Tenant's Choice of Residential Property Location in Mankweng Township, Polokwane Local Municipality.

By

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[redacted]

RESEARCH DISSERTATION

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DECLARATION

I Alabi, Ijeoma Uchenna declare that the dissertation hereby submitted to the University of Limpopo, for the Degree of Master of Administration in Development has not been previously submitted by me for a degree at this or any other university, and further that it is my own work in design and in execution and that all material contained therein has been duly acknowledged by means of complete references.

Alabi I.U. (Mrs)

Surname & initials (Title) Date

…… ……..

DEDICATION

This work is dedicated to my husband Mr Olushola John Alabi, for his incredible love, sacrifices, and support during the time of my studies. To my kids, Jesufemi and Jesutobiloba; you fuel my desire to do better; you are blessed in Jesus name.

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Special thanks to my Pastor (Dr) F.E. Mbajiorgu, the whole family and members of The Redeemed Christian Church of God, Trinity parish Polokwane, yours prayers have been answered. The Church shall match forward and the gate of hell shall not prevail against it in Jesus name (Amen).

I want to say a big thank you to colleagues in Development Planning and Management for their unwavering love and encouragements may the Lord bless you all in Jesus name (Amen). I also thank Mr Seabi L. for tirelessly helping me with articles for this work when I needed them.

I further express my gratitude to the residents of Mankweng Township for their useful inputs during the data collection process in the area. My appreciation is also extended to the household heads in the twelve locations in the study area who allowed me to conduct this study and further spent time filling in the questionnaires for me. I hope this study will help them to improve in their choice of residential location.

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ABSTRACT

The aim of the study was to carry out an analysis of the factors influencing tenants' choice of residential property location in Mankweng Township. The study used both quantitative and qualitative research approaches. The structured questionnaire, interview and documented literature were used to collect data. The data were analysed using the SPSS statistical package and the Excel spread sheet. To this end, specific working objectives were formulated as follows: to identify the types of residential property in the study area, to determine the factors which influence the choice of residential property location in the study area and lastly, to compare the relationships that exist among the residents in Mankweng Township.

The results of the research showed that among all the factors marital status, age, household's size, race, education and income were not among the factors influencing the choice of residential location in Mankweng Township. However, gender, employment status, distance from city centre, hospital, place of worship, security or police station, water and electricity significantly influenced the choice of residential location choice in Mankweng Township. The study therefore recommends government to be more responsive and active in the provision of urban infrastructure and services in every neighbourhood. This will help address the major reason why tenants search for accommodation from one location to another. In addition, real estate investors should consider the availability of infrastructure before choosing a location for community development. Thus, when urban facilities and services are evenly distributed, this may enhance proper development in the community.

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CHAPTER ONE

1. INTRODUCTION TO THE STUDY

1.1 BACKGROUND TO THE STUDY

Housing plays an important role in the life of people as it provides the basis for socio-cultural and economic development (Hablemitoglu *et al*., 2010; Jinadu, 2004; Onibokun, 1985). Housing as shelter is one of the basic needs of human kind. Houses are financial investment for governments, town planners, developers and investors. It is also important for local, regional and national economy. The importance of housing to human beings cannot be overemphasised. Housing is one of the three basic needs of mankind and it is second to food in hierarchical order of human needs. A deficiency in housing can profoundly affect the health, welfare and productivity of people. It is an indispensable necessity without which human's survival is impossible. Housing has to be adequate, quantitatively and qualitatively in order to fulfil its basic purposes. The environment also has to be of good quality by providing a sense of well-being and satisfaction to its occupants (Aderamo & Ayobolu, 2010).

Thus, every human being should have a place of abode to be protected from the external harsh environmental conditions. Therefore, housing is an essential need for good and better living. The location at which the accommodation is located is as much important as housing itself and it is fundamental to human beings because it meets the physiological need. It is also important for investment decision, meeting the utility maximisation of every household and profit maximisation for firms (Olatunji, 2008). This is because land is fixed in location, limited in supply, and there are usually competing demands for it since every household has a market basket of needs (Kerry, 1995).

Every tenant has preferences that dictate his or her residential location decision although the ideal which satisfies all requirements of the tenant can rarely be found within available land in any city. Residential location is influenced by many variables such as socio-economic characteristics, life cycle, location of work and other major activities such as schools, shopping, family and friends, real estate values and the type of building (Prashker *et al*., 2008). Some people may choose their work location based on their residential locations while others may choose their residential location given their work

location (Prashker *et al*., 2008). In any case, the trips that people make daily affect residential location choice.

In choosing residential location, according to economic theory, individuals try to maximise the utility from their residential unit, area location characteristics, distances to various desired activity locations considering budget and other constraints (Prashker *et al.,* 2008). Also, apart from the fixity in the physical nature of land and buildings, income differences of tenants mostly dictate the locations that belong to every tenant. Although it is no doubt that every tenant and household has similar preference for neighbourhood amenities and decent housing, but income levels create difference in spatial location and types of residence tenants live in. The high income households are better able to exercise their preference effectively because they are able to out-bit lower income households. As earlier established by Kerry (1995), tenants cannot satisfy all their preferences of residential location choice in any city of the World. Thus, tenants must compromise on certain preferences which occupy the least position in the hierarchy of preference factors (O' Sullivan, 2000).

Internationally, a number of studies on factors that determine choice of residential location and property types have been done (Kyle & Baird, 1995; Kuye, 2003; Prashker *et al.,* 2008). However, in South Africa in general and Polokwane in particular limited work has been done. Myburg (2008) listed interest rate, GDP, Population, Household debt to disposable income ratio, quality of building, plans approval and building plan escalation as part of the material drivers in property cycle.

The choice of residence (both type and location) of households generally involves trade-offs among factors which give the household the highest possible utility. Several researchers that studied these factors found out that cost and size of dwelling unit, and proximity to activity centres were the most influential (Rivera & Tiglao, 2005). The choice is also dependent on household demographics such as household size, life cycle and income.

Accessibility has been identified as the central influence in urban theory of residential location (Waddell, 1996). It is a major factor that influences attractiveness of a certain location apart from the area's physical characteristics. It is argued that the reason why

most people prefer to live in city centres and built-up areas is because of the accessibility potential for a variety of activities aside from being near to work. This notion explains why accessibility has been always present in most location choice models. Handy & Niemeier (1997) stated that accessibility is determined by the spatial distribution of potential destinations, the quality and character of the activities of each destination.

1.2 STATEMENT OF THE RESEARCH PROBLEM

Residential location choice constitutes a problem not only for the household but also for other stakeholders in the housing sector, namely the developer/investor, the financing institution and the authorities, particularly the city planner (Olatunji, 2008). The reason for this problem is because information on the location is not always readily available to these stakeholders. Some tenants may not be aware of some vital information such as electricity supply, water, crime rate, drainage and will only be exposed to such after acquisition of accommodation. A developer or investor who has not done a thorough feasibility and viability analysis on a location and the types of residential property before development may discover that he or she has made a wrong choice of location after investment. Likewise the financial institution that advances any loan for financing such real estate investment might have its money trapped.

Thus, supplying information on the factors which involve residential location problem will be helpful. Prospective tenants will have information of the facilities and amenities available in Mankweng settlements. Results generate will also help the government to know the facilities available in Mankweng Township and what improvement is needed. This study, therefore, attempts to address these specific problems.

1.3 AIM AND OBJECTIVES

In accordance with the foregoing introduction and problem statement, the study's aim and objectives are as follows:

1.3.1 Aim of the Study

The aim of this study was to carry out an analysis of the factors influencing tenant's choice of residential property location in Mankweng Township, Polokwane Municipality.

1.3.2 Objectives of the Study

Three closely related objectives were drawn from the primary aim as follows:

- To identify the types of residential property in the study area (Mankweng Township).
- To determine the factors which influence the choice of residential property location in the study area
- To compare among the township, the relationships that exist among the residents in Mankweng Township.

1.4 RESEARCH QUESTIONS

The study consists of the following research questions.

- What are the types of residential property in Mankweng Township?
- What are the factors that determine the choice of residential property location?
- What are the relationships that exist among the residents in Mankweng Township?

1.5 DEFINITION OF TERMS

According to Mouton (1998), a definition is a statement that demarcates the meaning of a word in terms of its sense and reference. A term must be defined operationally; that is the definition must interpret the term as it is employed in relation to the researcher's project (Leedy, 1997). For this research there are some key terms that were defined to provide a clearer understanding of this research work. The terms are as follows:

Tenant: According to the Oxford Advanced Learner's Dictionary, a tenant is a person who pays rent for the use of a room, building, and land to the person who owns it. This is

someone that is paying rent to the owner of a property for the use of such property. It can also refer to someone who holds real estate by any kind of right (Nwanekezie, 1996).

Choice: According to Mark (1982), the term choice refers to the act of selecting from a variety of things. It can also entail the power, right or chance of choosing from variety of opportunities. For this research, the choice of a tenant refers to preferences made by the tenant in terms of residential location and property type.

Location: According to Oyebanji (2003), the term location can be defined as a place or position, actual place or natural setting. It can also be refer to the specific placement of a house which affects housing choices (Aluko, 2011). A location in the context of this research work is the specific or geographical situation of home or residential property in the settlement. It can also be seen as the zone of the city in which residential property is situated. Furthermore, location can also be viewed as a neighbourhood in a particular geographical region.

Residential property: This is the type of real estate development that is meant for human's dwelling or accommodation. It can also be defined as a physical structure designed for human beings to use as shelter (Okoro, 2005).

Residential density: According to Jinadu (2004), residential density is the specification of the average or range of numbers of dwelling houses per acre, which gives the maximum number of houses, for example not exceeding six, the maximum number of rooms per plot, for example not exceeding 12 among others. In the context of this research, residential density is the average number of dwelling in a particular neighbourhood. This can be further classified as high, medium and low density.

Infrastructure: This term can be defined as any organised activity for the betterment of the individual in relation to the community (Aluko, 2004). It can also be the basic systems and services that are necessary for a country or an organisation to run smoothly.

Accessibility: This term is commonly used among people of various background and inclinations, thus, giving way to many definitions. For the purpose of this research it refers to being nearer to the rail termini, bus stations and motorways transport facilities, labour, and customers (Harvey, 1999).

1.6 RESEARCH DESIGN AND METHODOLOGY

1.6.1 Research Approach

For this study, the researcher used mainly the quantitative research approach. The quantitative research approach looks into social reality by using a prepared questionnaire with specific items to which people mostly respond by choosing a predetermined set of scaled responses (Henning, Van Rensburg & Smith, 2004).The qualitative research approach was used where the respondents did not understand or were not capable of filling in the questionnaire.

1.6.2 Kinds of Data

Primary and secondary data were used. Primary data were collected through personal interviews, using structured questionnaires from the respondents residing in Mankweng and interviews. The information related to biographical data of the respondents, social economic status and information on choice of residential location and factors influencing choice of residential location in Mankweng were collected.

Secondary data were also collected from documented sources such as books, journal articles, government documents, newspapers, magazines, as well as other news media. These data consist of theoretical models on residential location theories, information on housing policy in South Africa and existing literature on the tenant's choice of residential property location.

1.6.3 Target Population

Target population is referred to as a set of elements that the researcher focuses on and from which data are obtained. A population is a set of entities in which all measurements of interest to the researcher are presented (De Vos, 2002). Welman & Kruger (1999) define population as encompassing the entire collection of units on which conclusions are made. The study was conducted in Mankweng Township located in the Polokwane Local

Municipality, which is one of the local municipalities within the Capricorn District Municipality in Limpopo Province. Mankweng is made of twelve (12) locations which are Ga-Thoka, Ga-Makanye, Mankweng A, Mankweng B, Mankweng C, Mankweng D, Mankweng E, Mankweng F, Nobody-Mothapo, Nobody-Mothiba, Ntschichane and the University of Limpopo. The target population consisted of households in Mankweng Township. Mankweng Township consists of ±14,360 households Integrated Development Plan, (IDP) (2010).

1.6.4 Sampling Method

The population was too large for the researcher to study all its members. A small, but carefully selected sample was used to represent the population, and by studying the sample, the researcher could generalise the results back to the population from which they were selected (Bless & Higson-Smith, 2003). The study in this regard used a probability sampling design. Probability sampling is referred to as a method for selecting the subset of units from the entire population so that each unit of the population has a known probability of being included in the sample (Babbie, 1992).

The researcher used stratified sampling method. Stratified sampling is a commonly used probability method to reduce sampling error (Cresswell, 2003). The stratified sampling method is used when the population in question is heterogeneous with respect to the character of interest. This is done to get a representative sample. When the heterogeneous population is divided into homogeneous sub-populations the sub-population is called strata. From each stratum a separate sample is selected using random sampling. The researcher stratified the area of study based on the residential types. From each stratum, seventy (70) households were randomly selected. It thus, implies that a total of eight hundred and forty (840) households were used for this study from the fourteen thousand three hundred and sixty (±14,360) households in Mankweng Township.

1.6.5 Data Collection Methods

The researcher used the following data collection methods: structured questionnaire, interview and document analysis.

1.6.5.1 Structured Questionnaire

A questionnaire is a research instrument consisting of a series of questions and other prompts for the purpose of gathering information from the respondents. Questionnaires have advantages over some other types of surveys in that they are cheap and do not require as much effort from the respondents as verbal or telephone surveys (Melville & Goddard, 1996).The questionnaire consisted of closed-ended questions as the main data collection apparatus. The questionnaire was used to collect information on the biographic profile of the respondents, social economic status and on choice of residential location. It further solicited for information on the choice of residential location in Mankweng Township.

1.6.5.2 Interview

Interviews are used to get a clear understanding of the situation of the study area through conversation between the researcher and the interviewee (Belshaw, 2005). Interviews were used in this research in a situation where the respondent could not fill in the questionnaire.

1.6.5.3 Document Analysis

Document is a secondary source of information. Documents form part of the literature on the subject understudy that already exists. The study, therefore, reviewed relevant literature for data collection was done. Data were collected from relevant published materials such as academic journals, books, government publications and conferences as well as speeches within the context of the study.

1.6.6 Data Analysis Techniques

Data collected were analysed based on the responses of the respondents. In this study, qualitative and quantitative analysis methods were employed. Qualitative analysis method focused on the qualities of phenomena being studied rather than their numeric representation. On the other hand, quantitative method focused on data that are collected and recorded numerically or in the form of recorded categories. The researcher analysed quantitative data by using a coding process. Neuman (2000) defines coding as a system of marking or labelling something with letters or symbols so that facts about it can be understood. Quantitative data used in this study were coded in numerical representation using Statistical Package for Social Sciences (SPSS) (2010) software. SPSS software was used to compute and analyse data through various functions such as descriptive statistics, charts and tables, editing, classification, tabulation and correlation, and regression analyses. The SPSS outputs were carefully studied, presented and interpreted in relation to the research problem of the study.

1.7 STRUCTURE OF THE DISSERTATION

The structure of this dissertation is constructed as follows:

Chapter 1: This chapter provides background information of the study, introduces the reader to the statement of the problem, the purpose of the study, research questions, the definitions of terms, significance of study, structure of the study and ethical considerations.

Chapter 2: This chapter focuses on the discussion of theoretical frameworks, assessment of related literature and tenant's choice of residential property location in Mankweng Township. It begins with a brief introduction, and continues theoretical mode framework for the location of residential. The chapter also focuses on different types of residential property in the study area, classification of residential areas and factors which influence the choice of residential property location.

Chapter 3: The research design and methodology are discussed in this chapter and emphasis is given to approaches, methods and techniques that were used to collect data

in this study. Also, the data collection methods namely; the questionnaires and interviews are explained. Chapter three also covers sampling design and data analysis procedures. The target population of the study is also discussed in the chapter.

Chapter 4: This chapter deals with presentation of results, analysis, interpretation and discussion of results. The analysis is based on the respondents' views about the factors that determine choice of residential property location in Mankweng Township.

Chapter 5: This chapter presents an overview of the study findings, recommendations based on the findings and conclusion.

1.8 SIGNIFICANCE OF THE STUDY

Location preference for residential properties is inevitable for the purpose of self-comfort and investment. This study will generate information which assist stakeholders to understand the reason why a particular location has high demand. Furthermore, proper analysis of factors that determine tenant choice in every location in Mankweng Township will serve as a guide for new tenants coming into the city and tenant that may be interested in changing their residential location in making the right choice. Also, information generated in this study will assist real estate developer in knowing infrastructure available in each location and also be informed on the type of residential property to invest in which meet demand of the tenant. Lastly, this study would avail the tenant's residential property satisfaction and the real estate investors to realize highest and best use of their resource.

1.9 ETHICAL CONSIDERATIONS

Ethics are defined as a set of moral principles suggested by an individual or groups which are widely accepted, and offer rules and behavioural expectations about the most correct conduct towards experimental subjects and respondents (Neuman, 2000). The information that was collected in this study was treated with confidentially. Therefore, the name of the respondents was not mentioned. The information was only used for the purpose of this research project in which the researcher is involved at the University of Limpopo.

Throughout this study the researcher strived to adhere to the research ethics considerations and professional guidelines. This helped to avoid acts of misconduct in research such data fabrication, falsification and plagiarism. The researcher also made sure that relevant research permissions are obtained before starting with data collection. During data collection the researcher introduced the aim and significance of the study to respondents in order to get their consent. The questions to be asked were carefully structured to avoid questions that may embarrass and annoy the respondents.

1.10 CONCLUSION

This chapter presents the background to the study and the statement of the problem. The research questions, aim and objectives of the study were also outlined. The terms used in the study were defined and were followed by research design and methods used. The structure of the chapters, the significance of the study and ethical considerations were also discussed.

CHAPTER TWO

2. LITERATURE REVIEW

2.0 INTRODUCTION

2.1 BACKGROUND INFORMATION ON HOUSING POLICY IN SOUTH AFRICA

This chapter is devoted to a comprehensive survey of the theories and models that are relevant to the factor influencing tenant's choice of residential property location. Also, in the later part of this chapter relevant literatures both the published and unpublished on this topic shall be reviewed on order to be able to know and acquitted with the previous effort in identifying the factors that influences the tenant's choice of residential location.

According to Williams & Durrance (2008), any study concerning real estate decision should begin with the fundamental concept. Human is rational with regards to spatial choices, always seeking to maximize utility or welfare as a private person or as a corporate entity desirous of maximizing profits. This behavioural concept is perceived as the guide and basic underlying assumption to the study of location preference of households. It is against this backdrop that the following theories and model were examined as they affect and influence tenant choice of location.

According to the National Census of 2001, Limpopo is home to 11.8% of South Africa's population. Measured by its total current income, Limpopo is ranked sixth of all the provinces in South Africa in terms of total income. In per capita income terms, however, the province is one of the poorest (Statistic South Africa (SSA) (2011). As is the case with most of the other provinces in South Africa, Limpopo is marred by high poverty rates, inequalities in the distribution of income between various population subgroups, and unemployment. The South African Housing Act 107 of 1997 sets out the roles and responsibilities of the three tiers of government with respect to housing.

National government must establish and facilitate a sustainable national housing development process by formulating housing policy. It must also monitor implementation by promulgating the National Housing Code and establishing and maintaining a national housing data bank and information system.

Provincial government must create an enabling environment by doing everything in its power to promote and facilitate the provision of adequate housing in its province, including allocating housing subsidies to municipalities. Provincial government must act within the framework of national housing policy.

Local government, i.e. municipal government, must implement policy, settlement planning and the delivery of housing. Every municipality must take all reasonable and necessary steps within the framework of national and provincial housing legislation and policy to ensure that the constitutional housing right is realised. Municipalities should do this by actively pursuing the development of housing, addressing issues of land, services and infrastructure provision, and by creating an enabling environment for housing development in its area of jurisdiction.

In 2002, local authorities received the power to become developers of low-income housing projects themselves. More recently, through housing accreditation, municipalities can receive the authority to carry out functions currently undertaken by provincial government, such as subsidy budget planning and allocation as well as the management and administration of priority programmes. These functions are outlined in the Housing Act and the Municipal Systems Act 32 of 2000. The aim of this legislation is to enable capacitated municipalities to gain full control over these functions as well as full financial administration of housing in their jurisdiction. Thus, accredited municipalities will be responsible for all housing functions in their area, while the province assumes responsibility for monitoring and evaluation. Despite the constitutional right to housing for all, as outlined in section 26 of the Bill of Rights, South Africa still has a housing crisis even after 16 years of democracy. It is generally recognised that the state cannot deliver housing on the scale required in South Africa at a sustainable rate or within the means of lower-income households. According to a recent Urban Landmark and Social Housing Foundation (SHF) study 'There is growing evidence that it will be impossible for South Africa's current settlement policy to meet its Millennium Development Goals (MDGs) targets to "eradicate informal settlements" by 2014 as it is currently implemented. The housing delivery processes aimed at the needs of the urban poor suffer from severe capacity problems and cannot draw on the resources located in the traditional housing and property markets'.

2.2 RESIDENTIAL LOCATION THEORIES AND MODEL

2.2.1 HEDONIC APPROACH

This is the theory by Kain & Quigley which was quoted and explained by O'Sullivan (2000). The Hedonic approach is based on the notion that dwelling is composed of a bundle of individual components each of which has an implicit price. The market price of a dwelling is the sum of the prices of the individual components. This theory is relevant to the tenant's choice of residential location because it seek to analyse the component that comprised bundle of individual preference of choice of location. Every tenant's preference could be based on accessibility to job or place of work, free from pollution, standard of school, size of the building, security of life and property, presence of social amenities and availability of infrastructure etc. The theory stressed that each individual components mention has its own impact on the price of dwelling.

Therefore, to predict the price of a particular dwelling, one needs information on each component, this will give the anticipating tenant more understanding on the type of property and location to live in considering his limited resources (income).

2.3 THEORIES OF URBAN GROWTH

According to Marcus & Charles (2005), a city may grow in several ways: vertically, by replacement of smaller structures with taller structures and by use of air rights to construct new building over existing ones. Below are the theories that had been formulated to explain the nature and structure of cities.

2.3.1 Concentric Theory

This is one of the first theories of urban form or structure which was developed by Burgess. According to Oyebanji (2003), Burgess used the study of city of Chicago to generate the concentric theory. The theory suggests that the pattern of growth in Chicago can best be described in five major concentric zones, as shown in figure 2.1. It sought to establish that land use intensity is highest in the centre and decreases with equal magnitude in all directions as one move away from the centre. The contention is that

every city has regular outward circles of different land usage as central business district, Zone of the transition, Low income housing, Zone of better residence and Commuter's zone.

(i) The central business district: This is the focal point of commercial, social, civil life and intra-city transportation. There are shops, offices, hotels, banking and insurance and other business activities in this zone.

(ii) Transition zone: This is a zone of low quality residential buildings resulting from neglect and invasion by business and light industries. The zone used to house wealthy people but as city expands and immigration from rural area occurs, this zone then became filled with low-income earners. The wealthy individuals therefore move away towards the outskirts.

(iii) Low- income housing: This zone consists of those workers who have decided to live close to their working places taking the advantage of available transport facilities. There are newer houses of better quality than the previous zone. The area mostly comprises of second generation immigrants and families who have the means to purchase house of their own.

(iv) High- income housing: This is a zone of high class or better residential house where single families and high-income earners live. There are also some few commercial concentrations in this zone especially along transport routes like roads and rail lines.

(v) Commuter's zone: This is the outermost zone where development is patchy and comprises of both middle and high-class residential buildings. The dwellers are mostly those who can afford fast means of transport to the city centres. In addition, better transportation system allowed the more prosperous people to move into this zone, an area surrounded by farm and recreational areas.

2.3.2 Axial Theory

This is a modification of the concentric zonal theory developed by Hurd in 1924. It emphasized the effect of communication lines on the structure of cities. It is based on the observation that urban development often takes place along major transport routes such as railway lines,

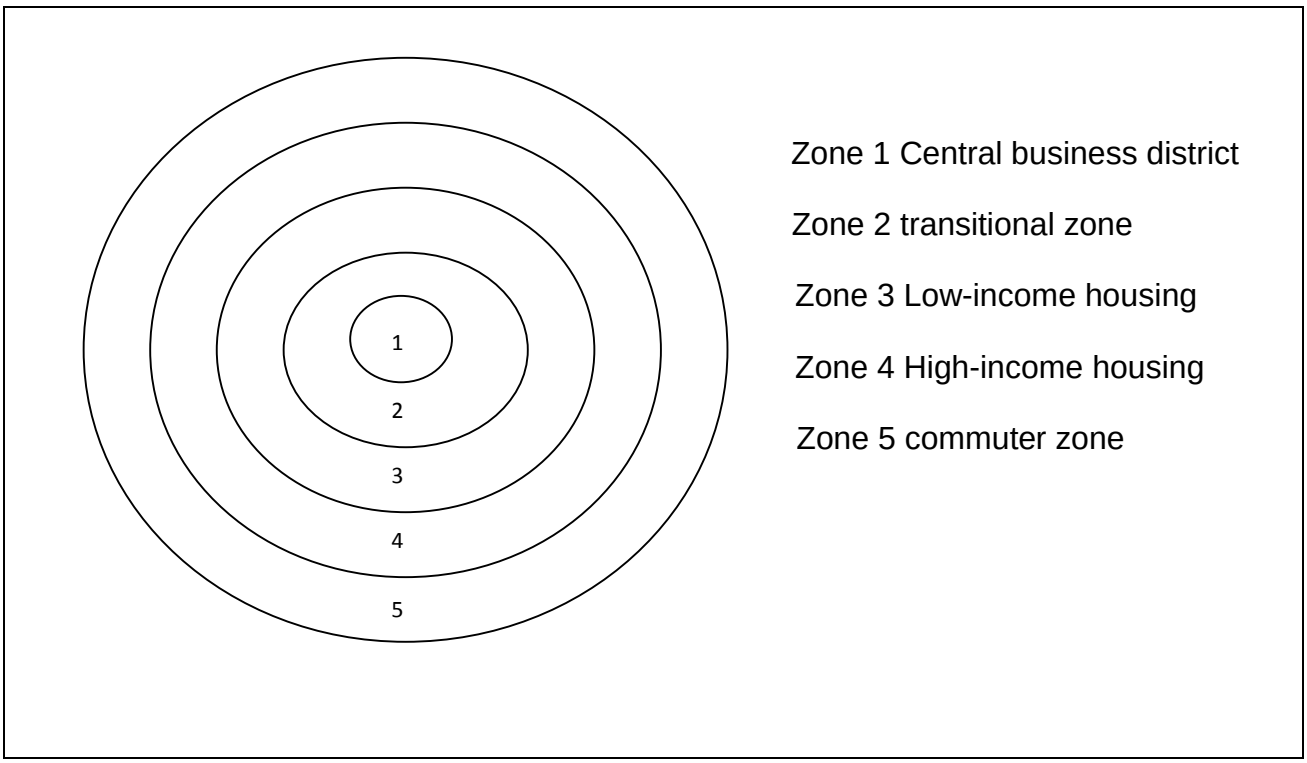


Figure 2.1 Concentric theory models by Burgess (*Source: Adopted from Oyedanji (2003)*

roads and waterways. This theory was a progression of thought from the concentric zone theory because accessibility to a single focal point is basic (Figure 2.2). This theory recognizes the fact that the particular and uses found in various sector tend to extend outwards along principal transport routes. The concept is contrary to the suggestion of the concentric zone theory, which states that growth takes place along the broad margin of successive circular zones. The result is a star-shaped pattern of land use, the shape of which depends on the number of available main routes.

2.3.3 Sector Theory

Sector theory was propounded by Hoyt (1939) as another model of urban structure. The theory was expressed by Balchin & Kieve (1985) that growth along a particular transport route way take the form of land use already prevailing and that each sector of relatively homogenous use extends outwards from the contention of this theory in sectorial fashion, radiating outward from the city centre along transport routes (Fig 2.3). For instance, a sector of an urban area develops first as high, medium or low-rental residential area; it

will tend to retain that character for substantial distance as city growth causes the sector to expand outwards. It recognized the fact that centre location is extremely valuable and as a point within the city. As a result of competition people tend to segregate on the basic income and social position.

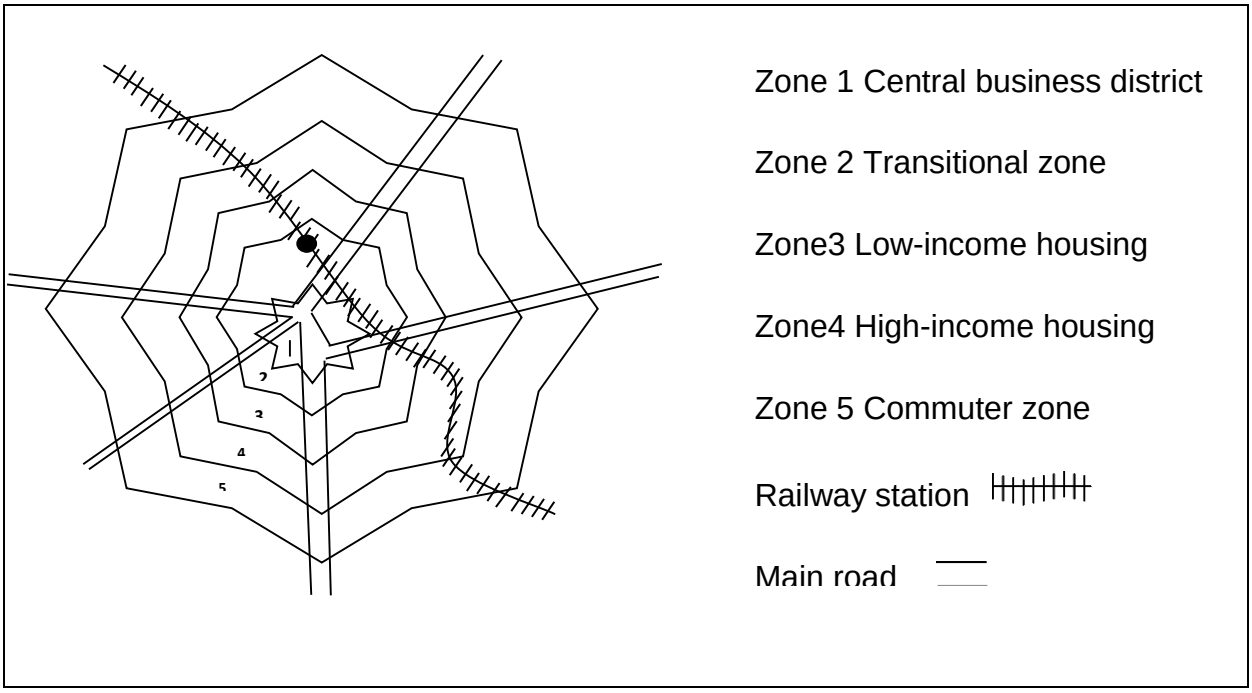


Figure 2.2 Axial theory model (Source: Adopted from Oyedanji (2003)

2.3.4 Multiple Nuclear Theory

This theory was propounded by Harris & Ullman (1945). Harris and Ullman had another view of urban growth; they postulated that urban growth takes place around several district nuclei unlike the other earlier theories which all assumed that cities grow from one centre point. It was further explained by Balchin & Kieve (1985) that the nuclei could include the first urban settlement (probably a market town), a nearby village, a factory, a mine, a railway terminal or waterside facility. Ultimately, they would be integrated into one urban area largely agglomerated by residential use and intra-city transportation.

Oyebanji (2003) in his attempt to explain nucleated spatial structure by Harris and Ullman gave four major factors for the emergence of the theory. These are

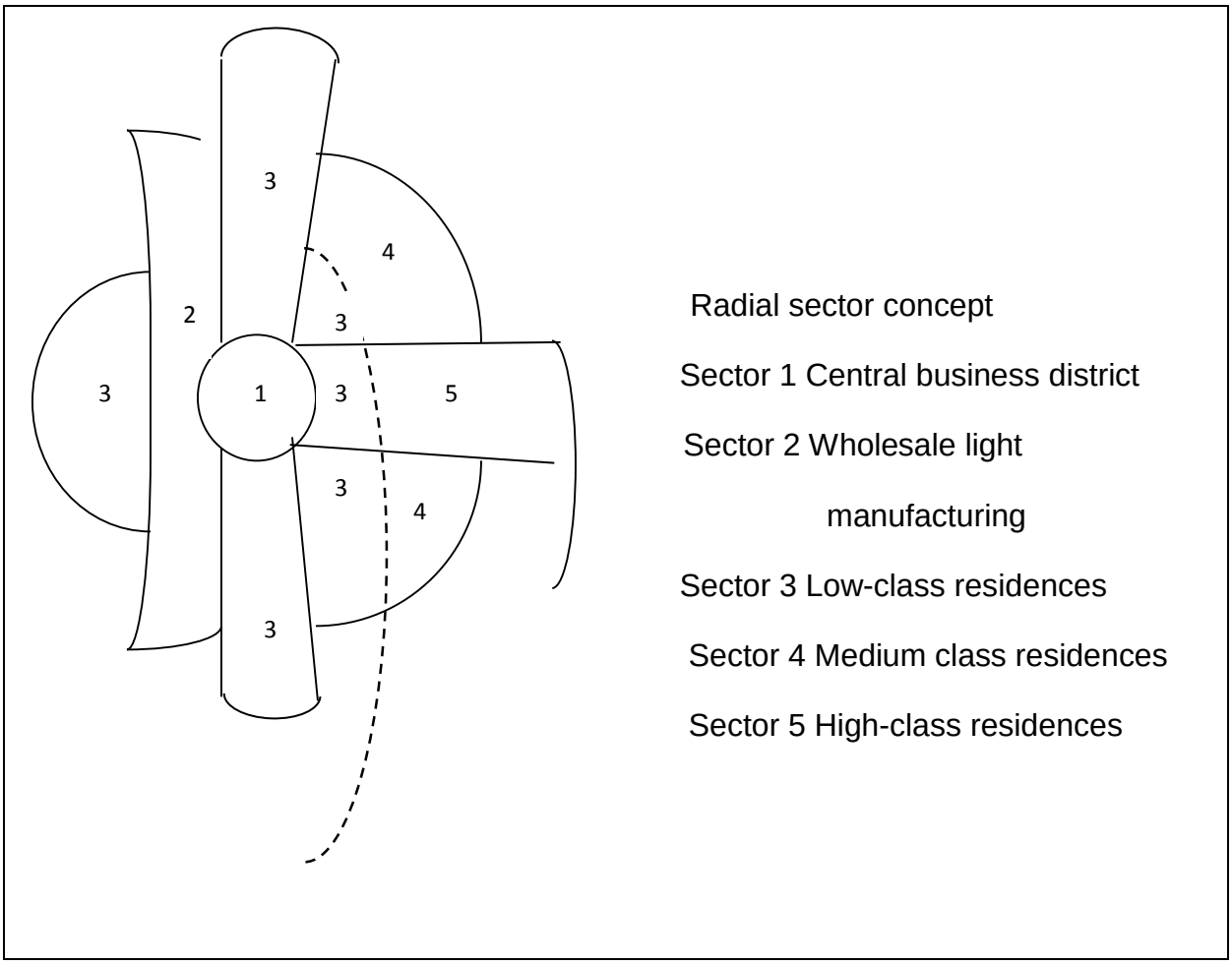


Figure 2.3 Sector theory model by Hoyt (*Source: Adopted from Oyedanji (2003)*

(i) Certain activities require specialized facilities, for example financial institutions need access to law insurance and value's' firms while a port district also need a suitable waterfront.

(ii) Certain uses like low residential and industries which cannot afford high rent on relatively small area unlike offices located far away from the centre

(iii) Certain activities are often detrimental therefore will repel one another

(iv) Certain activities are grouped together because they benefit from proximity for example offices and automobile technicians like Vulcanizes, Panel beaters, Painter, Battery chargers and mechanics workshops can be seen together.

2.3.5 Relevance of Concentric and Axial Theory to this Research

Despite numbers of criticizes faced by Burgess' concentric theory over the years, it is worthy to mention that relevant deduction can still be made from the theory when considering the factors that influences tenant choice of residential location in every city of the world.

Burgess in his concentric zone theory has been able to identify five different zones of residential location in the urban area. He also established the fact that every zone possess a characteristics that reflect the level of qualities of each zone, thus these features or characteristics dictate the status of tenant that are able to bid for rent in such locations.

In the transition zone, which is the closest to the Central Business District (C.B.D), the residents are prone to all kind of pollution ranging from noise pollution to industrial waste from the C.B.D. Transition zone are occupied by the low-income tenant while high income move outside this zone. As location move from zone of transition to zone of working men's homes, to zone of better residence and then to commuter's zone. The level of income, dictate the class and status of tenant that fit into each zone. This is because tenant that choose to live away from the city centre are better able to afford transportation cost to the city centre for work and other transaction.

Similarly, Axial theory is not completely different to concentric theory in relation to residential location choice rather a form of modification in term of communication route which can also be said as accessibility as added in axial theory.

Accessibility is one of the major factor considered by tenant in choosing residential location, He considered ease the accessibility of his resident to his place of work, market, place of worship, his children's school etc. This will determine to some extent the location of resident tenant will choose.

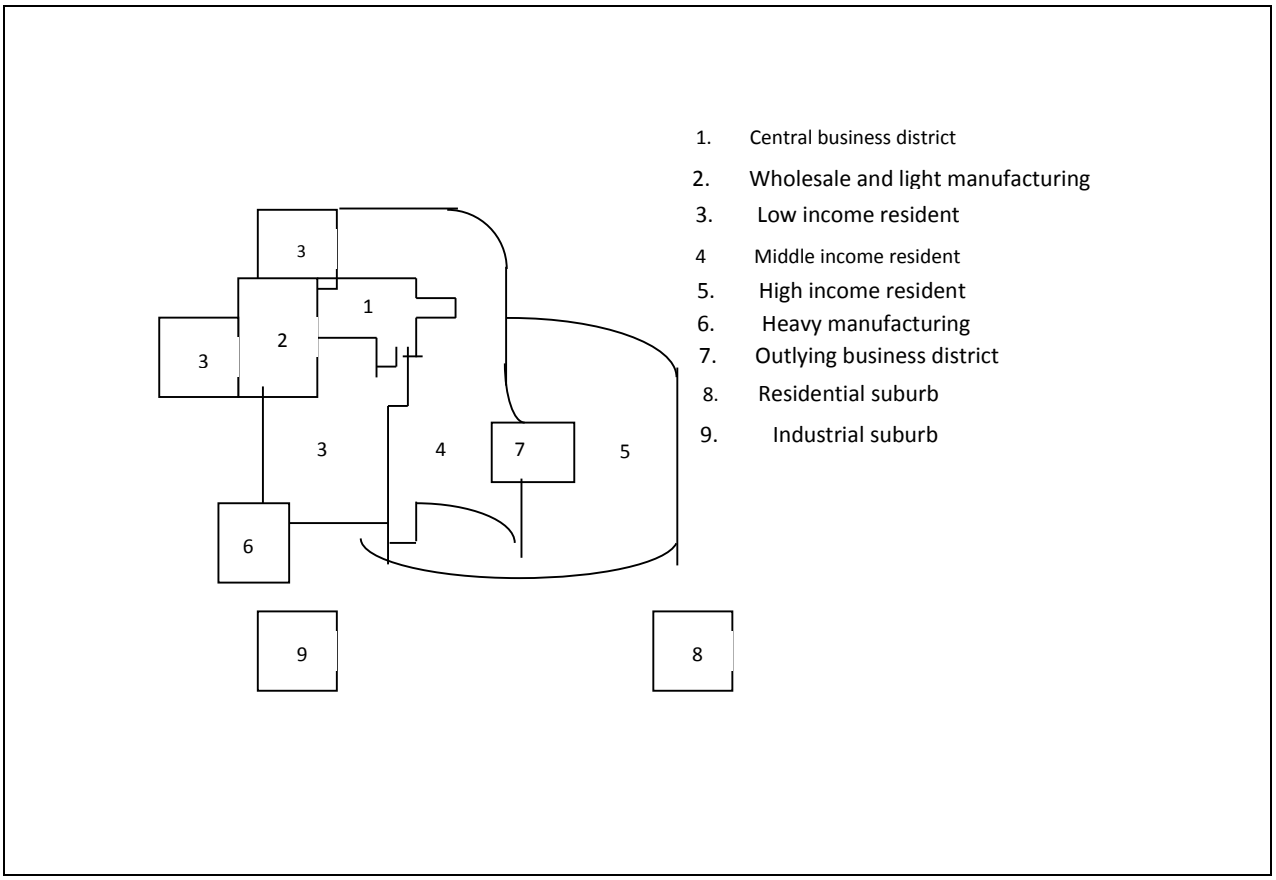


Figure 2.4 Multiple-nuclei theory model (*Source: Adopted from Oyedanji (2003))*

2.4 TYPES OF PROPERTY

Property or Real Estate is defined as the earth's surface extending downward to the centre of the earth and upward into space, including all things permanently attached thereto, by nature or by human hands (Harvey, 1999). Examples or real estate include undeveloped land, houses, condominiums, townhouses, office buildings, retail store buildings and facilities. According to Kyle & Baird (1995) residential living, real estate can be grouped into three broad categories based on its use: residential, commercial and industrial.

2.4.1 Residential Property

This is property which is officially zoned for residential uses. Although it is possible to obtain business rights in areas that are zoned as residential, the nature of the

improvements remains to be houses (including townhouses, apartments and clusters) initially built for the purpose of living. Residential property is zoned for single family homes, townhouses, multifamily apartments or condominiums. It is either owned by individual, private or government (Kyle & Baird, 1995). Residential property fails under different zoning and taxation regulation than does other property types. According to Kuye (2003) residential property are used as dwelling accommodation, which is otherwise known as houses. It could be rural, urban, and suburban houses. It also varies in design for examples tenement, flats, and maisonettes. The rental value(s) of any residential property will depend the following.

- Location: It refers to the specific placement of a house which affects housing choices Aluko (2011). In common with all types of properties, residential estate depend chiefly on their ease of access to those locations which support related uses such as recreational open space, area of employment, shopping facilities, schools, churches, health care places of entertainment are factors to be considered when making housing choices. Location is thus an important consideration in the design and construction of a home. The materials used to build the structure as well as the furnishings used to decorate the interior can be affected by the location. Accessibility either by proximity of location or by goods means of communication.
- Position: The most favoured residential positions are set in pleasant natural surroundings.
- Physical characteristics: The distinctive feature of all properties as a commodity is that it has a long physically life. The design, layout and structure of housing must therefore be adaptable to changing styles and fashions in order to avoid obsolescence.

2.4.2 Classification of Residential Areas

The word density as employed in planning disciplines has been pivot upon which classification of residential property area related.

Density simply means the number of people, families, households or unit per acre or hectare or square kilometre. As a planning device, density control was adopted to promote city growth in an orderly manner for new development utilities improvements and infrastructure. Density is one of the several planning mechanism used to control the intensity of development so that development areas not out strip the city ability to provide basic service and infrastructures.

In a typical urban structure, decrease in density often leads to increase in the available open space and this continue up to a point where a remarkable change in building type is necessary to provide adequate open space, light circulation and prove spacing between buildings. Below are the residential density types according to Jinadu, 2004.

i Low density area

This part of city residential area account for about a quarter of the total land stock zoned for residential, usually located at the urban periphery. The area is characterized by quality neighbourhood with abundant recreational spaces, light, fresh air circulation, wide building spacing. Examples of building types includes detached and semi-detached bungalows, mansions, duplexes, high quality houses built to owners taste, standard flat all attracting high rents. Population density has ranges between 1 - 2 people per room or says 5 people per plot. One peculiarity of the area is that buildings are constructed in accordance with town planning regulation that is strict adherence to floor area, ratio, spacing and with high quality of the neighbourhood and composition of residents, there is less intensity of use of the available social and public facilities, road network are well constructed and well maintained, liquid waste are emptied into soak away. There is security of life and property coupled with regularity of essential service such as electricity and water supply.

ii Medium density area

It has been revealed that medium density area is not physically delineated from other density areas, but pocket of building stocks in this unit are scattered all over the urban land stock but a deeper observation shows that such properties usually occupy say well tarred streets of fairly decent areas with the city structure. Density ranges between 2 - 3 people per room and 10 - 15 people per plot. Buildings type found in this area are

detached bungalows (4 - 5 bedrooms) detached and half duplex, flats. The gap between the low density area and medium density area are those of open spaces set back environmental quality as related to wastes disposal system, drainage of liquid waste and security while little or no differences is noticeable in both the social class and economic strength of the residents in both places.

iii High density area

This unit covering about two – third of the total land stock in a city is occupied by the lowest income group of the society. Density is about 4 - 7 persons per room in cramped tenement building. The few number of flats are noticeable scattered in the area, with large proportion of the accommodation offered are at the mercy of joint occupation. In this area, panning regulation such as specified set back, drainage, waste disposal system and built up space are often disregarded because of the uncontrollable development which have rendered town planning authorities ineffective. The reason for intensity of land use is that it accommodates the low – income earners who constitute about 85% of the city population.

2.4.3 Commercial Property

It is any real estate owned to produce income, such as office buildings, retail space, restaurants, shopping centres, hotels and apartment complexes (Jaques, 2007). Commercial property is zoned for business purposes. It is possible to invest in commercial property directly, or through Real Estate Investment trusts or real Estate Limited partnerships. Investors receive income from rents and capital appreciation if the property is sold at a point.

2.4.4 Industrial Property

This is property used for industrial purposes. It converts raw materials into finished products. Industrial property includes all land and facilities used for heavy and light manufacturing, for storage and for the distribution of goods Kyle & Baird (1995). Types of industrial property include factory – office, multi – use property; factory – warehouse multi

– use property; heavy manufacturing buildings; industrial parks, light manufacturing buildings; and research development parks. This type of property is very specific but is generally characterised by long term lease periods when rented.

For the purpose of this research work, emphasis was laid on Residential Property.

2.5 FACTORS THAT DETERMINES TENANTS' CHOICE OF PROPERTY LOCATION

The home is where people typically spend most of their time, a common venue for social contact and, for most people, a major financial and personal investment. One's choice of residence also reflects one's choice of the surrounding neighbourhood, which has a significant impact on one's well-being and quality of life. The concept of neighbourhood and its definition are, therefore, central to residential location choice analysis.

Residential location choice has long been a multi-disciplinary research topic. For urban and transportation planning, the interest in the causes and consequences of individuals' choice of residence arises from the recognition that it is the values, decisions, and actions of the people who are attracted to certain types of land-use patterns that ultimately shape the transportation, land-use, and urban form. The decision of residential location not only determines the connection between the household with the rest of the urban environment, but also influences the household's activity time budgets and perceived well-being (Kitamura et al., 1997). Altering land-use characteristics by itself might not affect the residents' travel behaviour, as expected by proponents of New Urbanism. Rather, travel characteristics might only change after new residents are attracted by new land-use and move into an area, while old residents who find the land-use unsuitable eventually move out (Bhat & Guo, 2005). Hence, understanding the why, who, and where questions associated with residential choices is important for devising effective spatial policies.

There are several factors which affect the decision of the tenant to choice an area to live. Kerry (1995) stated that the ideal site that satisfied all requirements can rarely be found from available land in the city, thus, the tenant tend to compromise certain requirement which occupy the least position in the hierarchy of the determinant factors.

Studies on the influence of socio-cultural and economic characteristics of the people on the physical fabric of their environment have been approached by scholars in various ways. Good Child (1974) noted that residents' decision on the way they restructure their environment closely relate to efforts to remake their surrounding into a form more like that of their perceived "ideal image". These images vary from person to person. Rapoport, (1977) note individual aspiration to achieve culturally derived satisfaction. Fried & Cleicher (1961) emphasize the importance of psychological and emotional attachment of residents to their local area. They identified kinship ties, neighbour relationships, and localism in close inter-personal relationships, stability of tenure, and perception of the local area as a home and sense of identity with local areas as strong factors influencing residents choose.

Barlowe (1986) revealed that most tenant or household prefer to live in areas that boast a pleasant climate, secured neighbourhood, low living cost and opportunities for the satisfaction of their various want and desires. The author led emphasised that in deciding the location, the person and his families will live, accessibility and neighbourhood complementarily is not to be compromised.

Oyebanji (2003) has examined eight factors that determine tenant's choice of residential property location in urban area. They are income, site, amenities, accessibility, environmental quality, security, job opportunity, and socio-culture.

2.5.1 The Level of Income

To a great extend the level of income is a major determinate in the decision on the choice of location for accommodation by tenant. Okoro (2005) stressed that expenditure has shown that high income groups have preference for sites that are large and which have good accessibility to urban centres and transport facilities. Jinadu (2004) further emphasis that for the reason of income level, high income earners are found in suburb, outskirts and housing estates where there are space of recreation, practice cottage garden and less pollution and the peaceful atmoshpere these places offer, while low income earners sre found in high density residential area within the cities. South & Crowder (1997) also found that "suburbanization is in part driven by a desire for segregation in which higher-class households will relocate to separate themselves from lower-class households"

2.5.2 Site

Physical condition of location or site in terms of texture, configuration, size as put by Oyebanji (2003) to some extend determine residential location of household. However, site as argued by Oyebanji (2003) is not a strong factor that determines tenant choice of residential location though it may be a good factor for developer or owner- occupier.

2.5.3 Amenities

This is another major factor that is significantly important in the choice of residential location by tenant as stated by Oyebanji (2003), the quantity and quality of amenities like water supply, electricity, communication, drainage and so on which a residential location can offer make it attractive to proposing tenant.

2.5.4 Accessibility

Every tenant prefers such residential location that gives easy access to work place, shopping, worship centres, to children school, bank, and hospital. Accessibility has been identified as the central influence in urban theory of residential location Waddell (1996). It is a major factor that influences attractiveness of a certain location aside from the area's physical characteristics. It is argued that the reason why most people prefer to live in city centers and built up areas because of accessibility potential for a variety of activities aside from being near to work. Oyebanji (2003) added that increase in technology is helping to improve transport system in many cities. Fast passenger train and existence of good road now in many urban centres make most part and routes accessibility. Kuye (2003) also affirmed the important of accessibility, that the level of accessibility of every residential property is one of the yardstick that dictate rent that tenant will pay for such property. This means that accessibility characteristic is a big determinant in tenant choice of residential location.

2.5.5 Environmental quality

Oyebanji (2003) said, the combination of other factors determines the quality of an environment. The type and quantity of other houses around, facilities available like drainage system refuse disposal system, electricity, water supply and socio-cultural background of the people living therein and factors that contributes to make an environment what it is. The more the quantity of an environment the more attractive such location will be for proposing tenant to live in. Thus, environmental quality constitute reasonable factor in tenant decision on the location to live in.

2.5.6 Security

Every tenant or household need security for his household and property as Oyebanji (2003) emphasized as a determinant factor for decision on residential location by tenant. This is a function of many considerations such as security of tenure, absence of hoodlum activities and security of life and property.

2.5.7 Job Opportunity

Tenant choice residential location based on the envisage prospect for job nearness to place of work by members of the family and ease of movement to and from work. Residential choice location is influenced by many variables including socio-economic characteristics, life cycle, location of work and other major activities such as schools, shopping, family and friend, real estate values, and characteristics of the residential workplace area. Some people may choose their work location based on their residential locations while others may choose their residential location given their work location Prashker *et al* (2008).

2.5.8 Socio-cultural

This is an important factor considered by Oyebanji (2003) that determines tenant choice of property location. He said it is a bond that brings people of the same social class and

similarity and cultural background tends to concentrate together in the same neighborhood. A feeling of security is always experienced when people of the same tribe live together or near one another. The type of people living in the community can play a key role in people's housing choices. Many past studies in housing research have shown that stratification and homogeneity is important to residential location choices Sirgy *et al* (2005).

According to Cho *et al.* (2008) factors that determines residential location by household includes

- Housing Stock/Site Characteristics: He identified the following as factor under housing stock/site characteristics: Occupancy status, tenure status, Unit of structure, Age, Number of bedrooms, Numbers of baths, Design/style.
- Neighborhood amenities: The factors he identified under neighbourhood amenities are Fire station, Police station, Shopping malls, Sport facilities, Public transport, Quality of Schools, Water supply, Electricity and Drainage system.
- Accessibility Characteristic: He identified the following as factors under accessibility that is easy access to working place, to shopping centres, to place of worship, to recreation site and airport.
- Household Characteristic: These are income, size of the family, age of the family head and race or tribe. Similarly, Olatunji (2008) listed eight factors which are might affect the choice of a location.

i. Property cost attributes
ii. Socio-economic status
iii. Residential aesthetic
iv. Typology
v. Neighborhood characteristic
vi. Property market condition
vii. Accessibility

viii. Optimality

At the end of his research work, he concluded that neighbourhood characteristic, property cost attributes, socio-economic variables and economic consideration are the most important factors which determine the residential location of the household in his study area.

2.6 LAND USES IN URBAN AREA

Oyebanji (2003) defined land use in urban area as the different use to which land is put. The basic principal types of uses to which urban land is put are residential use, commercial use, industrial use, recreational use, institutional use, agricultural use, transport use, and mining and services.

A. Residential land use: This use involves the development of land into different houses for man's accommodation. It is important to note that residential land use account for largest land use area in every city.
B. Commercial use: Some sizeable portion of land is usually set aside for commercial uses in every city. This is where buying and selling activities takes place, commercial activities of different categories, ranging from local market, shopping complex, stores, offices and warehouse all in the commercial land use in an urban area. The type and quality of these in a particular neighbourhood depend on the socio-economic and political status of the supporting settlement.
C. Industrial land use: This is the area of urban land that is used for manufacturing activities. Most of this uses are located close to the source of raw material to minimize the transportation cost. Industrial land use cannot be completely separated from commercial land use because of its involvement in economic activities.
D. Recreational land use: This is the part of urban land set aside for games, sports and open space, which could be natural or man-made such as stadium, cinema house, zoological garden, waterfall area and other recreational centres.

E. Institutional land use: Land put into public development fall under this category of use such areas set aside for health, education or other government establishment said to be of institutional use.

F. Agriculture land use: This is the land area including cropland involving cultivated areas used in the production of food, feeds, fibres and other crops. It also included pasture and grazing land, which involves two types of land use.

- Arable pasture which include all those improved and rotation pasture area that are considered ploughable and that might easily be shifted into cropland use.
- Range and grazing land which applied to those land that produce forage cover for grazing of domestic animal and game mammals. Agricultural land use also includes forestland used for commercial timber production, non-commercial woodland with great potential and some bush land use.

G. Transportation land use: Land for this use provides links between all other uses and enables man to move from one place to another through various means. These are in the form of footpaths, roads, rail lines, airports, motor parks and seaports.

H. Mining land use: This is another vital use to which land is put. Part of the land which are found to contain natural resources like petroleum, tin ore, gold, diamonds are all regarded mining or mineral land use.

I. Service area use; in any settlement, certain area of land must be assigned to serve as support for the provision and supply of services such as military reservation, prison, cemeteries, and Eskom.

CHAPTER THREE

3. RESEARCH DESIGN AND METHODOLOGY

3.0 INTRODUCTION

This chapter is discussed in eleven sections including the introduction. Issues around data collection were discussed in this chapter, since the research problem, aim and objectives of the study have been outlined in chapter one. It indicates the step by step process in data collection.

The second section is the research design which explains the approaches that the study followed. The kinds of data collected are addressed in Section three (biographical data of the respondent, types of residential property respondents lived in and their opinion about the choice of residential property location). Section four addresses the target population for the study in order to make sampling easier. Section five describes the study area. The sampling design is presented in section six indicating the types of sampling techniques used. The data collection methods are discussed in section seven. The questionnaire construction and how it was administered are explained in section eight. The limitation of the study is discussed in section nine. Ethical considerations that were practised in Mankweng Township during the research are explained in section ten. Section eleven concludes by giving a brief summary of the chapter.

3.1 RESEARCH DESIGN

According to De Vos *et al.* (2003) research design is defined as those groups of worked out formulas from which the prospective researcher select or develop one suitable to their specific goals and objectives. Research design is the plan, structure and strategy of investigation conceived so as to obtain answers to research questions and to control variance. It enables the researcher to describe how the research questions are going to be answered during the investigation and also describe what the researcher is going to do with the participants with a view of reaching conclusions about the research problem. According to Mouton (2001) research design can be defined as a plan or blueprint of how one intends conducting the research.

Leedy & Ormrod (2001) define research methodology as the specific means and techniques the researcher follows for conducting research. Research methodology refers to the methods, techniques and procedures that are employed in the process of implementing a research design or plan (Babbie & Mouton, 2009). Leedy (1993) subsequently identifies qualitative research methodologies as dealing with data that are principally verbal, and quantitative research methodologies as dealing with data that are principally numerical. Due to the nature of the study, the researcher used quantitative research designs to collect data from the target population. The qualitative aspect was used only for those who could not read and write, thus the researcher and the assistants asked the questions from the questionnaire and filled in the answer given by the respondents accordingly. Quantitative research looks into the social reality by using a prepared questionnaire with specific items to which people must respond by choosing a predetermined set of scaled responses (Henning *et al.,* 2004). Quantitative research was used in this study to gather quantitative data from the twelve settlements in Mankweng Township. Quantitative methods involve collecting and analysing numerical data from tests, questionnaires, checklists, and surveys (Gay & Airasian, 2003).

3.2 TYPES OF DATA

For the purpose of this research work, both primary and secondary data were used to get appropriate information about the research problem. Primary data were collected from the twelve settlements in Mankweng Township through questionnaires. The information relates to biographical data of the respondents and their opinions about their choice of residential property location were collected.

Secondary data were collected from documented sources such as books, journal articles, Polokwane Municipality, Statistics South Africa, South Africa housing policy, Estate agents and National population office on choice of residential property location and factors that determine choice of residential property location.

3.3 TARGET POPULATION

Population in research work is made up of all conceivable elements, subjects or observations relating to a particular phenomenon of interest to the researcher. Bless *et al.* (2007) define population as the set of elements that the research focuses upon and to which the results obtained by testing the sample should be generalised. In addition, White (2002) describes population as a collection of objects, events or individuals having some common characteristics that researchers are interested in studying. Babbie (2007) defines target population as the aggregation of elements from which the sample is actually selected and random sampling as a method in which each element has an equal chance of selection independent of any event in the selection process. Target population also refers to the totality of persons, organisation units, causes, records or other units from which a sample is drawn in order to study a particular research problem (De Vos, 2005).

The study was conducted in Mankweng located in the Polokwane Local Municipality, which is one of the local Municipalities within the Capricorn District Municipality in Limpopo Province. The target population was drawn from the tenants in Mankweng Township. It is made up of Ga-Thoka, Ga-Makanye, Mankweng A, Mankweng B, Mankweng C, Mankweng D, Mankweng E, Mankweng F, Nobody-Mothapo, Nobody-Mothiba, Ntschichane, and University of Limpopo. The targeted population consisted of both male and female who were above the age of twenty (20) years irrespective of their occupation, gender, race, culture and their physical ability in the above settlement. The total population was estimated to be eighty one thousand nine hundred and forty two (81,942), while the household was estimated at fourteen thousand three hundred and sixty (14,360) (IDP, 2010). In view of the physical facilities, feasibility, speed, economic implication, and the large number of population in Mankweng Township, the researcher took a representative sample to draw statistical inference about the population.

3.4 DESCRIPTION OF THE STUDY AREA

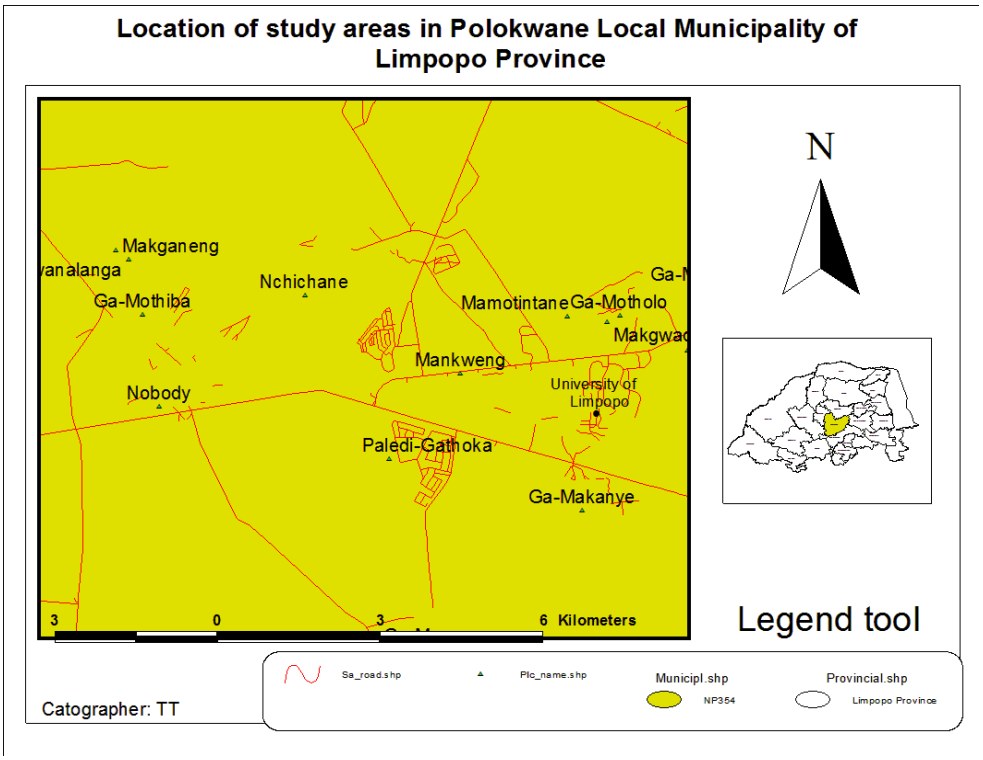
Polokwane Municipality is located within the Capricorn District in the Limpopo Province. It covers an area of 3775 km^2 and accounts for 3 % of the Province's total surface area

of ±124,000km^2. In terms of its physical composition Polokwane Municipality is 23% urbanised and 71% still rural (Integrated Development Plan (IDP) (2010). The remaining area of 6 % comprises small holding and institutional, industrial and recreational land. Polokwane Municipal is the economic, political and administrative capital of the Limpopo Province. The Municipality area has experienced phenomenal growth in recent times and this has resulted in the Municipality adopting a new that reflects a paradigm shift from the foregone IDPs (IDP, 2010).

It is the economic hub of Limpopo Province and is strategically located to be the administrative and economic capital of the province. It is situated at the cross roads of important national and provincial roads which radiate out into the hinterland providing good access to other towns. There is a definite opportunity for Polokwane to become a logistics hub and freight interchange within the region, also given its proximity to the neighbouring countries of Botswana, Zimbabwe, Mozambique and Swaziland (IDP, 2010). Three of the four Spatial Development Initiatives (SDI) pass through Polokwane, which repeat the City's strategic location and its importance as far as the economy of the province is concerned.

The Municipal spatial pattern reflects that of the historic apartheid city model characterised by segregated settlement. At the centre of the area is the Polokwane economic hub, which comprises the Central Business District (CBD), industrial area, and range of social services and well established formal urban areas servicing the more affluent residents of Polokwane. The settlements surrounding the city of Polokwane are the following Seshego, Mankweng, Sebayeng, and Ga-Maja. This study was conducted in Mankweng Township, Polokwane Municipality. According to Integrated Development Plan (IDP), (2010), Mankweng is located 30 km east of Polokwane local Municipality. It is one of the local municipalities in Capricorn District in Limpopo Province. It constitutes a large area and is mixed of both formal and informal settlements. Mankweng is one of the townships in Polokwane Municipality. It has an estimated population of eighty one thousand nine hundred and forty two (+81,942) and fourteen thousand three hundred and sixty (+14,360) households. Mankweng Township has for many years enjoyed a dominant standard of life created by the influence of one of the oldest Black Tertiary Academic Institutions, University of Limpopo Turfloop Campus (formally, University of the North).

Mankweng community comprises academics, educators, and public servants like nurses, general administrators, university's employees and other categories. It accommodates the University of Limpopo and other settlements. The ambient temperatures around the study area ranged between 20 and 36℃ during summer and between 10 and 25℃ in winter. University of Limpopo lies at latitude 27.55 S and longitude 24.77 E; It receives a mean annual rainfall of less than 400 mm (Kutu & Asiwe, 2010).



Map data @ 2012 AfriGIS (Pty) Ltd, Google

Figure 3.1 Map of Mankweng settlements

3.5 SAMPLING METHOD

A portion of a population is known as a sample. Sampling is the methods adoptable for selecting samples from a population. There are basically two categories, which are probability sampling and non – probability sampling. For the purpose of this research, probability sampling category was used. This method maximises information for allowable expenditure of capital, labour and time. It also helps to estimate the variability of the

sample result. Probability sampling has four methods, which are simple random sampling, systematic sampling, stratified random sampling, and cluster sampling method.

For this study, the stratified random sampling was used. This method is used when the population in question is heterogeneous with respect to the character of interest; this is done to get a representative sample. When the heterogeneous population is divided into homogeneous sub-populations the sub population is called strata. From each stratum a separate sample is selected using random sampling. This method was used because it makes the sampling homogeneous and thus, reduces error due to variability. The researcher stratified the area of study based on the residential types. From each stratum, 70 households were randomly selected. It thus, implies that a total of 840 households were used for this study. This sample size (n) of 70 was drawn from the 14,360 household (N= total targeted population), 0.2 population variance (P= estimated variance in stratified population), ± 3 % precision desired (A= desired precision), 95% confidence level (Z = confidence interval) and an estimated response rate of 80% base on pilot study (R= estimated response rate).

$$n = \frac{\left[\frac{P(1-P)}{\frac{A^2}{Z^2} + \frac{P(1-P)}{N}}\right]}{R}$$

3.6 DATA COLLECTION METHODS

Data in this research were obtained through questionnaires, interviews and document analysis.

3.6.1 Questionnaire

The questionnaires were designed and used to collect data for the purpose of this research The questionnaires were carefully constructed by the researcher bearing in mind that the targeted population comprised both literate and illiterate tenants. It was constructed to obtain the respondents biographical information and their views and opinions with regard to the questions. According to Bailey (1982) and Babbie (1995).

When constructing a questionnaire ambiguous and double – barrelled questions should be avoided as they make it difficult for the respondents to respond to questions with confidence. Questionnaires were identified by the researcher as a suitable method of collecting data in this study as they allow respondents to express their views based on their experiences and understanding with regard to the subject under study. Questionnaires were structured and administered randomly to the selected household heads of the twelve settlements to get their opinions on their choice of residential property location that they are occupying presently. Questionnaires were divided into five sections, namely, Biography of the respondents, location of residential property, types of houses, social economy and others.

3.6.2 Interview

Interviews are used to have a clear understanding with regard to the present situation through conversation between the researcher and the interviewee (Belshaw, 2005). Interviews were used in this research in a situation whereby the respondent could not fill in the questionnaire and researcher wanted to gather in-depth information on the study area. According to Bless *et al* (2007), an interview involves direct personal contact with the participant who is asked questions relating to the research problem.

3.6.3 Documentation

Documentary source refers to an extensive collection of records, documents, library collections or mass media materials that have been amassed (Mouton, 1998). Documents used in this study were obtained from Polokwane Municipality, Statistics South Africa (2011), Integrated Development plan (IDP,2010), South Africa housing policy and journal articles related to residential property location and types.

3.7 RESEARCH PROCESS

The research process gives a reflection of what transpired when the research was conducted, how the questionnaires were distributed or administered and their collection, and how the data were collected.

3.7.1 Administration of Questionnaires

A total of eight hundred and forty (840) questionnaires were distributed to the twelve (12) settlements in Mankweng where each settlement had seventy (70) questionnaires. Questionnaires were distributed by the researcher and research assistants to the twelve (12) settlements in Mankweng Township. Before the questionnaires were distributed, the researcher explained the purpose of the study to ensure that respondents understood the questionnaires. Collection of the questionnaires were done immediately since the researcher waited for the respondents to fill in the questionnaires and assisted in explaining any question that was not clear to the respondents. The researcher and the assistants spent a considerable amount of time with the respondents so that they could understand the questions and to enable them respond appropriately.

3.8 DATA ANALYSIS TECHNIQUES

Data analysis is the science of examining raw data and processing them with the purpose of drawing conclusions about that information generated from the data. This is used in all area of endeavours, it assists in making better business decisions and in sciences to verify or disprove existing models or theories. This science is generally divided into exploratory data analysis (where new features in the data are discovered) and confirmatory data analysis (where existing hypotheses are proven true or false). In this research, the aim of the study was to carry out an analysis of factors that determines tenant's choice of residential property location and types in Mankweng Township. Data collected were analysed based on the answers of the respondents. Two computer software models were used; the Statistical Package for Social Sciences (SPSS) version

14.0 software (SPSS Inc., Chicago, IL) and Microsoft excel (MSE). SPSS was used to do the following:

i. Editing (process of examining the collected raw data to detect errors and omissions and to correct these when possible)

ii. Classification (a process of arranging data in groups or classes on the basis of common characteristics), for example location and types of residential properties et ce tera.

iii. Tabulation (process of summarizing raw data and displaying the same in compact form for further analysis. It is an orderly arrangement of data in columns and rows. Tabulation is essential because: a) it conserves space and reduces explanatory and descriptive statement to a minimum. b) It facilitates the process of comparison. c) It facilitates the summation of items and the detection of errors and omissions. d) It provides the basis for various statistical computations.

iv. Correlation and regression analyses. These were used to find the relationships that exist among the settlements.

Also MSE was used to develop tables, chat and graphs on the results of the study.

3.9 VALIDITY AND RELIABILITY

Joppe (2000) defines reliability as the extent to which results are consistent over time. Hence, an accurate representation of the total population under study is referred to as reliable. If the results of a study can be reproduced under a similar methodology, then the research instrument is considered to be reliable. Reliability refers to how well the research has been carried out, and whether the research has been carried out in such a way that if another researcher were to look into the same questions in the same settings would come up with essentially the same result even though their interpretation are not the same (Blaxter, Hughes Tight, 2008). Reliability therefore, means an inquiry that must provide its audience with evidence that if it were to be repeated with the same or similar respondents in the same context its findings would be similar. Kirk & Miller (1986) identify three types of reliability referred to in quantitative research, which relate to: (i) the degree to which a measurement, given repeatedly, remains the same (ii) the stability of a

measurement over time; and (iii) the similarity of measurements within a given time period. To ensure reliability in this study the appropriate design was used (stratified random sampling) and rigorous statistical method was also followed.

While validity refers to how well the methods, approaches and techniques used relate to or measure the issue that have been explored (Blaxter *et al*., 2008), there are several ways of validating the outcome of any research work. These include: face, content, construct, internal and external validities. The external validity of this work was ensured by drawing a representative sample from the population and also carrying out a pilot study. Likewise, the pilot study coupled with expert advice was used to ensure the consent validity. The criteria and construct validities were ensured by correlating the result obtained with secondary data and established theories.

3.10 LIMITATIONS OF THE STUDY

Every research work has its limitations especially when information required has to do with households, family and personal data. These are often regarded as very confidential and personal issue. Thus, for such information to be given correctly by respondents, diplomatic approach and tactic was used to solicit for such information. However, a tactic that is appropriate to one respondent may be inappropriate to another since different people think and react to issues in different ways. This was one of the impediments to this research. To avoid this problem respondent were informed that they can opt out at any time. Secondly, some respondents due to error of omission and commission supplied data that were regarded as not satisfactory enough for analysis and this served as a limitation to this research work. Where such error was observed a new questionnaire was re-admitted. Thirdly, some respondents could not fill the questionnaire on their own. The researcher and the assistants had to assist them and this was time consuming. The fourth limitation to this research work was getting the actual population figure of households in Mankweng Township. Fifth, the researcher and the assistants had to revisit the respondents twice to get information, and in certain instance had to get an interpreter to gather information. Lastly, financial constraints had to limit the researcher to only seventy (70) houses per settlement.

3.11 ETHICAL CONSIDERATIONS

Ethics are defined as a set of moral principles suggested by an individual or groups which are widely accepted, and offer rules and behavioural expectations about the most correct conduct towards experimental subjects and respondents (Neuman, 2000) The moral qualities of this study were largely dependent on the following ethical considerations which were applied throughout the study, namely: integrity, consent, harm, psychological abuse, stress or loss of self-esteem, privacy, anonymity and confidentiality, and copyrights and intellectual property rights.

Integrity

The researcher was at all times professional and applied her expertise objectively, accurately and justly.

Consent

Relevant people were informed about the research to be conducted and who, when and which procedures would be followed during the study.

Harm

Individuals and bodies that were involved were convinced that the research does not pose any form of harm to the households, environment and the researcher.

Psychological abuse, stress or loss of self-esteem

Participants were not placed under stressful, embarrassing, anxiety producing or unpleasant situations. In order to avoid this, the researcher filled in the questionnaires with the respondents so that it was easy for the participants to complete the questionnaire.

Privacy, anonymity and confidentiality

Issues of privacy, anonymity and confidentiality were considered during the study including that of participants and respondents of the research. In order to respect the ethic, respondents were not asked to give their names or addresses or any information considered to be confidential.

Copyrights and intellectual property rights

Plagiarism was at all times avoided. Information and extracts used in the research not belonging to the researcher was always quoted by acknowledgement of the references. The wisdom of research findings will be shared with other people.

3.11.1 Participants' Consent

Participation in the study was with the consent of each participant. Before questionnaires were distributed out and interview conducted, participants were informed of their consent and to open communication channels indicating that participants had a right to know what the research was about, how it would affect them, and the fact they had the right to decline to participate if they chose to do so (Neuman, 2006; Bless *et al*., 2007).

3.12 CONCLUSION

This chapter gave a clear picture of how the research was conducted. It addressed techniques that were employed in the research and explained the reasons why they were used. It further discussed data collection methods that were used to gather information, how data were analysed and addressed ethical considerations. In the next chapter, the researcher presents the results and discussion thereof.

CHAPTER FOUR

4. RESULTS AND DISCUSSION

4.1 INTRODUCTION

Chapter three dealt with the methods and procedures followed when conducting the study. This chapter deals with results and discussion. The results of this study were presented in the form of descriptive statistics such as tables, figures, charts and narratives. Data for this study were collected by means of a questionnaire. Data were captured and analysed using SPSS version 14.0 software and also through the aid of excel spread sheets. Presentation was done such that each item in the questionnaire was presented as it was relevant to the study. This was done to reflect the aim and objectives of the study.

4.2 DEMOGRAPHIC INFORMATION OF RESPONDENTS IN MANKWENG TOWNSHIP

This covers information with regards to location, gender, marital status, age, employment status, household size, race and the educational status of respondents. This information assisted in breaking down response data into meaningful categories of results. Demographic data are needed to obtain basic information about the respondent. It also helped to analyse the data. Meanwhile, demographic factors have not been adequately recognised in residential location choice (Sermons 2000).

4.2.1 Type of Questionnaire Administered

Questionnaire and oral interview were used to gather information from the occupant on the factors which influence their choice of residential location. A total of eight hundred and forty (840) questionnaires were administered to the respondents in their various homes and eight hundred and thirty (830) were returned and were valid for analysis. From the twelve locations where questionnaires were administered, only two locations did not return the entire questionnaire complete; These were in Mankweng C and Mankweng E, with 67 and 63 respondents, respectively, and this represented 95% and 90%. The

remaining ten (10) locations returned 100 % of the questionnaires. Ninety nine percent (99%) of the total questionnaire administered were filled and returned. This is an indication that most of the respondents cooperated with the administrator of the questionnaire. Tables 4.1 below shows the breakdown of the administered questionnaires and the questionnaires returned.

Table 4.1 Questionnaire administered and returned

Location	**Administered Questionnaires**	**Returned Questionnaires**	**Percent returned**
Ga-Thoka	70	70	100
Ga-Makanye	70	70	100
Mankweng A	70	70	100
Mankweng B	70	70	100
Mankweng C	70	67	95
Mankweng D	70	70	100
Mankweng E	70	63	90
Mankweng F	70	70	100
Nobody-Mothapo	70	70	100
Nobody-Mothiba	70	70	100
Ntschichane	70	70	100
University of Limpopo	70	70	100
Total	**840**	**830**	**99**

4.2.2 Gender of Respondents

This question was aimed at determining the number of respondents who were male or female in the study area. Figure 4.1a reveals that there were more male respondents in Ga- Makanye, Mankweng A, Mankweng B, and Nobody-Mothiba than females. However,

higher female respondents were recorded in Ga-Thoka, Mankweng C, Mankweng D, Mankweng F, Nobody-Mothapo, Ntschichane, and University of Limpopo. Mankweng E had the same numbers of males and females respondents. Figure 4.1b shows that in total there were more female (50.7 %) than men (49.3 %) respondents. The results on the gender of respondents in the study area is closely related to the report of Statistics South Africa's Census 2011 which indicated that 51.3% were female and 48.7% were male. Results from the correlation analysis (Table 4.2) shows that gender might be a factor in determining the choice of residential location.

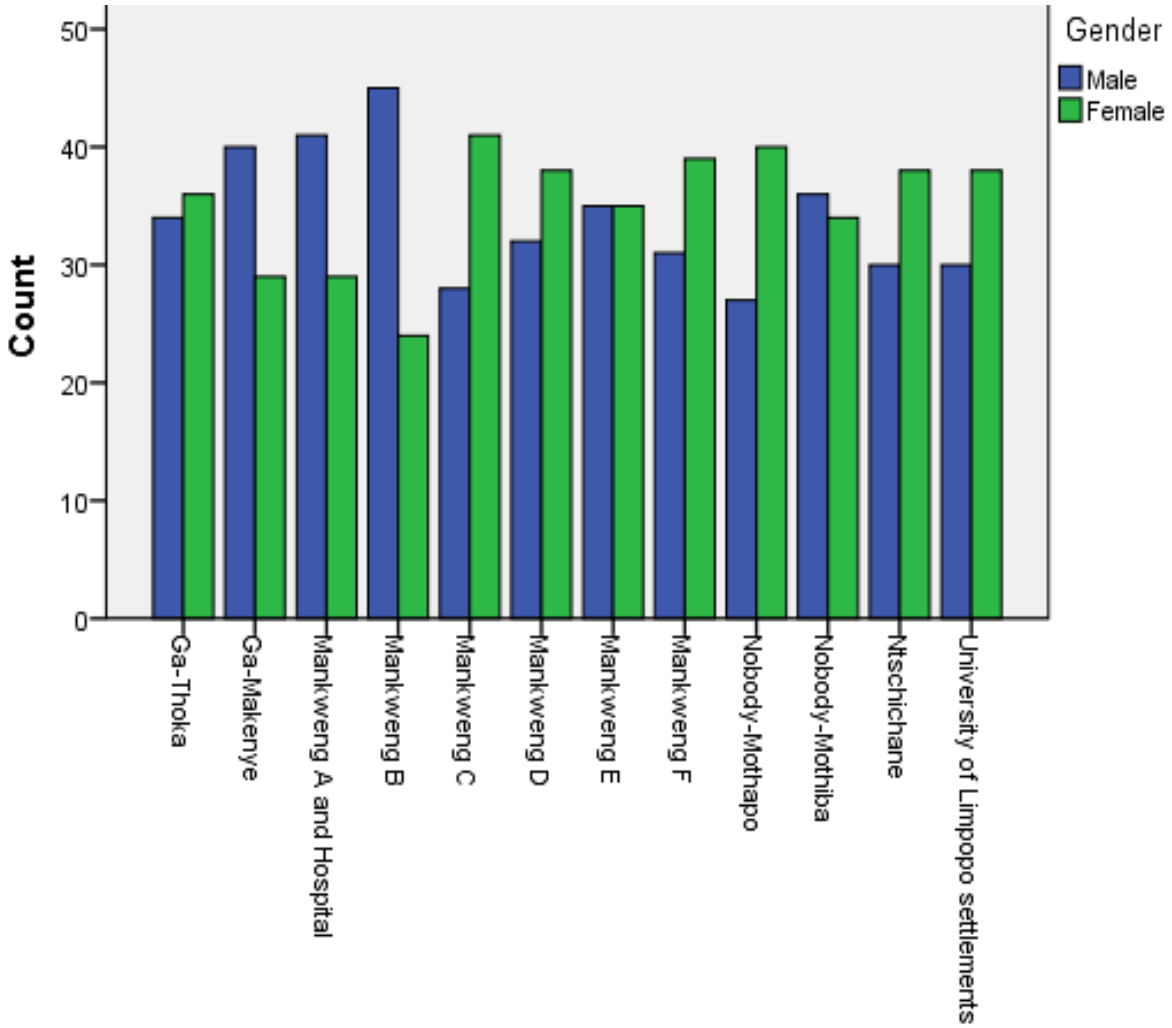


Figure 4.1a Gender status of individual respondents by location

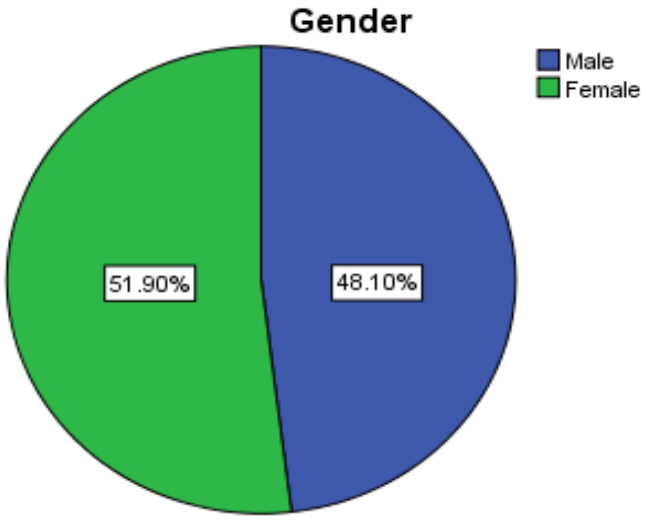


Figure 4.1b Summary of gender status across all locations

Table 4.2 Correlation between gender and location

	Value	Asymp. Std. Error[a]	Approx. T[b]	Approx. Sig.
Interval by Interval Pearson's R	.082	.034	2.374	.018[c]
Ordinal by Ordinal Spearman Correlation	.082	.034	2.374	.018[c]
No of Valid Cases	840			

a. Not assuming the null hypothesis.

b. Using the asymptotic standard error assuming the null hypothesis.

c. Based on normal approximation.

4.2.3 Marital Status of Respondents

Jinadu (2004) reported that change in marital status and increase in the number of household is a factor that determines tenant choice of residential property type. As the number of households increases, there is tendency to demand bigger type of residential property by tenants.

UN-Habitat (2003) reported that in the developed countries like Canada, tenants tend to demand or choose to change from larger residential type to lower residential type when their household reduces, probably when their children get married or rent their own home. Thus, this demographic question is aimed at determining if the marital status of the tenant affects their decision in the choice of residential location they live in. Results on Table 4.3a showed that respondents who were married were more than the single, divorced, widow/widower in all the locations. The result showed that the married, single, widow/widower, divorced, and others were 50.1%, 21.4%, 18.8%, 8.4% and 1.2%, respectively.

In Mankweng A, Mankweng D and Nobody-Mothapo the percentages of married respondents were higher than the other locations. Nobody-Mothiba and University of Limpopo had the same percentage of married respondents. Mankweng E and Mankweng F also had the same percentage of married respondents.

Table 4.3a also reveals that Ga-Makanye and Ntschichane had 36.2% and 29.4% against married couples, respectively, which is low compared to the other locations. Mankweng C had the highest number of respondents of single occupants (43.5%) and was followed by Mankweng E with 34.3%. Nobody-Mothapo, Ga-Makanye, Ga-Thoka and Mankweng A had low percentages of single respondents of 16.4%, 14.5%, 14.3% and 10.0 %, respectively. In Ntschichane, 44.1% of respondents were either widow or widower which was the highest among the locations. Mankweng D received 0.0%, which means that there were no widows or widower in the area. In Ga-Makanye, Mankweng F, Ga-Thoka, and University of Limpopo the following percentages of divorced respondents were recorded 17.4%, 15.7%, 14.3% and 13.2%, respectively. Mankweng D received 0.0% which means that there were no divorced respondent in Mankweng D.

The correlation analysis results on Table 4.3b indicate that marital status might not be the bases for the choice of residential location because judging from the results, there was no much variance in most marital status of the respondents in the different locations.

Table 4.3a Marital status of respondents by residential location (%)

Location	**Status of respondent**	Total

	Single	**Married**	**Divorced**	**Widow/ Widower**	**Others**	
Ga-Thoka	14.3	50.0	14.3	21.4	0.0	100.0
Ga-Makanye	14.5	36.2	17.4	31.9	0.0	100.0
Mankweng A	10.0	67.1	8.6	14.3	0.0	100.0
Mankweng B	17.4	59.4	5.8	17.4	0.0	100.0
Mankweng C	43.5	46.4	4.3	5.8	0.0	100.0
Mankweng D	28.6	67.1	0.0	0.0	4.3	100.0
Mankweng E	34.3	45.7	5.7	8.6	5.7	100.0
Mankweng F	21.4	45.7	15.7	17.1	0.0	100.0
Nobody-Mothapo	16.4	59.7	4.5	14.9	4.5	100.0%
Nobody-Mothiba	18.6	47.1	5.7	28.6	0.0	100.0
Ntschichane	20.6	29.4	5.9	44.1	0.0	100.0
University of Limpopo	17.6	47.1	13.2	22.1	0.0	100.0
Total	**21.4**	**50.1**	**8.4**	**18.8**	**1.2**	**100.0**

Table 4.3b Correlation between marital status and location of respondents

	Value	Asymp. Std. Error[a]	Approx. T[b]	Approx. Sig.
Interval by Interval Pearson's R	.044	.035	1.279	.201[c]
Ordinal by Ordinal Spearman Correlation	.026	.036	.748	.454[c]
No of Valid Cases	840			

a. Not assuming the null hypothesis.

b. Using the asymptotic standard error assuming the null hypothesis.

c. Based on normal approximation.

4.2.4 Age of Respondents

Age of members and marital status are some of the factors which determines the choice of residental location (Rossi, 1955). Respondents were asked their age. The reponse (Figure 4.2) showed that 1.4% of the respondents were between 20 years and below which was the least in all the locations, 7.6% were between 21 – 30 years, 26.9% were between 31 – 40 years, 33.3% were between 41 – 50 years which was the highest among the locations. About fourteen percent of the respondents were between 51 – 60 years and 16.5% were 60 years and above. In ten (10) out of the twelve (12) locations of the study, the average age of the respondents were between 41 and 50 years. Only in Mankweng A and D were the ages of respondents between 31 and 40 years. Although there seems to be variances in the ages of respondents in the present study, both Pearson's R and Spearman correlation analysis (Table 4.4) indicate that age was not a determining factor for choice of residential location. Results of the present study is in variance with that of Payne & Orsega-Smith (2002) that suggested that while all three variables (race, age, and residential location) contributed significantly to the models, age was the strongest predictor of residential location choice.

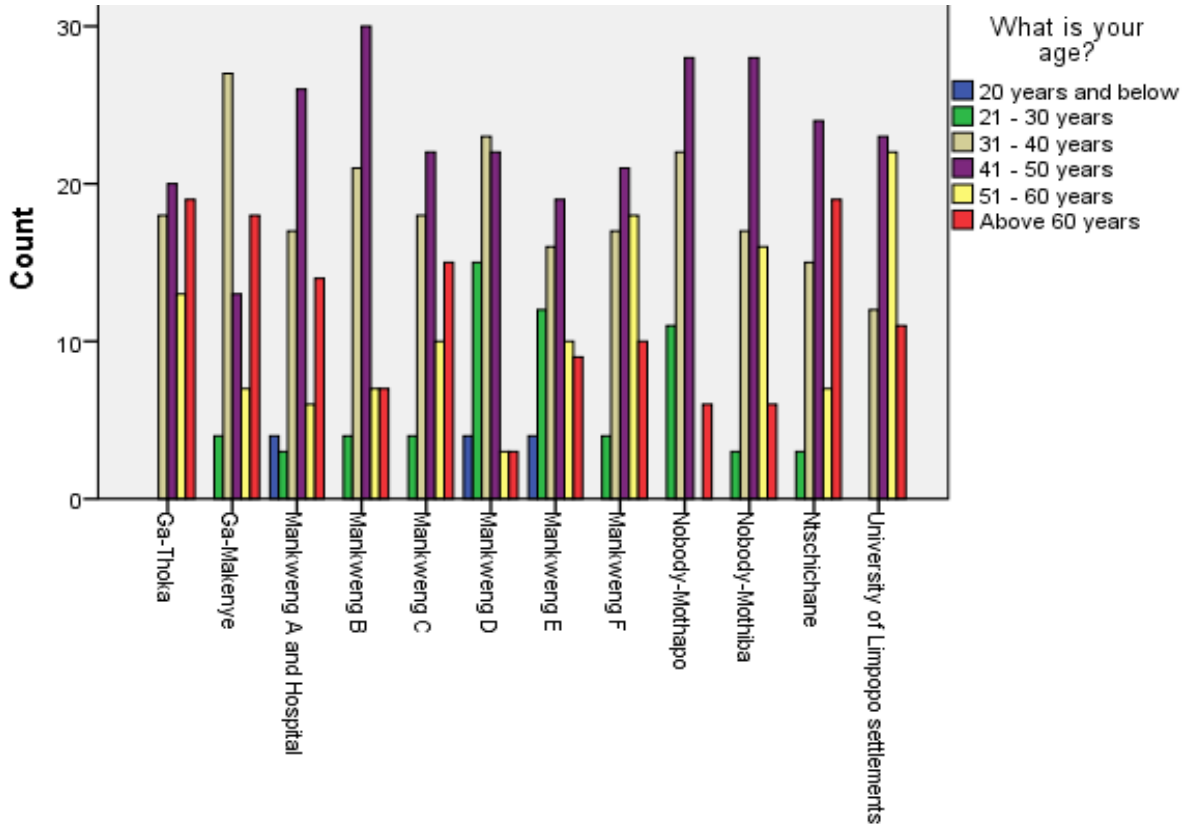


Figure 4.2 Age of respondents in the study area.

Table 4.4 Correlation between age and location of respondents

	Value	Asymp. Std. Error[a]	Approx. T[b]	Approx. Sig.
Interval by Interval Pearson's R	.021	.034	.601	.048[c]
Ordinal by Ordinal Spearman Correlation	.031	.035	.907	.036[c]
No of Valid Cases	840			

a. Not assuming the null hypothesis.

b. Using the asymptotic standard error assuming the null hypothesis.

c. Based on normal approximation.

4.2.5 Employment Status of Respondents

The aim of the question was to establish the various types of employment engaged by the respondents in the study area. It was hoped that this would indicate why a certain group of respondents chose a particular residential location. Cho *et al.* (2008) reported that access to certain employment subcentres, measured in terms of generalised cost is an important determinant of households' residential location decisions. Acccording to Prashker *et al.* (2008) some people choose their work location based on their residential locations while others choose their residential location given their work location. The result of the present study (Figure 4.3) showed that most of the respondents were public workers followed by pensioners. There were more pensioners in Mankweng C and B. than the other locations. Furthermore, these results showed that Mankweng A had more of private workers and pensioners than the other locations. Similarly, respondents from Ntchichane were, relatively, more of self-employed and pensioners. The results of data analysis, both Pearson's R and Spearman correlation analysis (Table 4.5) indicate that employment status of the respondents might have influenced the choice of the residential locations. This might be because of the proximity to their place of work as reported by Prashker *et al.* (2008). This is in line with the report of Sanchez and Dawkins (2001) also reported that employment is one of the pulling factors in determining residential location choice.

Table 4.5 Correlation between employment status and location of respondents

	Value	Asymp. Std. Error[a]	Approx. T[b]	Approx. Sig.
Interval by Interval Pearson's R	-.106	.031	-3.072	.002[c]
Ordinal by Ordinal Spearman Correlation	-.109	.033	-3.174	.002[c]
No of Valid Cases	837			

a. Not assuming the null hypothesis.

b. Using the asymptotic standard error assuming the null hypothesis.

c. Based on normal approximation.

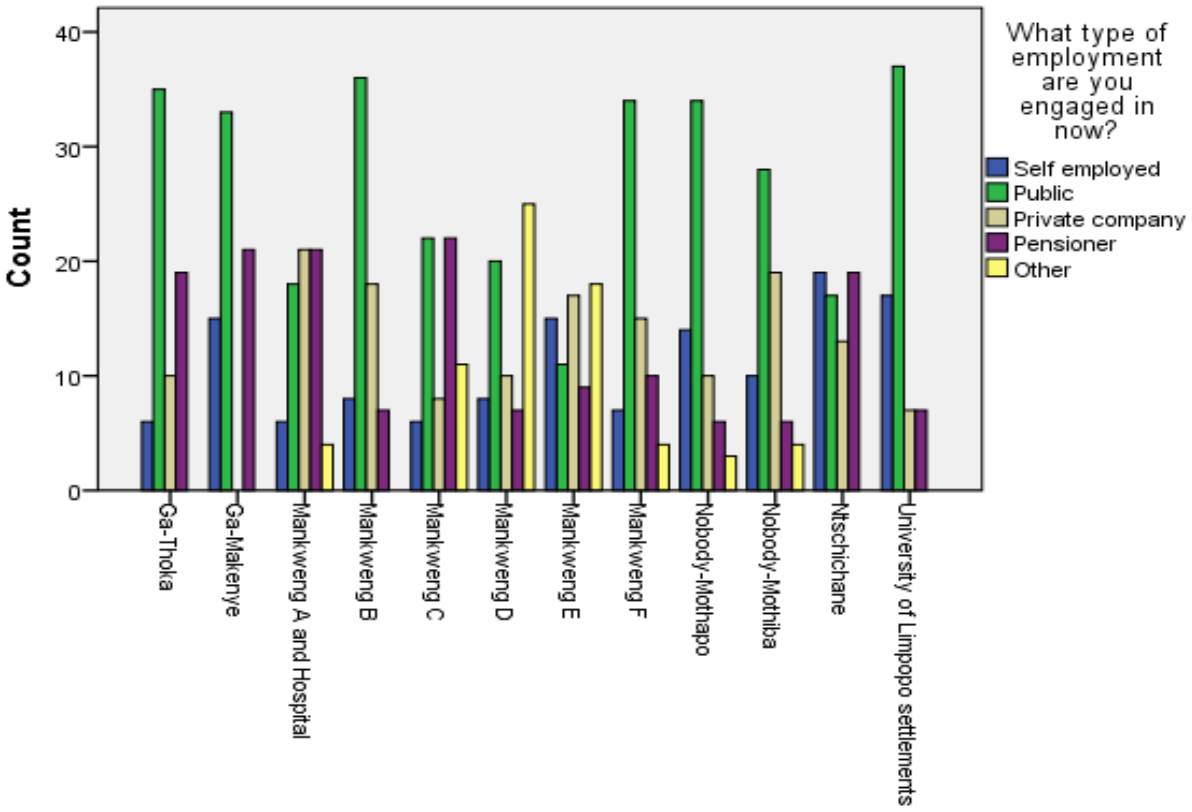


Figure 4.3 Employment status of respondents in the study area

4.2.6 Household Size

The size of family in every household is very important to this study as it forms one of the major determinants of the type of residential location a household chooses to live in. Olatunji (2008) listed household size as one of the eight factors which influence the choice of residental location. Results of the present study (Table 4.6a) reveal that the household with five (5) members had the highest percentage with 25.1% followed by household four (4) and household six (6) with 18.8% each. The household sizes in the different locations were fairly equally distributed between the locations. The results of data analysis, both Pearson's R and Spearman correlation analysis (Table 4.6b) indicate that household size might have been not be a determining factor in the choice of residential location. The present finding is in contrast to the report of Vega & Reynolds-Feighan (2009), who reported that household is a determinant factor of where tenants chose to live.

Table 4.6a Household size in the study area (%)

Location	What is your household size?							Total
	Live alone	**2**	**3**	**4**	**5**	**6**	**Above 6**	
Ga-Thoka	4.3	4.3	5.7	24.3	14.3	25.7	21.4	100.0
Ga-Makanye	5.8	5.8	14.5	24.6	30.4	5.8	13.0	100.0
Mankweng A	0.0	0.0	11.4	28.6	30.0	24.3	5.7	100.0
Mankweng B	11.6	0.00	11.6	27.5	21.7	14.5	13.0	100.0
Mankweng C	0.0	13.6	24.2	15.2	0.0	6.1	40.9	100.0
Mankweng D	0.0	0.0	20.0	4.3	38.6	25.7	11.4	100.0
Mankweng E	17.1	5.7	18.6	5.7	34.3	8.6	10.0	100.0
Mankweng F	0.0	5.7	14.3	31.4	25.7	10.0	12.9	100.0
Nobody-Mothapo	0.0	0.0	6.0	20.9	25.4	34.3	13.4	100.0%
Nobody-Mothiba	0.0	6.0	26.9	10.4	23.9	28.4	4.5	100.0
Ntschichane	0.0	0.0	14.7	17.6	29.4	22.1	16.2	100.0
University of Limpopo	0.0	0.0	22.1	14.7	26.5	20.6	16.2	100.0
Total	**3.3**	**3.4**	**15.8**	**18.8**	**25.1**	**18.8**	**14.8**	**100.0**

Table 4.6b Correlation between household size and location of the respondents

	Value	Asymp. Std. Error[a]	Approx. T[b]	Approx. Sig.
Interval by Interval Pearson's R	.038	.033	1.092	.275[c]
Ordinal by Ordinal Spearman Correlation	.026	.034	.753	.452[c]
No of Valid Cases	834			

a. Not assuming the null hypothesis.

b. Using the asymptotic standard error assuming the null hypothesis.

c. Based on normal approximation.

4.2.7 Race of Respondents

The type of people living in a community can play a key role in determining tenants' housing location choice. Oyebanji (2003) reported that a bond such as social class and cultural background bring people together in the same neighbourhood. A feeling of security is always experienced when people of the same tribe live together or near one another. Many past studies in housing research have shown that social stratification and homogeneity is important to residential location choices (Sirgy *et al.,* 2005). The response from the respondents in this study indicated that 99.6% of all respondents were black with only 0.4% white. These results suggested that race of respondents may not be a determinant factor in the choice of residential location in Mankweng Township (Pearson's R and Spearman Correlation 0.448 and 0.443, respectively (Table 4.7).

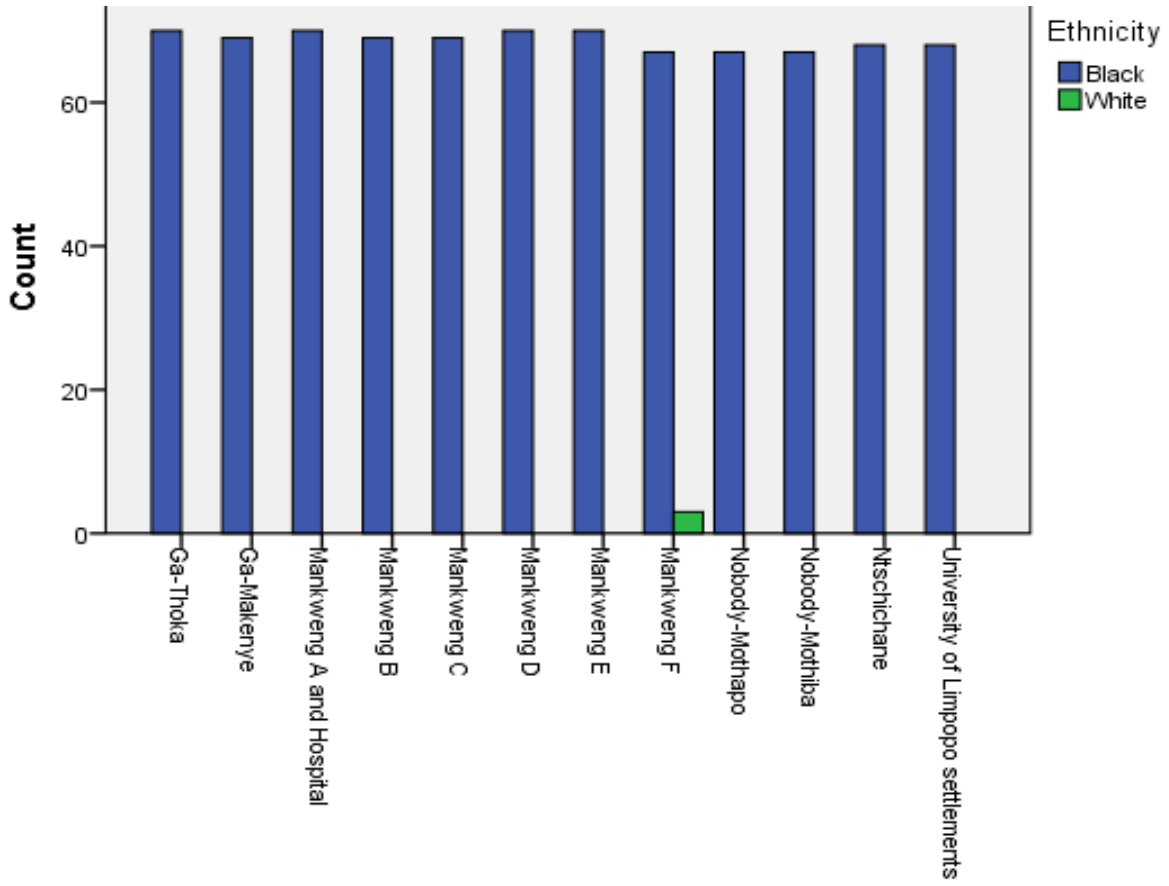


Figure 4.4 Race of the respondents in the study area

Table 4.7 Correlation between race and location of respondents

	Value	Asymp. Std. Error[a]	Approx. T[b]	Approx. Sig.
Interval by Interval Pearson's R	.026	.008	.760	.448[c]
Ordinal by Ordinal Spearman Correlation	.027	.008	.767	.443[c]
No of Valid Cases	837			

a. Not assuming the null hypothesis.

b. Using the asymptotic standard error assuming the null hypothesis.

c. Based on normal approximation.

4.2.8 Educational Status of the Respondents

According to Parkes *et al*. (2002), both low and high education have been found to be associated with residential location choice satisfaction. Buckner (1988) found that higher education was associated with lower community cohesion, and concluded that further research was needed to understand the reasons for the finding. Results of the educational status of repondents in this study is presented in (Table 4.8a), The table shows that 215 (26.0%) of the respondents had post matric diploma, 176 (21.3%) had grade 12 cirtificate, 174 (21.0%) had Bachelor's degree, 164 (19.8%) had grade 11 or below, 86 (10.4%) had other types of qualification and only 12 (1.5%) had post graduate qualification. The majority of the repondents with post graduate degrees were from Mankweng B (13.0%) where as the remaining 4.3% were from Mankweng E. The results of data analysis, both Pearson's R and Spearman correlation analysis (Table 4.8b) indicate that educational status of the respondents might not be a contributing factor in the choice of residental location.

Table 4.8a Education status of the respondents

	What is your highest educational qualification?						
Location	**Grade 11 or below**	**Grade 12**	**Post-Matric Diploma or certificate**	**Bachelor degree**	**Post graduate**	**Others**	**Total**
Ga-Thoka	31.4	8.6	37.1	11.4	0.0	11.4	100.0
Ga-Makanye	31.9	10.1	29.0	14.5	0.0	14.5	100.0
Mankweng A	15.7	20.0	44.3	15.7	0.0	4.3	100.0
Mankweng B	5.8	5.8	20.3	55.1	13.0	0.0	100.0

Mankweng C	33.3	11.6	14.5	26.1	0.0	14.5\	100.0
Mankweng D	22.9	52.9	4.3	10.0	0.0	10.0	100.0
Mankweng E	30.0	17.1	10.0	30.0	4.3	8.6	100.0
Mankweng F	5.7	27.1	30.0	37.1	0.0	0.0	100.0
Nobody-Mothapo		34.3	46.3	9.0	0.0	4.5	100.0
Nobody-Mothiba	6.0	19.4	38.8	20.9	0.0	14.9	100.0
Ntschichane	17.6	30.9	10.3	10.3	0.0	30.9	100.0
University of Limpopo	30.9	17.6	27.9	11.8	0.0	11.8	100.0
Total	**19.8**	**21.3**	**26.0**	**21.0**	**1.5**	**10.4**	**100.0**

Table 4.8 b Correlation between educational status and location of the respondents

	Value	Asymp. Std. Error[a]	Approx	Approx. Sig.
Interval by Interval Pearson's R	.031	.037	.895	.371[c]
Ordinal by Ordinal Spearman Correlation	.014	.036	.390	.696[c]
No of Valid Cases	837			

a. Not assuming the null hypothesis.

b. Using the asymptotic standard error assuming the null hypothesis.

c. Based on normal approximation.

4.2.9 Summary of Demographic Information

One method to evaluate a predictor's contribution to the regression model is the use of correlation coefficients such as Pearson R, which is the zero-order bivariate linear relationship between an independent and a dependent variable. Correlation coefficients are sometimes used as validity coefficients in the context of construct measurement relationships (Nunnally & Bernstein, 1994).

Table 4.9 Pearson correlation matrix of the demographic information

	A	**B**	**C**	**D**	**E**	**F**	**G**	**H**
A	1	.080*	.043	.012	.111**	.044	.027	.035
B	.080*	1	.140**	.004	-.016	.036	-.061	.018
C	.043	.140**	1	.244**	-.013	.115**	-.017	.114**
D	.012	.004	.244**	1	.332**	.318**	.098**	.211**
E	-.111**	-.016	-.013	.332**	1	.166**	.069*	.042
F	.044	.036	.115**	.318**	.166**	1	.089*	.129**
G	.027	-.061	-.017	.098**	.069*	.089*	1	.002
H	.035	.018	.114**	.211**	.042	.129**	.002	1

*. Correlation is significant at the 0.05 level (2-tailed).

**. Correlation is significant at the 0.01 level (2-tailed).

A = Location, B = Gender, C= Marital status, D = Age, E = Employment type, F = Household size, G = Ethnicity, H = Education

The Pearson correlation matrix of the demographic parameters is presented in Table 4.9. Pearson correlation results indicate that of the demographic information observed in all the respondents from the different locations, only gender is significantly correlated to the location at 0.05 levels, while employment type is significant at 0.01 levels. The marital

status was significantly correlated at 0.01 levels with gender, age and household size. Similarly, age was significantly correlated at 0.01 levels with household size, ethnicities. Employment type was significantly correlated to household size at 0.01 levels and to ethnicity at 0.05 levels. Furthermore, household size was significantly correlated to ethnicity at 0.05 levels and to educational status of the respondents at 0.01 levels. The Pearson correlation matrix shows that age and employment were strongly related to the housing locations choice. This result is in line with reports of various authors which indicate that residential location decision is a multiple factor determinants (Parkes *et al*., 2002; Liao, 2004; Olatunji, 2008).

4.3 TYPES OF RESIDENTIAL PROPERTY

Residential property is the type of real estate development that is meant for human's dwelling or accommodation. According to Okoro (2005), it is a physical structure designed for human beings to use as shelter. There are different types of residential properties some of which include: flats, bungalow,maisonette, semi-detached house, detached house, tenement (Okoro, 2005).

The type of residential property recorded in the present study is presented in Figure 4.5. Some of the residential types found in the area of study are shanks, flats, maisonettes, bungalows, semi-detached houses, tenements, and detached houses. Results of the analysed data on types of residential property in the study area indicated that most of the respondents were living in a flat, followed by detached type of residential property. Furthermore, these results showed that Ga-Thoka, Ga-Makanya, Mankweng A, Mankweng D, Mankweng E, Ntschichane and University of Limpopo had respondents living in shanks. The type of residental propertities on the study area ase presented in figure below.

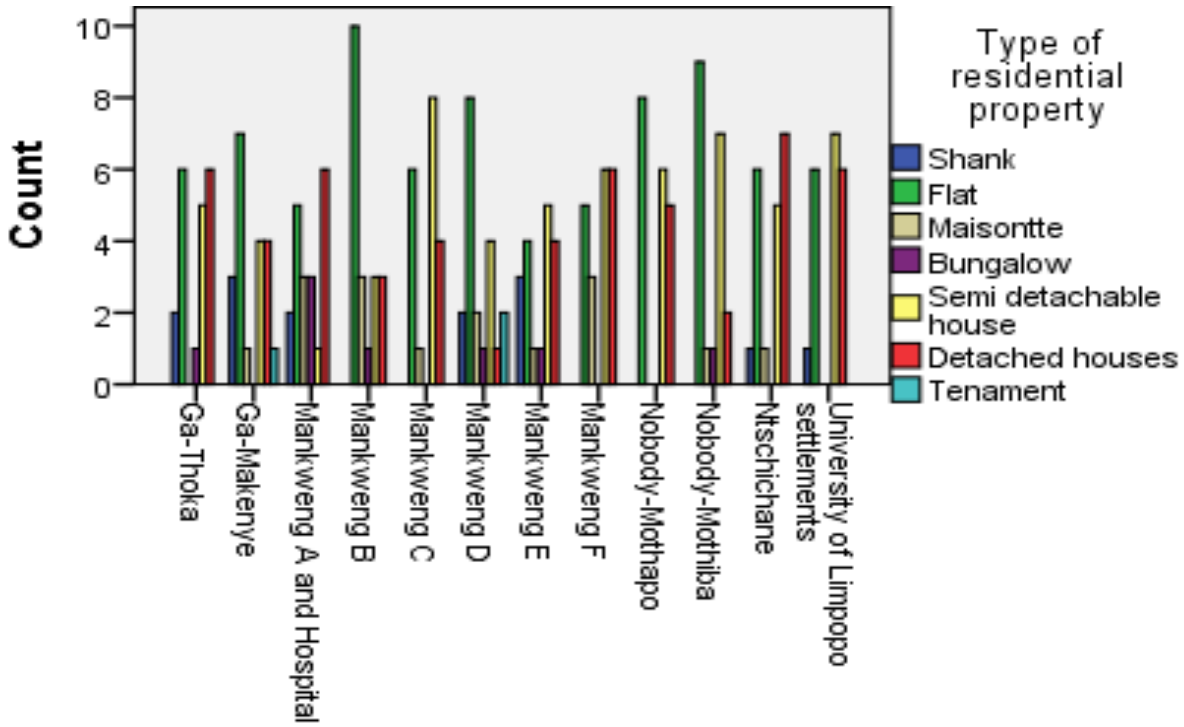


Figure 4.5 Types of residential property in the study area.

4.4 SOCIAL ECONOMIC STATUS AND INFORMATION ON CHOICE OF RESIDENTIAL LOCATION

This section covers information with regard to the monthly income of households, monthly house rents, reasons for choosing residential locations and how the respondents obtained their present residential apartments. The level of income to a great extent is a major determinant in determing the choice of location for the accommodation of tenants and individuals (South and Crowder, 1997).

4.4.1 Monthly Income of the Household

Okoro (2005) stressed that expenditure has shown that high income groups have preference for sites that are large and which have good accessibility to urban centres and transport facilities. Jinadu (2004) further emphasises that for the reason of income level, high income earners are found in suburbs, outskirts and housing estates where there is space for recreation, practice cottage gardens and less pollution. South & Crowder (1997)

found that “suburbanisation is in part driven by a desire for segregation in which higher-class households will relocate to separate themselves from lower-class households. Income difference creates differences in spatial location and types of resident tenants live in. Low income groups are found in high density residential areas within the cities. Results of the present study (Table 4.10a) revealed that 11.5 % of the respondents in all the location earned less than R 1000 per month. 32.6 % earned between R 1000 to R 5000, 22.4 % earns between R 5100 and R 10 000, 16.4 % earn between R 11 000 and R 15 000, whereas 12.9 % earned between R 15 100 and R 20 000. Results of the earnings, also, showed that 3.1 % of the respondents earned between R 21,000 and R 30,000 while only 1.1 % earned above 30,000. Furthermore, results showed that respondents from Mankweng D had the highest percentage of people who earned less than R 1000. Respondents from Ga-Makanye, No-body Mothapo and Mothiba earned the monthly incomes of R 1000 to 5000, R 5100-10000 and R 10100-15000, respectively. Respondents from Mankweng B had the highest percentages of those that earn between R10100 and R15000 (37.7 %) and between R15100 and 20000 (37.7 %). The results of data analysis, both Pearson’s R (0.278^{c}) and Spearman (0.480^{c}) correlation (Table 4.6b) show that income might not be a reason why respondents choose their present residential location. The present results are not in agreement with those of Okoro (2005) and Jinadu (2004), who reported that income is a factor in the choice of residental location. However, this result is in line with those of Pagourtzi, (2003) who reported that income earnings is not a determining factor in choosing a residential area..

4.4.2 Monthly House Rental Fee

Income plays an important role in tenant choice of residential property type and the location they live. Aluko (2011) reported that income is one of the factors to be considered when making housing location choices. Figure 4.6 shows a graph of monthly house rent paid by the respondents in the study area. The figure shows that there are some values that were missing

Table 4.10a Monthly incomes of respondents (%)

Location	What is your monthly income?							Total
	Less than R 1000	**R 1000 - R 5000**	**R 5100 - R 10000**	**R 10100 - R15000**	**R 15100 - R 20000**	**R20000 - R30000**	**Above R 30000**	
1	4.5	38.8	28.4	6.0	22.4	0.0	0.0	100.0
2	10.1	44.9	29.0	15.9	0.0	0.0	0.0	100.0
3	5.7	25.7	28.6	18.6	15.7	5.7	0.0	100.0
4	0.0	10.1	4.3	37.7	37.7	10.1	0.0	100.0
5	20.0	41.5	10.8	10.8	4.6	6.2	6.2	100.0
6	41.4	34.3	15.7	0.0	4.3	4.3	0.0	100.0
7	31.4	30.0	5.7	20.0	5.7	0.0	7.1%	100.0
8	4.3	31.4	20.0	20.0	18.6	5.7	0.0	100.0
9	0.0	29.90	34.20	26.90	9.00	0.0	0.0	100.0
10	5.7	22.9	24.3	32.9	10.0	4.3	0.0	100.0
11	4.4	36.8	38.2	4.4	16.2	0.0	0.0	100.0
12	9.4	42.2	32.8	4.7	10.9	0.0	0.0	100.0
Total	**11.5**	**32.2**	**22.6**	**16.6**	**12.9**	**3.1**	**1.1**	**100.0**

1= Ga-Thoka, 2 = Ga-Makanye, 3 = Mankweng A, 4 = Mankweng B, 5 = Mankweng C, 6 = Mankweng D, 7 = Mankweng E, 8 = Mankweng F, 9 = Nobody-Mothapo, 10 = Nobody-Mothiba, 11 = Ntschichane and 12 = University of Limpopo

Table 4.10b Correlation between monthly income and location of the respondents

	Value	Asymp. Std. Error[a]	Approx. T[b]	Approx. Sig.
Interval by Interval Pearson's R	-.038	.030	-1.086	.278[c]
Ordinal by Ordinal Spearman Correlation	-.025	.032	-.707	.480[c]
No of Valid Cases	829			

a. Not assuming the null hypothesis.

b. Using the asymptotic standard error assuming the null hypothesis.

c. Based on normal approximation.

This is an indication that either the respondents were the landlords (house owners) or they were staying in a family house where they did not have to pay house rental fee. The results show that 100% of respondents in Ga-Makanye pay less than R100 on house rental per month. In Mankweng D and Nobody Mothiba 100% of the respondents paid between R100 and R500 on house rental per week. Fifty percent and 20% of respondents in Ga-Thoka and Mankweng E paid between R5100 and R1000 on house rent per month, respectively. In Mankweng B and F, 100% of respondents pay between R1100 and R5000 house rental monthly. It was only in Ga-Thoka that respondents paid above R5000 for house rental per month (16.7%). Pearson's R and Spearman correlation analysis (Table 4.11) indicate that monthly house rental fee might not be the reason why the respondent chose their present residential location.

4.4.3 Reasons for Choosing the Residental Location

Prashker *et al.* (2008) reported that people may choose their work location based on their residential locations while others may choose their residential location given their work location. In any case, the trips that people make daily affect residential

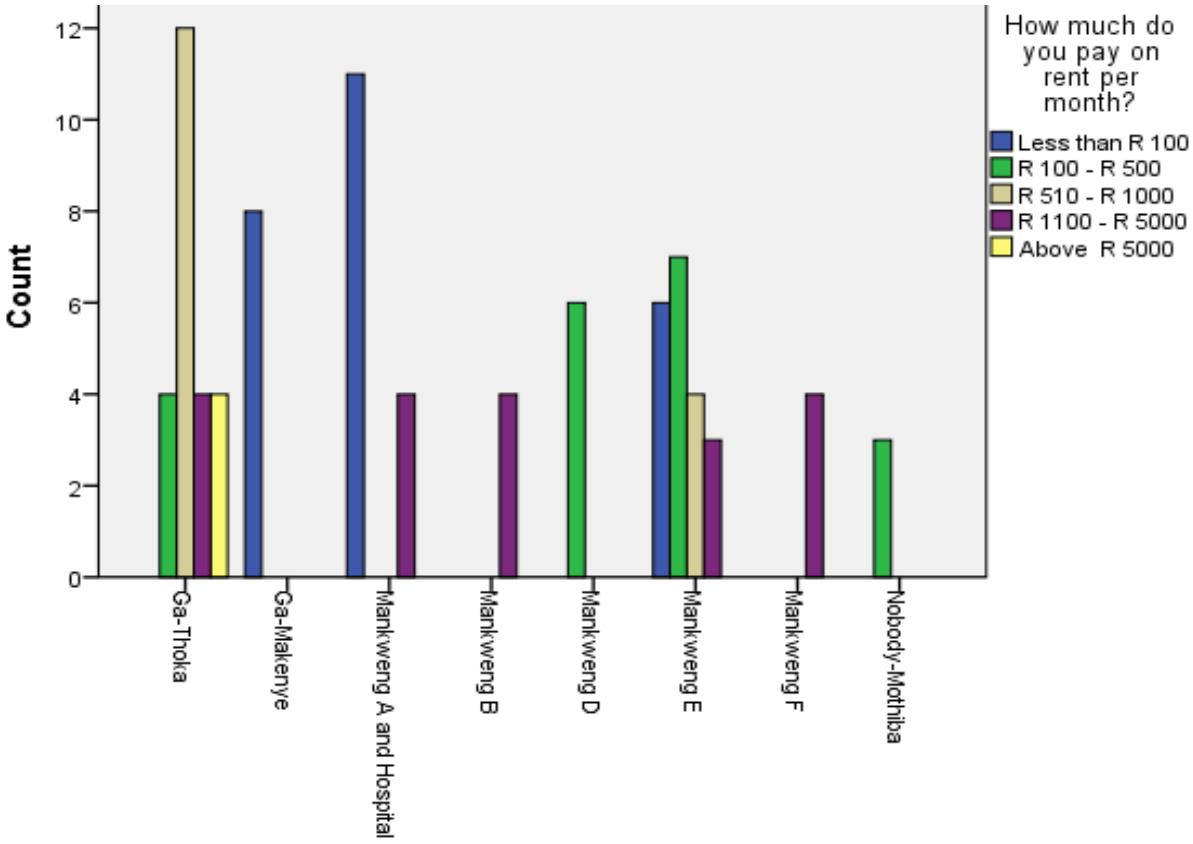


Figure 4.6 Monthly house rental fees per respondent

Table 4.11 Correlation between monthly house rental fees and location

	Value	Asymp. Std. Error[a]	Approx. T[b]	Approx. Sig.
Interval by Interval Pearson's R	-.118	.097	-1.078	.284[c]
Ordinal by Ordinal Spearman Correlation	-.134	.106	-1.221	.226[c]
No of Valid Cases	84			

a. Not assuming the null hypothesis.

b. Using the asymptotic standard error assuming the null hypothesis.

c. Based on normal approximation.

location choice and at the same time are derived from this location. Results of the present study indicate that most of the respondents sampled chose their apartment based on houses available in their preferred location (Table 4.12a), with the highest percentage of 41.3%. The percentage of respondents that chose the option distance to place of work/school were 19.3%, proximity to family and friends were 16.5% while income were 14.3%. Correlation results (Table 4.12b) are in line with reports of various authors which indicate that income, distance to place of work/school, proximity to families and friends are factors that should be considered when choosing a residential location.

Table 4.12a Reasons for choosing present apartment

Location	**What is the reason for choosing the present apartment?**							**Total**
	A	**B**	**C**	**D**	**E**	**F**	**G**	
1	8.6	5.7	34.3	0.0	11.4	40.0	0.0	100.0
2	50.7	0.0	21.7	0.0	15.9	11.6	0.0	100.0
3	11.4	0.0	41.4	8.6	14.3	24.3	0.0	100.0
4	8.7	0.0	47.8	8.7	5.8	29.0	0.0	100.0
5	4.8	0.0	56.5	4.8	22.6	11.3	0.0	100.0
6	4.3	0.0	67.1	4.3	12.9	11.4	0.0	100.0
7	4.3	15.7	31.4	0.0	4.3	32.9	11.4	100.0
8	0.0	0.0	40.0	12.9	11.4	35.7	0.0	100.0
9	10.4	0.0	38.8	4.5	34.3	11.9	0.0	100.0
10	20.0	0.0	44.3	8.6	17.1	10.0	0.0	100.0
11	19.1	0.0	26.5	11.8	32.4	10.3	0.0	100.0
12	29.7	0.0	46.9	6.3	17.2	0.0	0.0	100.0
Total	**14.3**	**1.8**	**41.3**	**5.9**	**16.5**	**19.3**	**1.0**	**100.0**

1= Ga-Thoka, 2 = Ga-Makanye, 3 = Mankweng A, 4 = Mankweng B, 5 = Mankweng C, 6 = Mankweng D, 7 = Mankweng E, 8 = Mankweng F, 9 = Nobody-Mothapo, 10 = Nobody-Mothiba, 11 = Ntschichane and 12 = University of Limpopo

A = Income, B = Cost of rent, C = Housing available in preferred location, D = Size of the household, E = Proximity to family and friends, F = Distance to place of work/school and G = Others

Table 4.12b Correlation between reasons for choosing present apartment and location

	Value	Asymp. Std. Error[a]	Approx. T[b]	Approx. Sig.
Interval by Interval Pearson's R	-.051	.036	-1.454	.146[c]
Ordinal by Ordinal Spearman Correlation	-.049	.037	-1.415	.157[c]
No of Valid Cases	829			

a. Not assuming the null hypothesis.

b. Using the asymptotic standard error assuming the null hypothesis.

c. Based on normal approximation.

4.4.4 How the Respondents Obtained Their Present Apartment

Information is a sequence of symbols that carries a message, a set of items in which meaning is conveyed or a specified arrangement of complex structures that conveys a message to a receiver (Krauss, 2002). Information on availability of residential property could be a major factor that influences the choice of residential location. Presented in (Table 4.13a) below are the results of the information on how the respondents obtained their apartments. Results of the present study revealed that majority of the respondents (57.7%) did indicate how they obtained their apartments. This might be because a number of the respondents were staying in personal houses or in a family house. About 34% of the respondents indicated that they got information on the present apartment from friends.

Information about how the respondents obtained the present apartment through Estate agents, internet and media adverts were 6.6%, 0.5% and 1.3%, respectively. Correlations analysis (Table 4.13b) show that the source of information might not be a determinant factor in the choice of residential location (Pearson's R= 0.386 and Spearman correlation = 0.180).

Table 4.13a Information on how the respondents obtained the present apartment (%)

Location	How did you get your present apartment?					Total
	From friends	Estate agent	Internet	Media advert	Others	
Ga-Thoka	17.1	17.1	5.7	0.0	60.0	100.0
Ga-Makanye	33.3	0.0	0.0	0.0	66.7	100.0
Mankweng A	22.9	14.3	0.0	0.0	62.9	100.0
Mankweng B	40.6	18.8	0.0	11.6	29.0	100.0
Mankweng C	40.0	15.4	0.0	0.0	44.6	100.0
Mankweng D	45.7	8.6	0.0	0.0/	45.7	100.0
Mankweng E	40.0	4.3	0.0	0.0	55.7	100.0
Mankweng F	54.3	0.0	0.0	0.0	45.7	100.0
Nobody-Mothapo	25.4	0.0	0.0	0.0	74.6	100.0
Nobody-Mothiba	28.6	0.0	0.0	4.3	67.1	100.0
Ntschichane	26.6	0.0	0.0	0.0	73.4	100.0
University of Limpopo	32.4	0.0	0.0	0.0	67.6	100.0
Total	**33.9**	**6.6**	**0.5**	**1.3**	**57.7**	**100.0**

Table 4.13b Correlation between how respondents obtained their present apartment and location

	Value	Asymp. Std. Error[a]	Approx. T[b]	Approx. Sig.
Interval by Interval Pearson's R	-.030	.030	-.867	.386[c]
Ordinal by Ordinal Spearman Correlation	-.047	.033	-1.343	.180[c]
No of Valid Cases	825			

a. Not assuming the null hypothesis.

b. Using the asymptotic standard error assuming the null hypothesis.

c. Based on normal approximation.

4.5 FACTORS INFLUENCING CHOICE OF RESIDENTIAL LOCATION

Residential location choice has long been a multi-disciplinary research topic. The interest in the causes and consequences of individuals' choice of residence arises from the recognition that it is the values, decisions, and actions of the people who are attracted to certain types of residential location that shape the settlement. The decision of residential location not only determines the connection between the household with the rest of the environment, but also influences the household's budgets and perceived well-being. (Kitamura *et al*., 1997; Lund, 2003; Bhat & Guo, 2005). Hence, understanding the why, who and where questions associated with residential choices is important for devising effective spatial policies to manage residential demand.

4.5.1 Description of Residential Area

A residential area could be urban, rural, peri rural or semi urban. It is purposely for residential living. It is a district where people live, occupied primarly by private residences. Results of the analysed data on the description of the area in which the respondents resided (Table 4.14a) indicated that a total of 40.6% of the respondents resided in the

urban area. Majority of the respondents (52.5%) describe their residential location as rural while 6.9% described their location as peri-rural. The majority of the respondents in Mankweng A (88.6%), Mankweng B (73.9%), Mankweng C (91.3%), Mankweng D (87.1%) and Mankweng E (94.3%) described their residential location as Urban. All respondents from Ga-Thoka, Ga-Makanye, Nobody-Mothapo, University of Limpopo and 94.3% of respondents from Nobody-Mothiba described their residential location as rural. The majority of the respondents in Mankweng F (51.4%) described their present residential location as peri-rural while 26.1 and 4.3% of respondents from Mankweng B and C, respectively, also, described their residential location as peri-rural. Correlation analysis (Table 4.14b) shows that the type of residential location type might be one of the factors which influenced the choice of residential location. This might be due to the fact that most people `preferred to live in the urban than rural areas. Literature referred to in the study showed that there is high migration of people from rural to urban areas in Mexico (Mora & Taylor, 2005).

Table 4.14a Description of residential area

	How will you describe the area in which you are residing presently?			
Location	**Urban**	**Rural**	**Peri rural**	**Total**
Ga-Thoka	0.0	100.0	0.0	100.0
Ga-Makanye	0.0	100.0	0.0	100.0
Mankweng A	88.6	11.4	0.0	100.0
Mankweng B	73.9	0.0	26.1	100.0
Mankweng C	91.3	4.3	4.3	100.0
Mankweng D	87.1	12.9	0.0	100.0
Mankweng E	94.3	5.7	0.0	100.0
Mankweng F	42.9	5.7	51.4	100.0
Nobody-Mothapo	0.0	100.0	0.0	100.0

Nobody-Mothiba	5.7	94.3	0.0	100.0
Ntschichane	0.0	100.0	0.0	100.0
University of Limpopo	0.0	100.0	0.0	100.0
Total	**40.6**	**52.5**	**6.9**	**100.0**

Table 4.14b Correlation between description of residential area and location

	Value	Asymp. Std. Error[a]	Approx. T[b]	Approx. Sig.
Interval by Interval Pearson's R	.219	.025	6.494	.000[c]
Ordinal by Ordinal Spearman Correlation	.238	.030	7.106	.000[c]
No of Valid Cases	840			

a. Not assuming the null hypothesis.

b. Using the asymptotic standard error assuming the null hypothesis.

c. Based on normal approximation.

4.5.2 Type of Tenancy

The type of tenancy has an impact on mobility of people, the housing market and where they choose to live (Oswald, 1999). As tenants generally have lower relocation costs, some writers have theorised that this makes them more 'foot loose' in the housing market and therefore, able to move more frequently than owner occupiers (Crane 1996; Oswald 1999). Tenure does not just affect the frequency of household movement but it also impacts upon housing location choices in important ways.

The tenure types recorded in the present study (Figure 4.7) were mainly shared between land lord and family tenure system. The majority of the respondents were the family tenure type. There were little variations between respondents from the different locations, thus,

suggesting that the tenure type might not be a contributing factor in the choice of residential location. Pearson's R and Spearman correlation analysis (Table 4.15) indicated that the type of tenancy was not significantly correlated with residential location, hence, it was not a contributing factor in its choice.

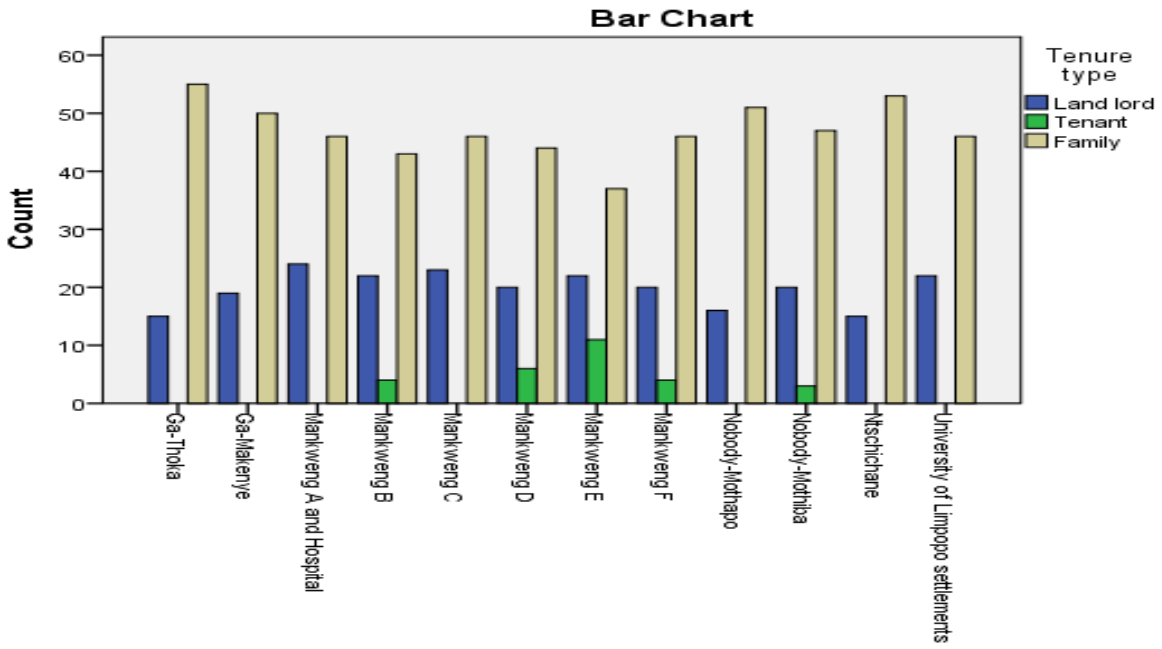


Figure 4.7 Type of tenancy in the study area

Table 4.15 Correlation between tenancy type and location

	Value	Asymp. Std. Error[a]	Approx. T[b]	Approx. Sig.
Interval by Interval Pearson's R	.003	.034	.078	.938[c]
Ordinal by Ordinal Spearman Correlation	.001	.034	.039	.969[c]
No of Valid Cases	840			

a. Not assuming the null hypothesis.

b. Using the asymptotic standard error assuming the null hypothesis.

c. Based on normal approximation

4.5.3 Distance Travelled by the Respondent to Place of Interest

The question was aimed at determining the effect of distance travelled by the respondents to place of interest; such as distance from major town, school or place of work, recretional centre, hospital and place of worship on the choice of residental location. Abraham & Hunt (1997) found that distance-related variables (journey-to-work out-of-pocket costs and trip time) are the most important location factors influencing residential choices. Similarly, in a study that explicitly addressed the importance of commuting variables, Levine (1998) estimated a nested logit model for the Minneapolis-St. Paul area and found that commuting time was the variable with higher relative importance compared to community characteristics such as school quality, taxes and crime rate. Levinson (1998) also pointed out the relative importance of accessibility; showing that accessibility to jobs and housing were more effective variables than demographic and socio-economic variables such as age, gender, home ownership, number of children and household size. Shen (1998) and Bhat & Guo (2004) also reported that accessibility to the workplace is a critical determinant of residential location choice. Zondag & Pieters (2005) maintains that people in the Netherlands are less likely to move to locations with less accessibility for all purposes.

4.5.3.1 Distance From City Centre to Residential Location of Respondents

Results of the present study indicated that a majortiy of the respondents lived between 36 and 45km from the city centre. Pearson's and Spearman correlation analysis results (Table 4.16) suggested that distance from the city centre might be one of the factors influencing the choice of residental location. Reason for this might be because respondents live in these locations and work in the city centre to save cost of accommodation. This is in line with the results observerd by Levinson (1998), in an analysis of job and accessibility gradients around the CBD in the Washington, D.C. area. This study showed that downtown and suburban employment centres attracted commuters to live close by.

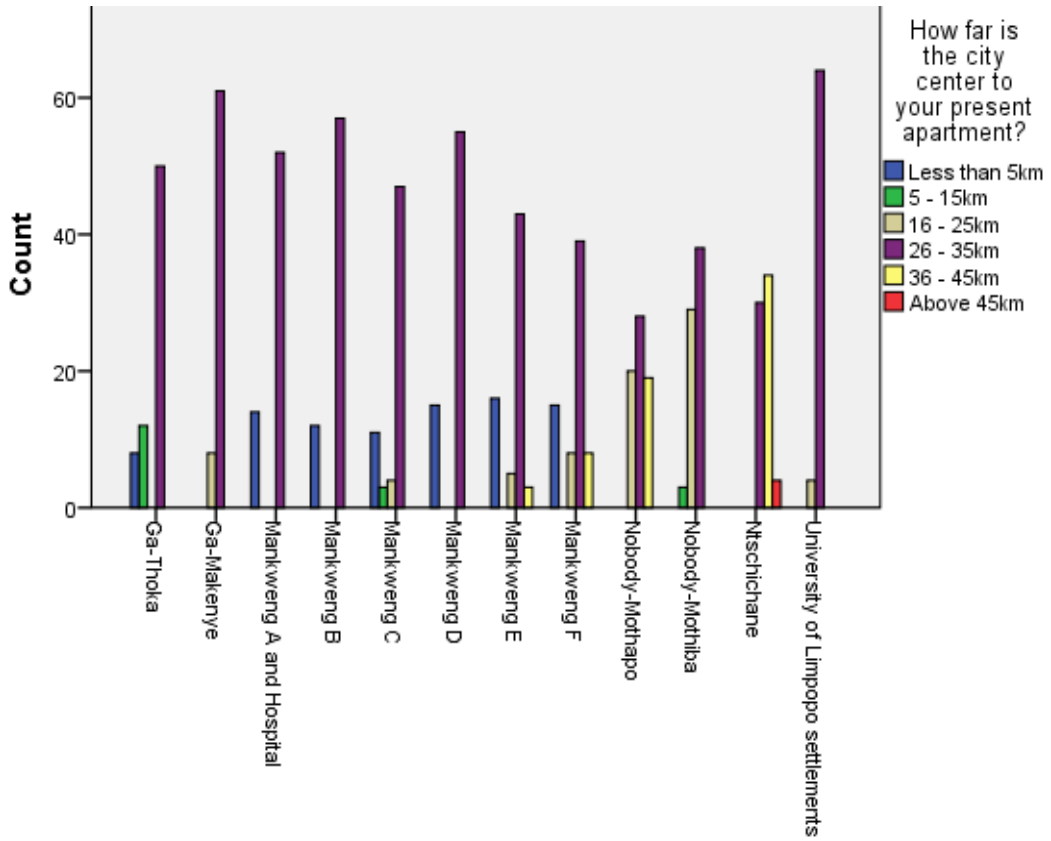


Figure 4.8 Distance from city centre to residential location of respondents

Table 4.16 Correlation between distance from city centre and residential location of respondents

	Value	Asymp. Std. Error[a]	Approx. T[b]	Approx. Sig.
Interval by Interval Pearson's R	.191	.026	5.595	.000[c]
Ordinal by Ordinal Spearman Correlation	.180	.031	5.255	.000[c]
No of Valid Cases	829			

a. Not assuming the null hypothesis.

b. Using the asymptotic standard error assuming the null hypothesis.

c. Based on normal approximation.

4.5.3.2 Distance From Place of Work or School to Residental Location

The majority of the respondents in Mankweng A, Mankweng B, Mankweng C, Mankweng D, Mankweng E, Mankweng F, Nobody-Mothapo, Ntshichane and University of Limpopo indicated that they lived less than 5 km from their place of work or school (Figure 4.9). One would have expected that distance between respondents and their place of work or school would be one of the factors influencing choice of residental location. However, results of correlation analysis (Table 4.17) indicate that distance between the respondents location and place of work or school is not a factor influencing the choice of residental location. This result is in contrast to the report of Prashker *et al*. (2008) which reported that people may choose their work location based on their residential locations while others may choose their residential location given their work location.

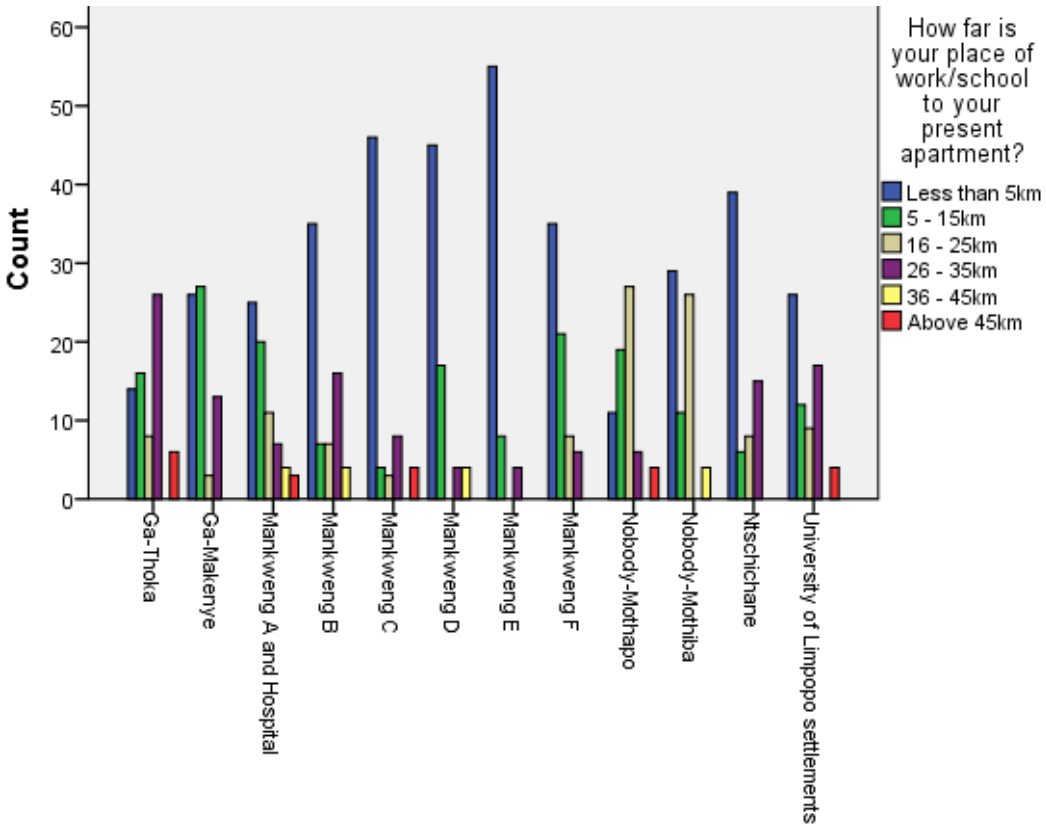


Figure 4.9 Distance from place of workor school to residental location

Table 4.17 Correlation between distance from place of work or school and residental location

	Value	Asymp. Std. Error[a]	Approx. T[b]	Approx. Sig.
Interval by Interval Pearson's R	-.057	.037	-1.644	.101[c]
Ordinal by Ordinal Spearman Correlation	-.051	.036	-1.480	.139[c]
N of Valid Cases	833			

a. Not assuming the null hypothesis.

b. Using the asymptotic standard error assuming the null hypothesis.

c. Based on normal approximation.

4.5.3.3 Distance From Recreational Centre to Residental Location

Results regarding the distance of respondents to the recreational centre (Figure 4.10) showed that a majority of the respondents from Mankweng A (74.8%), Mankweng B (65.1%), Mankweng C (76.9%), Mankweng D (91.4%), Mankweng F (55.7%) and University of Limpopo (70.6%) lived in a distance less than 5km to the recreational centre. On the other hand, about 84.20 %, 43.5%, 65.7%, 62.9% and 77.9% of the respondents from Ga-Thoka, Ga-Makenye, Nobody-Mothapo, Nobody-Mothiba and Ntschichane lived between 5 and 15km from the recreational centre, respectively. The total results of the distance between the recreational and residental location of the respondents showed that only about 7.9% of the respondents lived between 16 and 25km radius from the recreation centre.

Pearson's R and Spearman correlation analysis results (Table 4.18) indicate that distance from recreational centre to location of the respondents might not be a reason why respondents chose their present residential location.

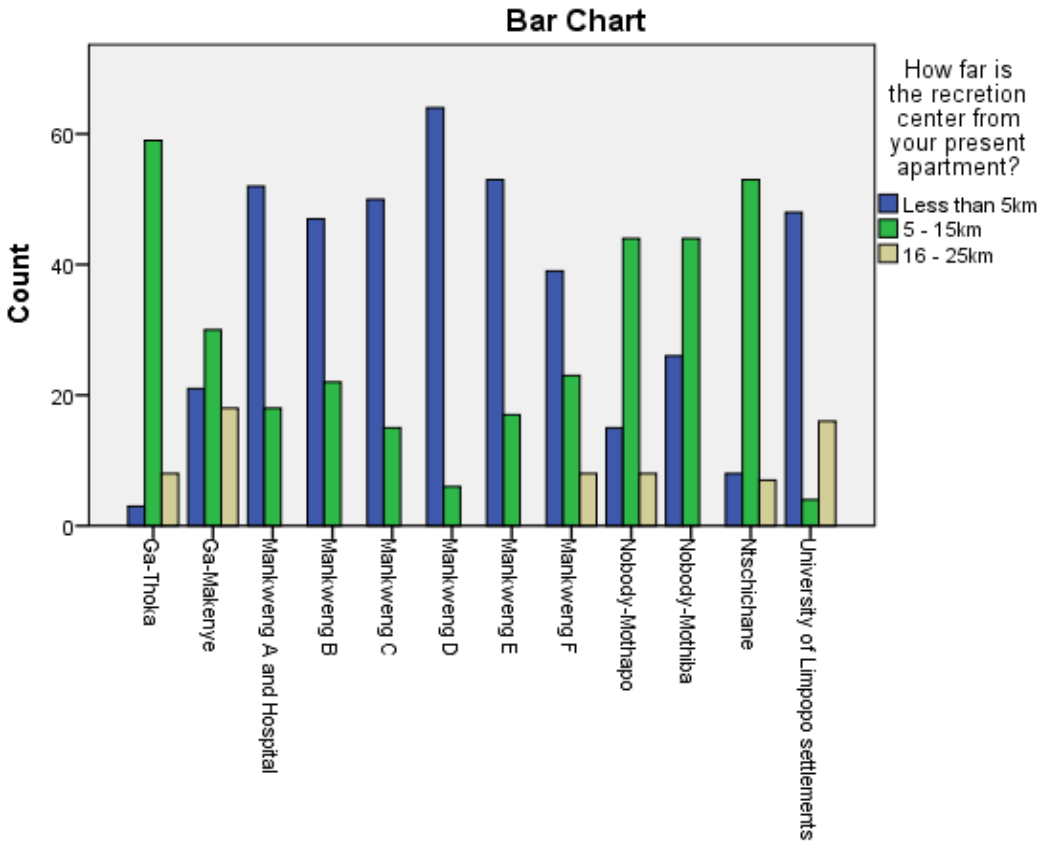


Figure 4.10 Distance from recreational centre to residental location of respondents

Table 4.18 Correlation between distance from recreational centre and location of respondents

	Value	Asymp. Std. Error[a]	Approx. T[b]	Approx. Sig.
Interval by Interval Pearson's R	.019	.038	.541	.589[c]
Ordinal by Ordinal Spearman Correlation	.013	.038	.368	.713[c]
No of Valid Cases	836			

a. Not assuming the null hypothesis.

b. Using the asymptotic standard error assuming the null hypothesis.

c. Based on normal approximation.

4.5.3.4 Distance From Hospital to Residental Location of Respondents

Results regarding the distance between the respondents and the hospital is presented in Figure 4.10. These resultes indicate that respondents in six (6) (Mankweng A, Mankweng B, Mankweng C, Mankweng D, Mankweng E and university of Limpopo) of the 12 settlements studied lived in a distance of less than 5km from the hospital. Respondents from four of the locations in the are studied lived between 5km and 15km from the hosiptal. It was only in Ntschichane where respondents lived between 16km and 25km from the hospital.

Correlations analysis results (Table 4.19) showed that distance between the respondents' location and hospital might be a factor that influenced the choice of the residential locations. This might be because of the present of Mankweng Hospital close to the study area. Sangouard (2008) reported that distance from the hospital to residential location is one of the criteria used in choosing a residential location.

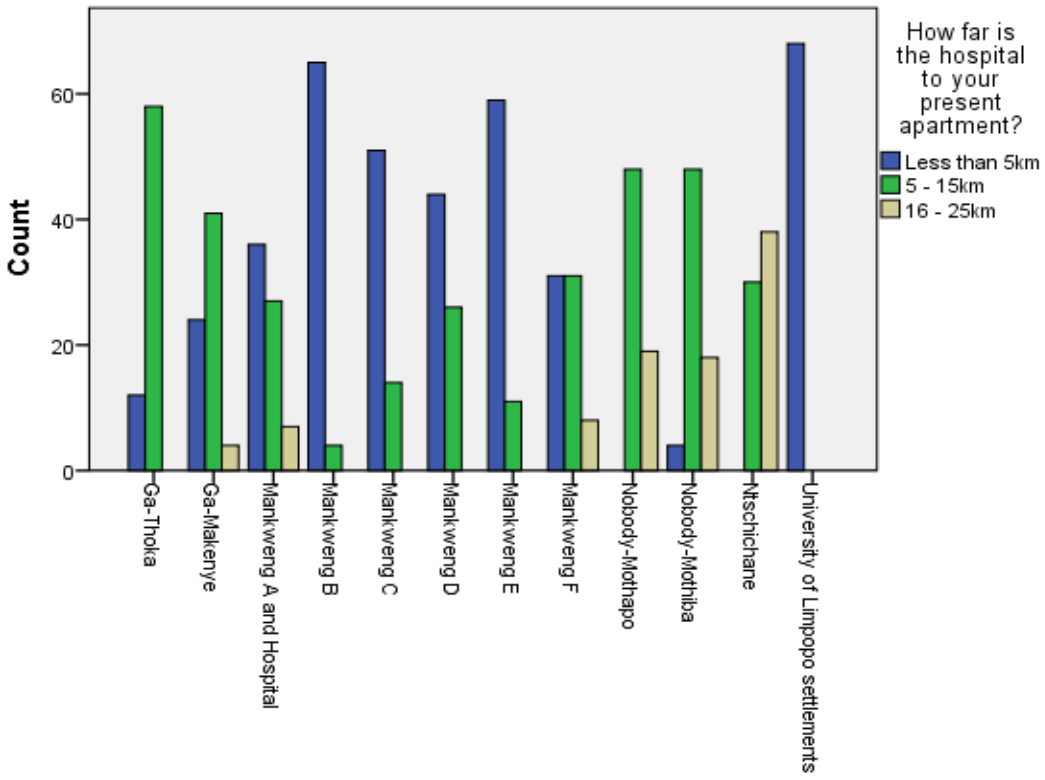


Figure 4.11 Distance from hospital to residental location of respondents

Table 4.19 Correlation between distance from hospital and residental location of respondents

	Value	Asymp. Std. Error[a]	Approx. T[b]	Approx. Sig.
Interval by Interval Pearson's R	.179	.034	5.269	.000[c]
Ordinal by Ordinal Spearman Correlation	.144	.037	4.203	.000[c]
No of Valid Cases	836			

a. Not assuming the null hypothesis.

b. Using the asymptotic standard error assuming the null hypothesis.

c. Based on normal approximation.

4.5.3.5 Distance From Place of Worship to Residental Location

Results obtained in the present study showed that all the respondents lived less than 5km from their places of worship (Figure 4.12). It can, thus, be said that distance from the place of worship might be one of the factors that influenced the choice of residental location. This was confirmed by the correlaton anlaysis (Pearson's R (0.09) and Spearman correlation (0.02)),Table 4.20. This might be because of the closiness to Zion Church of God located few kilometer from the study area.

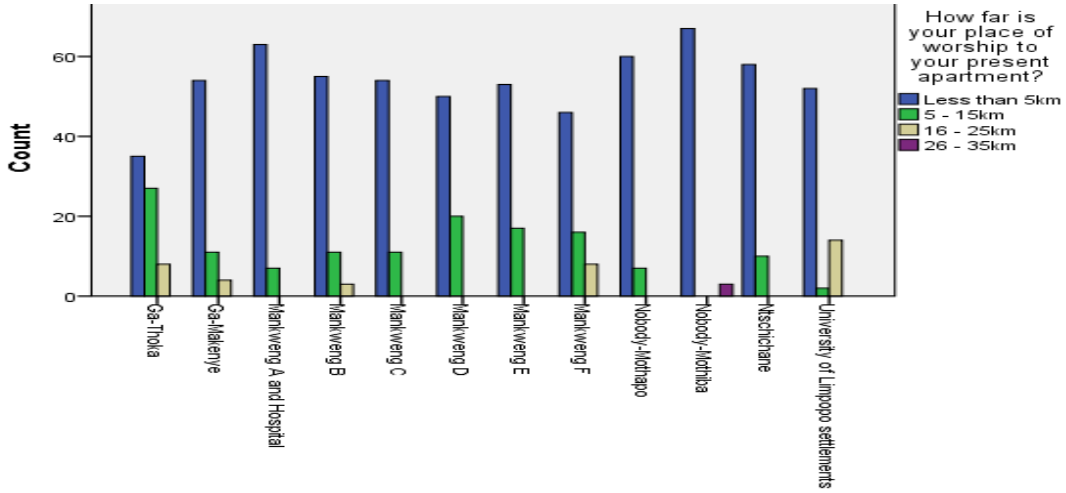


Figure 4.12 Distance from place of worship to residental location of respondents

Table 4.20 Correlation between distance from place of worship and residental location of respondents

	Value	Asymp. Std. Error[a]	Approx. T[b]	Approx. Sig.
Interval by Interval Pearson's R	-.063	.040	-1.820	.009[c]
Ordinal by Ordinal Spearman Correlation	-.105	.037	-3.056	.002[c]
No of Valid Cases	836			

a. Not assuming the null hypothesis.

b. Using the asymptotic standard error assuming the null hypothesis.

c. Based on normal approximation.

4.5.3.6 Distance From Police Station to Residental Location

Results from this study showed that the majority of the respondents from Mankweng A, Mankweng B, Mankweng C, Mankweng D, Mankweng F and Univeraity of Limpopo settlements lived less than 5 km from the police station (Figure 4.13). A majority of the respondents from Ga-Thoka, Ga-Makenye, Mankweng F, Nobody-Mothapo and Nobody-Mothiba lived between 5 and 15km to the police station. Only in Ntschihane did the repondents live above 26 km from the police station.

Pearson's R and Spearman correlation analysis results (Table 4.21) indicated that distance from police station to location of the respondents might have been the reason why respondent chose their present residential location. This may be because police stations are found in every location of the study areas. Bible & Brown (1981) observed that safety and security from crime are the most important attributes to the home buyer choice of residential location.

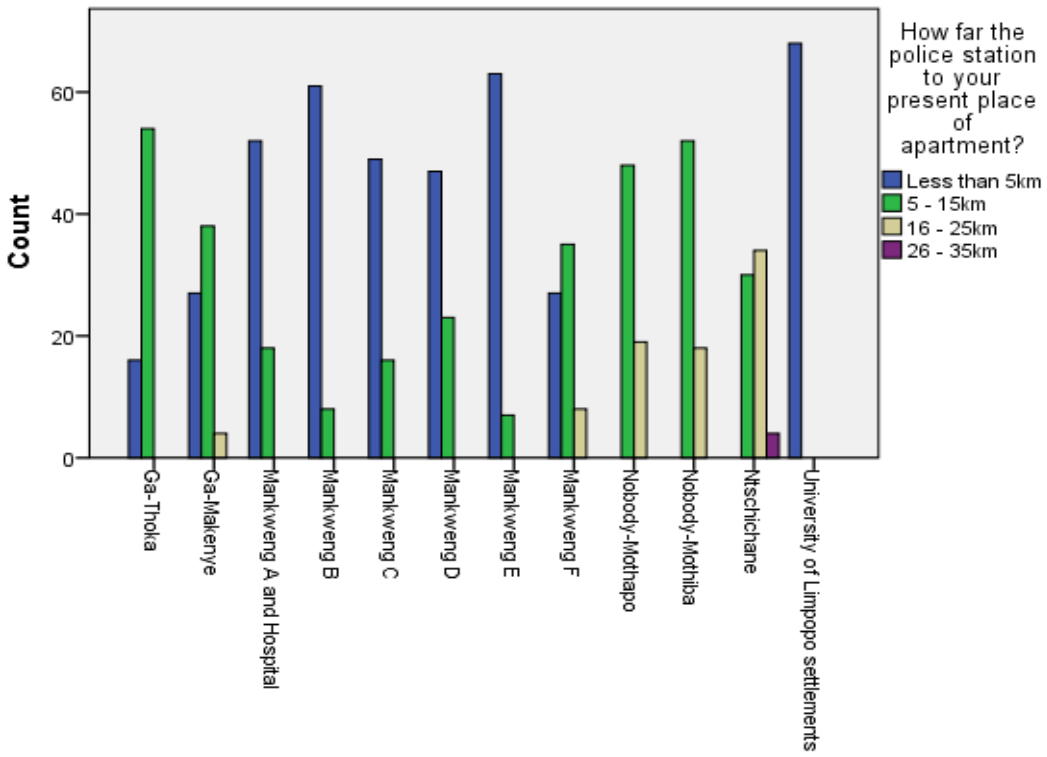


Figure 4.13 Distance from police station to residental location of respondents

Table 4.21 Correlation between distance from police station and residental location of respondents

	Value	Asymp. Std. Error[a]	Approx. T[b]	Approx. Sig.
Interval by Interval Pearson's R	.249	.033	7.424	.000[c]
Ordinal by Ordinal Spearman Correlation	.209	.036	6.162	.000[c]
N of Valid Cases	836			

a. Not assuming the null hypothesis.

b. Using the asymptotic standard error assuming the null hypothesis.

c. Based on normal approximation.

4.6 SOCIAL AMENITIES STATUS OF THE RESPONDENTS' LOCATION

Results of the present study (Table 4.22a) revealed that from the locations sampled, 56.5% of the respondents said their area of residences were secured. These was followed by 35.2% who said their area of residence were averagely secured, while 8.3% of the respondents said their area of residence were not secured. Correlation analysis (Pearson's R and Spearman) (Table 4.22b) indicate that security status of respondent's location might have contributed in their choice of residential location. Oyebanji (2003) reported that every tenant or household needs security for his or her household and property. The author emphasised that security is a determining factor for decision on residential location choice by tenants or households. Every tenant or household needs security for his or her family and property (Oyebanji, 2003).

Table 4.22a Security status of the respondents (%)

	How secure is your area?			
Location	Secured	Averagely secured	Not secured	**Total**
Ga-Thoka	68.6	22.9	8.6	100.0
Ga-Makanye	34.8	42.0	23.2	100.0
Mankweng A	45.7	54.3	0.0	100.0
Mankweng B	84.1	10.1	5.8	100.0
Mankweng C	69.2	26.2	4.6	100.0
Mankweng D	45.7	41.4	12.9	100.0
Mankweng E	17.1	67.1	15.7	100.0
Mankweng F	74.3	25.7	0.0	100.0
Nobody-Mothapo	68.8	31.3	0.0	100.0
Nobody-Mothiba	84.3	11.4	4.3	100.0

Ntschichane	77.9	22.1	0.0	100.0
University of Limpopo	8.8	67.6	23.5	100.0
Total	**56.5**	**35.2**	**8.3**	**100.0**

Table 4.22b Correlation between security status and location of the respondents

	Value	Asymp. Std. Error[a]	Approx. T[b]	Approx. Sig.
Interval by Interval Pearson's R	.063	.034	1.833	.047[c]
Ordinal by Ordinal Spearman Correlation	.058	.034	1.682	.043[c]
No of Valid Cases	833			

a. Not assuming the null hypothesis.

b. Using the asymptotic standard error assuming the null hypothesis.

c. Based on normal approximation.

4.6.1 Water Supply in the Study Area

This is a factor that is significantly important in the choice of residential location by tenants or households as stated by Oyebanji (2003). Water is very important to every human being. It is used for different purposes at home. The quantity and quality of water supply makes it attractive for prospective tenants or household. The results on water supply to the different location showed that the majority of the respondents had stable water supply (Figure 4.14). Furthermore, Pearson's R and Spearman correlation analysis (Table 4.23) indicate that water supply might be one of the reasons why the respondents chose their present residential location. Water is a basic need of life, thus, it is not surprising water supply is one of the factors influencing the choice of residential location.

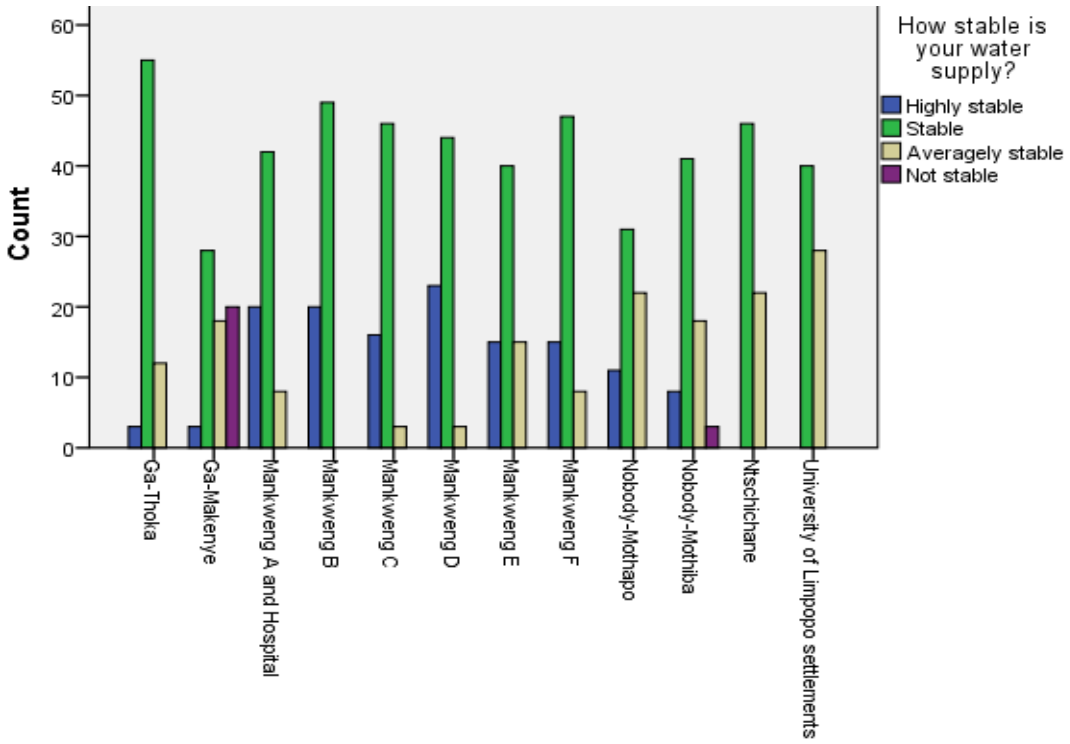


Figure 4.14 Water supply in the study area

Table 4.23 Correlation between water supply in the study area and location

	Value	Asymp. Std. Error[a]	Approx. T[b]	Approx. Sig.
Interval by Interval Pearson's R	.077	.036	2.213	.027[c]
Ordinal by Ordinal Spearman Correlation	.114	.035	3.312	.001[c]
No of Valid Cases	833			

a. Not assuming the null hypothesis.

b. Using the asymptotic standard error assuming the null hypothesis.

c. Based on normal approximation.

4.6.2 Electricity Supply Status of the Respondents

Results of the study indicated that in the twelve (12) locations understudy respondents rarely experienced electricity failure (Figure 4.19). Few respondents from Mankweng A, B, C and D reported that they never experienced electricity failure. Close to 40% of the people in Ntschichane, 30% of the people in Ga-Makanye indicated that they often experienced electricity failure. Less than 20% of the respondents from Nobody-Mothiba, Nobody-Mothapo, Mankweng C, D, and E indicated that they often experienced electricity failure. A correlation value of 0.026 by Pearson's R and 0.001 by Spearman (Table 4.24) implies that electricity might have been one of the factors that influenced the choice of residential location. Oyebanji (2003) reported that electricity is significantly important in the choice of residential location by tenants or households. The quantity and quality of electricity supply make it attractive for prospective tenants or households to choose the favourite location of residence.

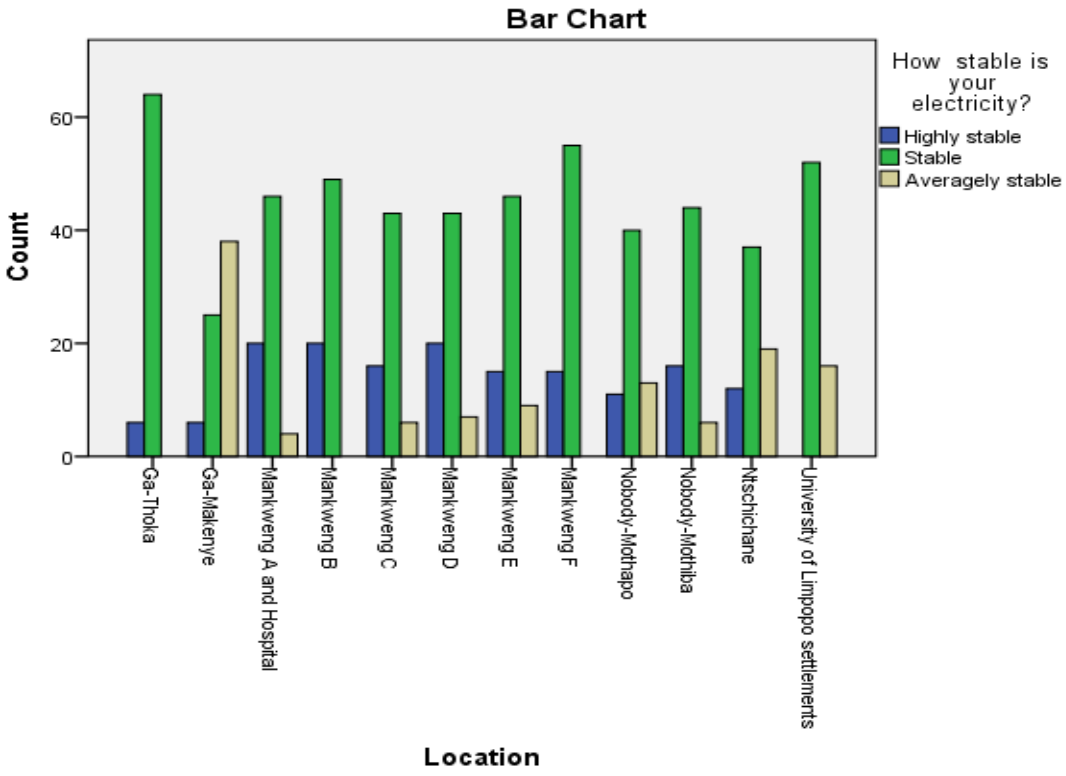


Figure 4.15 Electricity supply in the study area

Table 4.24 Correlation between electricity supply and the location of the study area

	Value	Asymp. Std. Error[a]	Approx. T[b]	Approx. Sig.
Interval by Interval Pearson's R	.078	.031	2.234	.026[c]
Ordinal by Ordinal Spearman Correlation	.112	.031	3.224	.001[c]
No of Valid Cases	827			

a. Not assuming the null hypothesis.

b. Using the asymptotic standard error assuming the null hypothesis.

c. Based on normal approximation.

4.6.3 Road Network of Respondent Location

Results about the road networks are presented in Table 4.25a. The results obtained from the respondents showed that the quality of the road network in the locations under study was rated good as (37.9%), average (33.6%) and not good (28.6%). Furthermore, the results showed that 50% of the respondents in Nobody-Mothiba, 44.6% of the respondents in Mankweng C and 36.2% of the respondents in Ga-Makanye had poor road network. Correlation analysis results (Table4.25b) indicated that road network might have been one of the factors which influenced the respondent's choice of their residential location. Oyebanji (2003) reported that road network is significantly important in the choice of residential location by tenants or households. The quality of road network makes it attractive for prospective tenants or households to prefer a particular location to another. According to Bailey, Mokhtarian & Littlel (2008), transportation route is part of distinct development pattern or road network and mostly described by regular street patterns as an indispensable factor of human existence, development and civilisation. The route network coupled with increased transport investment results in changed levels of accessibility reflected through Cost Benefit Analysis (CBA), savings in travel time, and other benefits. These benefits are noticeable in increased catchment areas for services and facilities like shops, schools, offices, banks, and leisure activities.

Table 4.25a Road network in the study area

Location	How is the road network in your area?			Total
	Good	Average	Not good	
Ga-Thoka	15.7	74.3	10.0	100.0
Ga-Makanye	27.5	36.2	36.2	100.0
Mankweng A	65.7	0.0	34.3	100.0
Mankweng B	46.4	39.1	14.5	100.0
Mankweng C	44.6	10.8	44.6	100.0
Mankweng D	48.6	20.0	31.4	100.0
Mankweng E	53.0	28.8	18.2	100.0
Mankweng F	32.9	61.4	5.7	100.0
Nobody-Mothapo	37.5	29.7	32.8	100.0
Nobody-Mothiba	40.0	10.0	50.0	100.0
Ntschichane	32.4	33.8	33.8	100.0
University of Limpopo	10.3	57.4	32.4	100.0
Total	**37.9**	**33.6**	**28.6**	**100.0**

Table 4.25b Correlation table of road network in the study area

	Value	Asymp. Std. Error[a]	Approx. T[b]	Approx. Sig.
Interval by Interval Pearson's R	.047	.034	1.361	.017[c]
Ordinal by Ordinal Spearman Correlation	.046	.035	1.335	.018[c]
No of Valid Cases	829			

a. Not assuming the null hypothesis.

b. Using the asymptotic standard error assuming the null hypothesis.

c. Based on normal approximation.

CHAPTER FIVE

5. SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

5.1 INTRODUCTION

Chapter four dealt with data analysis and interpretation of the key results concerning the data collected for the study. This chapter aims at providing a summary of the findings and also indicating what the study has achieved. The conclusion and recommendations are also drawn from the research findings. The chapter is presented in six sections. Section one is the introduction and section two is the summary of the research in which the whole dissertation is briefly summarised, and section three presents the key findings. Implication of the findings is discussed in section four. Recommendations and measures that should be taken into consideration are made in section five. Section six concludes the chapter.

5.2 SUMMARY OF THE STUDY

The main purpose of the research was to carry out an analysis of the factors that determines tenants' choice of residential property location in Mankweng Township. The research comprises five chapters that intend to realise and achieve research objectives. In achieving such research objectives, the researcher presented the following chapters.

Chapter 1: In this chapter the introduction and background to the study are discussed. The chapter serves as a basis upon which other discussions are based. The discussion covers sub-topics such as the statement of the problem, the main research questions, aim and objectives that guided this study. The research design and methodology were also described, and key concepts were defined. Lastly, the significance of the study and ethical considerations were explained.

Chapter 2: In this chapter both theoretical framework and literature review were discussed relating issues on tenants' choice of residential property location. It provides background information on housing policy in South Africa, residential location theories and models as well as theories of urban growth. The chapter also focuses on different types of residential property, classification of residential areas, factors which determines the choice of residential property location and land use in urban areas.

Chapter 3: This chapter presents the research design and methodology. The study used both a qualitative and quantitative research design. The targeted groups were male and female participants in the study area. Both stratified random sampling and simple random sampling methods were adopted and utilised. This chapter also provided a detailed description of the research design, target population, kinds of data required and unit of analysis, sampling design, the description of the study area, data collection methods and analysis procedures. Validity and reliability of the concept used as well as data collection and analysis methods were included. Lastly, the chapter provided a discussion on the limitations of the study and ethical considerations. ; The types of research designs that were adopted in the study, the sampling methods that were utilised and the targeted groups that were selected for the study were also discussed in this chapter.

Chapter 4: This chapter discusses the analysis and interpretation of data collected in Mankweng Township. It deals with demographic information of the respondents, social economic status and information on how the respondents chose their residential location. It also discusses factors that influenced the respondents to make certain choices regarding residential location. Data were analysed through cross-tabulations and correlation analysis (SPSS) in order to draw statistical conclusions based on the answers given by the respondents. Relevant literature was used to support the conclusions reached.

Chapter 5: This chapter briefly summarises critical conclusions of the study. The recommendations and suggestions are also highlighted. The recommendations are based on the researcher's observations and research findings.

5.3 CRITICAL FINDINGS

In line with the set aim and objectives of the study, the study confirmed that there was a wide range of residential property found in the study area such as shanks, flats, maisonette, bungalow, semi-detached houses, detached houses and tenements.

It was observed that most of the respondents in Mankweng Township lived in personal or family houses.

It was also observed that a majority of the respondents did not get information about the apartments they were presently residing from Estate agents; internet or media advertisements, rather they got their information from other means such as friends, self-search and family members.

It was noted that the tenure type practiced in Mankweng Township was mainly landlord and family tenure system. The landlords are the owners of the property and their houses are let out, while the family tenure is where the property is owned by the family. There were only a few locations in the study area that were occupied by tenants.

The study further noted that factors such as gender, employment status, distance from the city centre, hospital, place of worship, security or police station, water and electricity supply might be the reason(s) the respondents chose their residential location in Mankweng. Contrary to many authors' marital status, age, household size, race, education and income status of the respondents were not among the factors influencing the choice of residential location in Mankweng Township.

Results of the present study showed that the respondents in all the locations were cooperative as evidenced in a total number of 99 % of the admitted questionnaire filled and returned. Majority of the respondents were black, married and aged between 41 and 50 years. The study also revived that majority of the respondents were public workers, lived in flats and resided in location of preference. It was observed that respondents lived in family houses, resided between 26 and 35 km from city centre and less than 5 km to place of worship. The present study also showed that in all locations, water and electricity supplies were stable.

5.4 IMPLICATIONS OF THE FINDINGS

Findings from this research can be applied both theoretically and practically. Hence the usefulness of the findings is discussed below as follows:

The study identified factors in this research that can be added to the curriculum of learning in order to teach students of Development Planning and Management in various

institutions of learning about challenges that students may face on site in the course of their practice/research as indicated in the limitations of this study.

Findings from this research can serve as a source of information to students who may want to carry out research of this nature in the future as well as lecturers writing seminal papers related to tenants' choice of residential location.

Findings from this research will assist prospective tenants or individuals to find appropriate residential location that satisfies their major preferences.

These research findings may be useful to Estate Firms in Polokwane regarding the advice they may give to tenants and investors on the location of residential property in Mankweng Township.

5.5 CONCLUSION

This study discovered that among all the factors measured gender, employment status, distance from city centre, hospital, place of worship, security or police station, water and electricity supply might be determinant factors for residential location choice in Mankweng Township. Contrary to many authors' marital status, age, household size, race, education and income status of the respondents were not among the factors influencing the choice of residential location in Mankweng Township. This has a lot of implications in planning the Mankweng Township especially with regards to choice of residential locations. Respondents in all the locations were cooperative, black, married and aged between 41 and 50 years. The majority of the respondents were public workers, lived in flats and resided in location of preference. The present study also showed that in all locations, water and electricity supplies were stable.

5.6 RECOMMENDATIONS AND SUGGESTIONS FOR FURTHER STUDIES

Based on the researcher's observation and the findings of the study, the following issues are recommended to promote the effectiveness of choosing a residential location in Mankweng Township. The recommendations are discussed as follows;

- **INFORMATION ENQUIRING**

It was noted from this research that a large number of tenants seek information about residential location from non-professional persons (other). This is a great challenge to the profession, because professional estate surveyors and valuers should be more active in property agency by exploring technological means in acquiring information about residential locations and make such information more available to prospective tenants.

- **GOVERNMENT INTERVENTION**

Government should be more responsive and active in the provision of urban infrastructure and services in every neighbourhood since this is one of the major reasons why tenants search for accommodation from one location to another. In addition real estate investors should consider availability of infrastructure before choosing a particular location for development. Thus when urban facilities and services are evenly distributed in Mankweng Township, this intervention will enhance proper development in the city community and eventually help to minimise the problem of slums in the township.

- **GENERALIZATION**

From the present study, it was discovered that some factors which influenced the choice of residential location in some studies (marital status, age, household size, race, education and income status) had no effect in this study location. It implies, some of these factors are location specific, thus, this type of study should be conducted in other locations.

- **SUGGESTION FOR FURTHER STUDIES**

This research focused on the identification and analysis of the factors that influence the choice of residential location in Mankweng Township. However, the scope of the research did not cover the extent at which these factors affect the value of the properties in these locations. Thus, it is suggested that further study be conducted to look into the extent to which the identified factors affect the value of the properties in townships. Furthermore, empirical models which take into account all the factors influencing the choice or residential location in Mankweng Township should be developed.

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APPENDIX I

Department of Development planning and Development

University of Limpopo

Private Bag X1106

Sovenga 0727

South Africa.

Dear Sir/Madam,

I, Alabi.U. I am a Master student in the above named Department and University. I am undertaking a research study on the topic “Tenants’ Choice of Residential Property Location in Mankweng Township, Polokwane Local Municipality”. The aim of this study is to carry out an analysis of the factors influencing tenant choice of residential property location and residential types in Mankweng Township, Polokwane Municipality. To this end I kindly request that you complete the following questionnaire regarding the choice of your residential property location and type. It should not take longer than 20 minutes of your time. Your response is of utmost important to this study and subsequent recommendation.

Please do not enter your name or contact details on the questionnaire. It remains anonymous.

Summary result of this research will be used to produce a dissertation and published in journals.

Should you have any queries or comments regarding this survey, you are welcome to call 0781717018/0734244895 or email alabioj@gmail.com

Yours faithfully,

Alabi, I.U.

APPENDIX II

Questionnaire

PLEASE ANSWER THE FOLLOWING QUESTIONS BY CROSSING (X) IN THE RELEVANT BOX OR WRITE DOWN YOUR ANSWER IN THE SPACE PROVIDED.

Example of how to fill this questionnaire

Your gender

Male	1
Female	2

Section A - background

1. Gender

Male	1
Female	2

2. Status of respondent

Single	1
Married	2
Divorced	3
Widow /Widower	4
Others	5

3. What is your age?

20 years and below	1
21 – 30 years	2
31 – 40 years	3
41 – 50 years	4
51 – 60 years	5
Above 60	6

4. What type of employment are you engaged in now?

Self employed	1
Public	2
Private company	3
Pensioner	4
Others	5

5. What is your household size?

Live alone	1
2	2
3	3
4	4
5	5
6	6
Above 6	7

6. Ethnicity

Black	1
White	2
Coloured	3
Asian/Indian	4

7. Your highest education qualification

Grade 11 or lower (std 9 or lower)	1
Grade 12 (Matric, std 10)	2
Post-matric Diploma or certificate	3
Bachelor degree	4
Post graduate	5
Others	6

Section B (Location)

8. How will you describe the area in which you are residing presently?

Urban	1
Rural	2
Peri rural	3

9. Tenure type

Land lord	1
Tenant	2
Family	3
Others	4

Use the key below to answer question 10.

Less than 5 km	1
5 – 15 km	2
16 – 25 km	3
26 – 35 km	4
36 – 45 km	5
Above 45 km	6

10. How far are the following locations to your present apartment?

City center	1	2	3	4	5	6
Working Place/ School	1	2	3	4	5	6
Recreation center	1	2	3	4	5	6
Hospital	1	2	3	4	5	6
Place of worship	1	2	3	4	5	6
Police station	1	2	3	4	5	6

11. How secure is the area?

Highly secured	1
Secured	2
Averagely secured	3
Not secured	4

12. How stable is your water supply?

Highly stable	1
stable	2
Averagely stable	3
Not stable	4

13. How stable is electricity supply?

Highly stable	1
Stable	2
Averagely stable	3
Not stable	4

Use the key in the table below to answer question 14

Very good	1
Good	2
Average	3
Not good	4

14. How is the road network to your house?

How is the drainage system?	1	2	3	4
How is the road network to your house?	1	2	3	4
How is the cell phone net work in your area?	1	2	3	4
How is the building layout plan?	1	2	3	4

15. Type of residential property

Shank	1
Flats	2
Maisonette	3
Bungalow	4
Semi-detached houses	5
Detached houses	6
Tenement	7

Section D (Social Economy)

16. What is your household monthly income?

Less than R 1 000	1
R 1 000 – R 5 000	2
R 5 100 – R 10 000	3
R 10 100 - R 15 000	4
R 15 100 – R 20 000	5
R 20 000 – R 25 000	6
R 25 000 – R 30 000	7
Above R 30 000	8

17. How much do you pay on rent per month? (For tenants only)

Less than R 100	1
R 100 – R 500	2
R 510 – R 1 000	3

R 1 100 – R 5000	4
Above R 5 000	5

18. How did you get your present apartment?

Information from friends	1
Estate agent	2
Internet	3
Media advertisement	4
Others	5