target Population

According to (Bhattacharjee, 2012), a “population can be defined as all the units that the researcher is interested in”. The population used in the study consisted of senior and middle managers, supply chain management practitioners, service providers, project managers and consultants within supply chain management.

3.6 Sampling Strategies

Sampling techniques are divided into two categories: probability sampling, which includes simple random, systematic, stratified, matched pairs, multi-stage and cluster sampling, where units or people have an equal chance of inclusion in the study. The second category is non-probability sampling, which includes convenience, purposive, expert, snowball and quota sampling, where units or people are selected based on the judgment of the researcher (Bhattacharjee, 2012). Non-probability sampling was used in this study to enable the researcher to select units from the population as required by the study. The advantage of using non-probability sampling is that it is quick and it is cost effective (Johnson & Christensen, 2008). Not all the population members were given an equal chance to participate in the study and purposive sampling was used.

Purposive sampling is applied to those cases where researchers have knowledge about specific people or events, and deliberately select units with a specific purpose in mind. That purpose reflects the qualities of the people chosen and their relevance to the phenomenon being investigated or studied (Denscombe, 2007).

The advantage of using purposive sampling in this study was that it allowed the researcher to select people that she believed were critical for the research and would be able to provide in-depth information on the topic that was being investigated (DuPlooy, Davis, & Bezuidenhout, 2014).

3.7 Sample

“A sample is a subset of population that is selected to represent the entire population where a study conducted (DuPlooy, Davis, & Bezuidenhout, 2014). The sample in this study consisted of supply chain management practitioners, project managers, project consultants and service providers. The participants were targeted based on their understanding of the influence of supply chain management on service delivery. The study was conducted at KwaZulu-Natal Department of Transport at head office and in the Pietermaritzburg region only. Most of the supply chain management is centralised at head office level. The head office oversees projects from the whole of KZN, while regions are only responsible for the projects around their districts with the support of head office. The sample was not randomly selected and it was smaller compared to a quantitative research study where the units are randomly selected and the sample is large (Wyse, 2011).

3.8 An Overview of the KZN-Department of Transport

The KwaZulu-Natal Department of Transport head office is in Pietermaritzburg and it has four regions within KwaZulu-Natal as illustrated in Table 3.1 below.

Table 3.2: Synopsis of KZN DOT

BRANCH	DIRECTORATE	COST CENTRE
Head Office	Communication	
	Corporate Service	
	Financial Services	
	Strategic Planning and Monitoring	
Transport Infrastructure and Regional Services	Durban Region	Metro
		Port Shepstone
		Stanger
	Empangeni Region	Eshowe
		Ulundi
		Hluhluwe
		Vryheid
	Ladysmith Region	Estcourt
		Dundee
		Newcastle
	Pietermaritzburg Region	Ixopo
		Pietermaritzburg

Source: Researcher

3.9 Sample Size

The sample size is the total number of individuals engaged by the researcher when collecting data. The sample size determines whether the research is generalisable and reliable (Welman, Kruger, & Mitchel, 2005). Too large a sample size is not easily manageable and consumes considerable time and resources. On the other hand, if the sample size is too small, crucial research information can be missed and the findings will not be generalizable (DuPlooy, Davis, & Bezuidenhout, 2014).

For this study, a manageable sample size of fifteen people was drawn from the selected population to enable the researcher to gather more reliable and accurate information as indicated in the table below.

Table 3.3 Population Sampled

Participants	Number	Sample Size
SCM Practitioners	20	5
Project Managers	20	5
Project Consultants	10	2
Service Providers	15	3
Total	65	15

Source: Researcher

3.10 Data Collection Techniques

The data collection method refers to a systematic approach to data collection. Data collection techniques can be defined as the art of asking for, listening to and interpreting data (Bhattacharjee, 2012). An interview guide was designed to collect data. This allowed for flexible and revealing experience as it “is a list of topics and aspects that has a bearing on the given theme” (Wyse, 2011). The interview guide was refined as a result of a pilot study that was conducted.

Semi-structured interviews were used to collect data as this gave the opportunity to follow up on interesting issues that emerged during the interviews, thereby enabling valuable information to be gained through probing the respondents.

Semi-structured interviews were used as they offered enough flexibility to approach participants while still covering the same scope of data collection. Open-ended and closed questions were asked to collect more information on the influence of supply chain management on service delivery. This instrument was chosen to create a conducive environment for the researcher and participants.

(Welman, Kruger, & Mitchel, 2005), cautioned that the time allocated for data collection through interviews can be prolonged due to the need for setting up appointments, travelling,

the cancellation of appointments, and delays that may result in both the interviewer and interviewee not being able to honour the time that was scheduled for appointments. This was experienced as some of the participants had to cancel appointments due to other work commitments.

3.11 Pilot Study

A pilot study was conducted at head office of the KwaZulu-Natal Department of Transport to gain insight into what was important for this study. The pilot study involved interviewing two knowledgeable people from within and outside the organisation (DuPlooy, Davis, & Bezuidenhout, 2014). The initial interview guide was tested at the Financial Management Directorate in Pietermaritzburg. The director of the supply chain management unit was interviewed together with the deputy director of finance and supply chain management as they were both keen to participate in the pilot study. Important questions on the influence of the processes were added to the demand and acquisition management of the interview guide. Both participants affirmed that an effective supply chain management unit is a cornerstone of sustainable service delivery within organisations.

3.12 Data Analysis

The data collected in the semi-structured interviews was transcribed and converted into notes which were read and edited for accuracy prior to studying them. The data was studied using thematic techniques. Thematic analysis is a qualitative method for identifying, examining and reporting patterns within data. It entails minimally establishing a data set, describing it in detail and interpreting it in relation to various aspects of the research topic (Braun V, 2006). Four thematic analysis steps were followed in this study as indicated below.

Step One: Data Familiarisation

In this stage, the researcher had to read through all the transcripts that were collected from the semi-structured interviews to acquaint herself with the data (Ruggunan, 2013). Conceptual notes were made to tie and draw diverse information together. This allowed the researcher better interpretation and conversion of raw data into meaningful information.

Step Two: Generating Initial Codes

Interesting features of the data were coded in a systematic fashion across the entire data set. Relevant data was collated to each code to get potential themes (Ruggunan, 2013). Data sets

recurring patterns were generated. This coding was informed by research questions (Ruggunan, 2013).

Step Three: Discovering Themes

Themes and sub-themes discovered by the researcher from data coding were examined. This assisted the researcher to develop a list of themes (Ruggunan, 2013). Codes were examined and combined to form main themes in the data.

Step Four: Reviewing Themes

In this stage, themes were reviewed and some were removed as they did not have enough data to support them. Data was reduced further as the researcher wanted an internal coherence in themes and strong distinctions between themes were discovered (Ruggunan, 2013).

Step Five: Defining and Naming Themes

Themes were identified and examined for how they linked to the entire picture of the data to ensure that information was not distorted and misrepresented (Ruggunan, 2013).

Step Six: Writing the Final Report

In this stage, the researcher wrote the final report from the main themes and sub-themes. Decision was made by the researcher on themes to be reported. In particular those that allowed her to answer the main research question supporting and laying keystones to the study (Ruggunan, 2013).

3.13 Data Quality Control

In qualitative research, various criteria are used to determine the trustworthiness or credibility of the research findings. These criteria are “credibility, transferability, dependability and conformability” (DuPlooy, Davis, & Bezuidenhout, 2014). Credibility was the only measure that was employed in this study. “Credibility refers to the accuracy with which the researcher interpreted the data that was provided by participants” (DuPlooy, Davis, & Bezuidenhout, 2014). Sufficient details and supporting evidence was provided by the researcher to ensure that quality and credibility standards were met. The participants that were engaged in the study were effective in evaluating the integrity and quality of the research because of their experience in supply chain management environment. The findings of the study were verified by participants based on their perception and experience; they were the most suitable to verify findings since they had

provided the information. The respondents were in the best position to discuss the phenomenon investigated as they were experienced in supply chain management.

3.14 Reliability and Validity

For research data to add value and be useful, it must be reliable, consistent, usable and valid. “Reliability refers to the repeatability of findings if the study were to be done a second time by the same person or two different investigators” (Wood & Kerr, 2010).

The term validity in research means the credibility and soundness of the research. It determines how honest, straight and credible the research is (Carmine & Zeller, 2011). In this study two validity methods were used: face validity and content validity. These were utilised to safeguard the low level of validation associated with exploratory descriptive studies. “Face validity is obtainable when little or nothing is known about the variable being measures” (Wood & Kerr, 2010). Content validity is comparison of the content of the measuring technique to the known literature on the topic investigated (Wood & Kerr, 2010).

3.15 Trustworthiness and Credibility

Trustworthiness involves ensuring that the research procedures have been transparent, the research methods used are available for review and inspection and clear, rational reasoning can be provided (DuPlooy, Davis, & Bezuidenhout, 2014). This allows for any person, participant or coworker to understand the final research findings provided (Yin, 2012). Trustworthiness is divided into transferability, dependability credibility and conformability (DuPlooy, Davis, & Bezuidenhout, 2014).

The extent of the study to be replicated by another person when adequate information is obtained from the findings of the research is dependability (DuPlooy, Davis, & Bezuidenhout, 2014). The findings of the qualitative research should be consistent if the research is to be repeated.

According to (DuPlooy, Davis, & Bezuidenhout, 2014), confirmability denotes how well the data collected support the findings and interpretation of the research. It describes the research process fully to assist others in scrutinising and examining the study tools that were applied. Transferability demonstrates how the qualitative research findings are applicable to another setting, background and context in similar situation (DuPlooy, Davis, & Bezuidenhout, 2014). Credibility refers to the accuracy of the interpretation of the data that was provided by the

participants. To increase credibility longer periods of time should be spent with participants to gain insight into their lives and understand them better (DuPlooy, Davis, & Bezuidenhout, 2014).

3.16 Findings of the Study

The findings of this study are dealt with in the data presentation and analysis and discussion of findings chapters. The findings answer the research questions on the influence of supply chain management on service delivery.

3.17 Underlying Assumptions

Fundamental assumptions were made as follows:

- Ineffective, unproductive and unsuccessful supply chain management results in poor service delivery;
- Poor implementation of supply chain management processes results in poor service delivery that triggers service delivery protest; and
- The escalating number of protests is due to the lack of service delivery by government departments.

3.18 Ethical Considerations

It is very important for the researcher to address ethical aspects when conducting a study. The dissertation must be free from contradictions on ethical grounds (Yamagata, 2010). The participants were informed that they are not obliged to participate. The participation is voluntarily and they could excuse themselves from answering any question if they felt that the answer could possibly bring harm to their work environment.

Human dignity

The human dignity, esteem and respect was adhered to and endorsed when conducting the study.

Consent to participate

Participation in the study was voluntary and participants were given adequate information about the study so that they could decide whether to participate. Research objectives were clarified to the participants, and they were at liberty to withdraw from the project at any time with no consequences.

Privacy and confidentiality

The respondents were assured that their identity would be protected and they were kept anonymous. The information they shared was protected and the issue of confidentiality respected. Confidential information has not been disclosed.

Protection from harm

The participants were assured that they would be protected against any emotional or physical harm.

Ethical clearance

Ethical clearance was requested from the University of KwaZulu-Natal. A gatekeeper's letter was obtained from the KZN Department of Transport.

3.19 Summary

The exploratory research design together with the research methodology that guided the study, study site and target population were presented in this chapter. Sampling strategies, data collection techniques and data collection instruments used in this study were presented. Data analysis steps and data quality control measures employed to ensure that the research objectives would be accomplished and research questions answered have been described. The ethical considerations taken in conducting the study were highlighted. Two important issues were taken into consideration when the study was conducted, that is, the accuracy of data collected and respect for the persons participating in the study. Obtaining consent from the participants and thanking them for their input took place.

The findings and results of the study are outlined in the next chapter.

CHAPTER FOUR: DATA PRESENTATION

4.1 Introduction

This chapter presents data obtained from conducting the study. The responses that were gathered from the interviews are outlined in this chapter. All participants were interviewed using the same questions.

The specific objectives of the study were:

- To determine how demand management influences service delivery in KwaZulu-Natal Department of Transport.
- To identify the major challenges encountered in acquisition management that influence service delivery in KwaZulu-Natal Department of Transport.
- To determine how logistics management influences service delivery in KwaZulu-Natal Department of Transport.
- To explore how disposal management can be effectively implemented to yield maximum benefit for the KwaZulu-Natal Department of Transport.

4.2 Demand Management Matters Influencing Service Delivery

All the participants were asked to share their views on how demand management influences service delivery in the KwaZulu-Natal Department of Transport. Their responses are presented in this chapter. As the participants requested to remain anonymous and they were promised that their identity would not be disclosed or revealed. They are thus referred to as Interviewee 1, 2 etc. in this study.

4.2.1 Needs Identification and Formulation of Operational Plans

Most of the participants mentioned that demand management is very important for achieving the strategic goals of the department, as reflected in what one of the supply management practitioners said:

Demand management enables the department to outline needs and resources that will be required to ensure that the department delivers on its mandate. Once the needs have been identified, they are costed to ensure that they are budgeted for, (Interviewee 2, 2016).

This response corresponded with what another participant mentioned:

The procurement plan that is drawn from the needs assessment is included in the operational plan of the department. Without assessing the needs of the Department, it would be very difficult to devise an operational plan that is aligned with the strategic goals of the department. The needs identification is the first step in supply chain management that will direct the department to its destination of achieving the desired outcomes. (Interviewee 6, 2016).

This was supported by another participant who said:

Without doing the need assessment we will go astray as the needs channeled us to the right direction towards achieving the goals of the department and our performance is also measured by the output that is achieved through delivering on our procurement plan. (Interviewee 3, 2016).

Another participant stated the following:

Though the strategic plans for the department are drawn and the needs are identified, assessed and costed, that process is wasted because when the budgets are allocated to the department there is always a shortage of what is required by the department to fulfil its strategic goals according to the operational plan that is tabled to legislature. This compels the department to relook to their strategic plan and prioritise the needs. In many instances when that process is done, it is discovered that many projects are started simultaneously so that the communities in those areas will see that the department is delivering on its obligations and most of those projects are not completed on time. The delay in completing projects timeously comes with the financial burden. (Interviewee 11, 2016).

4.2.2 Budgetary Constraints

The data indicates that demand management plays a very important role in the budgeting process within the KwaZulu-Natal Department of Transport. This was reflected when one participant said:

If the demands presented are not incorporated in the budget then service delivery is affected as projects cannot be implemented and executed if they are not funded (Interviewee 8, 2016).

In relation to the same issue, another participant stated that:

Budget constraints have a negative implication on service delivery issues. The budget allocated is insufficient when you compare it with the obligations that need to be met and inadequate resources compromise the delivery of good quality services (Interviewee 1, 2016).

Concurring with the above-mentioned, another participant said:

The department's obligations are far exceeding the resources given and it is not necessary to meet all the obligations and satisfy all the stakeholders due to the limited financial constraints. The budget that is allocated to the department is insufficient for the delivery of the optimal services to the communities, hence we are experiencing problems and dissatisfaction both internally and externally (Interviewee 10, 2016).

Another participant raised the issue of their staffing budget:

The supply chain management component is very short staffed, they are operating with a very minimal staff complement and they are unable to meet service delivery backlogs. The matter is worse when a member should retire or is on leave or when one member is resigning from the department, as to fill the vacant post is impossible. The process of attracting or recruiting the new skills or talent is very long and time consuming and tedious. The department is failing to retain the good talent because of financial constraints. Vacant posts are not filled because of the limited funds; hence we have a problem of low staff morale (Interviewee 5, 2016).

4.2.3 Job Opportunities Creation and Poverty Eradication

The data revealed that the KwaZulu-Natal Department of Transport is participating in the economic growth of the province by creating job opportunities and implementing radical economic transformation that should boost the economy and change the lives of the people. The department also assists in poverty eradication by complying with PPPFA to ensure that previously disadvantaged groups are developed and equipped by giving them the necessary skills that will change their lives through the programmes initiated by the department. In support of this statement, a participant mentioned that:

Through needs assessment that is where projects that can be given to previously disadvantaged groups are identified to address the issue of poverty and create job

opportunities that will benefit our society especially those that are in rural areas (Interviewee 7, 2016).

This was supported by another participant who said that:

Previously disadvantaged groups which are women, youth and disabled people are given opportunities to empower and develop themselves by participating in the economic growth of the province in terms of providing local content as prescribed by the PPPFA. Supply chain management also enables the government in eradicating poverty and creates job opportunities which are the most challenges that South Africa is faced with. Rural areas are also benefiting from the system as capital infrastructures that are promoting their wellness are provided so that they can easily access schools, hospitals and service delivery facilities without delays or undergoing strenuous journeys (Interviewee 10, 2016).

Another participant concurred with the above statement when he stated that:

During the needs assessment stage that is where projects that can be acquired to the emerging contractors are identified to boost the local economy and develop people around the locations where the projects should be implemented, so that local communities are benefitting also from the project and are empowered to do things for themselves. (Interviewee 8, 2016).

4.3 Acquisition Management Challenges Influencing Service Delivery

The data collected in the study indicated that the KwaZulu-Natal Department of Transport is faced with significant challenges in acquisition management that have an influence on service delivery.

4.3.1 Capacity Challenges

The issue of capacity is a challenge within the department. This was highlighted by one participant who said:

Capacity is the major challenge that is encountered by the acquisition management component in the department. The department is dealing with the huge number of infrastructure projects. The compilation of the bids documents requires the skills of the technical staff which are engineers so that bid specification documents can be done correctly and accurately. The department is depending on consultants to design roads, bridges and infrastructure due to the lack of skills within the department. The consultants' fees are not cheap and when they are appointed they do not transfer their skills to the

department officials as they want the department to be dependent on them (Interviewee 4, 2016).

This was supported by another participant who said:

Even when the vacancies for Engineers' posts are advertised the department has a challenge to attract them as they are paid more in the private sector than what is offered by the department.

Though the department is offering bursaries to students to study in the fields that is lacking in the department, the challenge is that when those students have attained those qualifications the department has nobody to mentor and coach them so that they can fill the skills gap that is encountered, (Interviewee 4, 2016).

Another participant agreed, saying:

The issue of capacity is not only the departmental challenge but the service providers that are awarded to do the work for the department also have the challenge of capacity. Some are appointed without the necessary skills, competencies and knowledge of doing the work that is why sometimes you find that they are subcontracting the work and that results in many controversial issues that they fail to manage on their own. They end up suing one another and the service delivery is compromised. (Interviewee 13, 2016).

Another participant mentioned the issue of feasibility:

During the needs assessment stage, the feasibility study is done to find out if it will be possible to implement the capital project and how the project will be beneficial to the community around that specific area. We ensure that we engage with all the relevant stakeholders that might be affected by the implementation of the project. For example, if we are constructing a road we do find out how many people will be using that road and we also check if are there any government facilities around the area like schools, hospitals, clinics and churches that will benefit in the implementation of the project, as we do not want to create wars where you find out the road is only benefitting one household and the community is neglected, (Interviewee 7, 2016).

4.3.2 Failure to Convene Meetings Timeously

The study found that the department has a challenge in convening supply chain management meetings on time to evaluate and adjudicate bids. This was noted by one participant who said:

Failure of the committees to convene meetings on time due to not reaching a quorum affects service delivery implementation. Some of the members that are serving in supply chain committees are not always office based. They do a lot of travelling as they should visit sites on a regular basis. This poses a challenge as supply chain management meetings cannot be convened on a regular basis. Failure for the supply chain management committees to convene meetings since quorum cannot be reached is a challenge on service delivery implementation (Interviewee 1, 2016).

This was supported by another participant who said that:

Due to the nature and the amount that is involved in those projects it is not easy to delegate the responsibilities to junior colleagues as people that are sitting in the committees should be appointed in writing in accordance with their level and most of the time they are most senior in the department and have some strategic functions and roles that they are engaged into (Interviewee 12, 2016).

4.3.3 Prolonged Processes

When participants were asked to share their sentiments on the challenges encountered by the acquisition management section in service delivery, a participant said:

Red tape and lots of bureaucracy within our systems results in prolonged processes that hinder service delivery. The delays contribute strongly to the high expenditure as prices are constantly increasing, for example, if it is costing one million to construct a road in 2016, if the process is delayed for six months then that figure will significantly change. The supply chain management processes are too long and there is a lot of red tape. (Interviewee 7, 2016).

This was confirmed by another participant who said:

It can take nine months or more to execute or implement the project after it has been advertised due to the lengthy processes that it has to undergo before it is adjudicated (Interviewee 11, 2016).

4.4 Logistics Management Concerns Influencing Service Delivery

The participants were asked to share their opinions on how logistics management influences service delivery in the KwaZulu-Natal Department of Transport. Most of them agreed that logistics management has an influence on service delivery. Their perceptions on the issues are described below.

4.4.1 Delays in Issuing Orders Timeously

The data collected in this study revealed that the delay in issuing orders on time is a challenge.

As one participant said:

The delay in issuing orders on time prolongs the project implementation as the contractors cannot do anything without the order. It also affects our output because without an order, work cannot resume and the time of completing the project is extended. Sometimes the delays are caused by the pending appeals that are not resolved and finalised. (Interviewee 3, 2016)

This was supported by another participant who stated:

If they do not have an order they cannot plan their finances properly as, if they need a loan from the bank so that they can be able to resume the project, an order is required as evidence that they will be able to pay. Even if they want to order materials, their creditors would not supply them without an order as a proof that they had a contract with the department and will be able to service their debt. (Interviewee 15, 2016).

4.4.2 Delays in Paying Service Providers on Time

It was discovered in the study that the issue of failing to pay the service providers on time poses a serious problem to both the department and the service providers. This was put well by a participant when he said:

The delays in receiving our payment on time poses a threat to us and our families. When we execute projects, we hire people to work on those projects and it is very difficult to explain to them that you cannot pay them on time because the department has failed to pay you. Those people have their own families who are depending on them for financial support. We also have our own contractual obligations that we must meet. If creditors are not paid on time they charge interest and we must pay SARS. (Interviewee 15, 2016).

This was supported by another participant who said:

The delay in payment affects our cashflow and sometimes results in unnecessary protests that would have been easily avoided if we are paid on time. (Interviewee 14, 2016).

In agreement with this, another participant stated:

The delay in payment results in not completing the project on time as workers refuse to work for nothing which has a major influence on the project expenditure as the contractors will still claim the standing times from the department. This results in contractors failing to complete the project within an allocated project amount and then we must motivate and request for extra money to fund a project which also is a lengthy process to get approval. (Interviewee 11, 2016).

4.4.3 Failure to Achieve the Desired Output

The data reveals that the delays encountered in logistics management result in the department failing to achieve the desired output which hinders the department from attaining its strategic objectives. This was testified to by one of the participants:

The department performance is measured by the output that has been achieved. If there is no work on the projects that should be implemented by the department there is no output. The perception of the community is that the department is failing to deliver on its mandates and the service delivery is compromised and the people on the ground are the ones that are experiencing the problems that are caused by failure to achieve the desired output. (Interviewee 6, 2016).

4.5 Effective and Economical Disposal Management

All participants were asked to recommend how disposal management can be effectively implemented yielding maximum benefit for the KwaZulu-Natal Department of Transport.

One participant said:

The board of survey committee should be strengthened so that it will be able to ensure that the assets of the department are disposed economically and effectively, (Interviewee 5, 2016).

He further suggested that the committee should be trained regularly so that it is able to fulfil its role effectively and efficiently. This was supported by another participant who stated that:

I was not even aware that the department has a board of survey committee as I always find that officials are throwing the redundant furniture all over the department (Interviewee 3, 2016).

Another participant agreed and said:

The committee should be introduced and communicated to all officials within the department so that when their services is required officials should know who to liaise and communicate with regarding the unused assets and how they should be disposed (Interviewee 7, 2016).

Another participant suggested:

The committee should not be centralised; every section should have its own board of survey committee so that it will be easier to manage their assets and they will take full responsibility as the department is very huge to have to function with one centralised committee (Interviewee 3, 2016).

Another participant said:

The movable assets of the department that includes plant, vehicles and all other machinery and equipment are not verifiable as the manual system that is used is not effective (Interviewee 11, 2016).

This was also supported by the Auditor General findings on the issue of the increasing number of assets that cannot be verified against the assets registers. This was supported by Interviewee 9, 2016), who said that:

If the assets are not disposed they decomposed and they cannot be accounted for. This then results in misrepresentation of the assets that are disclosed in the financial statement of the department.

4.6 Conclusion

The research methodology used to underpin this study was presented in the previous chapter. This chapter presents data collected from the semi-structured interviews that were conducted in this study. The presentation is divided into four sections that deal with the demand management, acquisition management, logistic management and disposal management units engaged in KwaZulu-Natal Department of Transport. While most of the participants agreed

that supply chain management is the enabling tool to service delivery, they perceived that there is a considerable amount that needs to be done to ensure that this tool is working effectively and efficiently towards attaining the strategic goals of the department and to ensure that service delivery is not compromised.

The next chapter deals with data analysis and discussion of findings.

CHAPTER FIVE: ANALYSIS AND DISCUSSION OF FINDINGS

5.1 Introduction

The purpose of this study was to investigate the influence of supply chain management on service delivery in the KwaZulu-Natal Department of Transport in Pietermaritzburg. The previous chapter presented data obtained from conducting the study. This chapter discusses and interprets the findings of interviews conducted with the stakeholders involved in the Department of Transport supply chain management in detail and supports them with the literature.

The specific objectives of the study were:

- To determine how demand management influences service delivery in KwaZulu-Natal Department of Transport.
- To identify the major challenges encountered in acquisition management that influence service delivery in KwaZulu-Natal Department of Transport.
- To determine how logistics management influences service delivery in KwaZulu-Natal Department of Transport.
- To explore on how disposal management can be implemented effectively to yield maximum benefit for the KwaZulu-Natal Department of Transport and the service users.

The interviews were conducted to investigate the influence of supply chain management on service delivery in KwaZulu-Natal Department of Transport. Table 5.1 lists all the participants that were purposely sampled to participate in this study.

Table 5.1: List of Participants

AREA	DESIGNATION/ ROLE
Head Office	Director: Supply Chain Management Director: Accounting and Financial Services Deputy Director: Finance and SCM Control Engineering Technician: Pietermaritzburg Region Control Engineering Technician: Ladysmith Region Control Engineering Technician: Durban Region Control Engineering Technician: Empangeni Region Control Engineering Technician: Transport Infrastructure and Regional Services
Cost Centre PMB	Assistant Director: SCM Control Engineering Technician: Naidu Consulting
Cost Centre Ixopo	Senior Admin Officer: SCM Control Engineering Technician: Samani Consulting
Pietermaritzburg	Sinothando Construction: Contractor Kerush's Transport: Contractor Goplan Homes: Contractor

Source: Researcher

5.2 Demand Management Problems influencing Service Delivery

This section discusses and interprets the data on the demand management issues that are influencing service delivery in the KwaZulu-Natal Department of Transport.

5.2.1 Formulation of Operational and Procurement Plans

The study found that the Department of Transport has a proper system in place to identify and assess the needs that are priorities for the community they serve, to ensure that they deliver on their strategic objectives by implementing and executing projects that support local economic growth in line with the national development plan. This finding agrees with (Heizer J., Render, & Barry, 2006), who stated that supply chain management is the amalgamation of the activities that acquire materials and transform them into final products that are delivered to the customer.

This is also in line with the Department's vision which is "Prosperity through mobility," meaning that the Department aims to contribute to increasing the wealth and quality of life of all the citizens in the province (DOT, 2015).

During the needs assessment stage, a delivery management strategy should be developed to indicate how needs should be fulfilled to ensure that value for money is obtained and service delivery is attained (National Treasury, 2015).

The Department should continue to ensure that procurement plans are compiled and consolidated for every component so that the needs will be aligned and budgeted for before the projects can be executed.

5.2.2 Budget Constraints and Risk Management

The study also revealed that the Department is operating within the budget allocated to them. The importance of this is highlighted by (Fourie, 2009) who stated that government funds should be managed in an efficient, effective and economical manner. This is also clearly articulated in the Constitution where it is said that principles of fairness and transparency should be upheld by all that are dealing with government funds, and officials should be accountable for the decisions that they make (S217 Constitution). It is further supported by the PFMA, which states clearly that accounting officers should take appropriate steps to prevent fruitless and wasteful expenditure (PFMA, 2014). (Mbabazi, 2006), pointed out that public funds are wasted by the failure of departments to implement sanctions on those that are found guilty of misconduct or mismanagement of state resources.

Though the department is striving to deliver optimal services to the communities, it should do so within the budget allocated. Projects and programmes that are not funded should not be executed, as that is against the law.

The study reveals also that the risks within the Department should be identified and measures should be put in place to minimise risks that will negatively affect the department and service

delivery. A risk management plan should be put in place to combat any negative effects on department performance. (Fourie, 2009), stated that risks comprise of the factors that can prevent the Department from achieving its strategic goals effectively.

Risk management is an integral function of every department to ensure that control measures are put in place to continuously monitor, evaluate, review and implement strategies that will eliminate and prevent risks. The environment in which the Department operates is constantly changing therefore the internal control system should adapt to the changes.

5.2.3 Poverty Eradication and Job Opportunities

The data revealed that the Department is participating in the economic growth of the province by creating job opportunities, a challenge around the world. Previously disadvantaged groups are empowered, developed and given the opportunity to do things for themselves through the poverty eradication programmes that are initiated by the department. The obligation to do this is reinforced by the BBBEE Act of 2003, where black economic empowerment is promoted. Radical transformation is encouraged to give opportunities to women, youth and people that are physically challenged to advance their skills and have a meaningful contribution towards the economic growth (BBBEEA, 2003). The KZN Provincial Treasury encourages departments to promote the utilisation of historically disadvantaged individuals and SMMEs to develop and uplift the groups that have been identified in the PPPFA (KwaZulu- Natal Department of Transport, 2016). This position is supported by (Fuzile, 2015) who stated that the government has a significant role to play in ensuring that the imbalances of the past are bridged. In agreement with the above view, (Yoveni, 2014), stated that improvement in transport infrastructure will boost the local community and it will be easier to access other service delivery centres that will enhance the wellness of communities

Overall, the demand management stage should ensure that the goods and services required support the strategic and operational plan and are delivered timeously in the right place in the quality and quantity that satisfy customers' needs (National Treasury, 2015).

5.3 Acquisition Management Matters Influencing Service Delivery

Acquisition management refers to the process of acquiring goods and services from various contractors. This process begins with quotation or tender invitation and ends with a contract close out. The study found that the Department of Transport is experiencing numerous

challenges in matters relating to acquisition management and that this influences service delivery.

5.3.1 Capacity Challenges

The findings show that the Department of Transport faces challenges arising from its lack of capacity. The staff turnover makes it impossible to keep abreast of new developments. The Department should recruit and attract new members to fill in the gaps. In some instances, interns are exploited to keep the Department running. They require training and supervision so that they can be familiarised with the policies in the supply chain management. Retaining staff when they are offered more money is not easy as the Department cannot compete with private sector salaries. Its inability to match private sector salaries poses a threat to the Department. The problem of capacity is highlighted by (Badenhorst-Weiss, 2011) who argued that though supply chain management is an integral part of the procurement processes, South Africa is faced with a capacity challenge due to its lack of skills and the violation of national, provincial and local policies and regulations. In agreement with this (Loxton, 2012), claimed that the inability of local government to deliver on its constitutional mandate can be attributed to its internal lack of capacity, and since local government is perceived as the delivery arm of the state, it is being blamed for lack of service delivery. (McGregor, 2008), stated that difficulties in attracting and retaining skills are exacerbated by low government salaries relative to the public and private sector. She further stated that it is indisputable that urgent interventions are required on the part of government and tertiary institutions. Failure to invest in the new generation will have enormously negative consequences.

In support of these arguments, (James, 2014), claimed that the quality of service delivery is compromised by ineffective procurement systems. A lack of training in supply chain management is another problem that is causing poor service delivery. This is emphasised by the supply chain management policy, which states that the bid adjudication committee should, before deciding on an award, ensure that the contractor who is to be awarded the contract has the capabilities and capacity to perform (SIPDM, 2015).

The policy further states that the tenderer's tax compliance status should be verified with SARS, and that all the committee members should complete the compulsory declaration of interest prior to adjudication of the contractor. The accounting officer is responsible for ensuring that all committee members are trained in the procedural requirements for the successful execution of their roles in the supply chain management processes (KwaZulu- Natal Department of Transport, 2016).

5.3.2 Honouring SCM Scheduled Meetings

The findings of this study show that supply chain management committee meetings are often not convened timeously due to difficulties in obtaining a quorum of members. The quorum requirement is well stipulated in KZN SCM 3 (2006) which specifies that no supply chain committee meeting can be convened without obtaining a quorum, which is equal to fifty percent of the number of permanent members plus one member. This should exclude the coopted members of the committee. The policy further stipulates that attendance registers should be maintained for all committee meetings.

Members are advised to declare their interest before a meeting commences and should excuse themselves in discussions of any matter that will prejudice them in decision-making. This should be noted in the minutes of the meeting.

5.3.3 Prolonged Supply Chain Management Processes

The study found that the supply chain management process within the department is very long and there is considerable red tape and bureaucracy that hinders service delivery and contributes to exorbitant expenditure. This agrees with (Thujo, 2014), in his findings that the prolonged supply chain management processes contribute hugely to service delivery protests and contribute to demoralisation and dissatisfaction amongst the workforce. She further suggested that a head of department should be involved in contract management within his department.

This concurs with the views of (Loxton, 2012), which state that developing a strategy to support multiple levels of decision making and give clear guidelines on the flow of supply chain management information will assist in streamlining the processes.

5.4 Logistics Management Problems Influencing SCM

It was discovered in the study that the Department experiences certain logistics management problems that need senior management intervention and support to ensure that service delivery is not compromised.

5.4.1 Delays in Issuing Orders

The PFMA (1999) clearly stipulates that an order is a legal binding contract agreement between the state and the contractor to deliver goods or services, and that without the order there is no contract and the project cannot commence. The study revealed that the Department is doing all it can to ensure that it is complying with this prescribed legislative framework that guides the implementation of the supply chain management system. However, there are still challenges

due to bureaucracy and red tape encountered by the Department of Transport which it has no control over that need the intervention of the Provincial Treasury to ensure that the Department delivers on its core functions. Delays have adverse effects, as pointed out by (Bernard, 2001), who claimed that waiting is a difficult phenomenon which is time-consuming, annoying and frustrating. It also causes inefficiencies in the service delivery process and it can be costly to the organisation, as the delay in delivering services is associated with a lack of quality.

5.4.2 Delays in Paying Contractors on Time

The study discovered that failing to pay service providers on time results in unnecessary protests and delays the completion of projects on time, which is very costly to the department. This issue is addressed by the PFMA (South Africa, 1999), which states that departments should settle their contractual obligation within thirty days from the date of receiving an invoice. The (BBBEEA, 2003), clearly specifies that departments should encourage and promote the transformation of emerging contractors by advancing their skills and giving them opportunities that will empower them to participate effectively in economic growth. Failing to pay them on time is setting them up for failure and has a negative effect on service delivery implementation. The (PPPFA, 2000), was also promulgated to ensure that this is achieved.

5.4.3 Failure to Attain the Desired Output

The study revealed that the Department will fail to achieve their strategic objectives if the desired outcomes are not attained as projected and expected. The Constitution (South Africa, 1996), as the supreme law of South Africa states clearly that every citizen has the right to have their basic needs provided for by the relevant government institutions. In support of the above statement, (Maki, 2012), said that the effectiveness of the department is measured by its performance. The Department has a mandate to ensure that government resources are optimally utilised for the community's benefit and takes reasonable steps to avoid unnecessary delays that hinder service delivery execution. Capital projects should be completed on time to eliminate wasteful and irregular expenditure.

5.5 Effective and Economical Implementation of Disposal Management

The findings show that there is a strong need to strengthen the board of survey committee to ensure that it is fulfilling its role effectively and efficiently. This is supported by the SCM policy (2016) that stipulates that the accounting officer should appoint in writing the members of the disposal management committee that will decide on how disposal management can be

effectively implemented within the department (Auditor & General, 2015). Feasibility and disposal strategies should be developed to ensure that the assets of the department are disposed in an economical manner, and all avenues should be considered to achieve value for money. The disposal management section should ensure that this is achieved. There is a need for the Department to introduce an electronically assets verification system that will reduce the risk of misappropriations and omissions of assets.

5.6 Conclusion

This chapter has analysed the findings of the study conducted in KwaZulu-Natal Department of Transport, Pietermaritzburg Region. The participants indicated that they adhere to the supply chain management systems prescribe in the PPPFA and PFMA and their respective regulations. The Supply Chain Management elements under review in this study are: demand management, acquisition management, logistic management, disposal management and service delivery.

Though there are challenges being faced by SCM, the managers that participated in the study believed that their units are headed in the right direction in terms of positioning SCM as a value adding section that can positively influence service delivery.

Proper planning is crucial for linking demands with the budget, and accountability and responsibility is important when making decisions that will affect and compromise service delivery. The supply chain management system should be implemented properly to yield results that will benefit communities, and the necessary steps and precautionary measures should be taken that will ensure that fruitless and wasteful expenditure is avoided and eliminated. Lack of integrated and streamlined processes hinders the successfully delivery of services. The skills gap has a negative influence on service delivery.

This concludes the analysis and findings chapter. The next and concluding chapter offers recommendations of the study and proposes areas for future research.

CHAPTER SIX: CONCLUSION AND RECOMMENDATIONS

6.1 Introduction

The previous chapter presented the researcher's interpretation and discussion of the findings of the study regarding the influence of supply chain management on service delivery in the KwaZulu-Natal Department of Transport. This chapter presents possible solutions to the problems identified and the conclusion of the study.

The supply chain management system is a tool to enable the Department to achieve its strategic goals efficiently and economically. Supply chain management practitioners play a significant role in ensuring that this tool is working as desired to support the Department in delivering its mandate as expected. At the beginning of the study, it was noted that the study aim was to determine the influence of supply chain management in service delivery in the KwaZulu-Natal Department of Transport. The specific research objectives were set as follows:

- To determine how demand management influences service delivery in KwaZulu-Natal Department of Transport;
- To identify the major challenges that are encountered in acquisition management that influence service delivery in KwaZulu-Natal Department of Transport;
- To determine how logistics management influences service delivery in KwaZulu-Natal Department of Transport; and
- To explore on how disposal management can be effectively implemented to yield maximum benefit for the KwaZulu-Natal Department of Transport and service users.

Various common challenges were identified from the empirical study and possible recommendations on how these challenges can be overcome were made. Table 6.1 below provides a list of common challenges identified from the empirical research.

Table 6.1: List of Common Challenges Identified

SCM Element	Common Challenge
Demand Management	Lack of integrated planning in terms of need identification and assessment Ineffective operational and procurement plan Financial / budgetary constraint Lack of creating job opportunities that will eradicate poverty
Acquisition Management	Lack of skills and capacity Lengthy processes Lack of proper meetings schedule
Logistics Management	Failure to issue orders on time Delays in processing payments Failure to achieve desired output
Disposal Management	Centralisation Lack of training Lack of electronic system to verify assets

Source: Researcher

Having completed the investigation, the research questions can now be answered.

Objective 1: To Determine How Demand Management Influences Service Delivery

The literature review indicated that demand management is aimed at ensuring that strategic objectives of the organisation are achieved timeously and cost effectively to ensure that service delivery is not compromised (National Treasury, 2015). Service delivery needs for the organisation should be informed by policies, norms and standards (Dobler & Starling, 2012). The operational and procurement plan indicating what services will be delivered by the organisation are outlined and communicated (Fuzile, 2015).

The results of the study revealed that demand management is a crucial stage for attaining the strategic goals of the Department, as this is where the needs are identified and assessed. It also assists the Department in the budgeting process as it enables them to cost the needs required, and budget accordingly to ensure that service delivery is achieved.

The Department should comply with the legislative framework set out in the PPPFA, the BBBEE and the Constitution by adhering to the laid down regulations on eradicating poverty and creating job opportunities for historically disadvantaged groups to empower and develop them so that they can fully participate in economic activities which contribute to economic growth. It is very important for the Department to integrate its plan and these should be aligned with the budget. The service delivery plan for the Department should be communicated with all the stakeholders to ensure that they understand what is expected and what services will be provided.

Objective 2: To Identify Challenges in Acquisition Management Influencing Service Delivery

Acquisition management is the heart of the supply chain management process. It is the process of acquiring goods and services from different contractors. It begins with compilation of bids documents, advertising and finalising contracts to execute service delivery objectives (Davis, 2014).

Findings show that there are still challenges that are encountered within the acquisition management section, which will need management intervention to ensure that unnecessary delays are avoided, since delays hinder service delivery and are very costly to the Department. Though management is attending to capacity issues by giving bursaries, this on its own is an insufficient response to the problem. The failure by consultants to transfer skills is a challenge that still needs to be addressed.

Streamlining the processes will benefit both the Department and the communities and enhance service delivery. Managers should schedule all the supply chain management committee meetings at the beginning of the financial year and that information should be distributed to all committee members so that they can align their movements accordingly. Continuous training of employees is vital so that they keep abreast with the latest developments and interpret and apply policies as the policy designers intended. Supply chain management processes should be streamlined to avoid delaying of service delivery.

Objective 3: To Determine How Logistics Management Influences Service Delivery

Logistic management is an element of the supply chain management that ensures that end user expectations are met through effective planning of the movement of goods and services from their origins to the desired destinations (Badenhorst-Weiss, 2011). Delivering services to the end users as promised is the first step in building a foundation for trust and strengthening relationship with the stakeholders (Covey, 2012).

The findings from the study revealed that delays had an adverse effect on service delivery. It is costly for both the service provider and the Department and it also has a negative effect on financial resources.

When analysing the influence of logistics management on service delivery it became clear that the inability to issue orders on time has a negative effect on the Department's performance, as the desired output could not be attained. Failing to pay contractors is a serious problem that should be addressed as soon as possible, as it creates unnecessary protest and endangers the family members of the contractors. It also gives the Department a bad reputation.

Good governance needs to be upheld to create an effective and responsive department that is geared to improve service delivery challenges. The Department should be proactive and take reasonable steps to ensure that service delivery execution is not delayed. The Department should put systems in place to ensure that supplier's payments are processed on time. The supply chain management processes should be streamlined and delegations should be decentralized so that decisions can be taken quickly.

Objective 4: To Explore How Disposal Management can be effectively implemented

Disposal Management involves the disposal of movable and immovable assets of the organisation at the best value (Salazar, 2012). The board of survey committee that is responsible for ensuring that redundant assets are disposed effectively and economically should be appointed in writing (KwaZulu-Natal Provincial Treasury, 2006).

The study found that it is very difficult for the board of the survey committee to ensure that all departmental assets are disposed of effectively, due to the number of assets in the department. The movable assets of the department including plants, vehicles and other machinery are not verifiable due to the ineffective manual register of disposed assets. The assets disposal committee is centralised and their meetings are not scheduled regularly.

Management should decentralise this function to all the sections within the department, and employees should be trained on the procedures so that they work effectively. Disposal strategies that are economical to the Department should be developed and implemented. The meetings of all the committees within the organisations should be properly planned and communicated in advance.

6.2 Recommendations

- The study revealed that the department is committed to its vision which is “Prosperity through Mobility”. However, the Department’s systems should be strengthened to ensure that the strategic goals of the Department are achieved. There is a strong need to build capacity by attracting and retaining good talent and skills. The Department should ensure that critical vacant posts are filled to avoid burnout and low staff morale.
- Systems should be put in place to ensure that payments are not delayed, and the department is compliant with the PFMA in ensuring that the contractual obligations are met within thirty days to avoid a qualified report and it has also a negative effect on the contractors as they it impacts on their cash flows and budget planning. Administrative governance and the skills base needs to be improved to create an effective and responsive Department that is accountable and achieves a clean audit.
- The Department should drive a transport sector-wide radical socio-economic transformation that will ensure that job opportunities are created and the quality of lives of the communities are improved.
- There is a need to improve on planning promptly to avoid the problems of not attaining the desired output timeously. The Department should be proactive and start its supply chain management processes early, to ensure that projects are not delayed and are completed on time. The delivery of roads and transportation infrastructure and services should be intensified as guided by the prioritisation model.
- It is recommended that risks should be identified for all projects that are to be executed and measures to minimise these should be devised to ensure that all projects are completed on time and wasteful and irregular expenditure is avoided.
- Communities should be educated and trained to safeguard the transport infrastructure provided by the department. Communities and relevant transport sector stakeholders

should be involved as active participants and partners in implementing departmental programmes.

- If problems arise, communities should engage with the Department in peaceful dialogues, as the cost of revamping destroyed infrastructure is considerable. The law should take its course in relation to those who damage infrastructure, and it should ensure that they suffer the consequences.
- The Department should source an electronic assets verification system that will ensure accuracy and integrity of the assets register.

6.3 Research Limitations

- Time was limited to conduct this study. If there was more time, the researcher would have been able to include more units in the sample so that the population would be more representative.
- The study was based at the Provincial Department of Transport in the Pietermaritzburg region only. Therefore, the findings cannot be generalised to the influence of supply chain management on service delivery in other regions.

6.4 Future Research

This research study focused only in one region of the four regions in the KwaZulu-Natal Department of Transport. Future research could be conducted to cover all four regions in KwaZulu-Natal Department of Transport so that a more realistic idea on the influence of supply chain management on service delivery can be obtained. Therefore, the findings are not representative of the whole KwaZulu-Natal Department of Transport. The current study could form the basis of the development of a research survey, a quantitative instrument to be used in a further study to include all the Departments within KwaZulu-Natal.

Other research may look at the influence of supply chain management on service delivery in line with the goals and objectives of the Department to ensure that supply chain management objectives are aligned to the main vision, mission and objectives of the whole Department.

6.5 Value of the Study

The study has contributed to the body of knowledge on the area of the influence of supply chain management on service delivery. The findings of the study can be used by the Department in their strategic planning: findings from the study can be discussed and interventions put in place to ensure that supply chain management has a positive influence on service delivery. The findings can also be noted by other government institutions to ensure that service delivery is improved through supply chain management systems.

6.6 Concluding Remarks

The study was conducted with the intention of exploring the influence of supply chain management on service delivery in KwaZulu-Natal Department of Transport in Pietermaritzburg region. It is regrettable that while the government is spending money on service delivery, we are still experiencing an increased number of protests due to service delivery issues.

Demand management was identified as the critical phase as it entails planning. Poor planning affects service delivery and results in failure to achieve the desired output within the stipulated time frames. While the department is embarking on its strategic planning processes, it should ensure that its strategic plan is aligned with provincial objectives and priorities to ensure the wellness of all the communities within the province. The Department should ensure that systems are put in place to support its vision and ensure that everyone in the Department is working towards attaining the same goals. Reasonable steps should be taken to ensure that service delivery is not compromised and the Department is delivering on its mandate.

Human capital is the greatest asset of any organisation that is embarking on improving service delivery. The Department should invest in human capital and offer bursaries and internships programmes to address the capacity challenge. Senior management needs to monitor consultants closely to ensure that they are transferring skills.

The organisation's culture should manifest through service delivery that promotes good governance and ensure that customer's expectations are met. Effective supply chain management should improve service delivery.

The study undertook to explore and understand the influence of supply chain management on service delivery in KwaZulu-Natal Department of Transport. The findings led the researcher to conclude that the Department should streamline supply chain management processes so that

service delivery can be improved. The Department should also ensure that it complies with the relevant framework governing supply chain management to ensure that service delivery is improved and the lives of the people are transformed.

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APPENDICES

APPENDIX A: CONSENT TO PARTICIPATE

I _____ (full name of participant), have been informed about the study entitled the influence of Supply Chain Management on service delivery in KZN department of transport by Cynthia V. Dlamini.

I understand the purpose and procedures of the study. I have been given an opportunity to ask questions about the study and have had answers to my satisfaction. I declare that my participation in this study is entirely voluntary and that I may withdraw at any time without affecting any of the benefits that I usually am entitled to.

I have been informed about any available compensation or medical treatment if injury occurs to me because of study-related procedures.

If I have any further questions/concerns or queries related to the study I understand that I may contact the researcher at (provide details).

If I have any questions or concerns about my rights as a study participant, or if I am concerned about an aspect of the study or the researchers then I may contact:

Mrs Mariette Snyman

Humanities and Social Science Ethics (HSSREC) Research Office,

Govan Mbeki Building, Westville Campus, Private Bag X54001, DURBAN 4000

Tel: 031 260 8350 Snymanm@ukzn.ac.za

Researcher: Cynthia Vuyisile Dlamini

Supervisor: Doctor Alec Bozas

Additional consent,

I hereby provide consent to:

Audio-record my interview YES / NO

Signature of Participant **Date**

Signature of Witness **Date**

APPENDIX B: DECLARATION LETTER

This is to declare that Cynthia Vuyisile Dlamini will ensure that the respondent's privacy is protected. I will not use the participant's name in any of the information received from this study or in any of the research reports. Any information received in the study will be recorded with a code number that will be secured. When the study is completed, the key that shows which code number goes with your name will be destroyed. Participants have the right to withdraw from the study at any time without any negative consequences.

I also confirm that the respondents have the right to withdraw from the study at any time without any negative consequence.

APPENDIX C: IN-DEPTH INTERVIEW GUIDE

WELCOMING REMARKS

I will first greet the participant, introduce myself and then invite the participant to do the same.

PURPOSE OF THE INTERVIEW

I will inform the respondents that all issues to be discussed are of great importance for understanding the influence of supply chain management on service delivery.

I will encourage the respondents to feel free to express their views. I will remind them that there are no right or wrong answers, and that their views are very important. I will make it clear that this research is mainly aimed at eliciting information that would contribute towards understanding the influence of supply chain management on service delivery. I will advise respondents of their entitlement to their own opinions. All respondents will be informed as to the duration of the interview and a request will be extended to record the whole interview session.

INTERVIEW

I will start off the interview by posing a general question on the influence of supply chain management on service delivery, and what is the role played by each participant in the supply chain management process, then I will ask the specific questions as stipulated below:

1. Structure of SCM within KwaZulu-Natal Department of Transport

- How is supply chain management within the department structures?
- Does supply chain management contribute to service delivery?

2. Elements of Supply chain management

2.1 Demand Management

- What is your understanding of the demand management within the SCM?
- What are the processes that are covered in demand management?
- Is demand management critical for attaining the goals of the Department?
- How is demand management incorporated in the budgeting process?

2.2. Acquisition Management

- How does the tender process work?
- How are the suppliers or bidders selected to do projects for the Department?
- What are the challenges encountered by the acquisition management?

2.3. Logistic management

- How are the contractors managed?
- Does Logistic management issue orders in time to ensure that projects are not delayed?
- Are the projects within the department executed timeously to achieve desired outputs?
- Does the Department pay all its suppliers within thirty days as stipulated in the PFMA?
- Are there any complaints that are raised by suppliers regarding the Department? If yes how are those complaints addressed or resolved?

2.4. Disposal Management?

- How are the assets of the Department disposed?
- Is the Board of Survey committee working effectively?

3. General

- What are the major supply chain challenges in infrastructure projects?
- What do you think is the influence of supply chain management on service delivery?
- Which element of the supply chain management do you feel it can be improved immediately?

CLOSING REMARKS

I will offer an opportunity for any short final comments that the participants may wish to make. Thank you very much for your invaluable input to the research project. Would you like to make any last comments? The information you provided will be vital in my research dissertation and contribute to the understanding of the influence of supply chain management on service delivery.

APPENDIX D: INFORMED CONSENT DOCUMENT

Date: _____

Greetings,

My name is Cynthia Vuyisile Dlamini. I am a Masters student in the discipline of management, at the School of Management, Information Technology and Governance of the University of KwaZulu-Natal. You are invited to participate in a research project entitled: The influence of supply chain management on service delivery in the KwaZulu-Natal Department of Transport. Your participation will contribute to a greater understanding of the challenges facing the supply chain management sector in KwaZulu-Natal. The results are intended to highlight areas of improvement to enhance efficiency and synergy within supply chain management.

Your participation in this project is voluntary. You may refuse to participate or withdraw from the project at any time with no negative consequence. There will be no monetary gain from participating in this research project. Your anonymity will be maintained by the researcher and the School of Management, Information Technology and Governance and your responses will not be used for any purposes outside of this study. The confidentiality and anonymity of records identifying you as a participant will be maintained by the School of Management of the University of KwaZulu-Natal.

In the event of any problems or concerns/questions about participating in the study you may contact me or the supervisor or the UKZN Humanities & Social Sciences Research Ethics Committee, contact details as follows:

Mrs Mariette Snyman

Humanities and Social Science Ethics (HSSREC) Research Office,

Govan Mbeki Building, Westville Campus, Private Bag X54001, DURBAN 4000

Tel: 031 260 8350 Snymanm@ukzn.ac.za

Researcher: Cynthia V. Dlamini (Telephone number 082 935 9733)

Supervisor: Dr. Given Mutinta (Telephone number 031 260 8854)

The interview should take about 45 minutes to complete, I hope you will take the time to participate in the study. Thank you in advance for your help with this research exercise.

Sincerely

C. V. Dlamini

Cynthia Vuyisile Dlamini

APPENDIX E: REQUEST FOR PERMISSION TO CONDUCT RESEARCH



TO: Mr. S.S. Nkosi
Deputy Director General
Transport Infrastructure and Regional Services

Request for permission to do research

I Cynthia Vuyisile Dlamini am a Masters Student in discipline of management, information technology and governance, kindly request for a permission to conduct research interview on the influence of Supply Chain Management on service delivery. The research interviews are part of my study.

Objectives for the study are:

- To determine how demand management influence service delivery.
- To identify major challenges that are encountered in acquisition management that influence service delivery.
- To determine how logistic management influence service delivery.
- To explore on how disposal management can be effectively implemented.

Questions to be answered in the research will be

- What influence does demand management have on service delivery?
- What are the major challenges that are encountered in acquisition management that influence service delivery?
- How logistic management influence service delivery?
- How disposal management can be implemented effectively and economically?

Kind regards

Cynthia Vuyisile Dlamini

APPENDIX F: PERMISSION TO DO RESEARCH



transport

Department:
Transport
Province of KwaZulu-Natal

Street Address: 172 Burger Street, Pietermaritzburg, 3200
Postal Address: Private Bag X9043, Pietermaritzburg, 3200
Tel: (27)(33) 355 8987

Fax: (27)(33) 355 8089

Website: <http://www.kzntransport.gov.za>

TRANSPORT INFRASTRUCTURE AND REGIONAL SERVICES

11 August 2016

To: Ms. C.V. Dlamini

RE: PERMISSION TO DO RESEARCH

This serves to confirm that Cynthia Vuyisile Dlamini is granted permission to conduct research interview on the influence of Supply Chain Management on service delivery as part of her studies.

S. S. Nkosi

SS NKOSI

DDG: TIRS

APPENDIX G: EDITOR'S CONFIRMATION

15 September 2017

To whom it may concern

This letter serves to confirm that I have proofread the thesis *The Influence of Supply Chain Management on Service Delivery in KwaZulu-Natal Department of Transport* by Cynthia Vuyisile Dlamini.

Kim Ward



T: 033 3431241
C: 071 4233468
kimw@c-s-v.co.za

APPENDIX H: TURNITIN REPORT



Turnitin Originality Report

THE INFLUENCE OF SUPPLY CHAIN MANAGEMENT ON SERVICE DELIVERY IN
KWAZULU-NATAL DEPARTMENT OF TRANSPORT by Cynthia Vuyisile Dlamini
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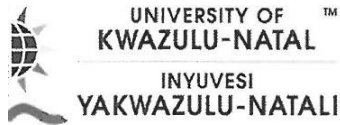
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APPENDIX I: RESEARCH PROPOSAL APPROVAL LETTER



TO: Ms Cynthia Vuyisile Dlamini (Student Number: (213568798))
FROM: SCHOOL OF MANAGEMENT, IT & GOVERNANCE
DATE: 25 October 2016
SUBJECT: Approval of Coursework Masters Research Proposal

Title: The influence of supply chain management on service delivery in KwaZulu-Natal Department of Transport.

Supervisor: Dr Given Mutinta

This memo is to confirm that the Research Proposal Review Committee has accepted your Coursework Masters Research proposal submitted on 22 September 2016.

Good luck with your studies, and we look forward to your successful completion. Please note that you must submit this letter with your application for Ethical Clearance.

Yours sincerely,

Ms HMG Muteswa
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