AN INVESTIGATION INTO THE FACTORS THAT INFLUENCE COMMUTERS IN THE NORTH WEST PROVINCE WITH SPECIFIC REFERENCE TO THE MAFIKENG AREA.

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Submitted in Part Fulfillment of the Requirements for the Degree of Master of Business Administration at the University of North West, Mmabatho.

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DECLARATION

I, Kelebogile Violet Hatebe, declare that the Dissertation for the Degree of Master of Business Administration (MBA) with the University of North West, hereby submitted, has not previously submitted by me for a degree at this or any other university, that is my own work in design and execution that all materials contained herein have been duly acknowledged.

.....

KELEBOGILE VIOLET HATEBE

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- Above all, thanks to Almighty God for being with me at all times.

ABSTRACT

Since time in memorial, mobility by humans has been a major activity which has undergone a lot of transformation. During the ancient times, people moved from one place to another for various reasons using different methods. Modernisation has brought along a new dimension of commuting from one place to the other. Unlike the olden times when commuters used to walk long distances with the help of stars, clouds and other natural landmarks to navigate their way to the desired destinations.

The invention of a wide variety of modes of commuting has brought about different choices of which mode to use with certain factors being the influence of such choices.

The study has explored a wide variety of issues pertaining to the factors which influence commuters in the North West Province particularly in the Mafikeng area and among other things, source of income, status in society, speed, affordability and age have been thoroughly investigated in order to come up with the influencing factors.

The research revealed that the majority of commuters who utilize both public and private commuting modes are of the school going age which is below 20 years. That means this category of commuter has a great influence on the commuting sector. Other factors that influence the choice of mode are age and income. Also, weather can have an impact on the service provided and therefore, cause disruptions. On the other hand, government needs to be in partnership with private service providers. It will regulate public transport and overhaul the entire road infrastructure.

The researcher recommends that both government and the public sectors need joint effort in order to effectively respond to the challenges of providing

an effective and efficient transport system recommendations have further been made regarding the issue so that the identified gaps may be sealed to have a smooth running system.

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CHAPTER 1

ORIENTATION

1.1. Introduction

Transport is a topic of universal interest and importance. Most people wish to travel from one place to another, regularly or occasionally. Goods collected, extracted or manufactured, without exception are distributed from place to place before consumption. Whenever people wish to use a service, which is generally provided in a limited number of places, they must travel in order to do so.

Transport industries exist to provide for the movement of people and goods, and for the provision and distribution of services. Transport is a focus of media attention when disasters occur. It also becomes a center of attraction when strikes paralyse services, or when exciting innovations capture public interest (Hoyle and Knowles, 1992: 139). All transport systems, however, are capable of improvements, and more extensive, faster and above all, more efficient services are constantly in demand.

According to (Hilling, 1996:19), the current stage of transportation introduces the possibility that global mobility can bring about a new era of international collaboration aimed at greater efficiency and equity in the use of the world's resources. By helping to overcome the immobility and isolation that contribute to economic under-achievement, they can set the stage for increased world output, and improve standards of living for the majority of man-kind.

Transport is a measure of the interactions between areas. It also enables a division of labour to occur. Spatial differentiation, wider market areas and economies of scale in production are partly a product of transportation availability and use.

1.2. Background

Transportation problems specifically related to commuters continue to be a challenge for South Africa. This challenge is witnessed in rural areas and has diverse problems for members of the affected communities. Other problems also emerge from the inherent characteristics of colonisation (Hoyle and Knowles, 1992: 139).

The gravity of the problem is not only underlined by the continued rapid urbanization of the population in the context of the discredited spatial policies of the past, but also of the fact that there is no proper industrialisation. This has been worsened by a lack of adequate resources to make a quantum leap improvement on the transportation system. Scarcity of resources is a permanent feature of life, not just a temporary aberration caused by the current economic difficulties faced by the country (Department of Transport, 1996:21).

It is apparent that urban transport policy goals and planning principles have tended to focus on the higher-cost motorised modes. This policy is also leaving the non-motorised transport behind, relegating it in the process (White paper, 1996:73). For example, Gauteng provincial government announced that it had a bold and ambitious plan to make the city's public transport system the best in Southern Africa (Sunday Times, 23 May, 2005:25).

Questions are being seriously raised, particularly given that in terms of mobility and accessibility, the fate of the urban poor has progressively worsened due to the focus on motorised vehicles. Despite the introduction of the new deployment of a National Electronic System (NES) for the entire fleet of taxis under the South Africa National Taxi Council (SANTC), the poor people in urban areas are still suffering in terms of fares charged by these transport modes (The Mail, 2 April, 2005:3). The green paper on national transport identifies the new strategy for non-motorised transport as an important issue requiring attention in an attempt to redress the imbalance (Dept. of

Transport,1996:95). There is therefore, a growing awareness and need to move towards an integrated, sustainable and developmental approach to transportation. Hoyles and Knowles (1992:101) stress that the problems faced by the rural commuters is definitely a resultant of colonialisation.

It is always difficult to define rural areas and to demarcate them clearly from urban. Traditionally, public transport in rural areas has been extremely vulnerable to competition from modes of transport other than the ones better suited to the dispersed pattern of demand.

1.3. Statement of the problem

In the Mafikeng area of the North West province, there is a huge need for transport similar to those in most metropolitan areas. One interesting factor is the way the commuting public has segmented itself to form different groupings categorised by the choice of the mode of transport preferred.

Most passengers complain that public transport is expensive, and over crowded during peak hours. They also complain that they walk long distances to bus terminals and train stations (Provincial Land Transport Framework, 2002:48). Most people in urban areas experience problems of availability and accessibility of the public transport services. They need more capacity, better travel conditions, faster journeys, stable transport costs and outlays as a proportion of household expenditure. In terms of security, people need to be assured that there are low accident rates and minimal criminal activities. Also, in whatever plan is followed, people need to be involved in the design and planning process (White paper, 1996:15). Most passengers complain that public transport is expensive, and overcrowded during peak hours. They also complain that they walk long distances to bus terminals and train stations (Provincial Land Transport Framework, 2002:48).

In view of the diverse modes of transport available, commuters identify themselves with the appropriate mode of transport which not suits their needs but one that is also able to provide them with safety as well as commensurate with their earnings. Some of the questions which arise resulting from the above subject are questions such as what determines the choice of transport preferred, does status in society and one's means of living play a role in determining the desired choice of the preferred transport on the commuting public. The study will seek to investigate the factors that influence commuters in the North West province with specific reference to the Mafikeng area.

1.4. Research focus

This study focused on the investigation into the factors that influence commuters in the Northwest province with specific reference to the Mafikeng area. It will also examine the effect of transport organisation and management thereof, the way commuters choose their preferred choice of transport, the different types of commuting modes available and the costs attached to each mode that will be considered. The parameters of this research will only be restricted to the Mafikeng area of the North West province. Some references are also going to be made to the North West Provincial Department of Transport. Further, the study will focus on the needs, perceptions of service providers and experience of commuters in the North West Province with specific reference to the Mafikeng area.

1.5. Research questions

The core of this study will be divided into key categories. In order to successfully achieve the objective of exploring the subject matter it is imperative to adhere to certain questions pertaining to the topic which will be in form of research questions which will guide the study. For the purpose of this study, the following are the research questions:

1.5.1 What are the demographics which make up the commuting public in Mafikeng?

1.5.2 What characteristic influences the commuters?

1.5.3 What modes of commuting are available in Mafikeng?

1.5.4 Are all areas adequately covered in terms of both the public and private modes of commuting?

1.5.5 What percentage of the commuters utilise public and private transport?

1.5.6 Are the modes of commuting affordable?

1.6. Objectives of the study

The objectives of the study are as follows:

1.6.1. To establish needs and expectations of commuters with regards to transport.

1.6.2. To determine the product offering from transport providers.

1.6.3. To compare perceptions and expectations of commuters with those of the transport providers.

1.7. Rationale of the study

The rationale of the study mainly dwells on the importance of the research. This study is important because once conclusions and recommendations are made as a result of this study, it will assist transport planners and service providers to understand the diverse needs of commuters and it will also explore the commuter's perceptions with regard to public transport.

Relevant strategies bearing appropriate action plans will be suggested where it is surmised that there is an impaired balance brought by poor division of resources. The development of sustainability programmes will be encouraged to bring efficient and effective transportation within the Mafikeng area.

1.8. Structure of the study

The study has been organised in the following manner. Chapter 1 contains the introduction and background. The statement of the problem, the research questions, objectives, and the rationale of the study are also presented in this chapter. The second chapter presents the theoretical foundation while the third chapter presents the literature review, dealing with some terms are defined, and various literature consulted is presented. Chapter four presents the problem statement and objectives. This is where the statement of the problem being investigated is explored thoroughly to determine its effect and research questions are deduced from the scenario presented in the statement of the problem. Research design which incorporates the sampling design, data collection procedures, data collection instruments, data analysis techniques will be highlighted in the following chapter.

Chapter six will presents the results. This is where the raw results from the data will be analysed. Then the final chapter will be chapter seven which will present the findings, the conclusion, the implications and recommendations of the study. It is also in chapter 7 that the summary of the entire study will be presented.

Conclusion

The chapter presented the introduction and background of the study where a wide variety of issues were raised. It gave an over-view of what the study is all about and what it intends to achieve. It has been demonstrated that the research to be undertaken is necessary as it will add value to the already existing body of knowledge in the field. Chapter 2 follows next and its main focus will be the theoretical foundation.

CHAPTER 2

THEORETICAL FOUNDATION

2.1 Introduction

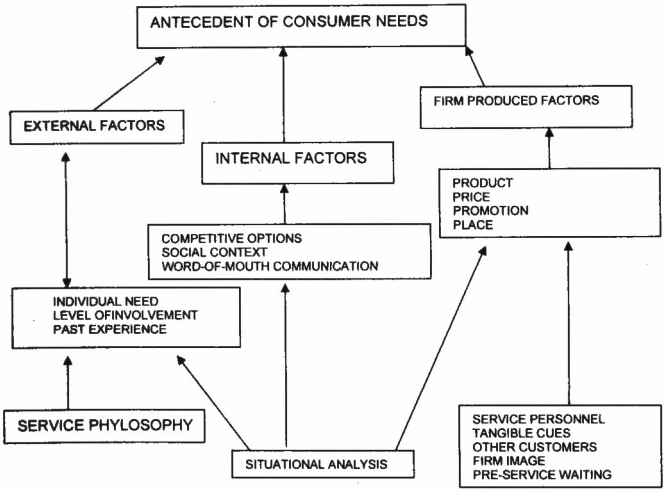
As in all deductive approaches to research, it is essential to start by developing a theoretical model of the phenomena of interest prior to discussing its literature (Gill and Johnson, 1997: 42). An attempt has therefore been made to try and introduce the essential, largely philosophical, issues underpinning this study. Theory and practice are interdependent; therefore all activities are fundamentally intertwined with theory. It is therefore necessary for science to provide knowledge and theory for the prediction and manipulation of future occurrences coupled with behavioral tendencies.

According to Gill and Johnson (1997:43), it is theory that builds into a body of knowledge, which helps one to understand and cope with events and circumstances in the environment. Theories are all characterised by an attempt to explain observations, where as predictions and expectations might be generated in order to guide practical actions. Theorising could be defined as the process of providing explanations and predictions of social phenomena by relating the subject of interest to some other phenomena. It is a network of hypotheses advanced so as to conceptualise and explain particular social or natural phenomena (Bailey, 1982:25).

Theory serves as an orientation for the gathering of data since it specifies the type of facts to be systematically observed during experiments or investigation. If the theory is disproved, it will need improvement or reformulation in cases where an investigation proves otherwise.

Customer expectations are impacted by an individuals' personal philosophy of service, situational factors and the service staff, tangible cues, other customers, the firm's image and pre-service waiting. Internal factors impacting on customers' expectations of service delivery include personal needs, level of involvement and past experience. The factors will impact on a person's ideal, desired and adequate levels of expectations (Kurtz and Clow, 1998:70) It is depicted in figure 2.1 below.

FIGURE 2.1: ANTECEDENTS OF CONSUMER EXPECTATIONS



SOURCE : KURTZ AND CLOW (1998)

2.2. Maslows' hierarchy of needs

In figure 2.2 the hierarchies of Maslow's needs are depicted.

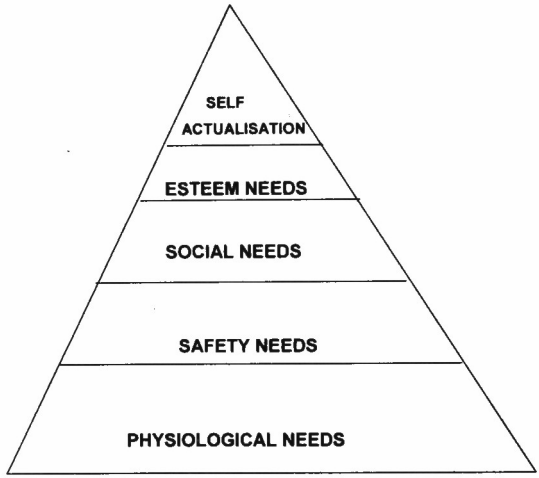


FIGURE. 2.2
Source: (Robbins, 2001:426)

According to Maslow, lower order needs must be fully or at least partially satisfied in a sequential order before higher order needs could affect human behavior. The most elementary needs of humans are the physiological needs of food, shelter, water and clothing. Once these needs are satisfied, individuals will move to the second level of needs, which are safety needs. Security and protection from physical harm and avoidance of the unexpected comprise the safety needs. At level three are the social, belonging needs, which are the desire to be accepted by members of one's family, groups and other individuals.

The two higher order needs of self esteem and self actualisation needs are more difficult to satisfy. Self esteem needs include the desire for status, esteem and to be respected by others. Self actualisation is the attainment by an individual of all that he or she can be, only when the lower order needs have been satisfied individuals will move to those higher order needs (Kurtz, 1998:206)

A critical analysis of human behavior can be linked to the theory based on Maslow's hierarchy of needs model illustrated in the figure above. This theory can be closely related to consumer behavior where lower needs are satisfied first. According to Maslow, human needs have been placed into five categories in the order of importance. Those on which life depends have been placed at the bottom of the pyramid. In the bottom level, there are needs such as physiological needs which comprise hunger, thirst and other issues. Before attending or satisfying any other need, these needs at the bottom level of the pyramid have to be satisfied first.

The level next above comprises the safety need. This is the level that is pertinent to our study. When selecting the preferred mode of commuting, human beings have a tendency of ensuring that their choice will be able to offer them adequate protection, security, order, stability and physical well being.

Most commuters who use any form of transport modes, private or public merely respond to Maslow's theory on safety needs. The status of commuters in society informs the level at which security or protection is organised. In order to adequately address this issue, the affluent members of society employ or sub-contract security companies and chose modes of commuting which have safety features to cater for this need whereby the lower class of society either put personal measures to protect themselves or they don't have any choice as whatever public transport is available to commute them becomes their only choice of commuting. Commuters' physiological needs at all times have to be

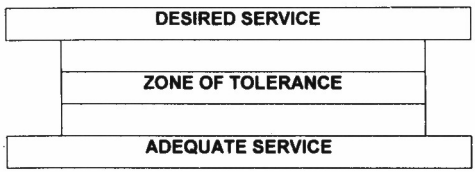
fully satisfied, and this is only achievable if there can be safety and adequate protection against harm in every transport mode boarded to respective places of provisioning. Sense of social belonging is realised along the way as masses of commuters tend to board public transport to reach their respective destinations. In addition, commuters are able to achieve their esteem needs when they are able to arrive safely at their expected destinations, for instance, arriving on time at work is something an individual will cherish more than arriving late. Commuters will be self-actualised whenever the boarded transport modes can carry them from home to their different places of employment or destinations and back forth safely.

2.3. Consumer expectations

A comparison of perceptions when developing customer satisfaction evaluation sounds fairly clear-cut. Expectations serve as benchmarks against which present and future service encounters are compared. In essence, there are three different types of expectations. These are comparisons between customer evaluations of service quality and customer evaluations of satisfaction brought by customer expectations.

2.4. Factors influencing service expectations

In figure 2.5 the factors influencing service expectations are depicted.



Source: (HOFFMAN AND BATESON 2002:211)

In view of the fact that service is characterised by heterogeneity, a consumer learns to expect variation in service delivery from on location to the next and even with the same provider from one day to

the next. Customers who accept this variation develop a zone of tolerance, which reflects the difference between desired service and adequate service.

2.4.1 Predicted service

This is a probable expectation that reflects the level of service customers believe is likely to occur. For example, commuters tend to board the same transport every time when they travel to certain locations. They become accustomed to dealing with the same provider and begin to anticipate certain performance levels. It is generally agreed that customer satisfaction evaluations are developed by comparing predicted service with perceived service.

2.4.2 Desired service

This is an ideal expectation that reflects what customers actually want compared with predicted service and that which is likely to occur. Hence, in most instances, desired service reflects a higher expectation than predicted service. For example, the customer's desired service is that (s)he not only receives the predicted service but the driver of that vehicle is familiar with him or her and enthusiastically greet the commuter as (s)he enters the vehicle. Comparing desired service expectations to perceived service received results in a measure of perceived service superiority.

2.4.3 Adequate service

Adequate service in contrast is a minimum tolerable expectation and reflects the level of service the customer is willing to accept. Adequate service is base on experience or norms that develop over time. For example most difficulties commuters experience are boarding a different mode of transport, from different service providers. One factor that influences adequate service is predicted service. Encounters that are experienced below expected norms are less than adequate service expectations. Comparing adequate service with perceived service produces a measure of perceived service adequacy.

Further, adequate service reflects the level of service customers are willing to accept and is influenced by five factors which are, transitory service intensifiers, perceived service alternatives, customer self – perceived service roles, situational factors and predicted service.

2.4.3.1 Transitory service intensifiers

In contrast to enduring service intensifiers, transitory intensifiers are individualized, short term factors that heighten the customer's sensitivity to service. For example, a customer who has had service problems in the past with specific types of providers is more sensitive to quality of service delivered during subsequent encounters. Once the level of adequate service increases, the zone of tolerance becomes narrower.

2.4.3.2 Perceived service alternative

The level of customer service is also affected by the customer's perceived service alternatives. The larger the number of perceived alternatives, the higher the level of adequate service expectations, and the narrower the zone of tolerance. Customers who believe that they can obtain comparable service elsewhere or can produce the service themselves expect a higher level of adequate service than those customers who believe they are not able to receive a sufficiently better service from other service providers.

2.4.3.3 Self perceived service role

The service customer is often involved in the production process and can directly influence the outcome of service delivery. When customers have a strong self-perceived delivery role, they believe that they are contributing, and their adequate service expectations are increased. However if customers willingly admit that they have failed to complete forms or provide the necessary information to

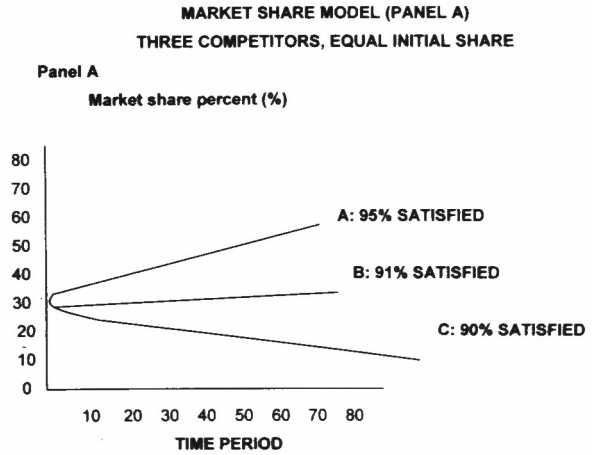
produce a superior service outcome, then their adequate service expectations decrease and the zone of tolerance increases.

2.4.3.4 Situational factors

As a group, customers are not unreasonable. They understand that from time to time, situational factors beyond the control of the service provider will lower the quality of service. When circumstances occur beyond the control of the service provider and the customer has knowledge of those circumstances, adequate service expectations are lowered and the zone of tolerance becomes wider.

2.4.4 Babich's three customer satisfaction model

Customer satisfaction and expectations can predict changes that occur over time within markets. Firms compete with service and products to gain majority of consumers (Hoffman and Bateson, 2002:309). In figure 2.6 Babich's three customer satisfaction model is depicted.

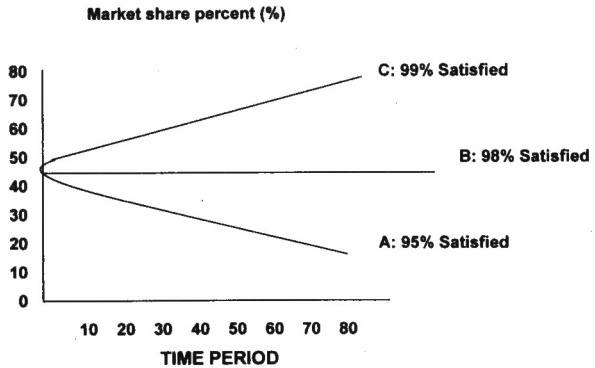


Panel A assumes a closed market of three firms that began at period zero with equal market shares. The three firms offer comparable products and prices and compete for a growing market base.

MARKET SHARE MODEL (PANEL B)

THREE COMPETITORS, EQUAL INITIAL SHARE

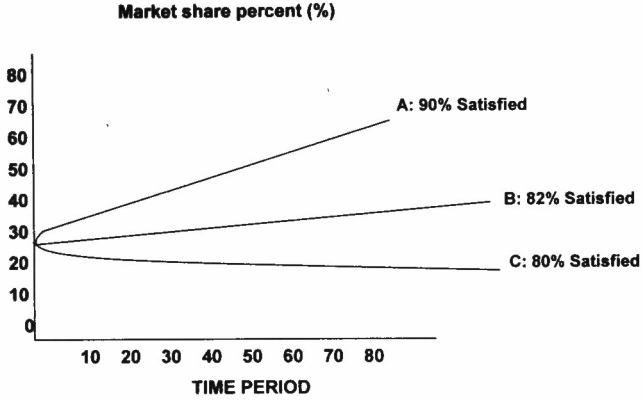
Panel B



Panel B assumes that satisfied customers will defect to other firms in the market. For example, dissatisfied customers of Firm A will buy from Firm B or Firm C during the next time period. The length of time period varies depending on the product. The direction of customer defection depends on the firm's market share.

MARKET SHARE MODEL (PANEL C)
THREE COMPETITORS, EQUAL INITIAL SHARE

PANEL C



Panel C shows the rate of customer satisfaction wherein Firm C's market share is higher than Firm B's market share, and Firm C obtains a higher share of Firm A's dissatisfied customers. This logic is based on the premise that dissatisfied customers will be more particular the next time around and will conduct more research and seek out referrals from others. In this case, because of Firm C's higher market share, Firm C would be the beneficiary of more positive referrals.

Conclusion

Human behavior can be explained in terms of needs that (s) he experiences. Maslow's hierarchy of needs explains more about the needs indicating that needs of any human being range from physiological needs, safety needs, social needs, esteem needs and self actualization needs. Clayton Alderfer (ERG Theory) also emphasises what Maslow discovered but differ with him

when he contends that more than one need may be activated at the same time. Customers on the other hand have their own perceptions and expectations. Customer expectations are beliefs a customer has about the performance of a service which is used as a standard or reference against which service performance is judged.

The next chapter focuses on the Literature pertaining specifically to the study.

CHAPTER 3

LITERATURE REVIEW

3.1. Introduction

The purpose of this chapter is to reflect on the literature consulted for this study. Literature review is the process by which a researcher reviews and examines various forms of literature on the subject matter and makes an analysis thereof so as to ascertain different views put forward by various writers. It further provides a theoretical foundation of a study so that opinions and hypothesis expressed by writers and scholars are established to provide a theoretical framework for a study.

3.2. Definitions

The explanation of the terms commuter, customer, government, property, business, and public, management, urban, rural and fleet which forms the cornerstone of the study will be defined. This is done in order to assist the reader to perceive certain words in the same context as the author.

3.2.1 **Commuter** : This refers to any person who moves from one point to another by means of any mode of transport including pedestrians (English Oxford Dictionary,1995:122).

3.2.2 **Customer**: This refers to any person who transacts with another business or between two businesses (English Oxford Dictionary, 1995:53).

3.2.3 **Government**: State owned organisation or department controlled by the state (English Oxford Dictionary, 1995:274).

3.2.4 **Business**: Transactions between clients and organisations (English Oxford Dictionary, 1995:78).

3.2.5 **Management**: The ability to lead, plan, control and direct (English Oxford Dictionary, 1995:385).

3.2.6 **Urban** : he civilised and developed part of any community (English Oxford Dictionary, 1995:730).

3.2.7 **Rural** : The less civilised and relatively less developed part of any community (English Oxford Dictionary, 1995:568).

3.3. The influence of transport on human socio-economic status

Transport systems influence many areas of human activity and the physical environment within which they are set (Moving South Africa,1999:126). Today, the transport system of any country or any area can-not normally be explained by one factor alone. The explanation can be found in a series of interrelated factors. The factors may be demands, trading conditions, political structures, transport networks, environmental factors, available technology and finance. These factors affect transport in different ways, influencing each other as well as affecting transport systems directly and indirectly Moving South Africa, 1999:126).

3.3.1 Transport demands

Changes in transport demand usually originate with changes in the pattern of resource exploitation and are often stimulated by changes in population structure, density, distribution or mobility as well as by people's desire to improve living standards (Dimitriou, 1990:51).

Resource exploitation involves the extraction, processing and marketing of resources, requires and increasingly specialised division of labour to generate a higher living standard and although stimulated by trading opportunities, is limited by trade constraints. The form of the transport network provided and the nature of the transport system in which it operates, is a product of competing constraints Moving South Africa,1999:138).

3.3.2 The physical environment

The physical environment influences the development of transport infrastructure, roads, railways, seaports and airports directly and indirectly through the comparative costs of construction (Dimitriou, 1990:139).

3.3.3 Technology and Finance

The technological characteristic of individual transport modes, impose limitations with regards to usage and maintenance costs, for example, advanced technology is expensive and transport costs are therefore frequently a reflection of technological inputs. Together technology and cost factors are closely related to environmental issues. For the adaptation of a transport system to physical conditions or to environmental concerns it is dependent upon technological capacity and available financial resources (Dimitriou, 1990:74).

3.3.4 Political

Political decisions involving transport investment, such as in other spheres, hinge upon issues both broader and more specific. There is often a conflict between the demand for transport and the political objective of a transport innovation and its economic purpose or value (The Shop Steward, 2001:7). Governments are a major source of capital for investment in transport infrastructure, although private investment is also very important in some countries. Governments are involved in the regulation of the supply of transport services, in the control of inter-modal competition, in safety control, in the coordination of investment allocation between modes and areas, and in decisions concerning pay and working conditions. In all such decisions, governments are often in a position to influence what happens in transport, but decisions can only be taken in the context of the consideration, evaluation, and acceptance of all the relevant factors involved (Provincial Land Transport Framework, 2002:71).

3.3.5 Economic

Economic factors involve a different set of perspectives. Economic approaches to transport have involved the assessment and analysis of traffic flows of collections, dissections and discussion of movements along a line, within a network, in reaction to demand and costs (Dimitriou, 1990:69).

3.3.6 Public transport

The term public transport is a generic term used to indicate that transportation is available to the public and this mode includes trains, buses, minibuses, taxis and others (Simon, 1996:107). The wide array of public transport services can be categorised on the basis of mode, the technology used and the type of service provided. The most basic distinction is between rail and road-based transport.

The majority of public transportation services in South Africa are provided by the private sector. Public transport modes consist of taxis, minibuses, buses and trains. The operation and fares are frequently regulated by government. Regulations are generally minimal and consist mainly of showing appropriate licenses, paying the required fees and submitting the vehicle to an annual fitness inspection (Provincial Land Transport Framework, 2002:17). The operators generally have the freedom of choice as to which route they operate, although this may be regulated by associations within the industry e.g. Taxis.

The majority of people in the central region (Mafikeng area) are commuters who use taxis and buses. There are clear differences between cars, taxis and buses, visually and in terms of service characteristics. Buses differ from cars hired by individuals to transport them to certain places with pre-determined rates with the route determined by the passenger's destination. A public bus compared to a

hired car, provides a regular pre-determined flat fare or distance based rate. It is used by different passengers according to the vehicle's capacity, although over loading is common in developing countries (http://www.gov.za,12/05/04:10h51).

Simon (1996:109) states that buses constitute the most important single mode of road based public transport as they do not involve sophisticated technologies and can accommodate a substantial number of people or operators with modest fares. Capacity is extremely important in the context where a high proportion of the population lack access to private transport and where urban railways are either non-existent or restricted to a few routes.

According to Hanson (1995:83), well organised public transport system involves interchanges between rail-based and bus services to facilitate feeder services and to ensure adequate coverage of urban areas. Hilling (1996:209) states that there are three distinct but closely related elements of road transport. First, there are the steps by which an increasing number of modes are connected and gradually build up into a spatially integrated system of routes with increasing levels of connectivity. Second, road construction technology has changed with time and thirdly, there is the changing character of the vehicles which use the route. These three elements are inextricably linked. Alignments will be closely related and will also be influenced by the type of vehicles in use and the road design and construction technology adopted.

3.4. Accessibility and mobility

Hilling (1996:209) further states that in most urban areas of developing countries, (South Africa included), accessibility and mobility are purchased at a high social and economical cost. He goes on to say that accessibility refers to the number of opportunities available within a certain distance or travel time. Mobility refers to the movement between different activity destinations hence transport plays a major role in attaining the two.

3.4.1 Advantages of accessibility and mobility in public transport

Urban activities serviced by transport systems are those of internal importance to the incumbents and those of significance to the city's function as a national centre (Hanson, 1995:85). To enhance the efficiency of urban transport systems, it is therefore an obligation in urban transport planning not to only respond to locally generated movement requirements, but also to relate to the country's national urban development strategy that exists (Moving South Africa, 1999:35).

Further, Moving South Africa (1999:92), also state that transport plays a major role in achieving economic development. It can make a difference between profitability and non-profitability and between export and import competitiveness. According to Simon (1996:111), the engagement of transport in the enhancement of the economy does not imply that transportation in itself is capable of achieving economic development solely, but can also contribute positively in the development process.

Transport can provide a high and rising standard of living for a country's citizens. This goal depends on the nations' ability to achieve high and rising levels of capital, labour and management productivity in the activities it performs. Also transport investment can positively influence the economy of any country. Improving the speed, capacity and reliability of transport or reducing prices provides opportunities for widening market areas and increasing market share (Provincial Land Transport Framework, 2002:144). This will only occur when finance, productivity capacity, entrepreneurial skills and trading conditions permit.

Transportation can contribute to building the economy indirectly by making goods and services available at affordable prices. Physical

service delivery pertains to the effectiveness of infrastructure and the ability of such infrastructure to support the province's development needs. In terms of social service delivery, transport will have a direct influence on people's ability to access health education, housing and other related services (Green Paper, 1997:159).

3.4.2 Disadvantages of public transport to rural and urban poor

According to Hilling (1996:211), there is a vast difference in the availability of transport in urban areas and rural areas. Both communities experience problems of availability of transport in different ways. Rural areas in the developing world are likely to occupy a higher proportion of the national population and to play a bigger role in the economy, but they are neglected by the governments, whose resources are inadequate for the provision of basic infrastructural improvements.

In rural areas, service is needed particularly for agricultural purposes. To maintain a geographical coverage of all settlements in the rural region, even at low frequencies, means providing an aggregate vehicle capacity which is excessively high, relative to the likely patronage. Transport supply at the level of the individual bus or train, is indivisible and can not be broken down into very small units to match the scale of demand. There is a fundamental mismatch between the type and scale of transport provision and nature of demand.

Again, rural areas experience similar problems such as urban areas in terms of service costs. The rural economy in developing countries, is overwhelmingly an agricultural one. Villages are occupational communities. The purpose of rural transport is primarily to service agricultural demands either at a subsistence level within villages or at a commercial level through local markets. Freight transport has a higher priority that passenger transport. Long journeys may be necessary for basic commodities such as water and fuel, but

otherwise travel pattern may be spatially restricted. The main issue is not the provision of public passenger transport by the state or the private sectors, but the development of appropriate technologies to reduce transport costs of communal production and marketing (Hanson, 1995:91).

According to Hoyle and Knowles (1992:102), in order to better transport services in rural areas, private motor vehicles can be used for rural transportation. Motor cars are not inhibited by the fixed linear routes and time tables of bus or train modes but it is personal, individualistic, convenient and flexible. It has fewer problems as compared to experiences by commuters in urban areas in terms of congestion and parking problems.

3.5. Environmental impact

Transport has negative impacts to the environment especially noise and air pollution. Both are a major concern to the public (Hoyle and Knowles, 1992:94).

3.5.1 Noise impact

Noise has been defined as unwanted sound. There is a threshold at which noise becomes unacceptable and may cause stress and mental tension (Hilling, 1996:211).

Hilling further says that noise energy is generated by all forms of mechanised movement. Transport noise forms a large part of the total noise in many environments. The main source of transport noise is the road, air and rail. Road traffic noise affects the most people, particularly in urbanised societies.

3.5.2 Impact on air quality

Transport is a major contributor to air pollution since it depends largely on air combustion of fossil fuels, either in vehicles or at railway stations. Pollution is an undesirable change in the physical, chemical, or biological characteristics of air, land and water that

may or will be harmful to human or other forms of life. Although people do not always perceive an increase in local air pollution concentrations, poor air quality can certainly be harmful to ones' health. Sulphur Oxides exacerbate respiratory conditions in humans, and carbon monoxide can contribute to psychomotor dysfunction and have a serious effect on the cardiovascular and respiratory systems (Holloway, Kaplan and Wheeler, 2004:72).

3.6. The status quo of transport in the North West Province

The National Land and Transport Act (NLTA) (Act No. 22 of 2000) requires that the following issues be covered in the status quo of the provincial Land transport Frame work (PLTF);

- Public transport network and facilities of provincial road provision.
- National and provincial road, rail networks.
- Backlogs in provincial road provision.
- Intra and inter-provincial long distance service, inter-provincial commuter service and cross boarder services.
- Perceived problems and issues relevant to public transport.
- Status quo regarding metered taxis.

3.6.1 Taxis

The North West Provincial Department of Transport facilitates the fast tracking of operating licenses. All the registrations of taxi associations are formalised and route-based operating licenses are regulated accordingly.

The department co-ordinates the issuing of clear guidelines to assist the relevant authorities to regulate learner transport and private hiring.

Bus operations in Mafikeng are of utmost importance to commuters. The only operating bus fleet, the Atamelang, formerly known as the North West Star Bus runs through Mafikeng and Ramatlabama. Its long

distance services must run from Mafikeng to outlaying towns like Taung, Kuruman and surrounding areas.

3.6.2 Public transport operations within Mafikeng

The public transport network in Mafikeng consists of buses and taxis that mainly transport people between their residences and work places. The Mafikeng and Mmabatho areas are the transportation cores of the municipality primarily because they have a large population and the largest concentration of employment opportunities, both of which generate large traffic volumes (Provincial Land Transport Framework, 2002:22).

The roads between towns are generally in a good condition in and around the major employment areas. The roads that connect the settlements to the feeder roads, however, are badly maintained gravel roads. During the rain season, the feeder roads become impossible to drive on. The department of transport, therefore, has the aim of making public transport accessible. Sometimes, transport operators are discouraged from traveling along certain routes due to the bad terrain.

3.6.3 Co-ordination of transport plan between planning authorities and local municipalities

The North West Green Paper on Transport Policy of September, 1997, states that there must be a process of interaction with the provinces to finalise the allocation of powers and functions to the most appropriate level, and to establish a mechanism for co-ordination and cohesion to promote the strategic and functional interests of transport. The North West Provincial Department determines the transport planning process at the provincial sphere and influences the transport planning of the municipalities. It is also responsible for the co-ordination of the full spectrum of transport planning initiatives in the province as well as for promoting public transport and modal integration. The department also has described mechanisms that have been instituted to resolve possible conflicts between provincial transport and land use planning.

3.7 Transport as a facilitator

A prerequisite for integrated infrastructure planning and provision is the effectiveness of the institutional and administrative support structures. Guidelines for modal and spatial operations and transport service levels are to be formulated and implemented to assist all levels and organs of government and allow for full participation. A strongly focused department of transport will play a leading role in co-ordination transport policy, developing and implementing strategies and ensuring high levels of integration (Green Paper, 1997:80).

According to the Green Paper (1997:80) the following may be regarded as important in aiding integration of transport with strategies or initiatives.

- Building upon the existing geographic information system for the province. Several systems currently exist but are not fully integrated. In addition, information is not easily available which indicate where all the initiatives and planned projects are. Such information can be used to identify disparities and opportunities for integration.

- The establishment of a forum with representatives from various provincial government departments and district municipalities be planned and coordinated.

- In terms of the National Land Transport Transition Act (1994:42) planning authorities are required to formulate integrated transport plans and to update them on an annual basis.

3.8 Public transport strategy in the North West Province

The purpose of the public transport strategy component of the PLTF is to articulate clearly the strategies and actions applicable to public transport during the next five years. In this context, public transport means transport modes which comprise buses, mini-buses, taxis, metered taxis, aero planes and rail (Provincial Land Transport Framework, 2001:53).

Requirements in terms of national regulations:

3.8.1 A description of strategy and high priority focus areas for public transport.

3.8.2 A summary of initiatives planned and implemented by the province relating to public transport in the province and initiatives to promote the use of public transport over private transport.

3.8.3 An identification of deficiencies in the transport system and measures to address them, a list of initiatives regarding the transportation of people with disabilities and other special categories of passengers.

3.8.4 A list of the following initiatives, if any;

a. Approach to financial and economic support to public transport including the allocation of subsidies.
b. Modal integration strategy.
c. Transport that addresses the needs of the learners.
d. Public transport securities.
e. A policy on special categories of vehicles not normally used for public transport, such as adapted light delivery vans.

3.8.5 Copies of agreements regarding inter-provincial transport concluded with other provinces.

3.8.6 The transport strategy addressing the needs of the learners is as follows;

(a) To promote the use of discounted fares for learners on all modes of transport

(b) To facilitate the involvement of the mini-bus taxi industry in the operation of subsidised learner transport.

(c) To investigate the problems related to the use of light delivery vehicles in the operation of learner transport.

(d) To review and amend the nationally prescribed tendered contracts model with a view to allowing the integration of learner transport with commuter service contracts.

(e) To develop broad guidelines and a framework to assist planning authorities in addressing the need for learner transport.

All subsidised road-based public transport services will be provided through tendered contracts and the department will develop a normalised policy for subsidised road-based public transport in consultation with the National Department of Transport. A transport inspectorate will be established for transport law enforcement, and this will be supplemented by provincial and municipal traffic officers. Public transport by means of light delivery vehicles will be regulated.

3.9 Rural access

The inadequacy in the mobility system has the effect of limiting the developing communities' opportunities for participation in the formal economic sector. It is necessary to foster the development of a balanced, cost effective transport system which is composed of complementary transport modes that are compatible with a differentiated travel demand and reflect various levels of financial and social constraints (Department of Transport, 1996:17). Enhanced mobility and accessibility and transit, as well as safety and security are other issues to be addressed.

There is evidence to show that many road transportation studies were concerned with cars, trucks and buses, showing scant regard to non-motorised transport (NMT). Furthermore, although walking was by far the most prevalent mode of movement, it was not always treated as a mode of transport (Wigan, 1995:19).

3.10 Non- motorised transport

Generally, NMT modes refer to a range of transport modes from animal drawn carts, Tongas, push carts,, Pedi cabs, and bicycles to walking. However, NMT in urban areas of South Africa largely refers to walking, cycling and various forms of push and hand carts.

The North West department of Transport changed the concept and developed a project in order to help the low income earners and rural people. The strategy seeks to set out the principle and flow of actions intended to govern the transition from a mere strategy into a live project. In terms of the operational plan underpinned by the broad strategy, the benefits of the NMT strategy begin to flow into targeted communities in a substantial manner. The plan is structured along each of the three streams namely, bicycle, animal drawn carts, and other low powered options. Government decided to divide bicycles into two parts, namely, the scholar components and the adult components.

The main aim of bicycle project was to address the distance which scholars travel from home to school. Scholars are those in both rural and urban areas, whose daily mobility needs are currently not catered for via traditional scholar transportation service and are faced with the daily prospects of walking long distance (Provincial Land Transport Framework, 2002:212).

3.11 Scholar bicycle programme

According to the Provincial Land Transport Framework (2002:227) the main aspects of the scholar bicycle programme are as follows;

- The essence of government intervention is to supply free of charge, bicycles to scholars as defined under targeted beneficiaries.
- Initial funding is through the allocation of a budget which is anticipated to continue, on an annual basis, for the foreseeable future.
- The purpose is to positively intervene to reduce long distance on foot between schools and homes.
- The targeted beneficiaries are scholars who travel in excess of 10 kilometers a day (round - trip) between school and homes where normal passenger services do not exist. The minimum age of the scholar is 10 years.
- The identification of beneficiaries is as follows;
- Scoping exercise conducted at all schools produces information on the basis of distance and age criteria.

(a) Due to the limits on capacity, the longest distances are to be the first to benefit.

(b) The scope of the project covers the whole province.

(c) Repairs and maintenance of the scholar bicycle is to be effected through the roll-out system design under the audit Bicycle programme (ABP) and shall be at the cost of the student.

3.12 Adult Bicycle Programme (ABP)

Some of the main aspects of the ABP stated by Provincial Land Transport Framework (2002:227) are as follows;

- The essence of the intervention is a once-off donation of 200 bicycles to communities where the need has been identified through the scoping exercise and where commercial viability does not exist for normal passenger services provision.
- The purpose is to encourage use of bicycles as a viable and desirable alternative in areas where commercial viability does not exist for normal passenger services.

- Targeted beneficiaries are individuals with an income who might be willing to purchase the bicycles at prices below the retail prices.
- Initial funding mechanisms to be the same as for scholar bicycles.

The process for implementation is as follows;

- A locally based Non Governmental Organisation (NGO) is to be identified and given custodianship of the project.
- The 200 bicycles, one storage container and one workshop container with tools are to be donated to the community through the NGO.
- The NGO assigns one person who will be trained to champion the project.
- The 200 bicycle donation enables the NGO to realise some measure of start-up capital (R80 000.00 if sold at R400.00 per bicycle).
- This amount less expenses is to be ploughed back to the purchase of more bicycles to ensure sustainability.
- It is anticipated that over time, more income will be earned through repairs and maintenance of customer bicycles.
- Alternative to the suggested implementation may be a business approach which involves the awarding of the distribution opportunity to a local SMME operator with a profit motive.
- Procurement shall be through a governmental system with tender board approvals to ensure control of prices within affordable limits.

3.13 Animal drawn Carriages (ADC)

The intention is to explore the inclusion of this mode into the government contracted service to cater for scholars that are too young to cycle as well as adults requiring regular transport in areas where the roads

infrastructure does not permit the operation of the other modes (Provincial Land Transport Framework, 2002:212).

3.14 Other low powered versions

The operational plan will form the subject of a separate briefing soon after the launch. The development of creative non-motorised transport solutions has had relevance for the achievement of most goals. Specifically, support for the RDP strategy in terms of improvement of competitiveness, and investing in infrastructure so that social, economic and strategic criteria are met, are all areas that militate in favour of a strategy to address transport issues through non-conventional approaches (National Planning Approach, 2000: 32).

3.15 Customer satisfaction with regard to expectations and perceptions

Any business may grow from its simplest beginnings to a complex structure. As the volume of business grows, the specialists gather their own staff, and the appearance of departments may emerge. Any transport business, being spread in space, is likely to need managers in different places and decentralisation of districts can follow. Related to the nature of the challenge being faced, an appropriate industry structure is needed.

Specific actions necessary to deliver an appropriate industry structure is to implement strategy initiated by government for better services. The industry has to meet customer needs using relevant resources. Individual firms must allocate their own resources strategically. Such resource allocation decisions must be transparent, primarily through ensuring that prices reflect the true cost of service provision.

According to Wright (1996:79), any business consists of people, and there will be a need for some to manage while others are subordinates. There is an important notion that an organisation is the product of how its members see it. Encouraging and facilitating a

positive internal image is the responsibility of senior management (Hoffman and Bateson, 2002:286), who must be in unison that corporate planning will mean nothing if there is a failure in this area, and no amount of formal organisation can be a substitute for the loyalty of staff.

According to Kurtz et al (2000:165), promoting high expectations will increase patronage but also increase the possibility of producing dissatisfied customers. Promoting lower expectations will ensure satisfied customers, but the possibility of getting customers to buy the service is greatly reduced. Therefore, the ideal goal is to promote the exact service customers will receive and provide the exact customer expectations. If firms can match expectations and service, customers are satisfied. Customer expectations must be managed during the pre-purchase phase, the service encounter and the post-purchase phase.

According to Moving South Africa (2001:63), the basic pre-condition for the transport system to meet and innovate around customer needs will be increased customer satisfaction. The strategy requires action to build the sophistication of customers.

Consolidation of customer demand increases opportunities for greater levels of competition while still retaining the advantages of economies of scale. The introduction of customer choice between competing operators, particularly where competition is based on value other than just on price, creates incentives for operator up-grading and innovation.

Customer sophistication on the other hand will be enhanced through the promotion of value based competition that is supported by a platform which drives innovation. Transparent decision-making by transport authorities and transparent funding and price systems will further contribute to the development of demanding customers. Transport authorities and government also have a role to play in providing information about the performance of the transport system and the details of cost, pricing and funding. Providing information to customers

will be an important role of government in its efforts to upgrade the sophistication of customer demand. Refer to table 3.2 below.

TABLE 3.2
MANAGING CUSTOMER SERVICE

PHASE	STRATEGY
Pre-purchase phase	• Learn what customers expect • Tell customers what to expect • Consistently provide the service customers expect
Service Encounter	• Communicate with customers during the service • If possible, modify service to meet customer expectations • If not possible to modify service, explain why
Post-Purchase phase	• Communicate to see whether expectations were met • Develop a follow-up programme • Develop a procedure for dealing with dissatisfied customers

SOURCE: HOFFMAN AND BATESON (2002:313)

The above table summarises what service providers need to know about service quality based on perception. Government promised to deliver against the needs of customers and users, and to deliver against such needs means the understanding of user needs. The information in table 3.2 enables service providers to understand factors which they have to consider before, during and after service provision. Customers prioritise and rank companies according to services they receive.

3.16 Service quality based on perception

One principle underlying the understanding of service quality is based on perception. Often a difference exists between the level of quality customers received and what they perceived (Hoffman and Bateson,2002:295). Customers, who are evaluating the quality of a service, are influenced by their perceptions and not what the service provider assumes. If the customer perceives (s) he received poor service, then the decision about future patronage will be based on that perception. Service firms must first understand the concept of service quality from the view-point of a customer, and not from the view point of the service provider.

3.17 The services environment

A manager's practical abilities will be related to his understanding of the environment within which his business functions, both physical and social. The environment changes very rapidly and this necessitates a thorough environmental awareness on the part of management, as well as adaptability with regard to its approach to management (Bennet and Nieman, 2002:72).

Service organisations should take four steps to maximise the impact of their environment. First, the firm should identify its operational strategy. Second, it must identify the appropriate service position that corresponds with its operational position. Third, the firm should identify the desired behaviors they wish to elicit from the service. Fourth, the firms needs to identify the service factors that will enhance the desired behaviors (Jordaan and Prinsloo, 2004:39) Refer to table 3.3 below;

TABLE 3.3

MAXIMISING THE SERVICE ENVIRONMENT

MAXIMISE THE SERVICE ENVIRONMENT
1. Identify the firm's operational position
2. Identify the appropriate service scape position
3. Identify desired behaviors to be elicited by the service scape
4. Identify service scape factors that will enhance desirable behaviors.

SOURCE : JORDAAN AND PRINSLOO (2004)

Industries must understand the environments they operate in before maximising the service. The transport strategy developed under the apartheid regime set out to connect dormitory townships with urban employment modes, leaving non-commuters largely stranded. Companies therefore needed a new transport strategy to provide all passengers with access to safe and reliable transport options, and to enable them to choose between different options depending on their specific needs.

3.18 Management techniques

Most industries are managed by certain strategies. Bell and Iida (997:20) stated that it is important to use three approaches in the transport industry. He first is management by exception, management by objectives and leadership.

Management by exception requires managers to look for relevant information and to have it available in a systematic formal manner. An effective manager will be the one who can manage his own time.

Second, management by objectives depends on the effective budgeting and requires the reporting of significant information, but it is more concerned with management behavior and the way objectives are set at this level. Business consists of subordinates and

supervisors and how members see it. The manager as a member will never be satisfied with objectives that are set by his superiors; he is the best judge of his own performance. What is needed is a way of setting standards that enables the manager to be fair to him.

Third, leadership is very important. Admittedly, there is a commonality in which businesses are run in terms of leadership. The activity of leadership cannot be carried out without followers. What the leader must do is to influence the behavior, beliefs and feelings of other group members in an intended direction (Wright, 1996:47). There is of course a place for an authoritative style of leadership, as well as for a consultative style. The former belongs to what may be called a fail-dangerous situation, which applies in many branches of transport (Hilling, 1996:23).

Wright (1996:51) explained that authoritative leadership occurs mainly in the case of aircraft transport where the captain must have absolute authority in case of an emergency, and the second officer must be ready to assume this authority if the captain is incapacitated.

But the captain also functions as a leader of a team, in which each member has his own contribution to make, be it engineering or navigation. Apart from emergencies, the appropriate leadership style will be consultative. Although the manager in a bus company is not in the isolated position as the captain of an aircraft, there will be occasions when (s)he has to take authoritative action in an emergency.

3.19 Conclusion

Transport is an unusual form of public service in that it is not consumed for its own sake but, rather, as a means to another end. The value of the service depends primarily on how well it provides access to destinations. People located towards the peripheral of the urban areas have poorer transportation, especially transit services.

Resources need to be allocated equally and fairly. People believe that the type of service rendered should display the comparable quantity and quality of other providers regardless of service.

The issue of systematic discrimination raises legal and moral equity question, namely the distribution of public transport service benefits to disadvantaged urban groups. From a moral perspective, the primary issue revolves around low-income and transportation disadvantaged individuals. Therefore, government and private transport providers must have knowledge of the needs and expectations of customers when planning.

This chapter evaluated the views of different writers and what is enshrined in various policies of government on the topic under consideration. Different authors have different view and this is what underpins the study.

The next chapter will focus on the problem statement and the objectives.

CHAPTER 4

PROBLEM STATEMENT AND OBJECTIVES

4.1. Introduction

This chapter introduces the problem statement and objectives of this research. The problem perceived by customers to transport particularly for developing communities, is caused by insufficient public transport in their areas. Government on the other hand, intends to redress the imbalance, particularly in the rural disadvantaged areas. Government has its own strategies to attend to issues such as:

- Financial sustainability;
- Safety and the environment;
- Institutional and regulatory structures, and
- Human capacity building.

According to the Provincial Land Transport Framework (2002:149), public transport will be promoted over private transport. All land transport activities across all three spheres of government must be assessed in terms of whether they will be able to achieve the aim of giving public transport priority over private transport. Improved levels of service, comfort, affordability and sustainability will be striven for in public transport services, so as to enhance their attractiveness as an alternative for private vehicle users.

4.2. Defining the problem

It is generally believed by commuters that the current public transport system does not meet the consumer needs in terms of travel time, cost and level of choice. Mobility and accessibility are purchased at high cost. This has been worsened by the lack of adequate resources to

make quantum leap improvements on the transportation system where scarcity of resources is a problem.

The transport mode in most cases is disorganised. The Shop steward (2001:17) stated that transport needs to be properly organized for better services. Operators also contribute to this disorganisation. They form themselves into transport syndicates which operate in a similar way to the transport agencies. Other factors are the bad conditions of the vehicles. Most taxis which operate illegally ignore the annual inspection of vehicles which causes fear in the social welfare of commuters. Provinces experience accidents caused by those vehicles which are not roadworthy, for example, scholars in Gauteng province were involved in a bus accident due to a mechanical failure (Sunday Times, 23 May 2005:1).

Some of the questions which arise resulting from the above phenomenon questions such as what determines the choice of transport preferred does status in society and one's means of living play a role in determining the desired choice of the preferred transport on the commuting public. The study will further seek to investigate the factors that influence commuters in the North West province with specific reference to the Mafikeng area.

It is also apparent that transport policy goals and planning principles for both urban and rural transport are not well balanced. Goals and planning principles have tended to focus on the higher cost motorized transport modes and dismisses the non-motorised transport (NMT), regarding them as inefficient and, at best, relegating them to the ancient era of creation (Moving South Africa, 1996:32).

Since mobility and accessibility are the primary problem for passengers, there are also sub-problems which contribute to the negativity of the current situation at hand. Both urban and rural passengers experience travel problems in terms of:

- **Availability of resources;**
- **Proper infrastructure;**
- **High traffic congestion on urban roads;**
- **Low income and higher cost fares;**
- **Parking bays in towns and cities;**
- Time and availability; and
- Regulations governing public transport.

4.2.1 Urban Passengers

When viewed as a whole, the key gaps in urban transport were distilled into challenges, which are, lack of affordable basic access, ineffective public transport driven by past land-use patterns and poor subsidy. Another gap is due to the increasing dependence on cars and lastly, spatial planning. According to Moving South Africa (1996:68), urban commuters are categorized into six segments.

There are commuters that can be hikers, who enjoy good low-cost access to their preferred destinations.

The second group is the stranded. The transport system is failing this group more than for any other groups. They lack affordable basic access to motorised transport and therefore, have little ability to integrate with the rest of the society.

The third group is the survival passengers. Their principal needs are low cost, higher speed public transport. This group can afford to use public transport, but is captive to the least expensive option. They have few choices, even within public transport.

The fourth group, the sensitive, still captive to public transport, but has enough income that members can select the best transport option. A few of this group can afford a car but are willing to use public transport

if it meets their primary requirements of higher speed, and greater choice and convenience.

The last group comprises the stubborn customers. Members of this segment opt out of the public transport system altogether by using their cars, and cost is a minor issue for them, compared to the much more salient concerns of convenience and speed.

The stranded and survival segments are not well served in terms of cost, travel times and choice. One segment that is well served is the stubborn, which benefits from a high income level and a good road network for their cars. Even though the stubborn customers are somewhat dissatisfied with the convenience of the system, by international and local standards, they are exceptionally well served.

The above groups' problems are being increased by current land patterns which leave commuters and other residents distant from key services that they need, and the system's overall inefficiency is creating high demands for subsidies. Unless something is done, land use patterns will increase public transport journey time and cost, and increase car dependence. According to Hilling (1999:25), the number of stranded customers will grow. The number of car users will double and road congestion will consequently worsen and have a significant effective on economic productivity and the viability of the public transport system.

There is still a problem of inefficiency of public transport. This matter can worsen the problems faced with road space and road congestion. The current public does not meet customer needs in terms of travel time, level of choice and cost. The system is of limited use for scholars, given its orientation around the needs of commuters and the limited level of off-peak service. According to the Green Paper dated October 24, 1996, South African public transport cost is relatively high

compared to international benchmarks. Services cost users 32% more than world averages, primarily because of the distance they travel. The result is higher system costs, deteriorating infrastructure, higher user costs and poorer service for those users who are captive to the system. More generally, ineffective public transport severely restricts labour mobility, impinges on worker productivity and impedes social integration.

On the other hand, there are several factors which contribute to this problem of inefficiency of public transport. One is the lack of financial sustainability of the urban public transport system. Commuters, rail, bus and taxi operators are spending well below the needed level to maintain and upgrade their assets (http://www.transport.gov.za-14 January, 2006). The results are poorer service, more vehicles out of service, more frequent maintenance, and more safety incidents.

A second factor contributing to the inefficient public transport system is poor public transport planning, operation and regulation. Part of this problem derives from unclear and fragmented institutional arrangements and lack of capacity at many metros for transport planning and regulations. However, regardless of the origin, inadequacy of planning creates high systems costs that could, if eliminated be, applied to savings to the fiscus, and savings to the end users (http://www.transport.gov.za-14 January, 2006).

4.2.2 RURAL PASSENGERS

In most developing countries, the provision of rural roads is directly linked to the need for rural residents to subsist and earn income through agriculture. The purpose of rural roads in these countries is primarily to enable residents to transport agricultural goods to the market. In most of the developing world, a sustainable rural community is based on agriculture. Due to the apartheid legacy, however, land tenure in rural S.A. is substantially different from other countries, with most productive land and agriculture concentrated in the hands of white

commercial farmers. This results in a relatively low level of the population directly dependent on agriculture. As a consequence of this land tenure pattern, over 37% of rural households depend on income sources generated outside their community. Four types of communities result from this economic base, and they have been characterized by the Department of Constitutional Development in its Rural Infrastructure Investment Framework (RIIF) (Moving S.A, 1996). These communities include village dwellers, dense and rural settlement, farming population and scattered settlement (Hilling, 1999:25).

According to the White Paper (1996:27) almost 80% of the rural population resides in villages and dense rural settlements. Researchers in Kwazulu-Natal stated that major problems of the rural dwellers in terms of transport are increased by poor roads and infrastructure. Most communities want more roads and there is insufficient funding to pay for the required need. Again, roads must be provided in a sustainable fashion to those communities that need them most (Rural Passenger Transport, 1999:78).

Rural areas have largely been neglected in South Africa in terms of planning. The rural people, mainly women, need transport to access either basic needs or to engage in base economic activities. Scholars in rural areas experience similar problems as those in urban areas. Other problems encountered in rural areas relate to movement between homesteads and social services such as clinics, shops, pension pay-points, community centers and in some cases water collection points. Therefore, it is important to consider the usage of NMT such as bicycles. There was little recognition of the importance of NMT transport by planners in developing countries, despite its potential to alleviate the transport problems of the poor (Hilling, 1999:25).

Furthermore, although walking was by far the most prevalent of movement, it was not always treated as a full mode to transport (Wigan, 1995:15). The idea of viewing the pedestrian as second class

citizen has lingered on both in general attitudes and road user behavior.

4.3 Objectives of the study

The objectives of the study which shall direct the research entitled "The impact of commuters on public transport in the Mafikeng area" are as follows;

4.31 To establish needs and expectations of commuters with regards to transport.

4.3.2 To determine the product offering from transport providers.

4.3.3 To compare perceptions and expectation of commuters with those of the transport providers.

Once the objectives of this study are addressed, government could execute strategies developed in enhancing mobility and accessibility. The North West Province intends to address the transportation needs of those commuters whose needs are not adequately serviced via the conventional transport system or NMT. Urban transport strategies also intends to focus on densification of transport corridors, optimised modal economics and the services mix, and lastly, improving firm level performance (Provincial Transport Framework, 2002:231).

4.4 Conclusion

The chapter looked at the problem statement as well as the objectives of the study. Under the topic, issues such as strategies adopted for both rural and urban areas have been explored as well as strategies on rural and urban passengers. The aim of the chapter was to highlight the intricate aspect of the inherent problem which the study seeks to address as well as to display the objectives thereof.

The next chapter will focus on the research design and analysis. This is where the methodology to be used will be presented and the tools of data analysis will be discussed.

CHAPTER 5

RESEARCH DESIGN AND METHODOLOGY

5.1 Introduction

This chapter commences by discussing the research design, which incorporates the methodology, the techniques, sampling procedures, data collecting instruments and data analysis.

The research design that will be used by the researcher for the purpose of the current research will be a combination of both the qualitative and quantitative methods. This choice has particularly been selected because the type of research being undertaken was regarded as social and behavioral tendencies because people behave differently and respond differently when exposed to different circumstances. This is why both the qualitative and quantitative methods will be used so that most of the different aspects affected by the study could be covered. The other reason for utilising both methods is that they subscribe more to a phenomenological, inductive, holistic, non-subjective, process-oriented, and social anthropological world view in accordance with the views of Cook and Reichardt (1999: 145).

It is important to establish the client's needs, in any type of business. Customer relationship management provides several benefits to the service provider. Initially, the cost of retaining current customers is much less than obtaining new customers. Thereafter, a customer who has developed a strong relationship with a service provider will tend to have repeated business, resulting in higher sales per customer. A timely supply of appropriate information provides feedback on the organisation to keep in touch with its customers (Cook and Reichardt (1999: 145).

Large companies need to measure the attitudes of their employees and customers in order to make good business decisions and managers must be in a position to act upon the prevailing circumstances. Market research gives managers the opportunity to be creative and flexible in the way they carry out their business. It is essential that management should be able to evaluate the type of service their companies provide and try make an appropriate decision about the likely value to be added based on the evaluation in question.

5.2 Case study as a methodological framework

The main aim of using a case study is to try and relay the message using events, which had occurred, or those that are still taking place. Bell (1993: 8) states that case studies are particularly appropriate for individual researchers because they give an opportunity for one aspect of the problem to be structured in some depth within a limited time scale. The case studies as a methodological framework is being mentioned in passing for the purpose of enlightening the reader that it is also available for use although it will not be used in our study.

5.3 Sampling design and procedures

Sampling design will be one of the most crucial stages of this research process and there are a number of sampling techniques, which may be used especially in the social science research similar to the one being undertaken. For the purpose of this study, the design to be used is the probability sampling procedure. For the purpose of the current study, as already mentioned, three types which make up the commuter modes have been identified as units of analysis. A sample will be derived from these types where one hundred randomly selected respondents will be chosen in the entire Mafikeng area but drawn from the three types which will mainly comprise the working and non-working group and youth. This sample has been selected in this particular order because it adequately represents all aspects under investigation and will influence a balanced result. The respondents will

be provided with questionnaires, which will be completed and returned to the researcher for analysis.

The other element will be that of consulting documents in the North West Department of Transport, the department relevant to the study at hand to ascertain what the trends have been in the past, so that through the documents available, it would be possible to determine what the future might hold.

5.4 Sampling

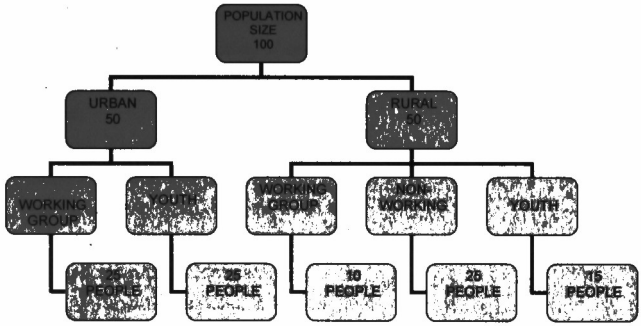
Probability sampling techniques vary in terms of sampling efficiency. Sampling efficiency is a concept, which reflects a trade-off between sampling cost and precision. Precision refers to the level of uncertainty about the characteristics being measured (Matima, 2001:14).
The survey research approach with questionnaires will be used in this study. It involves a representative sample and structural data collection procedure.

A large sample enables one to be more representative and more accurate conclusions can be made than in smaller samples. The size of the sample will be influenced by the relative homogeneity or heterogeneity of the population, and the desired degree of reliability for the purpose of the investigation (Strydom, Fouché and Delport, 2002:128).

The target population will be drawn from both rural and urban public transport commuters. The study will cover young people and adults employed as well as unemployed residents. The main aim of this study is to provide both government and other service providers within Mafikeng with a comprehensive analysis of commuters' needs and expectations concerning public transport. The total sample size will be 100 for both rural and urban commuters.

The distribution of the sample will be as follows:

TABLE: 5.1



The design dichotomises the difference between urban and rural sampling. The urban sampling, indicates less or non-working group since most of the people are employed than those in rural setting. With regard youth sampling in rural setting, it is less as compared to urban setting. Hence, non-working group in rural setting comprise a high percentage.

5.4.1 Population

A population is the aggregate of all the elements that shares a common set of characteristics and that comprise the universe for the purpose of the research problem. In this study people who are using public transport form the population in the Mafikeng area, which will be sampled.

A group of people will be selected at random from a complete list or map of a given population. The simple random sampling technique will be used for this study and the following are the characteristics of simple random sampling:

- In this type of sampling, each element in the population will be a known and will have an equal probability of selection.
- Furthermore, each possible sample of a given size will have a known and equal probability of being the sample actually selected,
- The sample will be drawn by a random procedure from a sampling frame,
- To draw a simple random sample, the researcher will first compile a sampling frame in which each element will be assigned a unique identification number (Matima, 2001:44).

5.4.2 Drawing a simple random sample

A group of people is selected at random from a complete list or map of a given population. The simple random technique will be used for this study. In order to effectively achieve the desired results where the above mentioned type of sampling will be used, it is important to lay out the process and characteristics of the simple random sample which are as follows:

- In a simple random sampling each element in the population has a known and equal chance of being selected.
- Items are chosen at random using a fixed interval e.g. sampling every fifth person
- Further, each possible sample of a given size has a known and equal probability of being the sample actually selected.
- The sample is drawn by random procedure from a sampling frame
- To draw a simple random sample, the researcher first compiles a sampling frame in which each element is assigned in unique identification numbers (Matima : 2001).
- Assign a number to every person in the population. The researcher has the tedious task of assigning numbers to all the numbers of the population.
- Decide on the size of the sample, that is, what percentage of the population he or she wants to study.

5.5 Data collection procedures

Various data collection procedures will be followed. These are interviews and questionnaires. Various respondents will be asked to respond to questionnaires while in certain cases where the respondents are unable to respond using the questionnaire due to illiteracy or for other reasons, the use of personal interviews will be employed. Further, data will also be gleaned from documents in the Department of Transport for statistics and reports. In order to execute this research, a team of four enumerators and two volunteers knowledgeable in this area of survey research and government regulations on transport will be used. Two research assistants will be used to collect data under the supervision of the principal researcher.

5.6 Data collection instruments

In view of the fact that the choice of design will be that of sampling, it was deemed important by the researcher to indicate the type of data collection instruments to be used and these will be the questionnaire and interviews. Due to the fact that the questionnaire and semi-structured interviews will be employed as techniques for data collection, it is worth noting that relevant documents will also be analysed in order to strengthen the evidence derived from the questionnaires. This also will afford triangulation necessary for validating the findings of the study. Robson (1999: 379) argues that triangulation is an indispensable tool that provides a means of testing one source of information against other sources. Both the questionnaire and semi-structured interviews will be aimed at all respondents in the categories under review.

It was mentioned earlier that questionnaires will be used as the main measuring instrument in this research. The main advantages and disadvantages of the questionnaire will now be discussed.

All copies of the questionnaire will be accompanied by a covering letter (Appendix A). The letter will explain the purpose of the survey and its

intentions. It will be written in a friendly tone and in a formal manner and this will help encourage the response rate. Bell (1993:85) states that a good covering letter is ideal and fundamental in stimulating interest and response to the survey, the letters were distributed to randomly selected employees. The covering letter will inform respondents that their information will be solely used for educational purposes and confidentiality will be guaranteed.

5.6.1 Questions used

Please refer to Annex 1 which contains the questionnaire used in this research. All questions will be presented in a readable and presentable manner. The questionnaire will be classified into four categories. The first part will establish the status of the respondent in society, and the second part is about the society and its view on commuting modes. The third section of the questionnaire will try to establish where the choice and modal preferences of respondents and how this fits into the overall transport structure and its significance.

The questionnaire will also consist of two types of questions, open ended and closed questions. The open-ended questions will allow the respondents to expand further on the subject especially on those points that are likely to be left out when using close-ended questions.

5.6.2 Advantages of questionnaires

Using a questionnaire has been found to have several advantages and the following are the advantages as stated by Bailey (1994: 148). Advantages and disadvantages of the mailed interview are being highlighted for the benefit of the reader in order that the reader knows of the existence, pros and cons of the methods mentioned below Bailey (1994: 148).

(i) Considerable savings of time and money: A mailed study costs far less than an interview study with the same sample size. Time saving: Mailed questionnaires can be sent to all respondents

simultaneously and most of the replies will be received within a short period, while interviews are generally performed sequentially and may take months to complete.

(ii) The questionnaire may be completed at the respondent's convenience.

(iii) Greater assurance of anonymity: Since there is no interviewer present who can identify the respondent later, the respondents may be more willing to provide socially undesirable answers or answers that violate norms.

(iv) Standardised wording: Comparison of respondent's answers is facilitated by the fact that each respondent is exposed to exactly the same wording. However, differential understanding of questions may lessen this advantage.

(v) No interviewer bias: there is any opportunity for the respondent to be biased by an interviewer.

(vi) Securing information: Mailed questionnaires allow the respondent to consult records, confer with colleagues or conduct research before answering.

(vii) Accessibility: Respondents who are widely separated geographically can all be reached for the price of a postage stamp as compared to the expensive travel costs of the interviewers.

5.6.3 Disadvantages of questionnaires

Although this method of data collection seems to be a cheaper and convenient approach to research, it has certain disadvantages. According to Bailey (1994) the following were found to be the disadvantages;

(i) Low response rate: In an interview study, the great majority of interviews are successfully completed and the reason for non-responses is generally known. However, mailed studies sometimes receive response rates as low as 10% and 50% is considered adequate. To avoid the low response rate, the

questionnaires are addressed to known people and followed up to get a higher response rate.

(ii) Many questions may remain unanswered: With no supervision while filling in the questionnaire, the respondents may leave some questions unanswered. Thus while 60% of all questionnaires may be returned the researcher might find that only 10% of respondents answered a particular question. In this case semi-structured interviews would be used to get the answers for the questions not answered.

(iii) No control over date of response: Lack of control over the time the questionnaire is completed can affect a study greatly. To avoid this, respondents will be phoned time and again to be reminded to fill in and return completed questionnaires.

(iv) Lack of flexibility: With no interviewer present, there can be no variation in questions asked and no probing for more specific answers if the respondent's first answer is too vague or too general to be useful. Also, if the respondent misunderstands the question he or she cannot be corrected.

The other types of measuring instruments which have not been used in this study are telephonic, focus groups and others.

5.7 Administration of questionnaires

5.7.1 Self administered questionnaires

The 100 questionnaires will be randomly distributed by hand and follow-ups will be carried out for collection in the case of respondents who may not be able to return the questionnaire immediately. Then, once fully completed, the questionnaires will then be collected for the analysis of data. The two research assistants mentioned previously will collect data from the respondents while supervised by the principal researcher. Networking will be very essential in carrying out this exercise and will be effectively used. Before the questionnaire is

distributed, it will be pre-tested by using three people representing all the categories which will comprise the sample. The purpose of the pre-testing is to ensure that;

- **The vocabulary and instructions are simple and clear.**
- **None of the words are ambiguous**
- **None of the statements are inappropriate, and**
- **The attention of the respondents is aimed at the duration of the procedure.**

5.7.2 Semi-structured interviews

This method of interview has been opted for because it offers insights into participants' perspective and flexibility. It is aimed at respondents who are illiterate or those who may not be able to read (Blind). According to Robson (1999:228), the interview appears to be straightforward and non-problematic in the way of getting information. However, using interviews to collect information also place demands on the researcher such as active listening in order to gain more from such interviews.

5.8 Data analysis techniques

According to Robson (1999:228), the data analysis technique to be used in this study is the non-parametrical statistical technique. This technique is preferred because:

(i) The observations are independent

(ii) The tests do not require measurements as strong as that required for parametric tests.

(iii) The variable under study has underlying continuity.

(iv) The data in the study are nominal and ordinal to which this test will be applied.

(v) The data is of a superior nature in power when it comes to considering population distribution.

Robinson further says that as most of the data collected is both qualitative and quantitative in nature, survey analysis techniques, including categorical data analysis, will be used. Results will be presented in tables, charts and graphs depending on the results of the study.

5.9 Summary

This chapter presented an overview of the research design and methodology that will be employed in the study. The questionnaire will be employed as the main instrument in the collection of data because of its advantages over the others. Chapter 6 focuses on the results of the survey.

CHAPTER 6

RESULTS

6.1. Introduction

The purpose of this chapter is to present the results of the study. The chapter reflects background information and an outline of the response received from the respondents who participated in the study through answering questions put to them in the questionnaire.

The previous chapter contained the specific details of how the research was conducted, from the problem statement to the collection of data and the methodologies applied at all stages and in between.

This chapter further covers the results from the actual reactions attained from the study, starting with information related to age, mode of transport mostly used, affordability, reliability, income source as well as critical problems which respondents would want the government to address urgently. The detailed survey results are in Appendix 1, while other data is reflected in appropriate chapters.

6.2. Reliability of questionnaire

The opinion poll was confirmed as reliable because it was tested before being implemented. A set of 10 questionnaires was distributed to prospective respondents across the sample distribution and the results were not diverse from the results obtained during the main survey.

6.3. Sample

The sample comprised a total of 100 respondents whose demographic distribution was as follows;

6.3.1 Age distribution

The ages of the sample were distributed as follows;

- 55 were under the age of 20.

- 13 were between the ages of 21 and 30.
- 7 were between the ages of 31 and 40.
- 9 were between the ages 41 and 50.
- 16 were aged above 50.

6.3.2 Gender distribution

The sample was distributed in the following manner regarding gender

- Male - 44%
- Female - 56%

6.3.3 Location

The sample was drawn from diverse locations, which depicted different lifestyles due to the financial status alluded to people residing in the particular areas. The distribution was as follows;

- Category A - distribution amounted to 50% for rural dwellers:
  * working
  * non-working
  * youth
- Category B – distribution amounted to 50% for urban dwellers:
  * working
  * youth

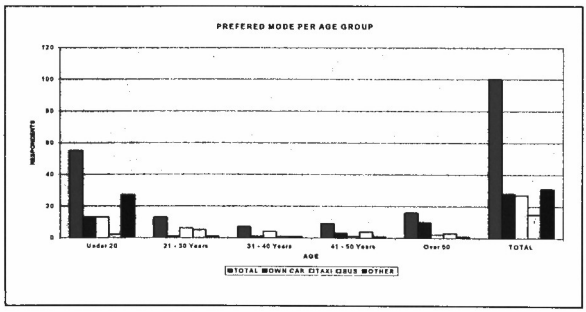
6.4. Demographic data

Demographics relevant to the study at hand were gathered and every variable was evenly spread graphically to accommodate all the respondents that were targeted by the study. The impact of each demographic variable, in this case, gender will be discussed while a complete analysis of age and its impact on the study will be explored in detail.

6.4.1. Age

The results of the analysis of age show that the majority of commuters are students aged below 20 years. This is due to the fact that in each household, there are more than three school going children falling within the age group as compared to only one parent per household going to work using commuter transport (or both parents in rare cases). Therefore, this could possibly explain why respondents under the age of 20-years accounted for about 55% of the total sample. Further, the survey was not gender sensitive because gender was not deemed to have a measurable impact on the current study. It has further been implicitated from the results that respondents between the ages of 21 and 30 accounted for 13% of the sample, 31-40 years age group accounted for 7% of the sample, 41-50 years age group accounted for 9% and respondents in the age group above 50-years accounted for 16% in the sample.

Figure 6.1 Distribution of mode preference by age group



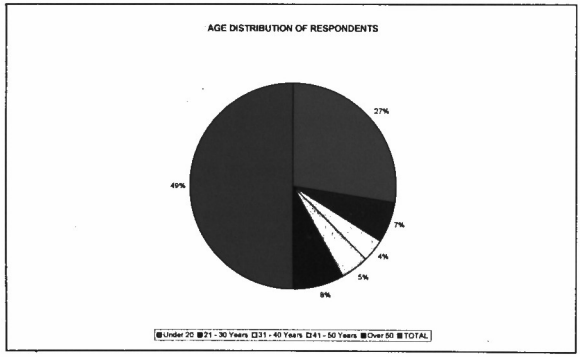
The above graph shows the preference of age groups to the different modes available. It shows that there is a close contest between the preferred modes across all ages.

TABLE 6.1 Distribution of mode preference by age group

AGE	TOTAL	OWN CAR	TAXI	BUS	OTHER
Under 20	55	13	13	2	27
21 - 30 Years	13	1	6	5	1
31 - 40 Years	7	1	4	1	1
41 - 50 Years	9	3	1	4	1
Over 50	16	10	2	3	1

The table above shows information similar to the information displayed in graph 6.1, except that it has been presented in form of a table.

Figure 6.2 Distribution of mode preference by age of respondents



According to the results, the majority of respondents below the age of 20 years commute using other means of transport such as walking, bicycles,donkey carts and other forms of NMT. A quarter of the respondents from the same age group use own transport, which implies that they are driven to school in their parents' or guardians' vehicles. The other quarter of

respondents in the same age group make use of public transport, i.e. taxis and busses. Therefore this entails that others in this category use delivery kind of public transport system where the pick up point, destination, fare and frequency of the pick up is pre-determined. The other category comprises the respondents who use public transport as it comes as they have no arrangement of pick up.

Figure 6.3 Age distribution of respondents

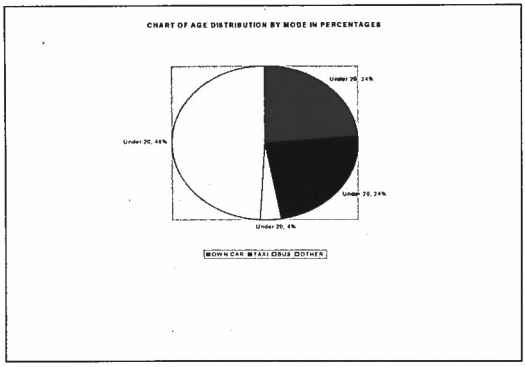
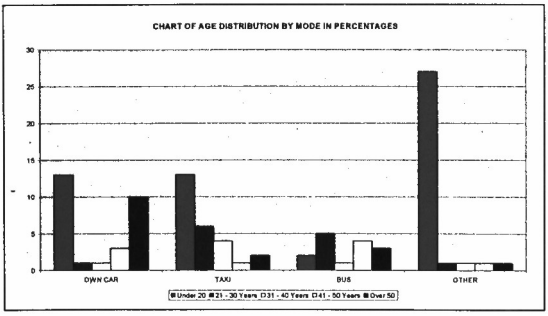


Figure 6.4 Age Distribution of respondents



The above results further indicate that there was a vast difference in terms of choice of the commuting mode in the sense that the age group between 21–30 years had a majority that preferred commuting either by taxi or by bus while the 31-40 years age group mainly comprised commuters who used their own vehicles. Those on age 50 and above mostly comprised of respondents who commute in own vehicles with a few that commute by public transport.

6.4.2. AFFORDABILITY OF PUBLIC TRANSPORT

The question which needed to be answered under this topic was "Public transport is expensive, insufficient and unreliable". The result was that the fixed variable in this study is age and from the results, few respondents in the under-20 age category making up 42% agree that public transport is affordable as it is not expensive. The majority, though, who make up 77% [1] of the respondents disagree and say that public transport is not affordable hence very expensive. Refer to table 6.2. below;

TABLE 6.2 Distribution of affordability of transport

AGE	TOTAL	DISAGREE	AGREE	NEUTRAL
Under 20	55	13	42	0
21 - 30 Years	13	0	7	6
31 - 40 Years	7	2	4	1
41 - 50 Years	9	7	2	0
Over 50	16	6	10	0

The response on the question of affordability differed mainly across ages as those under-20 age barriers who are mainly dependants did not seem to find it expensive as they did not earn an income and merely depend on their parents.

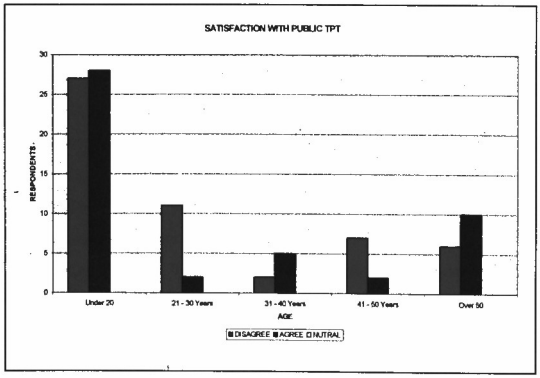
6.4.3 QUALITY OF SERVICE PROVIDED

TABLE 6.3 Rate of satisfaction with quality of service

AGE	TOTAL	DISAGREE	AGREE	NUTRAL
Under 20	55	27	28	0
21 - 30 Years	13	11	2	0
31 - 40 Years	7	2	5	0
41 - 50 Years	9	7	2	0
Over 50	16	6	10	0

The question for this part of the study was how the respondents rated the quality of service for the mode they used and according to the results, 53% of the respondents disagree with the public service satisfaction statement and say that they are not satisfied with the quality of service provided. 47% of respondents from all age groups agreed and said that they were satisfied with the quality of service provided in the public transport sector.

Figure 6.5 Rate of satisfaction with quality of service



The graph above shows the rate at which the respondents responded to the question of satisfaction with the quality of service for the particular mode each category preferred and the results are reflected in both the graph and table above.

6.4.4 INTERRUPTION OF SERVICE DURING RAINY SEASONS

Regarding the interruption of services in the rainy season, the statement to the respondents stated as follows;

TABLE 6.4 Interruption of service

AGE	TOTAL	DISAGREE	AGREE	NUTRAL
Under 20	55	10	45	0
21 - 30 Years	13	0	7	6
31 - 40 Years	7	5	1	1
41 - 50 Years	9	9	0	0
Over 50	16	3	13	0

During rainy seasons, most people experience interrupted services and observing the way respondents responded to the above statement, 27% of all respondents disagreed and said that no interruption of service was experienced during the period in question while 66% of the respondents agreed and said that there was interruption of services during the rainy season while 7% remained neutral. In the 21-30 category 53 % of the respondents agreed and 6 remaining neutral on the issue of interruption of service during rainy seasons. 71% of respondents in the 31–40 years category disagreed while 14% agreed and another 14% of respondents remained neutral regarding the interruption of service. In the category of over 50 years, 18% of the respondents disagreed while 82% of the respondents

agreed and said that the public transport service had so many interruptions during the period in question as per table 6.4 below.

6.4.4 SOURCE OF INCOME

TABLE 6.5 Income source by age group

AGE	TOTAL	WORK	SELF EMP	PENSION	OTHER
Under 20	55	0	0	0	55
21 - 30 Years	13	8	2	0	3
31 - 40 Years	7	3	3	0	1
41 - 50 Years	9	9	0	0	0
Over 50	16	5	6	5	0

According to table 6.5 which depicted the source of income for respondents, 100% of the respondents in the category of under 20 years had a source Other than work, pension or self employment while in the 21 – 30 category, 8 respondents indicated that work is their source of income and 2 are self employed. 3 respondents in the 31–40 categories indicated their source of income as work while the same number got their income from self employment. In the 41–50 category, all the 9 respondents work for their income. The response from the over 50 years category was varied as 5 said their source was work while 6 were self employed and the other 5 were pensioners whose income was pension as displayed in table 6.5.

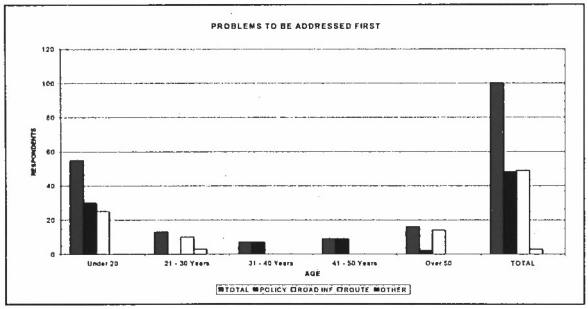
6.4.6 PROBLEMS TO BE ADDRESSED FIRST

TABLE 6.6 Priority in addressing problem

AGE	TOTAL	POLICY	ROAD INF	ROUTE	OTHER
Under 20	55	30	25	0	0
21 - 30 Years	13	0	10	3	0
31 - 40 Years	7	7	0	0	0
41 - 50 Years	9	9	0	0	0
Over 50	16	2	14	0	0

According to the information in the above table, 55% of the respondents below the age of 20-years preferred policy issues to be firstly addressed by government in order to improve public transport commuting while 45% of the respondents from the same category opted for road infrastructure to be addressed first. In the category of 21 –40 years, 77% of the respondents preferred road infrastructure to be addressed first while 23% chose the route system of public transport. 100% of the respondents in the 31–40 and 41–50 categories of respondents opted for policy while 13% of respondents in the above 50 category also chose policy with 87% choosing road infrastructure as reflected in table 6.4 below.

Figure 6.6 Age distribution of respondents

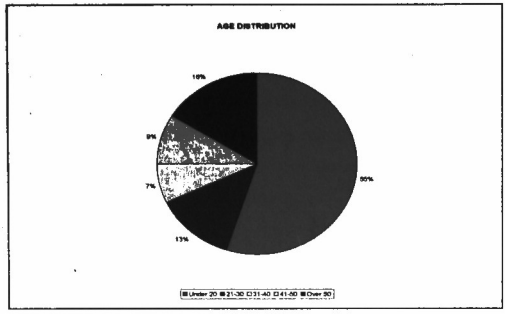


The distribution of age for the respondents is presented in table 6.7 and pie chart 6.3 below;

TABLE 6.7 AGE DISTRIBUTION OF RESPONDENTS

AGE GROUP	TOTAL RESPONDENTS
Under 20	55
21 - 30 Years	13
31 - 40 Years	7
41 - 50 Years	9
Over 50	16
TOTAL	100

Figure 6.7 Age distribution of respondents



The distribution of age with regards to the respondents was as follows;

55% of the respondents were aged below 20 years

13% of the respondents were aged between 21 and 30 years

7% of the respondents were aged between 31 and 40 years

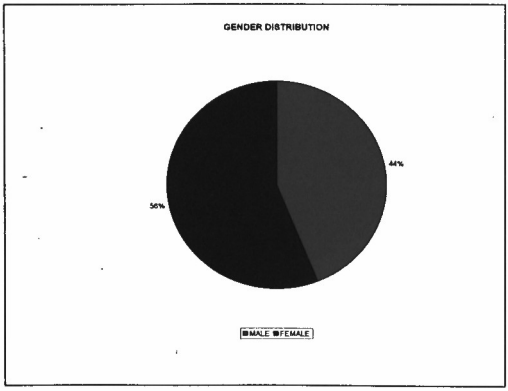
9% of the respondents were aged between 41 and 50 years

16% of the respondents were aged between 21 and 30 years

6.4.8 Gender distribution

The distribution of the sample in the population in terms of gender was as per pie chart 6.4 below;

Figure 6.8 Gender distribution of the sample



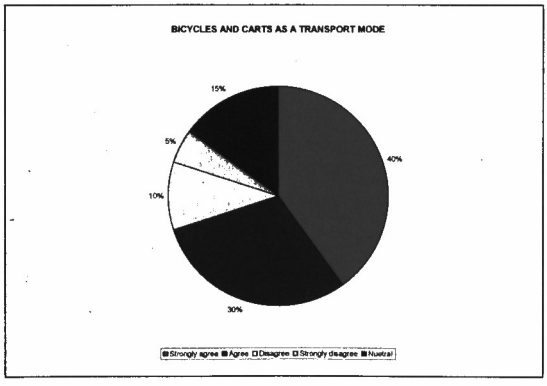
The distribution of gender in the study was as in such a way that forty four percent (44%) of the respondents were male while the remaining fifty six percent (56%) of the respondents were female. This was not by design because the initial aim of the researcher was to strike a balance between both genders. Despite this being the case, the current setup does not alter the validity of the results. It is also worth noting that the gender distribution includes all categories of the sample which is;

Below 20 years
21 and 30 years
31 and 40 years
41 and 50 years
21 and 30 years

6.4.9 Carts and bicycles as a transport mode

The question of whether donkey carts or bicycles were acceptable as transport modes had a very diverse response which has been presented in the pie chart 6.5 below;

Figure 6.9 Acceptance of carts and bicycles as a transport mode



The results from the question of bicycles or donkey carts being acceptable as a mode of transport has a diversity of responses which are presented in the pie chart 6.5 above where the following statistics were obtained. 40% strongly agreed to the statement, 30% merely agreed while 10% strongly disagreed with 5% of the respondents disagreeing. 15% of the respondents opted to remain neutral.

6.5 Summary

This chapter reflected a discussion of the background information and the way respondents responded to a set of questions and statements provided to them in form of a questionnaire. The purpose was to find how to fuse management of asset information into the basis of the study. Following the analysis of the data, the next chapter will discuss the results and look at the recommendations of what must be incorporated by both the government and the private sector in order to improve the areas that have been found to be inadequate.

CHAPTER 7

CONCLUSION IMPLICATIONS AND RECOMMENDATIONS

7.1 Introduction

This chapter will present the conclusions and will also feature implications which will be a depiction of the impact of the results on the aims and objectives of the study. It will also be under implications that an attempt will be made to relate and explain the findings to the research questions reflected in chapter 1. Finally, the chapter will discuss the recommendations based on the findings from the conducted survey and its interpretation.

7.2 Summary of the main findings

Resulting from the study conducted under the topic "An investigation into factors that influence commuters in the North West Province with specific reference to the Mafikeng area", and following an extensive review of literature conducted, the research design, methodology and the interpretation of the results used in this study particularly, the following are the main findings;

7.2.1 Finding 1

- **Commuter demographics (Research question 01)**

According to the results reflected in paragraph 6.3.8 in chapter 6, the finding relates to objective number 1 in chapter 1, which is based on the demographics of the commuting public. The sample comprised different age groups as per table 5.1 in chapter 5. It further shows that the majority of commuters in the sample belonged to the under-20 age category, while the lowest category was that of 30-40 age category, which accounted for only 7% of the respondents.

- **Conclusion**

The conclusion drawn from the above finding is that the majority of commuters who utilise both public and private commuting modes are of the school going age which is below 20 years. This has a huge impact on the commuter industry in the sense that this age group accounts for at least 55% of the statistics of commuters.

- **Implication**

The above result implies that the less than 20 years category of commuters has a great influence on the commuting sector. The statistics further imply that the high commuter figures in this category indicate that for every average household of about six members inclusive of parents, four children are of a school going age and utilise a particular mode to commute between home and school. It therefore means that for every four children in the under 20 years age group, there is one parent utilising at least any one of the modes as a result of which the under 20 category seems to have higher figures.

- **Recommendations**

It is recommended that special commuter transport for students or school-going children be introduced in order that rebates and other forms of subsidy in this sector may be effectively implemented and monitored to provide financial relief to parents who can hardy afford the ever escalating commuter fees.

7.2.2. Finding 2

Characteristics influencing commuters

The study found that the characteristic influencing commuters on the most preferred mode of commuting is the age as well as the income as per table 6.1 and 6.5 in chapter 6.

- **Conclusion**

From this finding, it can be deduced that age and income played a superior role in influencing the choice of mode to be used.

It is evident from the results that most of the under 20 either utilised own cars (family cars) or they commuted by mini-bus taxi. These are relatively expensive means of commuting while most of those above the age of 21 who are believed to be earning an income in one way or another either used own cars or preferred to use a bus, NMT or other means. The relationship with the introduction of school buses is that if such a system is in place, then parents will not be under pressure to sponsor the school children on their costly choice of transport.

- **Implications**

The above finding and conclusion implies that commuters who earn an income opted to commute using the cheapest means while those who are heavily dependant on parents and guardians opted for the most expensive means, which include mini-bus taxis and own car.

- **Recommendation**

Schools and other learning institutions need to develop systems where scholars will commute to and from their learning places in school buses in order to level the playing field and facilitate the effective way of providing subsidies on scholar transport.

7.2.3. Finding 3

- **The cost of commuting**

According to paragraph 6.3.2, the study found that 100% of the under 20 years category, responded in the negative to the question of whether public transport was expensive while most of the respondents in the categories of above 20 replied in the affirmative.

- **Conclusion**

In view of the above observation, it is justifiable to conclude that respondents who replied in the negative are those who hold the opinion that public transport is not expensive and comprised mainly of students. Those who replied in the affirmative were found to be workers or respondents who at least earn an income in one way or another.

- **Implications**

The findings imply that the category of respondents in the under 20 category were dependants who relied heavily on funding from parents are those in whose opinion, public transport was not expensive. This may be owed to the fact that this category does not work for a living and therefore, does not know the agony of working for an income in order that a meaningful value may be attached to any expenditure.

- **Recommendation**

There is an extravagant way of expenditure by the non-income earning category, which is made up of the under-20 years. As this may be the case, it has a very huge impact on the sector as it influences the modalities of choice of transportation to a great extent.

7.2.4. Finding 4

- **Disruption of services**

The study recorded a diversity of opinions regarding the issue of disrupted services during rainy seasons. Almost 60% of the respondents in the under 20 category replied in the negative and stated that services are not disrupted while 40% from the same category stated that services were disrupted during this period. In general, 70% of the all the respondents acknowledged disrupted services during the rainy season while 25% disagreed and 45% remained neutral.

- **Conclusion**

Based on the study conducted with respondents as parameters, there was evidence that services were disrupted in the rainy season and therefore concluded that weather has an impact of the services provided in the commuter industry and therefore cause disruptions.

- **Implications**

This implies that 50% of the under 20 respondents implored that services were normal due to the fact that they belonged to the category of commuters who utilise a family car as a means of commuting. But all other respondents who commute by public transport dejected that there was disruption including some of those who drive own cars, use other means and those who generally hike (walk).

- **Recommendations**

It is recommended that during rainy seasons, more public transport modes should be introduced and a lot of bus stops on the way in order to reduce or shorten distances walked by commuters from their homes, work places or schools to commuter transport routes. Further the designated commuter pick-up and drop-off points should have proper shelters which are able to shelter commuters from harsh weather conditions as well as minimizing the disruptions.

7.2.5. Finding 5

- **Problem to be addressed first**

According to the findings in paragraph 6.3.7, the findings of the study regarding the choice of respondents for the problem to be addressed first were that 3% of the respondents preferred public transport routes to be addressed first while 48% opted for policy and 49% preferred the road infrastructure. This means that all categories of the respondents are not fully satisfied with the way the public transport sector in organised and are all of the opinion that government needs to do more to improve the situation.

- **Conclusion**

The study concludes that the government requires playing a pivotal role in ensuring that a satisfactory level of service is provided to the commuting public by public and private service providers. This includes regulating the public transport sector and a complete overhaul of the entire road infrastructure.

- **Implication**

The above implies that every commuter is affected by the public transport facilities and that in one way or another; all make use of the systems in place. In essence, both those who commute by public transport, with own cars and those who make use of other means inclusive of NMT and hiking had shared sentiments regarding the way their lives are influenced by the factors of public transport.

- **Recommendation**

It is recommended that the government takes a balanced approach to all the issues highlighted by the respondents because once road infrastructure, policy and route have been addressed, then the commuters are most likely to have a valued and dignified way of commuting regardless of whether one commutes by public means, own car, NMT or hiking.

7.3 Limitations of the study

This study is only limited to a convenience sample of commuters who comprised the sample. As such, it is not representative of the all the commuter scenarios in South Africa and its results may only be used and interpreted in the research context, and not for any other comparative issues.

The decision to focus on the make-up of age categories as well as the choice to use own car, bus, taxi and other as units of analysis was due to time constraints and followed an initial positive response from this category during the pre-testing stage of the survey.

The researcher was further concerned that the convenience sample may not be representative of the total commuter base and its impact in terms of demographic data. However, the demographic data indicate that the sample obtained is in line with expectations as discussed in the preceding chapters.

The study is also limited to the analysis of the impact of commuters on public transport in the Mafikeng area in its entirety, therefore, information researchers were omitted from the study.

In the demographic detail, a correct analysis of the income variable among the respondents also required that an establishment be made as to whether a single income or a dual income exists in a household in order to determine its impacts on the sector. In this particular study, only a single income source was explored and the results derived there from were satisfactory for the level of the study.

7.4 Future research

The analysis of the impact of commuters on public transport is a very wide and in exhaustive subject which is also dynamic. Different researchers try to conduct studies on the subject matter but because of general limitations and human nature, it is practically impossible to cover and exhaust all aspects that relate to the topic. Therefore in view of the above, it is recommended that further research be conducted in the geographical areas.

7.5 Summary

This chapter discussed the findings, conclusions and the implications of the results. This was derived from a survey conducted in the manner that was prescribed in chapter five which discussed the research design and methodology. It is also worth noting that the current results are based on the quantitative model used. The results could have probably been different if the methodology was different as well as if the model used was that of qualitative. It is therefore justifiable to conclude that, commuters have a great impact on the Public transport system in the Mafikeng area.

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ANNEXURE A

QUESTIONAIRE

1. In what age group do you belong?

Under 20yrs		31-40 yrs		Over 50 yrs	
21-30 yrs		41-50 yrs			

2. State your Gender.

Male	
Female	

3. Do you own a car?

Yes	
No	

4. What mode of transport do you use when going to work/school?

Own Car		Bus		Taxi		Other	

5. Bicycle or donkey cart can be used as mode of transport.

Strongly Agree		Agree		Neutral		Disagree		Strongly Disagree	

6. How do you rate the quality in terms of service for the mode you use?

Very Satisfied		Satisfied		Not Satisfied		Other	

7. Public transport is expensive, insufficient and unreliable.

Strongly Agree		Agree		Neutral		Disagree		Strongly Disagree	

8. During rainy season most people experience interrupted services.

Strongly Agree		Agree		Neutral		Disagree		Strongly Disagree	

9. **What is the source of your household income?**

Pension	
Self-employment	
Formal employment	
Other	

10. Which of the following problems must be addressed first?

Road infrastructure	
Transport policies	
Increase the routes and quantities of public buses	
Other	

PENDIX 1

RESULTS IN DETAIL

	Q1					Q2				Q3				Q4				Q5				Q6				Q7				Q8			
RESP	1	2	3	4	5	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
1	X					X				X							X			X				X		X				X			
2		X						X					X		X					X					X	X							X
3			X						X			X				X			X				X					X			X	
4		X				X					X				X			X				X				X					X		
5	X						X						X				X				X			X			X						X
6			X						X			X				X				X			X					X				X	
7		X				X					X				X			X		X		X			X	X							X
8			X						X			X				X			X				X					X				X	
9		X				X					X				X			X		X		X							X				
10	X					X				X				X						X				X			X						X
11	X						X			X							X				X			X		X				X			
12	X						X			X							X				X						X			X			
13	X					X				X				X						X				X						X			
14			X						X			X				X				X			X					X				X	
15			X						X			X				X				X			X					X				X	
16	X					X				X					X					X			X			X							
17				X																													
18	X									X				X						X				X		X				X			X
19			X						X			X				X				X			X					X				X	
20		X						X			X							X										X					X
21		X				X		X			X							X								X		X			X		
22	X						X			X				X							X			X			X			X			X
23			X						X			X				X				X			X					X				X	
24			X			X				X					X					X			X			X							
25					X																												
26					X																												
27	X					X				X											X			X		X				X			X
28		X				X		X			X				X			X				X						X			X		
29																																	
30	X					X				X				X							X			X			X				X		
31																																	
32	X						X			X										X				X		X				X			

APPENDIX 1

	Q1					Q2				Q3				Q4				Q5				Q6				Q7				Q8			
RESP	1	2	3	4	5	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
33	X						X				X							X			X				X		X				X		
34									X					X							X						X						X
35						X				X							X			X				X						X			
36	X						X					X				X			X				X				X				X		
37	X							X						X				X				X			X			X					X
38	X					X				X							X			X				X					X				
39	X								X			X		X					X				X			X		X					
40	X					X				X							X			X				X					X				
41	X								X			X		X					X				X					X			X		
42		X					X				X				X						X				X		X						X
43				X				X						X				X							X		X				X		
44				X				X			X							X				X						X			X		
45		X						X			X			X				X							X						X		
46				X						X							X			X				X					X				
47										X							X			X				X					X				
48		X							X		X			X				X							X		X						X
49					X																												X
50					X	X					X			X				X							X			X			X		
51	X					X				X							X			X				X					X				
52				X			X		X			X							X										X				
53		X							X			X							X										X			X	
54	X							X			X				X			X							X			X			X		
55	X					X				X							X			X				X					X				
56									X		X			X				X							X		X						
57					X	X																											X
58		X																															
59	X					X	X				X							X							X		X				X		
60									X			X		X					X				X						X			X		
61	X					X																											
62						X	X				X				X			X							X			X			X		
63																																	
64		X						X			X			X				X							X		X				X		
65					X		X				X							X							X		X				X		
66	X					X			X					X							X						X						

PENDIX 1

	Q1					Q2				Q3				Q4				Q5				Q6				Q7				Q8			
RES	1	2	3	4	5	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
67		X				X							X			X				X		X							X				
68				X					X		X					X					X	X									X		
69					X			X				X			X				X						X			X				X	
70		X					X				X			X				X				X					X		X				
71			X						X				X				X			X			X							X			
77					X			X				X			X				X						X			X					X
78		X							X		X			X				X			X	X						X		X			
79					X			X				X			X				X						X			X					X
80		X							X		X					X		X						X			X			X			
81		X				X				X						X				X			X						X				
82			X						X				X				X			X		X				X				X				
83			X			X							X				X						X			X				X				
84		X							X	X			X			X	X			X						X				X				
85					X			X				X			X				X						X			X				X	
86					X			X				X			X				X						X			X				X	
87		X				X					X		X			X	X		X			X							X		X		
88																																	
89									X	X						X	X			X		X				X							
90					X			X				X			X				X						X			X				X	
91				X			X							X										X				X		X			
92				X			X							X										X		X		X		X			
93			X			X				X							X			X			X			X				X				
94					X			X				X			X				X						X			X				X	
95				X		X					X					X	X		X			X							X		X		
96																																	
97																																	
98		X				X							X				X			X		X				X							
99				X			X				X			X				X						X			X				X		
100				X			X				X			X		X		X						X			X						