THE CONTRIBUTION OF MIXED-INCOME HOUSING TOWARDS SOCIAL COHESION IN SERALA VIEW RESIDENTIAL DEVELOPMENT, POLOKWANE CITY, LIMPOPO PROVINCE

By

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DECLARATION

I declare that the dissertation hereby submitted to the University of Limpopo, for the degree of Masters of Development Planning and Management has not previously been submitted by me for a degree at this or any other University; that is my work in design and execution, and that all the materials contained herein have been duly acknowledged.

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Initials & Surname (Title)　　　　　　　　　　　　　　　　　　　　Date

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DEDICATION

This dissertation is dedicated to my mother Ivy Magirlie Mntshali, my brothers Thapelo and Bheki Lukhele, my fiancée Murendeni Mphaphuli and her family. This dissertation is also dedicated to the Mpumalanga Department of Social Development which has enabled me to see the gate of the University of Limpopo. Lastly, this study is dedicated to all my friends and colleagues who were with me during the hard times of this study.

ABSTRACT

One of the fundamental challenges facing post-apartheid South Africa's urban settlement planning has been the requirement for social cohesion. For this reason, urban transformation interventions involved the construction of mixed-income housing, wherein social cohesion among low- and middle-income households could be enforced. Far from rhetoric and the drift of middle-income households into cities that were previously the preserves for white people, urban South Africa remains deeply segregated. It is against this background that the study assessed the determinants of the manifestation of social cohesion in the Serala View residential area, which consists of diverse races and different socio-economic classes. The study is in a form of a case study, and has adopted the normative together with the historical research design. The study used both primary and secondary data to complement each other. These data is both qualitative and quantitative. A questionnaire was used to collect data from the purposively sampled respondents, and an interview schedule was used to solicit data from the key informants. The International Business Machine-Statistical Package for the Social Sciences (IBM-SPSS) version 22 software was use for analysis, with which a non-parametric t-test was conducted to determine the intensity of the respondents on the different dimensions of social cohesion. Analysis results reveal there are three typologies of mixed-income housing, which are generally recognized in urban areas of many countries, and that the Serala View is a Gated Townhouse Complex typology. Importantly, this typology is mainly identified by six physical characteristics, which are central in determining the manifestations of social cohesion in the gated townhouse complex typology. Importantly, target hardening, which refers to security measures, is considered to be the most important aspect in Serala View residential development. From the analyses and interpretation of the theoretical and empirical evidence, the dissertation concludes that the contributions of mixed-income housing towards social cohesion are mixed and non-straightforward. However, there is theoretical validity of the notion that such an approach could cultivate social cohesion among different socio-economic classes. Results from Serala View Residential area largely confirm this theoretical positioning. This dissertation concedes that implementation discrepancies could be the real elephant in the room, rather than the fault of the idea itself.

ACRONYMS

BNG: Breaking New Ground

CBD: Central Business District

CSIR: Council for Scientific and Industrial Research

HSRC: Human Sciences Research Council

NDP: National Development Plan

NSDP: National Spatial Development Perspective

RSA: Republic of South Africa

SANCO: South African National Civic Organization

SARBS: South African Reconciliation Barometer Survey

STATS: Statistics South Africa

SASAS: South African Social Attitude Survey

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CHAPTER 1

INTRODUCTION ON MIXED-IMCOME HOUSING AND SOCIAL COHESION

1.1. Introduction

In response to the socio-spatial segregation which seems to be a major problem in many cities around the world, there has been a greater call for mixed-income housing development (Rosenbaum, Stroh & Flynn, 1998; Onatu, 2010; Landsman, 2012; Hyra, 2013). The mixed-income housing is perceived to be an innovative approach towards building social cohesion in the urban areas. On this note, Chaskin & Joseph (2011) believe that mixed-income housing is a homely environment for people of different culture, ethnic, gender, class and lifestyle in the urban areas, which could in turn, as stated by Klug, Rubin & Todes (2013), contribute towards forming a compact and integrated urban neighborhood. Notable, the socially and economically diverse neighbors in the mixed-income housing development utilize similar amenities (Onatu, 2010) and facilities which are usually allocated within or in the vicinity of their residence. According to Svendsen (2010), the public and private facilities and services in the mixed-income housing precinct keep the diverse income groups in constant contact with each other. Importantly, social contact is one of the significant dimensions of social cohesion which could result to what Mugnano & Palvarini (2013) define as a true friendship that is strong enough to be equivalent to family relationships in the urban landscape.

The urban landscape in most Western countries has been transformed through the development of mixed-income housing which has become their core of urban renewal strategy (Kleinhans, 2004). In the United States of America, mixed-income housing has enabled the creation of socioeconomic heterogeneity by moving low-income households onto the turf of higher-income groups, and this has drastically altered the country's urban neighborhood (Rosenbaum, Stroh & Flynn, 1998). In Italy, mixed-income housing projects have enhanced social cohesion among the residents in the urban landscape (Mugnano & Palvarini, 2013). It is the mixed-income housing that has helped people in

the British society to get along with others from different backgrounds to achieve greater social integration of diverse advantaged and disadvantaged groups (Kearns & Mason, 2007). Based on the Western countries' experiences, it can therefore be argued that mixed-income housing has a potential to redress the patterns of socio-spatial divisions while fostering social cohesion in the urban landscape which seems to be lacking in most cities of the developing countries, South Africa in particular.

The distribution of housing in South Africa's cities is underpinned by the apartheid spatial urban planning which was based on racial and spatial divisions. According to Lemanski (2006), race based residential segregation was implemented to ensure both spatial and social distancing of blacks on urban peripheries. To enforce the spatial structuring, the apartheid government used legal frameworks such as Group Area Act which its main objective was to locate the white population around the Central Business Districts (CBDs) and to keep the poor black people away from the urban economic and social activities. Even today, the apartheid's spatial design continues to dictate not only who lives where but also to determine social relations (Lemanski, 2006) in the cities of the country. As a result, the apartheid spatial urban planning has created socio-spatial divisions in South Africa's cities (Onatu, 2010; Haferburg, 2013; Lemanski, 2006; Landman & Napier, 2010) which need to be redressed.

The social-spatial divisions in South Africa are further perpetuated by the class separations. As Haferburg (2013) asserts, the separation of rich and poor neighborhoods has become the new principle of social exclusion in the country. The economic and demographic compositions of many residential areas have considerably changed the landscape of South African cities. With regard to the changing urban landscape, Donaldson (2005) sees race divisions being substituted with class separations. Indeed, the class divisions are evident in the urban housing landscape which is characterized by separate streams of housing provision and allocation. That is, the provision of RDP and social housing models for the poor low income group, alongside the private sector market related housing in a form of lifestyle estates for the rich middle class (Haferburg, 2013). Therefore, it is against this background that the

post-apartheid government had to reconsider the restructuring of the cities and the delivery of housing (Landsman, 2010) infrastructure in order to promote social cohesion. As a result, in 2004 the democratic government has introduced the Breaking New Ground policy as new option for delivering mixed-income housing in order to build a cohesive society throughout the provinces of the country.

The Limpopo Province is with no exception to the challenges of the socio-spatial division, despite it being a rural based province (Donaldson, 2005). In the predominantly rural Limpopo Province, the allocation of housing conforms to racial and class segregation. However, it is mentioned that the capital city of the province has made a significant achievement in addressing the scourge of race and class divisions. According to Donaldson (2005) the Polokwane City has transformed from a pure white and racist town into a provincial capital city that non-racist with a complete new identity. To a large extent, this social-spatial transformation is directly attributed to the residential development in the city. As stated by Donaldson & Kotze (2006), the new residential development have changed Polokwane from being a white conservative city to perhaps one of the most integrated cities in South Africa.

The new residential provision in the Polokwane City includes the development of the medium density mixed housing which provides accommodation for different income groups. This form of settlement is situated on former buffer strips of the City such as open spaces, adjacent to previously white-only areas. According to Landsman (2012), the location of mixed-income housing in such areas attract a high level of public and private services provision such as recreational and entertainments facilities and a variety of shops for residents to have an opportunity to move within the residential development while maintaining social networks. The typical mixed-income housing in the Polokwane City is the Serala View residential development. Therefore, the study seeks to investigate whether the Serala View mixed-income residence have created an environment compatible for the manifestation of social cohesion amongst the residents as it is suggested.

1.2. Statement of Research Problem

In reaction to the challenges posed by social and spatial segregation in contemporary cities around the world, there has been an increasing call for mixed-income housing development (Lemanski, 2006; Landman, 2012; Klug *et al.*, 2013). It is against this background that the democratic South African government in 2004 introduced the inclusive visionary housing program called the Comprehensive Plan for the Development of Sustainable Human Settlement, commonly known as the Breaking New Ground (BNG) program. One of the key objectives of the BNG is to promote social cohesion and improve quality of life for the people through the development of sustainable human settlements and quality housing (Department of Housing, 2004). According to Osman & Herthogs (2010), mixed-income housing is the key component of sustainable human settlements towards addressing the BNG objectives. The mixed-income housing provides various housing tenure to people of different incomes and class, compatible to contribute to the transformation of the fragmented South Africa's urban landscape (Osman & Herthogs, 2010). To this extent, the private sector assumes a significant responsibility in the residential market. As a result, there is an emerging occurrence of private sector led mixed-income housing developments which are in a form of medium-density mixed housing in the cities across the country (Landman, 2012). The mixed-income housing developments are seen to be contributing in redressing the apartheid legacy throughout the provinces of the country. In this regard, the Limpopo Province is a living testimony of the apartheid legacy. That is, the apartheid policies have created African ethnic territories in the province: the then Lebowa, Gazankulu and Venda, each with its own capital (Donaldson, 2005). Consequently, housing distribution in the province is characterized by socio-spatial divisions, where only 16% of the households live in the urban settlement (Housing Development Agency (HDA), 2012). Ironically, when assessing housing distribution in terms of house tenure, the province has a significantly high number of households who own their houses while on the other hand having a minimal number of households who are renting their houses when compared at the national level. According to Statistics South Africa (Stats SA) (2012), 52% of the household in the province have full ownership of housing while 12% have rented their houses. To this extent, it can be assumed that the increased house

ownership in the province is influenced by the changing housing market; with an increasing trend of the black middle-class owning houses in the new residential developments and in historically "whites only" areas, particular in the City of the Province. Subsequently, the change in the housing market has made the Polokwane City to transform from being "a white conservative city to what is being perhaps one of the most integrated cities in South Africa" (Donaldson & Kotze 2006: 579).

According to Donaldson (2005), the residential integration has directly contributed to and influenced the social transformation process of the Polokwane City. On this note, the City of Polokwane is considered as being a socially cohesive city. However, the manifestation of social cohesion is solely assessed in terms of racial integration; with a focus on the movement of the black people into areas previously preserved for the white people (Donaldson, 2005 and Haferburg, 2013). Therefore, it seems there is less attention on class integration given the rapid urban expansion of the newly developed low-to-middle-income suburbs on the fringes of the City. Over the past years, the Polokwane City has been experiencing an increase in the development of privately owned mixed-income housing projects which, according to Klug *et al.*, (2013) are the most successful form of mixed-income housing delivery in most cities in the country. A typical private sector driven mixed-income housing in the City is the Serala View residential development which provides for both rental and ownership housing tenure. This residential property is one of the gated communities which sprout around in the outskirts of the Polokwane City in the post-apartheid era. This residential development is seen to have been built to enforce racial and class integration in the City given that it is adjacent to the "former white only" residential areas such as Fauna Park and Flora Park. In terms of geographical location, this residential development is along the main roads (N1 and R71), Savannah shopping mall, and a new hospital, and situated on the old buffer strip of open space in the periphery of the City. However, it is not clear though as to how does it contributes towards social cohesion in the urban area. Thus, it is against this background that the study seeks to assess the determinants of the manifestation of social cohesion in this residential area which consists of diverse races and different economic classes.

1.3. Research Questions

The general research question of the dissertation is how does mixed-income housing contributes towards social cohesion in urban areas? In relation to the general research question, the study has formulated the following specific research questions:

- ❖ What are the typologies and characteristics of mixed-income housing?
- ❖ How does social cohesion manifest in urban areas?
- ❖ How does mixed-income housing contribute towards social cohesion in urban areas?

1.4. Research Aim & Objectives

The research aim of the study is to investigate the contribution of mixed-income housing towards social cohesion in urban areas in order to recommend measures that can enhance the creation of social cohesion in the urban residential area. The following objectives are formulated from the research aim:

- ❖ To study the typologies and characteristics of mixed-income housing;
- ❖ To determine how social cohesion manifests in urban areas;
- ❖ To investigate the contribution of mixed-income housing towards social cohesion; and
- ❖ To recommend measures to enhance the contribution of mixed-income housing towards building social cohesion in urban areas.

1.5. Definition of Terms

Mixed-income housing refers to a residential development where various income groups live in the same buildings (Rosenbaum et *et al.*, 1998) or neighborhood (Schwartz & Tajbakhs, 1997). In other instances the income groups occupy different sections of the residential development, with lower income households positioned apart from higher income residents, while some mixed-income developments provide the same quality of housing in terms of size and amenities for residents from all income groups, while others offer smaller, less-lavish homes for lower income households

(Schwartz & Tajbakhs, 1997). Mixed-income housing can be sponsored by public, non-profit, and private organizations and includes both homeowners as well as renters. Therefore, the proposed study will adopt this definition.

Social cohesion is defined as the ability of a society to "hang together", making their members part of a collective project and well-being. Therefore, social cohesion is divided into five dimensions which are common values and a shared civic culture; social order and control; social solidarity; social networks and connectedness; and place attachment and local identity (Forrest & Kearns, 2001). Social cohesion can be seen as the glue that keeps the members of a social system together; be it a family, an organization, a neighborhood, or society as a whole (Dekker & Bolt, 2005). Thus, the proposed study will adopt this definition.

1.6. Research Design and Methodology

The study consists of a combination of both normative and historical research design which is in terms of a methodological triangulation. That is, it uses a combination of a qualitative research method and a quantitative research method to describe the contribution of mixed-income housing towards social cohesion. Such combination allows the use of interviews and questionnaire in synergy and the exploitation of the advantages of each method (Cassim, 2015). In addition, given South Africa's apartheid experience, the rationale behind the use of the historical research design is based on the strong assertion that the apartheid government has used housing to create the prevailing social exclusion (Landman, 2010; Onatu, 2010; Haferburg, 2013).

1.6.1. Research design

The study is in a form of a case study, and has adopted the normative together with the historical research design. Though it may be difficult to generalize the results of a case study (Babbie, 2010), it allows an in-depth evaluation of the study variables and contextual factors, which may be applicable in other similar areas (Cassim, 2015).

The normative research design is in a form of descriptive study, with which the question of "how" (Babbie, 2010; 94) does social cohesion manifestation in mixed-income housing was assessed. In this regard, the assessment is based on the views and experiences of the respondents in relation to the dimensions of social cohesion. On the other hand, the historical research design is used to review the historical apartheid urban spatial planning in South Africa which is believed to have created the socio-spatial divisions, and eventually caused social exclusion in the cities of the country. Therefore, the study based on both qualitative and quantitative terms.

1.6.2. Kind of data required and unit of analysis

The study used both primary and secondary data to complement each other (Babbie, 2010; Cassim, 2015). The latter is in a textual form; literature from journal, articles, books and government documents relevant to the study. These sources are considered to be useful and adequate for reviewing the literature on issues related to the typologies of mixed-income housing and the way through which social cohesion manifest in the urban areas. In addition to the secondary data, there are also visuals which consists of diagrams and pictures that reflect the location, design and layout of the mixed-income housing. On the other hand, the primary data consists of the views and experiences of the respondents in the mixed-income housing regarding the manifestation of social cohesion in their residence. Furthermore, the practical data also consist of the views, perception and experiences of the Ward Committee Member, and the Chairperson of the Serala View Homeowner Association.

1.6.3. Description of study area

The Serala View residential development is in South Africa, located in the Limpopo Province under Polokwane Local Municipality which is within the Capricorn District Municipality. This residential property is one of the gated communities which sprout around in the outskirts of the Polokwane City in the post-apartheid era. This residential development is seen to have been built to enforce racial and class integration in the City given that it is adjacent to the "former white only" residential areas such as Fauna Park and Flora Park. The Serala View residential development is located close to main roads

(N1 and R71), Savannah shopping mall, and a new hospital. This residential area consists of various housing type which includes duplex, townhouses, apartments and double storey houses, and these houses are either owned or rented. The cost price for owned houses ranges between R2 000 000.00 and R380 000.00, and the average cost for rental houses is R2 000.00 per month (Engineering News, 2008). Most of the houses in the residential property have high security measures such as electric gates, alarm system, burglar bars and security wall. In addition, in the Serala View property there are also vacant lands which are for sale for new housing development. Therefore, this residential area could be considered as a typical townhouse complex which provides housing for people of various income, and different classes and race in the Polokwane City.

1.6.4. Target population

The target population of the study consists of three groups of elements. That is, the target population is composed of the households in the Serala View residential development, the Serala View Homeowners Association, and the Ward Committee Member. The total number of the households in the residential area is approximately 700, estimated based on the number of housing units in the residential development (Engineering News, 2008). These group of respondents have different house tenures, and are mixed in terms of gender and race, thus their experiences and views on social networking, solidarity, social order, civic culture, place attachment would be significant. The Ward Committee Member has provided information related to social issues and activities occurring in the Serala View residential development, while the Serala View Homeowner Association provided information on house tenure, and by-laws and regulations observed by the residents in the residential area, together with the available social facilities in the residence. All the mentioned respondents are appropriate for the study given that they all have diverse experiences, knowledge and views in relation to the study area.

1.6.5. Sampling design

Given that the whole population cannot be studied, the study will adopt a non-probability sampling methods. That is, from the estimated 700 households which are constituted based on the number of house units in the residential property, the researcher has purposively selected the convenient respondents in the study area. In this process, households in different types and sizes of house units were selected to participate in the study. That is, such sampling was based on certain elements of the study (Babbie, 2010).On the other hand, the study also sampled two key informants purposefully. That is, the Chairperson of the Serala View Homeowner Association, and the Ward Committee Member in Serala View. Ultimately, the study has a total sample size of 102 respondents, which is approximately 15% of the total target population. With these sample size, the target population of the study is in accordance with the principle of representativeness (Babbie, 2010). Therefore, such sampling method was found to be appropriate given "the number and complexity of variables that have to be reflected in the sample" (Cassim, 2015; 64).

1.6.6. Data collection techniques

The study has used different data collection techniques to collect both theoretical and practical data. Firstly, the study used literature review as a technique to collect the theoretical data. The theoretical data consists of information in relation to the typologies and characteristics of mixed-income housing, arguments on the manifestation of social cohesion and different notions on the contributions of mixed-income housing towards social cohesion. Secondly, practical data was collected through the use of questionnaires which consisted of 5 sections designed with both closed and open-ended questions. That is, the demographic and economic profile of the household in section A; the physical characteristics of mixed-income housing in section B; the manifestation of social cohesion in the urban residential development in section C; mixed-income housing and social cohesion in section D; and suggestions to improve the contribution of mixed-income housing on social cohesion. The questionnaire was used to collect data from the residents in the mixed-income residential development.

The data is in relation to their household's income, house tenure, views and experiences on the dimensions of social cohesion in the residential precinct. Most of the questions in the questionnaire are in a 5-Point Likert Scale format, to "increase comparability of responses" (Babbie, 2010; 264). Other empirical data was collected from the Ward Committee Member and the Chairperson of the Homeowners Association through an interview schedule technique. The interview schedule was seen to be appropriate for collecting data from these set of elements because it allowed an open process of probing which resulted in "gaining a deeper understanding" (Cassim, 2015; 12) of the significance of the housing physical characteristics, and the dimensions that determine the manifestation of social cohesion in the neighborhood. Thirdly, observation and photographing technique was also used to collect practical data in relation to the housing configuration and the socio-economic facilities in the area. Observations were made during the cause of visit to the mixed-income residential area.

1.6.7. Data analysis procedures

The study uses cognitive digestion to analyze the typologies of mixed-income housing, the manifestation of social cohesion and the general arguments on the conceptual correlation between mixed-income housing and social cohesion in the urban areas. Furthermore, the relevant literature was reviewed, analyzed, understood and synthesized, to evaluate debates of academics on the similar or related research problem. The study has made classification based on the manifestation of the dimensions of social cohesion in different house typologies. This classification was based on the relevant literature.

Given that the responses in the data collection technique (questionnaires) were codified as nominal data. As such, numbers were used to represent different categories (Cassim, 2015). Then, the collected data has been captured accordingly in the International Business Machine-Statistical Package for the Social Sciences (IBM-SPSS) version 22 software, which eventually help to produce descriptive numerical outcomes. These numerical outcomes are presented in a form of graphs and pie charts which were developed by using the excel software. Subsequently, this diagram illustration produced

percentage proportion and frequency of the views of the respondents to the list of questions in the questionnaire. Therefore, in this format the data become ease and compatible for interpretation in relation to the five predominant dimensions of social cohesion in order to demonstrate the contributions of mixed-income housing towards social cohesion in the context of the study. Non-parametric t-test was used to (Cassim, 2015) determine the intensity of the respondents on the different dimensions of social cohesion.

1.6.8. Validity and reliability

Firstly, the study ensured validity of the concepts under consideration. With regard to the mixed-income housing concept, a predictive validity was determined in terms of the availability of different house tenures for different income groups in the precinct, while the social cohesion concept reflects a face validity given that it is measured in terms of the five predominant dimensions which were established by Forrest & Kearns (2001) and have been used by Dekker & Bolt (2005); Chaskin & Joseph (2011) and Mugnano & Palvarini (2013) in various similar studies, and in different urban context.

Secondly, the reliability of the proposed study was determined by the techniques used for data collection. Published and academically recognized sources were used for literature review. Data of the dissertation was also collected from three groups of respondents who have knowledge and empirical experience in relation to the research problem under investigated. Reliability was also ensured by the use of different data collection techniques. The questionnaires, interview schedule, photographic, and observation have been used in various similar studies by scholars such as Dekker & Bolt (2005); Landman *et al.*, (2009) and Onatu (2010).

1.7. Structure of the Dissertation

The dissertation consists of five chapters, beginning with chapter one as an introductory chapter to chapter five which presents the findings, recommendations and conclusion of the study.

Chapter 1 provides with an introductory background proposed study. It also includes a description of the research motive, justifications and procedural methodology that applied in the process of the study. In this chapter, the significance of the study and ethical considerations is also highlighted.

Chapter 2 presents the literature review of mixed-income housing typologies together with its characteristics, and also discusses the five predominant dimensions which determine the manifestation of social cohesion in the urban neighborhood.

Chapter 3 reflects the contextual background of mixed-income housing and social cohesion of the study area. This chapter illustrates the legal frameworks formulated and implemented in relation to mixed-income housing and social cohesion at the local municipality, provincial and national level in South Africa. These frameworks include sector policies and strategies of the South African government's departments and agents.

Chapter 4 deals with the analysis and interpretation of the empirical data which was collected in the study area. This chapter draws the analysis with regard to the contribution of mixed-income housing towards social cohesion. In addition, the visual data together with the observations made is also captured in this chapter.

Chapter 5 presents the findings and conclusion drawn on the empirical issues in the study area in contrast and or in relation to the reviewed literature. In addition, recommendations in terms of enhancing the contribution of mixed-income housing towards social cohesion in urban areas are made.

1.8. Significance of the Dissertation

In theoretical perspective, the dissertation is considered valuable for making contribution in improving the understanding of the correlation between mixed-income housing and social cohesion in urban areas. In this regard, the manifestation of social cohesion is determined through the five predominant dimensions of social cohesion.

The dissertation therefore provides a snapshot reflection of the state of social cohesion in the gated townhouse complexes of South Africa twenty years into democracy. As such, the reflection could assist in improving the spatial planning for mixed-income housing typologies in the cities of the country, and ultimately building a socially cohesive society. The dissertation is also very significant in terms of providing factors that could assist in transforming the Polokwane City into a viable compact city.

1.9. Ethical Considerations

The study did not only acknowledge the work of other academics to avoid plagiarism (Appendix: F), but also reported the findings and the results fully and accurately as well as disclosing limitations in the study. To the subjects, the researcher has disclosed that participating in the study is voluntary process, and that the study is conducted as part of the researcher's academic training programme. Moreover, the questions asked during the study were meant to not raise any agony nor hurt the respondents in any form (Babbie, 2010). It was guaranteed that the personal information of the respondents will be specifically used for the purpose of the study and be kept anonymous during the process of the study and afterwards. In addition, the proposal together with the data collection tools of the study were approved by the University's Research Ethics Committee (Appendix: D). Moreover, the researcher has obtained a permission from the Serala View Homeowners Association to conduct the study in their residential area (Appendix D), and that all the stakeholders in the process of the study were treated in a courteous, professional manner. Therefore, ethics in the study were taken into a serious consideration (Cassim, 2015).

1.10. Limitation of the Study

The study used a nonprobability sampling method in a form of purposive sampling method to sample the respondents in the study area. This sampling method was used given that most of the residents could not be found at their homes, particular during week days, and that it allowed the researcher to get response from respondents who have various elements (Babbie, 2010) in terms of the size, type and tenure of their houses. Therefore, such sampling technique was found to be suitable in the context of

the study. Given the small sample size of the study, it may be difficult to generalize its findings, however, some of the findings may be applicable in some similar context. In addition, the researcher together with the assistance collected the data on weekends when most of the residents are normally at their homes. Nonetheless, in ensuring representativeness of the target population, a high quantity of the residents has participated as respondents in the study.

1.11. Conclusion

In general, the provision of mixed-income housing is seen to be a relevant housing delivery strategy in building a socially cohesive urban neighborhood. In this regard, the aim of the study is to investigate the contribution of mixed-income housing towards social cohesion in urban areas in order to recommend measures that can enhance the creation of social cohesion in the urban residential area. To conduct this investigative process, the study adopted both qualitative and quantitative research approach, in order to solicit and explore information in the village both qualitatively and statistically. Moreover, the study applied a nonprobability sampling method in a form of convenient sampling. This sampling applied to all the Serala View residents, given that they all made up the target population of the study. The significance of the study is that it provides a snapshot view of the state of social cohesion in the gated townhouse complexes in the urban neighborhoods of South Africa after twenty one years into democracy. In this regard, the following chapter will provide the conceptual and theoretical review of mixed-income housing and social cohesion.

CHAPTER 2

THE CONCEPTUAL AND THEORETHICAL REVIEW OF MIXED-INCOME HOUSING AND SOCIAL COHESION

2.1. Introduction

As indicated in the introductory chapter, generally the literature reveals contrasting views with regard to the correlations between mixed-income housing and social cohesion in the urban areas. Remarkable, it is believed that social cohesion in mixed-income housing is enhanced by the presence of mutual respect, common values, intergroup communication and co-operation (Dekker & Bolt, 2005). Thus, when people from different backgrounds cooperatively interact, there are greater opportunities for building a cohesive society (Kearns & Mason, 2007; Chaskin & Joseph, 2011). In contrary, Onatu (2010) and Hyra (2013) argue that the prevailing class differences within the mixed-income housing can exacerbate inequalities and stimulate conflict rather than cooperation among the residents. In addition, there is also a sense that mixed-income housing is too complicated to manage, given the varying income groups, their diverse needs and preferences (Brophy & Smith, 1997). Therefore, the diversity could result to incivility and social disorder. Nonetheless, the manifestation of social cohesion in mixed-income housing can, to a large extent, be influenced by the housing typologies in the urban neighborhood. As Landman & Napier (2010) claim, the quality of life of people in cities is closely linked to the quality of the built environment. Therefore, this chapter will provide a theoretical view to reflect the common debates on the relation between mixed-income housing and social cohesion.

2.2. The Typologies of Mixed-Income Housing

Urban studies identify so many typologies of housing. Given the increased promotion of contemporary compact cities, the higher and medium residential density becomes the most significant form of housing delivery that configures mixed-income housing typologies. The medium and higher density form of housing may either have some common housing typologies or a range of different housing typologies within the precinct (MacDonald, 2005). The bottom line with such residential design and layout is

that it is more complex and bulkier, and compatible to provide housing options for people with different incomes. Therefore, the housing typologies set out below are a convenient way of showing some of the medium and higher-density housing which are configured as mixed-income housing. The housing typologies are high-rise apartments, terrace houses or semi-detached houses and zero-lot-line houses.

2.2.1. High-rise apartments

High-rise apartment refers to a multi-storey structure which usually serves as a mixed used building. As MacDonald (2005) states, apartments normally comprise of basement car parking facility on the ground level, commercial floor space at the first floor, and different size residential units with balconies on the upper floors or flats. The balconies serve as an open private space for the residents because gardens or outdoor areas are often much smaller at an apartment building. In this respect, Musana & Vestbro (2013) add that the location of high-rise apartments in the city center make the usage of outdoor space for private activities very difficult because the outdoor space is public in nature. So it is clear that there is limited private space at an apartments building. Therefore, it is important to use the available limited space carefully in order to create high quality living environment in the apartment (MacDonald, 2005). In this regard, the communal areas and shared facilities such as an entrance lobby, access corridors and porches, staircases and lifts (Ho, Yau, Wong, Cheung, Chau & Leung, 2005) are some of the available public spaces which encourage interaction amongst the residents of different income, and ultimately create a high quality living environment for the diverse residents.

2.2.1.1. The configuration of a high-rise apartment

The high-rise apartment is a high density form of residential building. Its lies in the separation of households or residents from each other by walls, floors, and ceilings they share (Ho, Chau, Yau, Cheung & Wong, 2005) describe the configuration of the high-rise apartment as the vertically and horizontally stacked dwelling unit, built in a way that the walls of one residential unit is also the wall of another and the floor of one unit is the ceiling of the unit on the below floor. What should be noticed with regard to this housing

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typology is that the residents share many barriers inside the building. The number of barriers shared by specific dwelling unit varies by design of the building and its location. For example, for high-rise buildings that are adjacent to low rise buildings, appropriate care should be taken with the design of elements such as the side walls, parapets, upper level front and side setbacks, articulation and window patterns (Us Urban Development Department, 2010). That is, in such location the number of shared barriers would be limited.

2.2.1.2. The height of the high-rise apartment

The most recognized characteristic of the high-rise building is its height. The vertical stalking, the tall-rise design and the floor levels of the apartment are considered to have some psychological effects on the people living in the high-rise apartment (Ho, Chau, Yau, Cheung &Wong, 2005). Interestingly, the floor levels on which the residential units are located have a direct psychological strain to the residents. In this regard, Abdul Aziz& Ahmad (2011) found that the upper floor residents are likely to report that they are feeling lonely and isolated. Furthermore, the author found those parents who are dwelling on the upper floor experience difficulties in supervising their children who usually play outside the apartment. Similarly, another study concludes that high-rise buildings normally accommodate people with an aversion to neighboring (Kearns, McKee, Sautkina, Cox & Bond, 2013). Though the height of the apartment is commonly known for enhancing high density, it seems the higher the residents' unit the more they become uncomfortable and discontent. However, the available common interior spaces in the apartment may facilitate social interaction on different floor levels.

2.2.1.3. Common interior spaces

High-rise apartment seems to have limited physical interior spaces; as such, limited spaces technically reduce the physical distance between the neighbors in the apartment. According to Glaeser and Sacerdat (2000), the reduction in physical distance between neighbors in the apartment building could to a large extent facilitate social interaction between the neighbors. In this regard, common spaces such as

entryway, elevators and corridors become the major areas which enhance social interaction amongst the residents in the high-rise apartment building. Abdul Aziz and Ahmad (2011) mention two important points with regard to the function of corridors in particular. Firstly, the authors state that corridor space gives more movement for the residents, and enhance the potential for the inmates to bump with each other. Secondly, they also outline that corridors provide an important space for retreat activities. Therefore, the availability of common interior spaces in the high-rise apartment suggests that the inmates in such residences are likely to know each other because they use these common internal spaces almost every day, let alone the use of the main entrance on the ground floor.

2.2.1.4. Ground floor direct entrance

The other significant characteristic of the high-rise apartment is the ground floor direct entrance. According to Dempsey *et al.*, (2012), the ground floor direct entry layout of a high-rise building has an impact on knowing and interacting with neighbors in the residence. This assertion could be directly attributed to the fact that the ground-floor direct entrance is the important common point of departure to the street. Macdonald (2005) made observation in three high-rise buildings with ground floor direct entries which are facing the street. In the study, the author realized that in all the three cases, street-oriented activity associated with the ground-floor direct entry units was of longer duration and involved more complexity and social interaction. Noticeable, the ground floor direct entrance seems to enhance the social vibrancy in the ground floor street edges. In addition, some high-rise apartments have incorporated the retail space, cafes, restaurants and offices in the ground floor street edges, which further creates vibrancy and physical connections between the inmates of the high-rise building (Macdonald, 2005). However, Glaeser and Sacerdote (2000) hold the view that big, and particularly, tall apartment buildings are associated with less safe streets.

2.2.2. Semi-detached or terrace row housing

Semi-detached or terrace row houses refer to some blocks of row house units that are connected by shared walls and are built in a similar style, but not always in repeated

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facades (MacDonald, 2005). This housing typology can be in a form of single or three-to-four storey building with varying units' size. As such, Musana & Vestbro (2013) note that the terrace houses tend to work better with range site of various house units' size. As such, the row of terrace houses enables people with different income to become neighbors through the facilitation of the various sizes of the house units; with smaller units for the low-income households and bigger units for the high income households. This implies that people from various level of income share the same house building and streets (Landman, Matsebe & Mmonwa, 2009) given that the entire row of house units are semi-detached. Furthermore, the streets in a terrace housing precincts are pedestrian orientated, and safe for children to play outside nearby their houses (MacDonald, 2005). Apart from the sharing of the housing and sidewalk infrastructure, the neighbors also share the economic and social facilities provided in their vicinity. As Landman (2012) states, within a walking distance from a typical semi-detached house precinct, there is shopping centre, restaurants and fast food outlets, clinic, government offices, crèches and schools. Therefore, the house design together with the provision of these facilities enables the residents to enhance greater access to a range of socioeconomic opportunities and advances the potential for building strong social cohesion in the precinct.

2.2.2.1. Streets layout and design

The streets layout in the semi-detached or row housing has a significant effect on the movement of the residents. The design of streets affect how successful it is in performing the function of connectivity, and it can also vitally affect the urban character of a neighborhood and influence how people use the street and interact with each other (Wood *et al.*, 2010). In this regard, there are standards and principles to be considered when designing the streets layout in the semi-detached housing environment. Hereunder Jacob (1993) suggests the common street design principles to be considered in designing high quality streets in the urban area:

• Design local streets to reduce traffic speeds flow so that pedestrians, cyclists and vehicles can mix safely. Provide clear roads for pedestrians and bicycles as well as for vehicles.

• If separate cycle ways are provided indicate them with street markings or by clearly displayed and well-designed signage.

• Ensure pedestrian and bicycle routes are straight, continuous and well lit, and that suitable street crossings are provided.

• Provide walkways on both sides of the street (unless the street is a share-way for pedestrians, vehicles and cyclists, or if the vehicular traffic levels are very low) to provide equal amenity.

• Ensure walkways are generally 1.5 meters wide to allow pedestrians (including those with prams and ambulant disabled people) to walk two abreast or comfortably pass each other, except if the street has only a small number of houses when 1.2 meters may be sufficient.

• Where paths are planned for shared use by pedestrians and cyclists, ensure they are at least 2.5 meters wide to allow safe and comfortable passing.

• Ensure each dwelling has a front gate and alleyway (separate to the driveway) that links to the public footpath to create a clear pedestrian address.

• Ensure appropriate visitor parking space is allocated.

• On streets that front public open spaces, provide on-street parking adjoining to the open space to encourage public use.

2.2.2.2. Communal outdoor spaces

According to Abdul Aziz, Ahmad & Nordin (2012), communal outdoor spaces in the semi-detached housing are considered to be important arenas for three activities, namely; domestic, retreat and social activities. Domestic activities involve routine household duties including those related to the services of the family such as cloth

lining, looking after the children and putting out rubbish as well as looking after the dwelling exterior space like watering plants, sweeping and cleaning the yard (Abdul Aziz *et al*, 2012). While Retreat activities comprise all outdoor solitude activities people engage in as a means of fulfilling personal needs to get away and connote the feeling of safety and comfort to be alone outside (Abdul Aziz *et al*, 2012). The most common ones include sitting, relaxing or having nap alone outside, playing alone and watching the surrounding. And lastly, social activities consist of all group activities including interaction with other fellow residents prolonged group behaviors such as sitting in groups and having a conversation, and playing in groups, and brief gestural or verbal greetings. Therefore, all these routines activities carried in the communal outdoor space are seen to be an important evidence for positive social space, and or vitality of a neighborhood environment. The same notion is shared by Farida (2013) by stating that common outdoor areas between the row houses are important features that afford social activities in neighborhoods.

2.2.2.3. Relation to adjoining buildings

The relation of one row house to another in the residential precinct is a significant configuration in as far as the housing spatial design is concerned. To this extent, "it is the spatial arrangement of the blocks that have been found to reduce or increase the chances of social interaction among residents and influence the activity pattern" (Farida, 2013; 45). That is, the wider the distance between the blocks the lesser the chances of social interaction between the residents. This assertion is also found in the simplest theories of social connection which suggest that social connection declines as the costs of that connection increase and that distance will increase the costs of that connection (Glaeser & Sacerdote, 2000). In contrast, the reductions in physical distance between neighbors in semi-detached buildings could highly drive up social interaction between neighbors (Farida, 2013). This situation seems to suggest that people in the residential development prefer to socialize and interact with neighbors who are closer to their house units. Evidently, Glaeser and Sacerdote (2000) found a positive correlation between the distance to one's closest relative and frequency of visiting that relative in a semi-detached neighborhood. Apart from the social effect, it is also important to provide

appropriate quality space between the row buildings to maximize light, air and outlook while meeting strategic planning goals and respecting neighborhood character (Du Toit, Cerin, Leslie & Owen, 2007).

2.2.2.4. Back-alleys

Back alleys refer to the back door side of a semi-detached housing block, which in terms of the contemporary house planning and design have to be used to relief the overburdened suburban streetscape, and occasionally serves as access to back-side ancillary dwellings (Martin, 2002). Furthermore, given that back alleys connect the backyard of a particular residential block together, which then forms a semi-public backyard street; it could as well serves as a social interaction space for the neighbors. In this regard, scholars maintain that residents in back alley-based housing developments may meet and socialize with each other when putting out their garbage (Brown *et al.*, 2003), and when taking their children to school (Hess, 2008) in the morning. Apparently, back alleys facilitate social interaction mainly for residents who use private automobiles, given that in most instances semi-detached houses have car garages at the backyard. Therefore, it could be argued that, for automobile dependent residents back-alleys provide a semi-public space, and intimate setting for casual social interactions which may not be possible in more formal, public settings such as street-facing front yards (Martin, 2002), as it is the case in most townhouses.

2.2.3. Gated townhouse complexes

Gated townhouse complexes refer to complexes that are fenced or walled and have controlled access through a gate (Grant & Mittelsteadt, 2004; Hyra, 2013). Gated townhouse complexes range from large to smaller residential developments, including a variety of housing types ranging from luxury villas in secure complexes for the high-income class to smaller housing units catering for the lower middle class (Landman, 2013).

2.2.3.1. Front yard setback

The front yard setback is defined as the minimum distance from the front property line to the outermost projection of the front face of the house, across the full width of the property (Rogers, Halstead, Gardner & Carlson, 2010). Technically, the front yard setback serves as a transitional space between the public and the communal area. In essence, front setbacks are an important aspect of neighborhood character in the townhouse complex (MacDonald, 2005) because it allows greater light access to the street, and reduce the canyon effect for pedestrians at street level (Grant & Mittelsteadt, 2004). Remarkable, front yard setbacks seems to affect how its uses relate to the public space of the street, despite that in some neighborhoods, the residents decide to personalize their front yard setbacks by planting lawns and private garden. Therefore, in order to determine ideal front yard setbacks which will cater for public and private needs in the neighborhood, it is suggested that a careful analysis of street width, levels and view lines is executed (Dempsey, Brown & Bramley, 2012). Nonetheless, most townhouse residents may need a front yard setback with sufficient private space, away from the street for children and or domestic animals' safety.

2.2.3.2. Front fencing

The character of street frontage in the townhouse residential development is often significantly affected by the front fencing. That is, house front fences in a townhouse cluster should respect the existing characters or contribute to establishing a new neighborhood character (Grant & Mittelsteadt, 2004) but in some instances, some variation in fence alignment is important because it allows good landscaping and attractive neighborhood character. Nevertheless, there are two major factors that should be considered when erecting front fencing in a townhouse cluster. Firstly, the front fencing should be made in a way that does not obscure the aesthetic view of the house, particular from the front and the side views (Homoud & Tassinary, 2004). Secondly, front fences should be partly semi-transparent to enable passive surveillance from home to the streets (Landman *et al*, 2009). So, given the significance of the front fencing in the townhouse complex, it is clear that aspects such as height, materials and transparency of fences could, to a large extent, determine the aesthetic character of the

house, as well as the compatibility for informal surveillance to the house frontage and street activities in the neighborhood. Above all, the significant use of front fencing should be or is to delineate private space from the public domain in the townhouse complex. In this context, it is mentioned that the clear separation between the public and private space is believed to establish a sense of ownership for the residents in their internal private spaces in the townhouse cluster (Landman *et al*, 2009).

2.2.3.3. Sidewalks along residential streets

Sidewalks could serve many purposes in a neighborhood such as townhouse complex. Significantly, it is regarded that sidewalks could be used as meeting places for friends and neighbors (Leyden, 2003), playing space for children (Brown *et al*, 2009), retail display areas (Pendola & Gen, 2008) as well as location for special social events (Wood *et al.*, 2010). The potential multipurpose uses of sidewalks in residential streets suggest that the sidewalks must be a safe place to the users. Therefore, measures to enhance safety on the sidewalks should be provided, especially in terms of separating the pedestrians' lines from automobiles' traffic. In this situation, perhaps some visual and physical buffer may be used to demarcate between pedestrians and cars zone. So, some of the physical barriers that could be used to separate sidewalks from the main cars' street include landscaped borders, border of grass, trees, bricks or pavement which can range from four to twenty five feet wide, depending on the streets and sidewalk traffic (McCormack, Shiell, Corti, Begg, Veerman, Geelhoed, Amarasinghe & Emery, 2012). Therefore, it can be assumed that a clear demarcation of sidewalks along the streets would bring a sense of safety to the residents, and ultimately enhances it effective use by the residents in the neighborhood.

2.2.3.4. Townhouse front terrace

According to McDonald (2005), many passers-by are likely to have casual interactions with people living in the townhouses when they are on their front terraces. In this regard, the author found that "of people surveyed walking along downtown streets, 20% say they have spoken to someone on a townhouse terrace, and of residents surveyed, 30% say that when they are on their front terrace they often have casual conversations with

their neighbors or people walking by" (McDonald, 2005: 36). Similarly, Hess (2008) in his study also found respondents in all study areas agreed that having a front terrace is important, to an extent that the respondents had strongly agreed to the statement that "I know my neighbors because I saw them in their front terrace. In this regard, McDonald (2005) in her study observed a man watering plants on his townhouse terrace, at the same time; the man was talking through a hedge to a woman on the neighboring terrace who was playing with a toddler. Hess (2008) concludes that most people in the townhouse cluster turned to use their front terraces as an intentional social space (Hess, 2008; 206). Most terraces have hardscape areas large enough for tables and chairs and built-in planter boxes at the sidewalk edge and between units; others have only a landing at the unit entry and larger planted areas (McDonald, 2005). Highly personalized gardens and terraces at the entry door contribute to a greater sense of 'eyes on the street', because there is a sense that the occupant cares about the transitional public-private space and so is likely to spend time there and also keep an eye out for it. A notable finding is that it does not take much for the front terraces to have an impact. If just one or two gardens or terraces along a block are personalized, there is a noticeable increase in the visual interest of the block and the sense of nearby eyes.

2.2.3.5. Walkable neighborhood

Urban planning paradigms such as New Urbanism place a strong emphasis on creating walkable neighborhoods that promote walking and a sense of community (Wood et al., 2010). Against this background, some researchers such as Du Toit, Cerin, Leslie & Owen, (2007) maintain that the concept of walkable neighborhood contains an explicit assumption that certain aspects of urban form play a role in encouraging walking, particularly to destinations. Therefore, the urban form may include aspect such as street connectivity (typically in the form of grid-style street networks), accessible destinations and mixed land use, along with moderate to higher levels of residential density, public gathering places and quality parks and open spaces (Wood *et al.*, 2010). Thus, these aspects of built environment could be deemed essential in enabling walkability and

creating chances for social contact, and ultimately enhancing social capital among residents in the neighborhood (Figure 2.1).

Figure 2.1: Logic behind the possible link between walkability and social capital
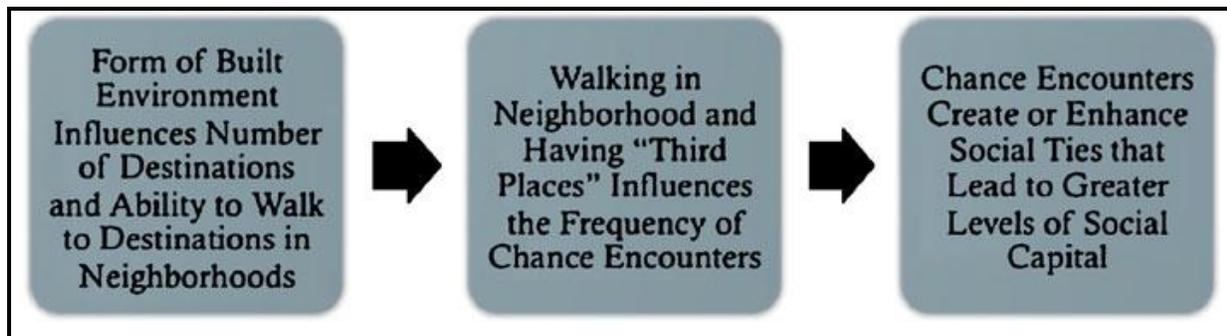
Source: Rogers; Halstead; Gardner & Carlson (2010)

The social contact assumed to occur between the residents as a result of the form of the built environment in the neighborhood may be either formal or informal. The informal contact refers to a casual and unplanned contact of neighbors, and may consist of elementary socializing such as waving or chatting, while the formal contact could comprise a stronger element of mutual exchange including helping (French *et al.*, 2014), and celebrating.

2.3. The Characteristics of Mixed-Income Housing

Landman, Matsebe & Mmonwa (2009) identify the principles to measure the physical characteristics which are believed to enable the manifestation of social cohesion in the mixed-income housing in the urban context. These physical characteristics have been identified as the fundamental factors that could positively influence the success of the mixed-income housing development in terms of ensuring an inclusive residential environment in the urban areas. As such, the principles discussed hereunder are as follows: integration, accessibility, efficiency, image and aesthetics, surveillance, ownership and territoriality, and target hardening.

2.3.1. Integration

There is a variety of factors that should be considered in order to ensure integration in the mixed-income housing development. Perhaps most important, integration can be achieved through a well-integrated mix of adequate houses of different types, tenure and price in a defined geographical area to facilitate a variety of household sizes, ages and income groups in close proximity to well-functioning services and facilities (Landman *et al.*, 2009). In essence, integration contains the principles of inclusion whereby the entire mixed-income housing development includes some combination of fully subsidized low-income housing, rental housing or rent to purchase housing, also known as gap housing, for households earning between R3 500 and R7 500 per month, and affordable housing for the private market (Klug *et al.*, 2013). Therefore, the combination of different housing units for different people is considered important for creating an inclusionary environment in the urban area where all the residents would have equal access to the available social and economic opportunities in their area.

2.3.1.1. Mixed housing units and buildings types

Mixed housing types comprises of a range of housing typologies which include double-storey, semi-detached, row, duplex, 3-4 storey walk-ups and apartments in a village type environment, made to provide accommodation for a range of income groups (Wood, Frank & Corti, 2010; Landman, 2012). Importantly, such residential cluster is seen to promote greater choice and housing diversification, while on the other hand offers opportunities to move within the same residential development as household needs change (Landman *et al*, 2009) overtime. The provision of mixed housing types within the same precinct implies that residents can relocate from a rental family apartment to a townhouse, and still enjoy the socio-economic benefit available in the neighborhood regardless of the house tenure.

2.3.1.2. Variety of tenure and price options

In generally, house tenures that are available in mixed-income housing include the low-income rental units; moderate-income units (rental and owned); market-rate units

(owned and rental); and the rent-to-own housing units (Brophy and Smith, 1997; Rosenbaum *et al*, 1998; Kearns & Mason, 2006; Onatu, 2010; Chaskin & Joseph, 2011; Hyra, 2013). Primarily, the provision of various house tenures in the mixed-income residences seeks to increase housing affordability for a range of income groups in the urban areas. However, Brophy & Smith, (1997) are of the view that property developers who choose to mix income groups in the same neighborhood try to avoid the mistake of overloading the residential project with low-income households and jeopardizing the marketability of higher priced units. Remarkably, the management of the residential property often does not emphasize the mix of incomes in its marketing materials, so that market-rate residents are not fully aware of the low-income units (Chaskin & Joseph, 2001). That is, some market-rate home owner would have unnoticeable purchased their houses in the mixed-income residential development. As a result, little, if any, interaction and neighboring would occur among the market-rate home owners and the subsidized low-income group (Brophy & Smith, 1997). Therefore, variety of tenure and price options should be made open in order to facilitate mixed social groups.

2.3.1.3. Mixed social groups

Mixed social groups consist of different ethnic, race and religion groups in a particular residential development. According to Landman *et al*, (2009), mixed social groups seek to create greater opportunities for social interaction and integration between various groups in the residential development. It is therefore, the responsibility of the residential management to facilitate the development of the spirit of unity in diversity among the residents. In some instances, special celebrations are held to embrace the ethnic diversity among the residents, and when necessary, a trained social worker works on site to help residents with personal issues related to their diversity (Brophy & Smith, 1997). Therefore, it could be argued that for a mixed-income residential area to have harmonious mixed social groups, interventions at the neighborhood level should be made.

2.3.1.4. Mixed land use

According to Ou, Jia and Lau (2004), mixed land use means increasing the diversity of uses within the urban fabric by putting the commercial, office, retail, institutional and residential use together. This definition implies that mixed land use seek to enable more convenient access to facilities and services such as restaurants, pubs, parks, libraries, department stores, government buildings, post office, butchers, banks, pharmacies, local schools, and theatres. The agglomeration of these socioeconomic facilities is seen to offer a greater consumer choice and vital urban lifestyle to urban dwellers. However, the greater the land use mix, particular the presence of a higher density of retail and commercial mix, the greater likelihood of an increase in the number of strangers (people from outside the neighborhood) visiting the area for business or shopping (Wood, Frank & Corti, 2010). Besides, the use of local facilities helps residents to identify with their neighborhood, and enhance interaction with each other, which in turn, strengthens cohesion at the neighborhood level.

2.3.2. Accessibility

In the context of mixed-income housing, accessibility could refer mainly to the availability of two spatial features. Firstly, it may refer to the residential area's street based patterns of connection that are pedestrian, cyclist and vehicular oriented. The residential precinct should be designed in a manner that it can be user friendly to various modes of transport with spaces that are easy to approach or enter through the provision of convenient movement without compromising safety and security (Landman *et al*, 2009) in the residential area. Secondly, accessibility may also refer to a residential area where the basic services and infrastructure like transport and facilities such as shopping centre and schools are allocated in close proximity to that residential area. In such urban residential areas, Landman (2010) concludes that the residents are likely to enjoy a higher quality of life because the places to live, work and play in close proximity to each other, thus contribute to the efficiency of land use in the urban areas.

2.3.2.1. Proximity to public transport, services and facilities

A residential development that is in close proximity to public transport, services and social facilities is considered important in minimizing transport costs and in reducing the distance pedestrians have to walk to work and shopping (Landman *et al*, 2009). Likewise, Brophy and Smith (1997) found that residential projects that are in close proximity to employment centres and universities attract many new residents. In this regard, it can be suggested that people in the urban areas prefer to live closer to economic and social opportunities for convenience in terms transport cost and time.

2.3.2.2. Pedestrians and cyclists friendly streets

According to Landman *et al* (2009) pedestrians and cyclists friendly streets provide a greater choice in how residents make journeys in the neighborhood. In Pedestrians and cyclists oriented neighborhoods, all daily needs and forms of entertainments are accessible at a short walking distance. That is, residents living in these neighborhoods could walk to restaurants, pubs, parks, libraries, department stores, government buildings, post office, butchers, banks, pharmacies, local schools, theatres, and place of worship without seriously competing with automobiles (Leyden, 2003). Therefore, pedestrians and cyclists friendly streets are seen to be contributing to more vibrant urban environments because the regular movement on the streets brought the immediate presence of "eyes on the street" (McDonald, 2005; 26) surveillance which enhance security in the neighborhood. In addition, pedestrian and cyclist-friendly environment that encourage regular walking may be important not only in physical but also in mental health terms (Wood, Frank & Corti, 2010). Therefore, it can be argued that people who live in pedestrian and cyclists-oriented environment are more likely to have a healthy lifestyle as a result of the walkability in their neighborhood.

2.3.2.3. Multiple types of visible and legible access points

Multiple types of access points promote integration and increase convenience of movement spaces in the residential area (Landman *et al*, 2009). In this way, it can be suggested that movement spaces should be flexible in order to allow residents to meet

their socioeconomic demands such as retail and recreational services. In this regard, Miciukiewicz and Vigar (2012) maintain that the ability to access everyday goods and services, and interact with other people is a fundamental building block of a cohesive urban environment. Therefore, the provision of multiple types of access points in a residential precinct seeks to enhance both the movement of the residents and their social interaction.

2.3.3. Efficiency

In general, efficiency seeks to strike a balance between the natural and built environment in the residential area. As such, "efficiency would imply buildings that can meet different needs over time, sufficient in size, scale and density and the appropriate design to support basic amenities in the development or neighborhood to ensure efficient use of land, materials and energy" (Landman *et al.*, 2009; 22). For example, housing units with solar panels are considered to be energy efficient, and in addition, installing showers instead of bath basin in these housing units could also save both water and energy. To some extent, efficiency could also require local procurement of the construction materials used in building the house infrastructure. The locally sourced building material may include steel and wooden framed windows and solid wooden doors, tiled and corrugated iron roofs to ensure transportation efficiency (Landman *et al.*, 2009). To this extent, it is clear that the way in which mixed-income housing is designed does not only aim to meet the socioeconomic needs of the residents but also seeks to ensure ecology friendly as an integral part of it image and aesthetic appearance.

2.3.3.1. Efficient use of the scarce resource

Resource efficiency refers to maximizing land costs and increasing levels of affordability, while reducing the use of scarce resources and enhancing energy efficiency through the use of appropriate materials and alternative technologies (Landman *et al,* 2009). In the context of efficient land use, Wood *et al,* (2010) suggest equitable distribution of square footage of development across residential, commercial

and office land uses within a 1 km distance in the neighborhood. With regard to energy efficiency, technological innovation like the use of solar geysers and showers is recommended as considered energy efficient (Landman *et al.*, 2009).

2.3.3.2. Medium-density, scale, height, form, and variety

Medium-density refers to housing structure that has a minimum of 50 dwelling units per hectare (du/ha) and a maximum of 125 du/ha, which is generally characterized by ground-level entry, private external space for each dwelling unit, close proximity to secure parking and ground related (Landman, 2012). In terms of height, the medium-density residential developments are often not over 3-4 stories above ground (Osman & Herthogs, 2010), and usually are configured as terraces or low rise apartments form; one of the most cost effective building forms in housing (Landman *et al*, 2009). Seemingly, such residential configuration is likely to save electricity since its height of 3-4 stories do not require any elevators; instead, the residents use stairs to reach their respective housing units.

2.3.4. Image and aesthetics

The image and aesthetics appeal of the residential development could be enhanced through the management and maintenance of both the interior and exterior parts of the buildings and house units. With regard to the exterior part, image and aesthetic appearance could refer to a safe and healthy local environment with well-designed living, public and green space and physical features and landscaping designed (Landman *et al*, 2009). As such, a good landscaping design will include both the hard (paving) and soft (plants) landscaping features. Unusually, landscaping is considered to be the most noticeable exterior aesthetic feature of the residential development. However, it must be complemented with the interior furnishes of the housing units which include the use of moderate to high quality finishes such as vinyl tiles and carpets. Such interior finishes are of significance in adding value to the image of the development, which in turn attracts potential tenants which include high and low-income groups (Landman *et al*, 2009). Therefore, both the exterior and interior aesthetic features are

equally important and could develop a strong sense of place attachment to the residents, and importantly, the residents should be able to make surveillance to the exterior spatial features.

2.3.4.1. High quality buildings

The housing's overall design and configuration are also critical to its success; thus it should be distinguished by superior design, from its siting to the detailed finishes that contribute to their appeal to the residents (Brophy & Smith, 1997). That is, such high quality building design reduces social stigma and increasing acceptability to the residents (Landman *et al.*, 2009). In this regard, high quality buildings can be considered as the most important spatial feature that brings attention to the neighborhood character. In addition, high quality housing influence how people feel about the quality of their surroundings and may reduce the fear of crime and unsocial behavior in the neighborhood (Landman *et al.*, 2012). However, high quality residential buildings should be complemented with high quality open space.

2.3.4.2. High quality open spaces

High quality open space in neighborhood plays an important role in the development of social interaction by providing an opportunity for residents to have informal face-to-face contact (Ou *et al*, 2004; Farida, 2013). Remarkable, contacts in open public space could facilitate residents to form social relations, become acquaintance and, eventually engaging in meaningful social activities. Therefore, it is important to ensure that open spaces in the neighborhood are kept in good high quality in order to look appealing and attractive to the local residents. Conversely, vandalism and lack thereof maintenance of open spaces (Farida, 2013) could discourage public use and minimize the sense of place in the residents.

2.3.4.3. Sense of place

Sense of place refers to the immediate feeling residents have to their houses and neighborhood at large. In this context, a positive sense of place could develop a feeling

of security, boosts self-esteem and self-image, provides a bond between people, cultures and experiences, and maintains group identity in the neighborhood (Dekker & Bolt, 2005). Therefore, in order to enhance the sense of place, Landman *et al*, (2009) emphasis the need to turn the housing projects into desirable places, improving neighborhood quality and introducing an element of diversity.

2.3.5. Surveillance

Surveillance refers to residential places where all publicly or commonly accessibly spaces can be overlooked by residents, visitors or security personnel (Landman *et al*, 2009). To this extent, surveillance may include oversight of social spaces like walkways, streets, car parking, parks, and entries and exits points at the residential development. On the other hand, the social space could foster interaction among the residents. For example, at a jungle gym where children play, the children's parents could as well interact with each other; in a sense that the parents would like to know the parents of the children their children are playing with at that social facility. Therefore, in order to ensure high surveillance of the social space by residence, consideration in the design and layout of the housing units in relation to windows, doors and balconies installation, should be made in order to allow the residents to oversee all people who are entering and leaving their residential area. Importantly, oversight from prime rooms such as kitchen, dining, or living room should be available, and upper floor balconies need to be useable, however, taking care to minimize overlook to private space of other neighbors below (Macdonald, 2005). Therefore, in most cases mixed-income housing has been designed to enable the residents to make surveillance over the common spaces inside and around their residential area (Landman *et al*, 2009). In essence, surveillance of public spaces implies that the residents should take responsibility and ownership of their territory.

2.3.5.1. Clear visibility and opportunities to overlook common spaces

The configuration of mixed-income housing provides a clear visibility and opportunity to oversee public spaces such as communal parks (Farida, 2013), main entrances

(MacDonald, 2005), and streets (Wood *et al*, 2010). It is believed that public spaces that are overlooked by homes are safer because oversight to public space reduces opportunities for crime and increases crime reporting (Landman *et al*, 2009) in the neighborhood. However, housing that allows too much oversight to public space may create a reluctant attitude towards public space oversight, in a sense that one neighbor would feel unnecessary to overlook the public space as he/she though fellow neighbors would do it. Consequently, "residents…may feel less individual responsibility to assist in and emergency on nonemergency situation because they see that other observers are potentially available to provide help" (Brown, Mason, Lombard, Martine, Zyberk, Spokane, Newman, Pantin & Szapocznik, 2009; 242). Nonetheless, the appropriate design of architectural features such as windows, porches and stoops in housing could enhance voluntary oversight to the public spaces.

2.3.5.2. Windows

According to Brown *et al* (2009), a residential development that has substantial window area and lower sill height are believed to allow residents inside the home to better observe and monitor events happening on the streets of the neighborhood. It should be noted though that wider windows may create a potential greater possibility of break-ins, particular for residents who are living in ground floor of the apartment (MacDonald, 2005). Therefore, window structures should be made balanced in terms of allowing surveillance to public space but not compromising residents' privacy and safety.

2.3.5.3. Porches and stoops

Architectural features such as porches and stoops close to the street and other public space promote surveillance of the surrounding neighborhood and also allow neighbors to look for each other's property (Brown *et al*, 2009). These architectural features are seen to be a transitional zone between the private and public space in the residential area. That is, by default, a resident who chooses to sit on these transitional spaces just above the direct eye-to-eye level of pedestrian is announcing a willingness to oversee the activities occurring on the street. Thus, Brown *et al*, (2009; 242) believe that "people

looking at someone on a stoop or a porch are responding to a social invitation, in which the resident's presence outside announces a willingness to interact or, at the very least, to be seen". Similarly, Spring (2004) also contends that people use transitional locations as regulator of their social interaction.

2.3.5.4. Balconies

Balconies at the upper housing unit provide a clear view to the housing outdoor space which is usually used by children for playing (Macdonald, 2005). That is, parents of the children who live in houses with balconies have an opportunity to see their children when they are playing. Therefore, balconies could be seen as an important architectural housing feature because it allows parents to monitor their children and guard them against problematic behavior towards each other.

2.3.6. Ownership and territoriality

According to Landman *et al* (2009) ownership and territoriality refers to a residential environment that promotes a sense of ownership, respect, territorial responsibility, and privacy, as well as effective engagement and participation of local people in maintenance of their physical infrastructure. Therefore, in order to promote the sense of ownership, respect and privacy, there must be a clear demarcation between public and private spaces in the residential area. In most instances, features like fencing, paving and vegetation are used to maintain a clear separation between the private and public space in order to ensure that the outdoor or public space like parks, open space and footpaths are well signified so that the community and visitors do not confuse the public space with the private one. Warningly, in this respect place ownership does not mean tenure options in the residential development (Landman *et al*, 2009), but it refers to the residents' relationship with their immediate living environment (Dekker & Bolt, 2005) and its people. That is, being attached to their neighborhood. On this note, it can therefore be argued that the residents in the mixed-income housing development are seen to have relationships not only with their fellow neighbors, but also with their residential built infrastructure which ultimately enhance their sense of place attachment and identity with

the entire neighborhood. Equally important, the issue of safety and security in the mixed-income residential development is a major concern to the residents.

2.3.6.1. Demarcation between public and private areas

Clearly defined and purposefully allocated spaces are considered to support legitimate activity and indicate legitimate 'ownership' for the residents (Landman *et al*, 2009). In this regard, territorial markers could include feature such as modification of landscaping, decoration, fencing and signs. Territorial markers do not only demarcate between the private and the public space in the neighborhood but also facilitate mutual trust and social interaction at street block of the residential neighborhood. However, to people who does not belong to that neighborhood the territorial markers may be seen as a mark which communicate unwelcoming intrusion (Homoud & Tassinary, 2004).

2.3.6.2. Sufficient level of privacy

Private spaces for housing units is considered to offer secure places for the household to relax on its own and have been identified as key issue for successful medium density mixed housing (Landman *et al*., 2009). In this sense, private space may refer to, on one hand, the households' own private space such as garden terrace, porches and balconies, and on the other hand refer to a communal space for residents such as parks and recreational centres.

2.3.7. Target-hardening

Target-hardening refers to measures that enhance security and control access into an area without compromising any of the other principles, for example security locks and burglar bars on windows, security gates, and security wall (Landman *et al*, 2009). However, the security features provided in and around the residential development should be made in such a way that it does not obscure the aesthetic view of the housing infrastructure, mainly from the front and sideward views. Therefore, appropriate security features are required because most residential development with target-hardening

measures seem to attract residents who are searching for a sense of community, identity, and security (Grant & Mittelsteadt, 2004).

2.3.7.1. Visibility

Aspects such as height, materials and transparency of fences determine the level of visibility and outlook, informal surveillance, privacy, security and frontage activity in the residential area (MacDonald, 2005). In this regard, fencing design is seen to be the determining factor in ensuring a clearer visibility in residential development, which therefore suggests that the front fences in particular, should be low, open or partially transparent. According to Landman et al., (2009) transparent fences allow opportunities for informal surveillance to streets and open spaces, and interaction between neighbors. However, to some residents home fencing is used as a symbol of prestige (Grant and Mittelsteadt, 2004), than as a feature of security barriers.

2.3.7.2. Good quality barriers

The standard of the barrier has an impact on the level of security and the image of the residence (Landman *et al.*, 2009). Standard security barriers may include for example, secured entrance, alarm system, armed security guard patrols during the evening. It is important though to complement these security barriers with some house design strategies in order to ensure maximum safety. Therefore, recommend design strategies to overcome security problems, including reducing areas of concealment around house unit entries, providing small paned windows on the ground floor, providing secured swing doors onto terraces rather than sliding doors (MacDonald, 2005).

2.3.7.3. Good quality of locks

According to Landman et al., (2009), the standard of the locks used in a house has an impact on the residents' level and feeling of security. Therefore, in ensuring high level of security for residents, it is recommended to use a security system that includes card-key access to all residential buildings and, for visitors, calls to residents from keypads at each door of the houses should be mandatory. On the other hand, the visited resident

should be able to view callers through a designated television channel in the house (Brophy & Smith, 1997). Other measures that can enhance security and control access include the installation of cameras to monitor the entrance of each building, and the provision of a day-and-night security guard at the entrance to monitor everyone who enter and leave the residential building. Grant and Mittelsteadt (2004) see these excessive security measures as indicators of depth of the security concerns in contemporary cities.

2.4. The Manifestation of Social Cohesion in Urban Areas

Social cohesion is multi-dimensional and can exist or manifest at various social scales or levels, along a continuum from localized, highly personal micro interactions to more generalized, societal level macro interactions (Australian Housing and Urban Research Institute (AHURI), 2007). In essence, the micro level focuses on the integration of individuals in a network of personal interactions within the framework of family, friendship, neighborhood, membership, educational and work relationships (Hulse & Stone, 2005). In this regard, the discussion of this article focuses on the personal micro interaction scale in the urban neighborhood given that cities are considered to have problems associated with lack of social cohesion as a result of diversity of culture, class and race (Haferburg, 2013; Mugnano & Palvarini, 2013; Rosen & Walks, 2013; Landman, 2012). Therefore, to examine the manifestation of social cohesion, the five prominent dimensions or domains proposed by Forrest & Kearns (2001) will be adopted because of their multidimensionality and applicability at different spatial scales. The five dimensions of social cohesion as proposed by the authors are as follows: social order and control; shared values and civil culture; social solidarity; social networks and connectedness; and a sense of place attachment and identity in the urban area.

2.4.1. The presence of social order and control

The first dimension of social cohesion is the presence of social order and control in the neighborhood. Social order and control refers to the absence of general conflict and incivility, a society where there is tolerance and respect for difference in intergroup

diversity (Forrest & Kearns, 2001). The differences amongst the groups in the cities can be in terms of class, culture and race given the changing population composition in the urban areas. As Rosen and Walks (2013) indicate that 21 century cities are characterized by large population size, dense settlements and heterogeneity which result in a unique urban personality and lifestyle. Despite all these difference, it is important to maintain social order and control in the community system to ensure that all "the residents live peacefully with one another" (Mugnano & Palvarini, 2013; 42). The presence of social order and control could result to common values and culture in the neighborhood.

2.4.1.1. Formal social control

Formal social control refers to adherence to the law and rules imposed by the law enforcement agencies in the neighborhood. As stated by Lu & Miethe (2001), the formal social control duty is carried out by official agencies, such as police, courts and correctional services. In this regard, the residents are subject to adhere to the formally imposed law and by-law in maintaining social order in their neighborhood. Besides, the physical visibility of the law enforcement agencies is also important in ensuring social order in the neighborhood. Random police patrol in a neighborhood may lead to higher perception of formal social control by the residents. Jiang, Wang & Lambert (2010) found that residents believe that the presence of police in the neighborhood is important in maintaining order on their streets and sidewalks. As a result, when satisfaction with police service is high, the residents in the neighborhood turned to trust and believe that police can take care of their local social problems, including criminal activities. However, social order in a neighborhood can also be maintained through informal social control.

2.4.1.2. Informal social control

Informal social control is based on morality which is informed by the existing community ties in the neighborhood (Jiang & Lambert, 2009). That is, people may rely on normative expectations to maintain order in the communities (Chaskin & Joseph, 2011. Moral values may include the shared informal rules such as customs and rituals. It is believed

that informal social control is more effective in stable communities where the residents would have lived in that particular residential area for a long time. Subsequently, the prevailing traditional customs and rituals is likely to facilitate the formation of community social relations. In this regard, community social relations consist of social and organizational ties, where the former relates to friends, family members and neighbors relationships, while the latter refers to the extent to which the neighbors are participating and engaging in voluntary community based organizations (Lu & Miethi, 2001). According to Jiang, Wang & Lambert (2010), social economic status of the neighbors is believed to be positively related to organizational participation and residents' capacity to keep social order and crime prevention. That is, residents with high social economic status are more likely fight against deviant behavior by encouraging morality in the neighborhood.

2.4.2. Embracing shared values and civic culture

The second important dimension to be considered for social cohesion is the presence of shared values and civic culture in the urban neighborhood. With regard to this dimension, Dekker & Bolt (2005) mention that the presence of a common set of values can be seen as one of the prerequisites of social cohesion that lead to mutual respect and understanding of each other in the urban areas. At the same time, it is likely that the presence of common values and culture in the neighborhood could ensure intergroup co-operation, and reduce hostility and prejudice on the basis of class, ethnic and gender within the residential urban area. However, given the persistence of social ills such as rising crime rates, youth unemployment, rising divorce rates and child-headed families, the formation of shared values and culture is constrained. Reason being that all these factors are considered as signs of an increasingly stressed society (Forrest & Kearns, 2001). Consequently, the affluent class turned to consider the socially strained group as having an antisocial behavior which in most cases turned to social disorder in the urban neighborhood (Chaskin & Joseph, 2011). Therefore, it is important to promote the spirit of community solidarity so to limit the socioeconomic disparities in the community.

2.4.2.1. Dominant social values

The dominant social values are usually generally enacted by ruling groups in order to legitimize their rules in a particular society. These values are also referred to as supporting values. That is, for example, the ability to support for political institutions in the community. In this regard, the upper classes are likely to have a significant endorsement of the dominant values. The upper classes' favor of dominant values may be attributed to the fact they always want to dominant the lower class society in the urban areas. Equally, the ability to affect the political government in the society may vary given that individuals have unequal influences. That is, a belief in high efficacy is certainly consonant with the dominant values, though a belief in low efficacy is not necessarily deviant to the extent of supporting the redistribution of political power. In addition, members in the society who promulgate the dominant social values tend to enjoy a disproportionate share of positive social value, or desirable material and symbolic resources such as political power, wealth, protection by force, plentiful and desirable food, and access to good housing, health care, leisure, and education (Pratto, Sidanius & Levin, 2006).

2.4.2.2. Deviate social values

The deviate social values are usually promulgated by societal groups which are contesting the legitimacy of the dominant social values. These values are also referred to as destructive values, and are more likely to be supported by the working class. In general, there are two types of deviant values that are widely supported by the working class in the society. Firstly, the working class usually endorses values which are expressed in concrete terms relevant to their everyday life. Secondly, they also support values that are vague simplistic divisions of the social world into "rich and poor". Consequently, such values may result to deviant behavior, which if tolerated in the society becomes an indication of common values (Dekker & Bolt, 2005). It should be noted though that in general, people in the society cannot afford to tolerate severe deviant behavior such as using excessive force to resolve social tensions. On the other

hand, it may be easy to tolerate minor deviances such as children stealing chewing gum (Dekker & Bolt, 2005).

2.4.2.3. Social values as indicator of societal legitimacy

According to Mann (1970), extensive commitment to societal values, norms and beliefs confers legitimacy and stability on present social structure. Similarly, Dekker and Bolt (2005: 2451) content that "having a common set of values can be seen as one of the prerequisites of social cohesion that lead to mutual respect and understanding". Conversely, other authors believe that not all social values could result to social cohesion, but rather assert that it is only some values which lead to social cohesion (Forrest & Kearns, 2000; Jiang, Wang & Lambert, 2010). That is, for example, in communities where interpersonal trust is widely valued, there is more probability for development of social cohesion. In contract, there is also a strong rejection to the assumption that social values indicate societal legitimacy. To this extent, Mann (1970) highlights four main objections to the argument that sheared social values legitimize social structures. Firstly, the author claims that most general values and norms are extremely vague, and for this reason cannot legitimate any social structure. Secondly, it is mentioned that even if the social values are outlined precisely, they may sometimes lead to conflict rather that cohesion in the society. This rejection is also supported by Forrest and Kearns (2000: 2451) who state that "a socially cohesive neighborhood is not necessarily characterized by a homogeneous set of norms". Thirdly, the standards embodied in values are absolute ones, and it is difficult for such absolutes to exist in harmony without conflict. The final objection is related to the third one_ where insulation processes operate, cohesion results precisely because there is no common commitment to core values.

2.4.3. The existence of strong social solidarity

The third domain of social cohesion is the existence of strong social solidarity in the neighborhood. With regard to the social solidarity dimension, residents in the urban neighborhood are expected to take social obligations and be willing to assist each other

(Forrest & Kearns, 2001) in case of need. The social obligation and the voluntary help may include sharing of information on available economic opportunities, particular by the affluent class to the poor group in the suburb. In this context, Chaskin & Joseph (2011) assume that the middle-income people have better access to both economic and political actors, thus they could assist in bringing change in the lives of the poor people in the urban landscape. Subsequently, when neighbors are supportive to each other, a sense of hope and security is created in the urban neighborhood. Therefore, social solidarity brings a sense of hope and security to the neighbors (Mugnano & Palvarini, 2013), and ultimately strengthens the social networks and connections in the cities.

2.4.4 The presence of social networks and connectedness

The fourth dimension of social cohesion is the presence of social networks and connectedness in a neighborhood. In this regard, social networks and connectedness refers to social relationships between the people within a specific surrounding area in a city (Forrest & Kearns, 2001). According to the AHURI (2007) social networks and connectedness can be measured by variables such as participation in social activities, unpaid voluntary work and ability to access financial support from neighbors in an emergency situation. These measures indicate that social network and connectedness is physically oriented, thus personal contact of neighbors is the utmost way of building strong neighborliness and friendships in the urban residential area. However, with the advancing of information technology, the nature of social network and connectedness has evolved. According to Forrest & Kearns (2001) the modern information technology social networks continuously erodes the bonds of spatial proximity and kinship in the society. Nonetheless, the bottom line is that both the physical and technological methods of social networking enable interaction between different people. It is also important though to consider the extent and nature of interaction in the neighborhood. Therefore, neighborhood may experience different qualities of social interaction in their neighborhood; that is, casual, instrumental, and negative interaction (Joseph & Chaskin, 2011).

2.4.4.1. Causal interaction

Casual relationships are characterized as the conversation that takes place in passing in the neighborhood. According to Joseph & Chaskin (2011), such conversation could occur either on the way in or out of the house, but also when passing on the street (Macdonald, 2005). However, this conversation is considered to happen among neighbors who know each other well enough that they may have conversation with each other on any socially related issues in their neighborhood. The casual relation could range from greetings, information sharing to perhaps discussions on issues such as dealing with parking and safety in the neighborhood (Joseph & Chaskin, 2011). In essence, casual relations often take place within a context of more general awareness of one another; though being aware of each other does not always translate into more strong relationships, it could necessitate the formation of instrumental interactions among the residents in the neighborhood.

2.4.4.2. Instrumental interactions

According to Joseph and Chaskin (2011), instrumental interaction is described as not only exchanges of favors or useful information between the residents but also is considered to be a dyadic relations which include the mobilization of broader social networks and relations that lead to collective action among the residents. The favors that are exchanged amongst the neighbors may be seen as minor but are important indications of neighborliness which form the basis of mass community action. The common courteous act that could indicate instrumental interaction in the neighborhood may be like "placing lost keys on top of a mailbox of their owner to find, jumping-starting a car in cold weather, help carrying a heavy package, slipping wrongly delivered mail under the intended recipient's door" (Joseph & Chaskin, 2011; 223). Noticeable, more instrumental exchanges occur between residents of same tenure. That is, for example, market-rate owners often organize themselves to deal with safety issues in the neighborhood (Jiang, Wang & Lambert (2010); Joseph & Chaskin, 2011), while the subsidized renters often mobilize themselves on issues relating their children's welfare

(Abdul Aziz & Ahmad, 2011). However, not all interactions in a neighborhood are a positive experience; some residents have a negative interaction with their neighbors.

2.4.4.3. Negative social interaction

Although the casual relations and the instrumental exchanges that characterized social interaction among residents in the mixed-income housing are described in most instances as generally positive and largely unfrighten, social contact may be sometime become a negative experience to some residents (Joseph & Chaskin, 2011).

2.4.5. The felt sense of place attachment and identity

The fifth domain of social cohesion is the felt sense of place attachment and identity with the housing and the entire built environment in the urban area. According to Dekker & Bolt (2005) the place attachment dimension encapsulates the idea that people have relationships not only with other people, but also with their immediate living environment. As such, the formation of place attachment and identity depends on two major factors. The first factor is the length of residence (Mugnano & Palvarini, 2013) and the second one is the housing tenure (Dekker & Bolt, 2005). With regard to the 'length of residence' factor, the elderly residents are more likely to have a strong feeling of place attachment and identity compared to the younger residents in the neighborhood. The reason for the elders to be strongly attached to their places is because of their physical limitations and also that they may have spent a long time in the area and usually do not expect to move in the short term (Dekker & Bolt, 2005). On the other hand, regarding the house tenure factor, home owners are perceived to have a strong sense of place attachment and identity than tenants. House owners have a strong feeling of place attachment and belonging than the renters who are inclined to think that they can leave the residence anytime to find another dwelling for lease (AHURI, 2007). In general, place attachment creates a feeling of security, builds self-esteem and self-image, provides a bond between people, cultures and experiences, and maintains group identity (Dekker & Bolt, 2005) which could lead to the building of

social cohesion in mixed-income housing. There are two major aspects of place attachment; that is, systematic ties and attitudinal attachment.

2.4.5.1. Systemic ties attachment

Systemic ties represent the behavioral dimension of attachment and reflect family, friendships, and neighbor relationships, familiarity with neighborhood residents, and organizational participation. A neighborhood characterized by residential stability and where the residents are having friends and relatives who are living nearby, its residents are likely to feel more invested in neighborhood and more responsible for activities that are happening in their area. It is believed that the residents become responsible not only for their own wellbeing but also for that of their neighboring friends and relatives (Burchfield, 2009). In addition, systemic ties are also conceptualized as structured activity in a form of neighboring behavior, like borrowing tools, helping with home repairs and watching each other's home. However, in the context of social cohesion, it is the number of relationships that matters, but the quality of the relationship

2.4.5.2. Attitudinal attachment

Attitudinal attachment presents the feeling resident have about their neighborhood and how the evaluate their neighborhood as a place of living. Attitudinal attachment represents residents' satisfaction and pride in their neighborhood. As such, the higher the resident's attitudinal attachment the more they may be willing to prevent and control local problems. The attitudinal attachment consists of two components which is evaluative and sentimental components. The evaluative component indicates the rational objective feeling of the residents with their neighborhood. This component is therefore conceptualized as an assessment of objective characteristics of neighborhood, such as housing quality, local services, and crime rate in the neighborhood. While on the other hand, the sentimental attachment represents the emotional subjective feeling of the residents with their neighborhood. This component is based on the long history and tradition that prevails in the neighborhood. Therefore, residents who present negative attitudinal attachment reflect dissatisfaction with their

neighborhood, and as a result they are more likely to not participate in social control initiative in their neighborhood (Burchfield, 2009).

2.5. Mixed-Income Housing and Social Cohesion

Given that there are differences in income, education, gender, house tenure, age and lifestyle in the mixed-income residential areas, the extent to which the dimensions of social cohesion manifest also vary. With regard to education and income, the highly educated high-income residents have large network size and wider geographical range of social connection than the less educated low-income residents (Dekker & Bolt, 2005), and also are likely to feel more attached to the place than the low income residents (Mugnano & Palvarini, 2013). It can be assumed that the educated high income people have a strong sense of place attachment because they have enough resources to satisfy their housing needs. With regard to house tenure, home owners are more likely to engage in various types of social activities than renters (Forrest & Kearns, 2001). In terms of gender, on one hand, Dekker & Bolt (2005) state that women, particular those who have children are more likely to have enhanced social interaction while on the other hand the presence of children in the neighborhood has a negative influence on place attachment to fellow residents. When looking on place attachment in the context of age and lifestyle, the elderly are more likely to have a strong neighborhood attachment than are young people (Mugnano & Palvarini, 2013). It is likely that the old people have a strong sense of attachment to their residence because they would have been there for a long time. Therefore, the diverse socioeconomic backgrounds in the mixed-income housing reflect different extent in the manifestation of social cohesion.

The AHURI (2007) set out a diagram to illustrate the potential relationship between mixed-income housing and social cohesion. The diagrammatically illustration is based on only three dimensions of social cohesion, wherein inequality is also regarded as another dimension of social cohesion. Though all the dimensions are treated as conceptually distinct, the inequality dimension is likely to undermine various aspects of social connectedness dimension in the neighborhood. Therefore, it is important to assess whether there is a direct relationship between housing and social

connectedness and cultural values/norms respectively or weather the relationship is always mediated by inequalities dimension of social cohesion (Figure 2.2). The presence of the inequality dimension in the neighborhood may, to some extent, compromise the residents' relationship to their housing, in a sense that residents of lower class may feel less attached to their housing because of having fewer resources to improve their housing quality than their higher class counterpart. Furthermore, inequality dimension may also affect the level of neighborhood interaction because the high income residents, who often are house purchasers, have a greater social investment as well as financial investment within the neighborhood in contrast to the low income renters (Mugnano & Palvarini, 2013)

Figure 2.2: Potential relationships between mixed-income housing and dimensions of social cohesion
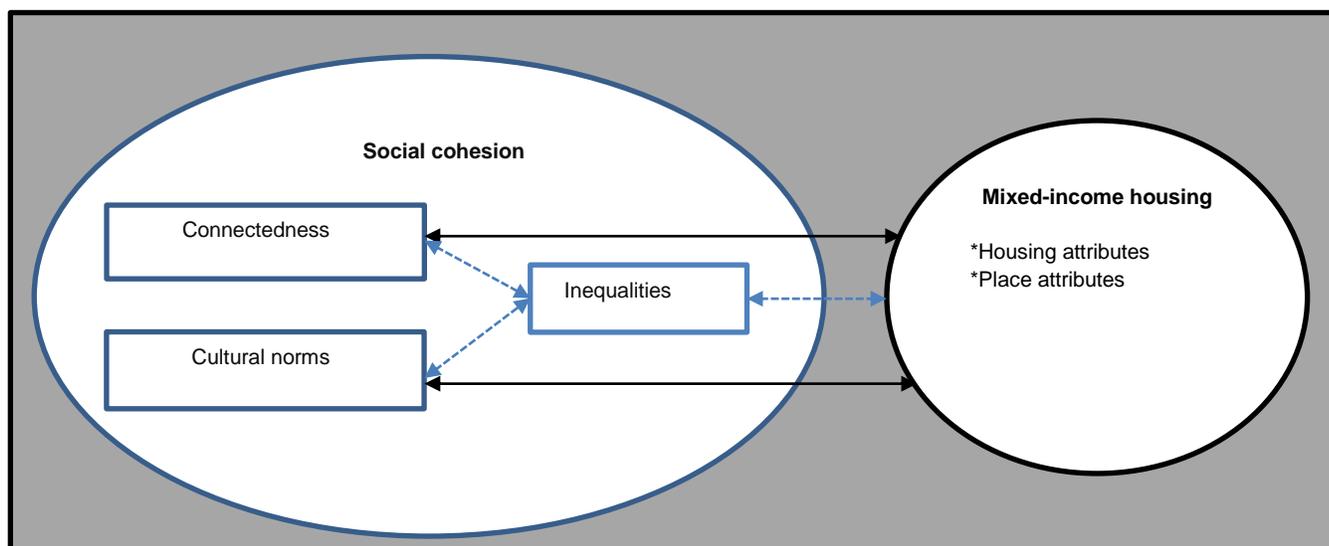
Source: (AHURI, 2007)

The study by the AHURI (2007) also reveals that various attributes of housing and place indeed demonstrated to have a direct relationship with aspects of social connectedness, over and above the effect of inequalities, and other demographic characteristics in the neighborhood. Interestingly, if place attributes rather than housing attributes are linked with different dimensions of social cohesion, the most important non-shelter outcome of housing assistance could be its effect on the place. The various aspects of place such

as streets and social facilities, the territory and neighborhood in which housing is situated influence the types of relationships residents have with one another.

2.5.1. The anticipated benefits in the manifestation of social cohesion in mixed-income housing

Brophy and Smith (1997) highlight four potential benefits which could be attained as a result of the manifestation of social cohesion in the mixed-income housing. Interestingly, these benefits are seen to be in favor of low-income residents than the high-income residents. That, is, the affluent residents are assumed to be the dominant factor in the cascading of the benefits. Most of these benefits are not tangible but abstract, thus could not be measured in material terms.

2.5.1.1. Change in behavior pattern

It is assumed that the behavior patterns of some lower income residents will be altered by emulating those of their higher income neighbors (Brophy & Smith, 1997). That is, the quality of the living environment, not housing quality alone, leads to change in behavior. In this context, the assumption is that the wealthy residents would become role models for the poor, and the poor will eventually be aspired to be alike in terms of life style and behavior.

2.5.1.2. Formation of social norm/values

Given that some of the people living in the low-income housing units have no employment, it is believed that these residents will find their way into the workplace in greater numbers because of the social norms embraced in the mixed-income housing environment. In addition, the informal networking between the poor (unemployed) and the affluent (employed) residents in the neighborhood could result to "positive effect on the employment rate of low-income residents" (Onatu, 2010: 205).

2.5.1.3. Decrease crime rate

In general, the low-income residents are associated with criminal activities (Mugnano & Palvarini, 2013; Joseph & Chaskin, 2011; Forrest & Kearns, 2001). As such, the mixed-income neighborhood would contribute in reducing the crime rate because the higher income households will demand a stricter and better enforced set of ground rules for the community (Brophy & Smith, 1997). Therefore, the presence of high-income residents in the mixed-income housing suggests that there will be more access to better services in the community.

2.5.1.4. Access to better services

It is believed that in the mixed-income housing, the low-income households will have the benefit of better schools, access to jobs, and enhanced safety, enabling them to move themselves and their children beyond their current economic condition (Brophy and Smith, 1997). That is, integrating the poor with the high-income residents may provide them with access to information and connections which the higher income people have. The information may include, for example, access to information about government services, available jobs, childcare, career guidance and financial management (Joseph & Chaskin, 2011).

2.6. Conclusion

Overall, for those who did not return and those who did, the attraction of the mixed-income population was what that would mean for the general environment, physically, economically, and socially, and not how they as individuals might benefit from interactions with their new neighbors. While many were interested in learning about their neighbors, who they are and how they live, they did not anticipate forming relationships that would be of instrumental value. The brand new physical environment and general social and economic improvements in mixed-income developments appear far more compelling to residents than the hope of new instrumental interpersonal relationships with higher-income families (Joseph & Chaskin, 2012). Indicated physical/locational factors can create more opportunities for diversity within the new medium density mixed

housing projects. However, '"the extent to which it is possible to apply the three design strategies – mix, connectivity and security – will differ from place to place and depend on the socio-economic and cultural context influencing the urban form" (Landman, 2012; 53). Therefore, it is evident that the manifestation of social cohesion in mixed-income housing could be determined by various contextual factors, and differ from one place to another. Therefore, the following chapter will reflect on the South African context of mixed-income housing and social cohesion in terms of policy frameworks and experiences. In this regard, the historical background on South Africa's urban planning will be considered.

CHAPTER 3

THE SOUTH AFRICAN CONTEXT OF MIXED-INCOME HOUSING AND SOCIAL COHESION

3.1. Introduction

Given the theoretical evident which indicate that the urban contextual background is important in the determination of social cohesion in mixed-income housing, the historical socio-spatial divisions in the urban areas of South Africa are major concerns. To this extent, authors maintain that overcoming the deeply entrenched socio-spatial segregation is one of the fundamental challenges facing the democratic South African government (RSA, 1998; Donaldson & Kotze, 2006; Lemanski, 2006; Onatu, 2010; Osman & Herthogs, 2010; Landman, 2012; Haferburg, 2013; Klug *et al.*, 2013). In the advent of democracy, the South African government has inherited cities and towns which were separated in terms of race and ethnic divisions. That is, in Lamanski's (2006) view, the spatial divisions were meant to separate social order in a sense that cities were exclusively for whites, while rural homelands for black Africans. Now with twenty years into democracy, the racial and ethnic separations, as exacerbated with "class division" (Donaldson & Kotze, 2006) are to undermine the effort in building a cohesive South African society. It is against this background that the South African government in 2004 introduced the national housing plan, commonly known as Breaking New Ground, which promotes the implementation of mixed-income housing to redress the socio-spatially segregated development patterns (Landman, 2012) in the country. On the same note, The CSIR (2005) maintains that it is through the establishment of economically, physically, environmentally and socially integrated and sustainable human settlement that the country could harness the potential of addressing the historical distortions while meeting the future needs of the growing South African population. Therefore, this chapter will analyze the guidelines and policy frameworks for planning and design of the inclusive human settlement in the South African context.

3.2. The Various Guiding Principle in Designing the Mixed-Income Housing Typologies in South Africa

Historically, the planning and design of housing in South Africa has been influenced by apartheid ideologies of segregated development together with the planning ideology of modernism (Haferburg, 2013; Klug et al., 2013; Landman, 2012; Donaldson & Kotze, 2006; CSIR, 2005 and Donaldson, 2001). These ideologies resulted to the development of dysfunctional and spatially fragmented settlements which was based on the "separation of land uses, races and income groups" (Landman, 2012; 54) as well as ethnics. In this regard, the poor black Africans were located in the periphery of the country with little provision of basic services and high level of inconveniences in terms of movement. Therefore, with the advent of the democratic South Africa, it was deemed necessary to redress the effects of these apartheid spatial development ideologies. As such, the government has committed itself to develop more livable, equitable and sustainable urban areas which will be predominated by the contemporary planning ideologies which include the "compact urban form, higher densities, mixed land use development, and integrating land use and public transport planning, so as to ensure more diverse and responsive environments whilst reducing travelling distances" (Breaking New Ground, 2004; 16). As a result, a guiding framework for sustainable human settlement development has been established to serve as an instrument of urban reconstruction and building a livable urban environment (CSIR, 2005). Thus, the planning and design of mixed-income housing directly complies with the development standard and principles indicated in the guiding framework for sustainable human settlement (Klug *et al*, 2013; Osman & Herthogs, 2010 & Landman *et al*, 2009). Given the varying spatial context and configuration of the mixed-income housing in South Africa, it is noticeable that each housing typology puts more emphasis specific guidelines which, to some extent vary with each other. That is, the high-rise apartment emphasis on principles which somewhat vary with that of the semi-detached and gated townhouse complex in its design and planning.

3.2.1. Planning and design for high-rise Apartments

In the South African context, the high-rise apartments are mainly built in the Central Business Districts (CBDs) of the cities and towns. As such, the CSIR (2005) guideline emphasis that the planning and design of the mixed-income housing typology should take into consideration   the effective use of resources; diversity and density; provision of higher-order public facilities; open public space for political economic functions; ensuring that the settlements are adjacent to economic activities; and maintain multiple-use patterns in the residential precinct.

3.2.1.1. Maintain multiple-use patterns

Multiple-use patterns of movement network are considered important in ensuring livability in the human settlement. This situation seem to suggest that the design of movement patterns in the urban area should be able to maintain convenience, safety and multiple-use patterns over a certain period of time, and considering that the nature of movement demand and network use may inevitably changes (CSIR, 2005). As the population grows, it is expected that the demand for and use of movement networks in the cities would also increase. Looking at the size of the street patterns and housing structures, it is mentioned that human settlement with well subdivided streets and block patterns are considered to be useful in encouraging intensive pedestrian use when compared to longer building blocks and widely spaced pattern of local streets (Wood *et al.*, 2010). Therefore, new residential development that supports, or creates, multiple-use patterns of streets are believed to contribute to stronger patterns of the use of various mode of transport in the urban areas. In addition, these settlements should be built in close proximity to economic activities.

3.2.1.2. Settlements developed adjacent to economic activities

Given that the democratic South African government is facing a challenge of redressing the apartheid spatial planning which was meant to keep the black Africans away from the major economic centers, the National Spatial Development Perspective (NSDP) of 2006 highlights that in order to redress the inherited spatial divisions of apartheid, new human settlements should be built along activity corridors and nodes that are connected

to major economic centers (RSA, 2006). Similarly, the CSIR (2005) human settlement framework suggests that the settlement plan at the local level should take into consideration the designated economic corridors and nodes which in most instances are confined in the development plans of the provincial, metropolitans, district and local governments' Integrated Development Plans (IDPs). Accordingly, in the IDP of Polokwane Municipality for example, there are two major development corridors (N1-south road and R71 road) along which there are new human settlement developments (Polokwane Local Municipality (PLM), 2012). Therefore, it is the development of high-rise apartments which seem to be required in the process of transforming the socio-spatial divisions.

3.2.1.3. Provide hard open space for economic functions

In High-rise apartments, often the hard open spaces is as well be used by informal traders as their trading areas (Abdul Aziz & Ahmad, 2011). Street trading has become an important part of the South African urban economic activities, and is considered to have a huge contribution in job creation in the informal sector of the country (Rogerson, 2006). Thus, an informal trading area should be allocated in the vicinity of the residential areas in order to allow the residents to practice income generating activities (Onatu, 2010). In essence, it could be mentioned that "street vendors are dependent on hard open spaces such as streets and or sidewalks in public transport facilities where there is a movement of pedestrians and have direct contact with their customers" (CSIR, 2005; 2). Apart from the street vending activities, the hard open spaces also provide for outdoor free-market in some designated areas in the urban environment. In this regard, it is important to distinguish between informal vending, such as trading on sidewalks or markets in parking areas or streets and the free-market trade in designated areas. The most significant difference between the two types trading is that the former is usually informal and illegal whereas the latter, though informal as well, but it operates under authority of the particular municipality (CSIR, 2005). Therefore, the provision of hard open space is seen to be vital in stimulating economic activities for the residents. In addition, in the high-rise building the hard open space could also be used for political or symbolic function.

3.2.1.4. Provide hard open space for political or symbolic functions

Hard open space could as well be used as a venue to hold and convey ceremonial events and occasions (CSIR, 2005). In the case of South Africa, which has a historical background of struggle against apartheid, some hard open spaces are used as memorial parks and monuments to honor the heroes who give up their lives in fighting against the system of the apartheid government (Haferburg, 2013). Therefore, when planning for the high-rise apartment, is important to consider that some hard open spaces such as parks could be used as symbols that hold the historical background of the country which reminds citizens about where they come from in terms of the political landscape of the country. Given that the high-rise apartments are often located in the city center, it is important to ensure that there is a provision of high-order public facilities.

3.2.1.5. Higher-order public facilities

The higher-order public facilities generally meant to serve the entire region, metropolitan area or city and are not provided for in the layout planning process for single residential settlements (CSIR, 2005). In the South African context, such facilities are referred to as national competency services because are mainly rendered by the national government. Such public facilities are planned in accordance with the National Spatial Development Perspective of 2006 in order to ensure that are equitable distributed across the country (RSA, 2006). The higher-order facilities may include for example, hospitals, universities and airports. As such, the agglomeration of such facilities also contributes in intensifying diversity and density in the cities and towns of the country.

3.2.1.6. Allow for diversity and density

In the context of the design and planning for the high-rise apartment, diversity is defined in spatial terms and density is defined in terms of the built infrastructure. Similarly, Landman (2012) defines place diversity as the creation of more opportunities for a variety of people in closer proximity, and (Musana & Vestbro, 2013) on the other hand refers to building density as the amount of built floor area on a specific site, which is

frequently measured as the ratio of floor area to site area. In the South African context, building density is used to redress the apartheid socio-spatial divisions as well as to discourage urban sprawl. According to the Development Facilitation Act of 1995, discouraging the occurrences of urban sprawl could, to a large extent, contribute to the development of more compact towns and cities in the country (RSA, 1995). On the other hand, Landman (2012) observes that in areas where densities have increased, there is also an increased access to a variety of socioeconomic and recreational opportunities. Therefore, diversity and density are crucial aspects in the development of the high-rise apartment, more especially because it promotes the efficient use of resources.

3.2.1.7. Enhance the effective use of resources

The available scarce resources provided in the high-rise apartment should be used wisely in order to ensure its sustainability and future use. Therefore, in order to enhance the effective use of resources like land and energy in particular, there are design factors which should be considered. The first one is increase the number of solar usage in the apartment residence; secondly, the number of plots in the settlement should be increased; thirdly, the slope of roadways and plot size should be reduced; lastly, the cost of the available infrastructure should be kept low (CSIR, 2005). In addition, floor steps instead of escalators could be used in the apartment. In essence, enhancing the effective use of resources in the human settlement is in accordance with the principle of resource efficiency which according to Landman *et al* (2009), refers to a residential area that is able to maintain a balance between the natural and built environment.

3.2.2. Planning and design for semi-detached or terrace houses

With regard to the planning and design of the semi-detached housing development, the CSIR (2005) highlights that factors such as the provision of residential service utilities; the consideration of the site context; the provision of lower-order and mobile public facilities; enable the functioning of the ecological system; provision of open space to enhance movement; reduction of walking distance in the area; promote the use of public

transport; and accommodating of various socio-economic functions should be highly considered.

3.2.2.1. Movement networks for various socio-economic functions

In the contemporary cities, urban networks are not only important for facilitating the movement of people, but also are crucial for catering different socio-economic functions within the different areas of city life. That is, urban networks in a form of main streets in the semi-detached housing could be a good public space for hosting "street parades and expression of free speech" (Pendola & Gen, 2007). Therefore, it is in this context that the Urban Development Framework, 1997 call for integration in terms of physical, economic and social processes in the South African towns and cities, and emphasis the need for higher density, more compactness in terms of land use, more mixed-use settlements" (RSA, 1997). Similarly, the Development Facilitation Act of 1995 requires the development "which promote the integration of the social, economic, institutional and physical aspects of land development" (RSA 1995). Whilst there provision of movement networks in the semi-detached housing is crucial; equally, it is important to promote the use of public transport in the area.

3.2.2.2. Promote the use of public transport

The South African government has a long term vision in terms of promoting popular use of the public transport in the country. To this extent, to government seek to have a public transport system that is user-friendly, cost and environmental efficient, and integrated, particular to human settlements (RSA, 2011). Thus, efforts towards realizing this objective require that settlement plans should have circulation systems or movement designs which will enable the residences to have access to the public transport. In practical terms, the integration of public transport infrastructure and human settlement requires settlement planners to work in collaboration with the transport authorities in ensuring that there is a provision of freeway bridges and or underpasses roads to connect located adjacent to the public transport infrastructure (CSIR, 2005). Therefore, the integration of human settlement development into the public transport

system does not only promote the use of public transport but also reduces the walking distance in the area.

3.2.2.3. Reduce walking distance in the area

This objective implies that the walking distance in the semi-detached neighborhood should be walkable in order to encourage the residents to have regular walking in their neighborhood. Short walking distances in the neighborhood are achieved through increased density where the residential units are closer to facilities and services (Rahnama, Roshani, Hassani & Hossienpour, 2012). On the other hand, it is mentioned that a shorter walking distance could also enhance walking for recreation and walking for transport (De Toit, Cerin, Leslie & Owen, 2007). Therefore, in accordance with the strategic objective of the government in terms of walking distance in human settlements, the target is to reduce the walking distance to public facilities to less than a about one kilometer (CSIR, 2005). Therefore, the reduced distance between the residents and services seem to suggest that there will be regular movements of people in the neighborhood which could, as a result foster social interaction. However, the road and streets in the semi-detached settlement should allow for efficient movement of pedestrians.

3.2.2.4. Hard open spaces for pedestrian movement

Most importantly, hard open spaces are also useful for facilitating movement of pedestrians in the semi-detached residential neighborhood. That is, hard open spaces like sidewalks unable walkability in the neighborhood (Cho & Rodríguez, 2014). Therefore, pedestrian-oriented environment are perceived to enhance social capital because they allow residents to interact (Leyden, 2003) on regular basis. It is argued that pedestrian-friendly neighborhood that enhance regular local walking may be important for physical and health (Wood *et al*, 2010) wellbeing of the local residents. Moreover, neighborhoods with well-connected pedestrian-oriented streets patterns reduce distances to destinations in the neighborhood (Cho & Rodriguez, 2014). Movement to destinations in the neighborhood context may refer to services and

facilities such as schools, restaurants, parks, recreational centers, libraries and churches. Therefore, it seems that pedestrian movement become easier in a human settlement where sidewalks are well-designed. As such, the recommended width for normal sidewalks in the human settlement development is 3.5m to 4.5m (CSIR, 2005). This size of the sidewalk is considered to be wide enough to allow effective movement of pedestrians in the semi-detached housing neighborhood. In essence, the residents should have efficient movement to and from public facilities in the residential precinct.

3.2.2.5. Provision of lower-order public facilities

In most instances, semi-detached neighborhood are likely to have the provision of lower-order public facilities which are used by a particular community or limited residential dwellings (Landman *et al*, 2012). These public facilities are generally catered for in the design and layout of human settlement (CSIR, 2005). These facilities include crèches, recreational centers, sport fields, cinemas, libraries, and churches. In the South African context, such public facilities are the responsibility of the local government. The local government is the closest sphere to the people; hence it has the mandate to provide sustainable services to the local communities (RSA, 1996). Alternatively, mobile public facilities could be provided for the resident in the semi-detached residential neighborhood.

3.2.2.6. Provision of mobile public facilities

Mobile public facilities refer to the facilities which move from one location to another, serving a large number of communities. That is, mobile public services are not stationary in one community but it move from one community to another (CSIR, 2005). In the South African context, an example of a mobile public facility could be a mobile clinic. Through this type of public facility, the government is able to deliver services to the people who are located in the remote areas of the country or in communities where permanent services have not yet been delivered. Equally important, people need to live in an ecologically friendly environment, and as such, the provision of gardening as part of the ecosystem seems to be important in the semi-detached residential neighborhood.

3.2.2.7. Enable the functioning of the ecological system

In this regard, the provision of soft open spaces like gardening is perceived to play a significant role in terms facilitating the extractive and absorptive ecological processes which occurs within the semi-detached form of settlements. Thus it is important to understand the distinction between the extractive and absorptive ecological processes. According to the CSIR (2005; 2), "the extractive processes refers to the recycling of resources such as biodegraded solid waste into new products such a compost, food, fiber as well as fuel; while on the other the absorptive ecological processes refers to the purification of water and filtering of air in the human settlement". These ecological processes are in accordance with the section 24 of the Constitution which guarantees everyone a right to "an environment that is not harmful to their health or well-being" (RSA, 1996, 6). Therefore, in order to optimize the functioning of these ecological processes, the soft open spaces should incorporate sensitive ecosystem like wetlands, rivers, coastlines and indigenous flora; and should be sufficiently interconnected to enable local fauna to move and breed (CSIR, 2005). Importantly, human settlements that preserves the "indigenous landscaping has the benefit of fitting into residents' searches for country landscapes" (Ballard & Jones, 2011; 142). In this regard, the consideration of site context is considered to be a fundamental aspect in the planning of the semi-detached housing development.

3.2.2.8. Consider the site context

It is important to always note that land subdivision does not take place in a void space, but is, to a large extent, influenced by the surrounding natural and cultural features together with the nearby settlement structures. It is therefore important to ensure that new land subdivision and development is connected to, and integrated with, surrounding natural and cultural aspects and built areas, including planned and committed development for adjacent sites (CSIR, 2005). In this regard, achieving a distinct identity and sense of place becomes the primary aim of the site's subdivision process in the human settlement, and such progress could be determined in terms of

how well the design relates to the specific site and its wider urban context. The wider urban context refers to both the natural and cultural features.

3.2.2.8.1. Natural features

Natural features mainly refer to the aspects of the physical environment such as land scape, topography and vegetation. In this regard, the prominent features of the landscape include the ranges of hills on the horizon, plateaus which can be employed actively as sites or passively as vistas (CSIR, 2005). Therefore, when planning for developing a human settlement, a special consideration to the natural features must be made to ensure that the residents live in harmony with the natural environment.

3.2.2.8.2. Cultural features

The cultural features that need to be integrated in the planning processes of human settlement are issues related to the heterogeneity of the community. That is, even though people may live in one residential area and use same facilities, on one way or the other, people will always have different needs, preferences, aspirations, tastes and expectations. Therefore, these elements of diversity should be taken into consideration in order to provide guidance in the land subdivision processes. The diversity of the community may sometimes be an indication of different income profiles in the community (CSIR, 2005) which therefore, implies inequity in terms of affordability of the housing needs. In addition, the subdivision of an area into blocks, streets, courtyards and houses, should be coordinated with the size and organization of communities, street committees and other groups with common interests (CSIR, 2005).

3.2.2.9. Provision of residential service utilities

In the context of the semi-detached housing development, the residential services are mainly those services consumed on the residential site to satisfy domestic household service needs. Though in some instances these services may be on a communal site, they are provided at a small scale proportionately to the number of housing units in the residential area. In general, residential services include water supply in the form of

house or yard taps, sanitation in the form of in-house or out-house toilets, energy supply in the form of electricity or gas, solid waste removal in the form of rubbish collection, and communications in the form of private telephones and postal delivery (CSIR, 2005). It is therefore important to ensure that these services are considered in the planning for human settlement because they are essential in the lives of the people.

3.2.3. Gated townhouse complex

The development of gated townhouse complex in South Africa is mainly managed and owned by private companies. Nonetheless, these private companies are expected to consider the guidelines for sustainable human settlement as stated by the CSIR (2005) policy framework in the planning and design of the residential development. The principles that are indicated in the guiding framework in relation to the development and design of gated townhouse complex include the provision of collective service utilities; flexibility to changes; provision of a range of housing types; provision of middle-order public facilities; accommodates various of human needs; provide hard open space for social function; Promote the use of pedestrian friendly roads; ensure public transport facilitates close proximity between residence and work place; and prioritization of non-motorized transport modes.

3.2.3.1. Prioritization of non-motorized transport modes

Movement network in the gated townhouse complex should prioritize the needs of non-motorized modes of public transport services. That is, cyclists and pedestrians lines should be provided in order to serve as an alternative mode of transport in the urban residential areas. The use of cycles, public transport and walking has become the most efficient modes of transport in contemporary cities (Wood *et al*, 2010). These modes of transport are considered to be the most efficient one, both in terms of cost and environment. In this regard, it is mentioned that "a high level of accessibility to non-motorized modes of transport enables cities to have low levels of energy use per person in transport" (Barter, 2000). Hence the South Africa's government is working towards the 2030 vision of having public transport that is user-friendly, less environmentally harmful as well as cost effective and integrated (RSA, 2011).

3.2.3.2. Public transport facilitates close proximity between residence and work place

The NDP, 2030 highlighted that many people in the country are still travelling a long distance from where they live to where they work (NPC, 2011). The long distance between the place where people live and where they work is costly to the people who earn meagre income in the urban areas. Therefore, the CSIR policy framework suggests that people should travel shorter distance from their gated townhouses to their work places. This objective implies that new human settlements should be allocated in close proximity to places of work, and that these human settlements should be at least within 40 km radial of the major work places (CSIR, 2005). The shorter the distance between the residence and the work place, the more residents could have alternative mode of transport to use in accessing other urban activities and facilities. In general, there are two major modes of transport used in South Africa's urban areas to access services and facilities. In the Polokwane area in particular, households often use minibus taxi (63%) to access most of the services and facilities in the city (Capricorn District Municipality, 2010). Public transport is seen to be the most convenient and affordable mode of transport for low-income people in the urban area, however its use should be promoted even in the middle-income groups.

3.2.3.3. Promoting and planning for pedestrian friendly roads

According to the CSIR's (2005) human settlement planning and design framework, the other strategic objective which should be considered in settlement-planning is the promotion and planning for the use of non-motorized transport mode. This objective is in accordance with the principles of New Urbanism, which among other, seek to achieve what is called "smart transportation" (Rahnama *et al*, 2012). In essence, smart transport is achieved when there are high quality networks of roads connecting neighborhoods, towns and cities, and which is user-friendly to pedestrians and cyclists. Accordingly, human settlements planning and design should support pedestrians and cyclists in order to enable walking to workplaces, schools, shops, recreational and community facilities in the surrounding area. In addition, the human settlement design should also have movement networks which permit direct pedestrian access to social activities and

public transport facilities (CSIR, 2005). Arguable, the concept of pedestrian-friendly road networks seem to suggests that some aspects of urban form contribute in encouraging walking in the residential areas. In this regard, scholars believe that pedestrian friendly environment offers a range of theoretical benefits in the urban areas; which include limiting urban sprawl (Landman, 2012), reducing traffic congestion (Cabrera & Najarian, 2014), social integration (Du Toit *et al.*, 2007), and reducing obesity (Rogers, Halstead, Gardner & Carlson, 2011). In general, these assumed benefits are related to environmental, spatial, health economics and social aspects of life. Similarly, social advancement could also be attained through the use of public open spaces.

3.2.3.4. Provision of hard open Space use for Social functions

Hard open spaces provide a good space for various age groups to engage in different social activities in the gated townhouse residential neighborhood. For example, the hard open space could be used for performing art and music festivals by the young people in the neighborhood (Pendola & Gen, 2008); while on the other hand children could use the hard open space for playing (Abdul Aziz & Ahmad, 2011). In this regard, the youth could as well use the open space for recreational activities like sports (Martin, 2002). These various social functions seem to suggest that the presence of the hard open space in the human settlement serves as an attraction which draws different people together. Therefore, it is evident, as Farida (2013) concludes that hard open features have been identified as efficient design elements in outdoor spaces for encouraging social contacts. Accordingly, there is also a need for the provision of soft open space which could accommodate various human needs in the gated townhouse development.

3.2.3.5. Soft open spaces that caters for various of human needs

Soft open spaces could also play a crucial role in terms of accommodating a variety of human needs in the gated townhouse complex. The types of open spaces that could be commonly used by the different of user groups in the human settlement mainly include parks, sports fields, and urban agriculture (CSIR, 2005). In this regard, it is important to ensure that the planning for the soft open space in the gated townhouse settlement

takes into consideration the range of current and future end-user needs. For example, for women the soft open space should provide a psychological need in terms of feeling safe and being able to feel a sense of control in public spaces (Abdul Aziz & Ahmad, 2011; CSIR, 2005). Equally, elder people and children have a physical need on the soft open space; that is, the elders often feel comfortable with the walking distances to the soft open space, which serves as a physical activity, whereas children use the soft open space for playing (Dempsey *et al*, 2012). The key to sustainable urban development in UK cities? The influence of density on social sustainability. Progress in Planning, 77: 89-141) while overlooked by their parents form their residential apartments. Therefore, the soft open space may be regarded as one of the necessary public facilities in the gated townhouse neighborhood.

3.2.3.6. Provision of middle-order public facilities

The middle-order public facilities are those that are provided to cater for a number of diverse and different communities such as schools and clinics (CSIR, 2005) in a particular area. As such, it is of vital importance to have such public facilities in or around the gated townhouse complexes. Though these facilities are based on particular residential settlements, their service is also accessible to other nearby communities. Accordingly, in South Africa's context, these services are mainly rendered by and or coordinated at the provincial government, thus the private companies which often develop and manage the gated townhouse complexes are expected to collaborate with the government in ensuring that these public facilities are provided for the residents in the gated townhouse complexes. Importantly, the developers of this housing typology are required to provide a wide variety of housing types within the complex.

3.2.3.7. Consider the range of housing types required

According to the Breaking New Ground housing policy framework, sustainable human settlement is achieved when there is a provision of a variety of housing choices in close proximity to public facilities and economic opportunities (Department of Housing, 2004). There are a number of factors which could determine the variation of housing types in

the gated townhouse complex. That is, housing types may vary in terms of materials, permanence, design, internal and external finishes, size and density, layout on the site and in relation to each other, number of stories and functions (CSIR, 2005). Therefore, a provision of a wide variety of housing types helps to cater the varying housing needs of the diverse socioeconomic groups. Diversity in the society may be in terms of issues such as income, class, ethnic, race, gender and age. It is therefore necessary to provide a range of residential lot sizes to suit the variety of dwelling and household types within the area. That is, a variety of both lot sizes and housing types throughout settlements facilitate housing diversity and choice and meet the projected needs of people with different housing needs (CSIR, 2005). Given that the needs of the people are dynamic, planning and design for the gated townhouse complex should be flexible to accommodate future changes in the residential area.

3.2.3.8. Accommodate changes

In planning for the gated townhouse complex, a consideration should be made with regard to adaptability over time. That is, the human settlement needs to be flexible in order to adequately respond to the changing needs and preferences of the community. Against this background, the CSIR (2005) strongly recommends that for settlements to accommodate changes, it is important to ensure that a reasonable variety of house types is attainable so to ensure adaptability over time. The perceived changes in the human settlement could come as a result of the change in the life style of the residents (Wood *et al*., 2010). For example, as household's size grows, as a result of children for instance, there will be new housing needs such as bigger house unit. On the other side of the same coin, this change may also necessitate the provision of new social facilities like jungle gyms, sports and recreational centers, schools and clinics. In such cases, it is therefore important to ensure that the lot dimensions and development are designed to facilitate future intensification (CSIR, 2005). Therefore, the provision of public facilities in the gated townhouse complex should consider future changes, importantly in terms of increase in the population size.

3.2.3.9. Collective service utilities

In most instances, the provision of collective service utilities is seen to be the most efficient way of delivering services in a residential settlement. Collective utilities refer to the services that are provided in bulk to the community. These utilities include services such as water supply in the form of public standpipes, sanitation in the form of public toilets, roads and storm water drainage, energy supply in the form of metered electricity dispensers in public markets, the lighting of public places like street lights and Apollo, solid waste removal in the form of rubbish collection points, and communications in the form of public telephones and post-collection points (CSIR, 2005). These services are basically consumed in the public environment, and as such they are not meant for individual residence in the community.

3.3. The Physical Characteristics of Mixed-Income Housing

Crime prevention through environmental design can be defined as the implementation of measures to reduce the causes of, and the opportunities for criminal events, and to address the fear of crime through the application of sound design and management principles to the built environments (CSIR, 2005). So, given the high rate of crime in the democratic South Africa, the use of environmental design is seen to have been a common phenomenon in many urban residential areas in the country. The popular use of environmental design for crime prevention in the country is influenced by the general notion which holds that certain types of crime can be limited if the built environment is designed appropriately (CSIR, 2005; Grant & Mittelsteadt, 2004). Therefore, to ensure the appropriateness in the design of the built environment, the following principles should be taken into consideration:

3.3.1. Passive surveillance and visibility

In the human settlement context, passive surveillance refers to the casual observation made by street users and residents in the course of their normal activities. In this regard, passive surveillance depends on a range of factors including the placing of windows, doors and other openings, the distances between buildings, the sizes of public

spaces, vacancy rates and degrees and types of use (CSIR, 2005). In addition to these factors, Brown et al, (2009) maintain that architectural features like porches and stoops could also enhance passive surveillance of the nearby neighborhood and allow residents to watch out for each other. Visibility on the other hand can be enhanced by installing street light in the neighborhood to ensure that the street users are able to see and anticipate possible danger, particular at night. In essence, streets that have lights are good in guiding people along safer routes at night (CSIR, 2005).

3.3.2. Territoriality and defensible space

Territoriality refers to the sense of ownership and responsibility the residents have in their neighborhood. Thus, a call has been made that residents of South African cities should be encouraged to assume ownership of their neighborhoods (CSIR, 2005). In this regard, the ownership refers not only to the dwelling units but also to the public open spaces which, according to Farida (2013) are an ideal places for social interaction in the human settlement. Contrary, open spaces without designated uses, which present themselves as vacant or abandoned land, are likely to become sites for crime, and as such, buffer strips used to separate land uses, racial or income groups should not be encouraged (CSIR, 2005). Redressing the socio-spatial divisions is one of the major challenges the strategic housing policy (BNG) seeks to overcome, hence it advocates for a sustainable human settlement.

3.3.3. Access and escape routes

Though it is important to have open public spaces in the neighborhood, it is equally important to also note that these open spaces could provide access to criminals. That is, the open public spaces that are not clearly visible in their entirety and that do not lend themselves to constant surveillance can become a problem in the neighborhood (CSIR, 2005). Such spaces could be used as a gateway by the criminals given that offenders purposively choose a specific site for doing criminal activities. In this regard, crime statistics suggest that there is a positive correlation between the location of incidents of housebreaking and access to large open spaces (CSIR, 2005). Other

criminal activities which often occur as a result of the poor design of the open spaces and routes may include car hijacking wherein the offenders use the escape routes for quickly escaping the crime scene. Therefore, access and escape routes in the neighborhood should be design in a manner which favors the residents than criminals. Hence, the CSIR (2005) suggests three measures which should be considered in environmental design in order to limit easy access and escape routes for criminals but support escape routes for victims in the environmental design. Firstly, carefully plan the location, size and design of large open spaces so as to avoid those becoming areas of refuge and escape for offenders; secondly, avoid ending roads on vacant or undeveloped land in neighborhoods; thirdly, always provide clearly marked and logical pedestrian routes at transport interchanges.

3.3.4. Image and aesthetics

The physical image and or appearance of a built environment could either deter or encourage criminal activities in a particular location. That is, decaying and degrading built structures in the urban area could make people to feel unsafe to use such environment, given that the image is attracting criminal activities. While on the other hand, a vibrant and aesthetically attractive area is likely to have less incidences of crime because of its loveable environment. Therefore, in the residential context, image and aesthetics specifically "refers to a safe and healthy local environment with well-designed living, public and green space and physical features and landscaping designed with management and maintenance in mind" (Landman e*t al*, 2009: 23). So, there are various measures which may be considered to ensure that the human settlement becomes a loveable and health environment for the residents. These measures include use attractive colors or material for the housing; provide adequate lighting; constantly maintain the infrastructure CSIR (2005); and use low size transparent fencing (Brown *et al*, 2009).

3.3.5. Target-hardening and security

Target-hardening refers to the physical strengthening of building facades or boundary walls to reduce the attractiveness or vulnerability of the residents in the human settlements (CSIR, 2005). Therefore, the recommended design strategies to overcome security problems in the human settlements include reducing areas of concealment around house unit entries, providing small paned windows on the ground floor, providing secured swing doors onto terraces rather than sliding doors (MacDonald, 2005). However, a careful consideration should be made when using some of these security features, in a sense that one security measure does not compromise the existence of other environmental design features. For example, using spatial features like high walls and or hedges around the house may obstruct vision and provide hiding places for potential criminals and criminal activities in the neighborhood, while on the other hand concealing the image and aesthetic view of the housing. Nonetheless, target hardening features remains the most important aspect in the human settlement, given the high rate of crime in the major cities of South Africa (STATS, 2013).

3.4. Conceptual and Policy Framework for Social Cohesion in South Africa

The concept social cohesion has been widely used by different developmental institutions and forums in South Africa. That is, social cohesion has been featured in development debates, government planning documents, academic panels, media debates and Parliamentary hearings (Human Sciences Research Council (HSRC), 2011). The common definition of social cohesion which has been used and adopted by these various institutions in the country is that which defines social cohesion as the "the property by which whole societies, and the individuals within them, are bound together through the action of specific attitudes, behaviors, rules and institutions which rely on consensus rather than pure coercion" (Janmaat & Han, 2009). Therefore, the wide adoption and use of the social cohesion concept in South Africa is, to a large extent, necessitated by the general concern on redressing the apartheid legacy in terms of racial and class divisions. The bottom line is that this apartheid legacy along with regional, ethnic and cultural divisions and prejudices may escalate if the country's

economic, political or demographic, and civil stresses worsen (HSRC), 2011). It is therefore in this context that the illustration and analysis of social cohesion in South Africa mainly revolves around three domains; which is economic, socio-cultural and civic or political domains (HSRC, 2010).

3.4.1. The economic domain

The economic domain uses economic measures such as employment, income, and education given that these are the most important preconditions for a socially cohesive society. In addition, given the historical background of South Africa, questions on redress of basic services, labor market redress action, and affirmative action are also included as part of the indicators of the economic domain. In the study conducted by the HSRC (2011), the indicators of the economic domain were, to a large extent, based on demographic variables such as race group, education level, gender, age and form of settlement of the respondents.

3.4.1.1. Achieving of households' needs

With regard to assessing the achievement of household needs in the country, the South African Social Attitude Survey (SASAS) consider issues such as the level of households' satisfaction in terms of the provision of basic needs such as household's housing, transport, health care, clothing and food (HSRC, 2010). Noticeable, the satisfaction with regard to the achievement of households' needs in South Africa seem to vary in terms of race and education level of individuals; whereby the white racial group and highly educated people are likely to be more satisfied with their household needs. These disparities are reflected in the HSRC (2011) study which reveals that the majority of the white respondents indicated to be more satisfied with their households need when compared to the black population group, and that the respondent with higher education qualification such as university degrees and masters shown to be significantly more positive about their household needs when compared to those that have no schooling. Interestingly, the HSRC (2011; 10) also found that "respondents in the

Limpopo Province shown to be more positive about their household's needs when compared to other provinces in the country".

3.4.1.2. Provision of basic services

The provision of basic services in this context refers to the level of satisfaction of the community members in relation to the provision basic services which are primarily rendered by the government (HSRC, 2010). These services may include water and sanitation, electricity, solid waste collection, recreational, health and education service. In the South African context, the provision of basic services is unequal when compared between the urban areas and rural areas. That is, there is better provision of basic services in the urban areas than in rural areas of the country. One of the reasons for having this least provision of services in the rural areas is because "basic municipal services are costly to build and operate in rural areas" (RSA, 2011; 20) given the dispersed settlement arrangement. Furthermore, rural based municipalities have little, if any, revenue and tax base to generate its own income, hence such municipalities heavily depend on the national subsidies for service delivery unlike the urban based municipalities which have the capability to generate its own revenue. Therefore, spatial disparities in the country are the major cause of the unequal levels of satisfaction with basic service provision.

3.4.1.3. Execution of government responsibility

In terms of the execution of government responsibility, the focus primarily on assessing the views of the citizens with regard to government spending money for both economic and social development in South Africa. Such assessment is in accordance with the principles of developmental state which according to the (DPLG & SALGA, 2008; 36), is defined as a state that excels in public administration and intervenes strategically in the economy to promote social development; and a state concerned with integrating the dual economy by addressing the socioeconomic needs of its entire population, especially the poor, the marginalized and the historically disadvantaged". In this regard it seems that the diverse racial groups in South Africa have different views in terms of

government's expenditure on social and economic development. Accordingly, the results of the HSRC (2010) "shows that Coloureds, Indians and Whites compared with Blacks differed   significantly in terms of their perceptions of social and economic development"; that is, the White and Indian groups strongly support that the government has made a significant progress in social and economic development, while the Black group has less support for the same statement. Therefore, this reflection seems to indicate the level of socioeconomic inequalities among the different racial groups in the country.

3.4.1.4. Socioeconomic disparities in the society

Basically, socioeconomic disparities in the society refer to the level of conflict and inequality between poor people and rich people; conflict between the working class and the middle class (HSRC, 2010). Since the dawn of democracy, there is general concern that the gap between the rich and the poor is the major contributing factor in keeping the South African society divided. The gap between the rich and the poor in South Africa is becoming wider and wider on daily basis (STATS, 2011). Income inequality has grown from 24% to 32% in 2004 and 2011 respectively (South Africa Reconciliation Barometer Survey: 2011), while on the other hand the country had an unemployment rate of 29.8% in 2010 (STATS, 2011). In this regard, the National Development Plan (NDP) 2030 puts it clear that the "high youth unemployment inhibits a broadening of opportunity necessary to reduce inequality and heal the divisions" (RSA, 2011; 26) in the country. Seemingly, these indications may suggest that in the country there is high level of conflict between the working-class and middle-class. The respondents living in traditional areas, urban informal and rural formal areas differed significantly from urban formal dwellers on the social economic domain (SARBS, 2013).

3.4.1.5. The workforce in the labor market

The workforce in the labor market focuses mainly on issues related to preferential employment and promotion of black South Africans in the labor market, and in particular the youth and female (HSRC, 2010). In this regard, the SARBS (2013; 10) study

indicates that "respondents who are aged 70 and above, shown to be more positive about the labor market redress index compared to the group aged between 20 and 29 years who indicated to be negative about the index". The findings of the study seem to reflect that the pensioners are not looking for any job in the labor market while the youth is the most economically active group which is looking for employment. This assertion is in accordance with the findings of the STATS (2011; 54) which reveal that "the unemployment rate among the black African population group is the highest, while among the white population group it is the lowest", hence the black young people seem to be less positive about employment opportunities. However, when looking at the employment rate per racial group, it is indicated that the black African population group accounts for 78,2% of the working age population while the white population accounts for 9,3%, the Colored population for 9,1% and the Indian/Asian population for 2,8% (STAT SA, 2011).

3.4.1.6. Affirmative action programme

In the South African context, affirmative action programmes refers to the implementation of the Affirmative Action policy in terms of "creating a society that is more unified and contributing to a more skilled workforce" (HSRC, 2010; 16). This policy was enacted in order to redress the employment disparities in the public sector, by giving employment preferences to the previously disadvantaged societal groups in the country. In this instance, the white racial group is of view that the Affirmative Action policy was meant to disadvantage them in terms of employment opportunities in the public sector. It for this reason that the Coloured, Indians and Whites respondents in particular were significantly less supportive of the Affirmative Action policy when compared to Blacks African group (SARBS, 2013). This finding suggests that the back Africans have indeed benefited from the Affirmative Action policy, hence they reflected to be in favor of the policy.

3.4.2. The socio-cultural domain

Given the South Africa historical background which was designed to promote social exclusion and isolation amongst the different ethnic and racial groups, it is important to conceptualize cohesion within the socio-cultural domain in a broad, democratic and transformative way. That is, social cohesion should build on the principles of unity, non-racialism, and non-sexism, which formed the core of the national liberation struggle and are now central to the Constitution (HSRC, 2011). This section focuses on cohesion in the social domain and includes measures around social networks, personal well-being, discrimination, racism, tolerance and fear of crime.

3.4.2.1. The formation of social networks

In this regard, social networks refer to people's membership and active participation in voluntary organizations which have been established to achieve some socio-economic objectives. In South Africa, there is a variety of voluntary organizations which have become a vehicle of social networks in the communities. These organizations include for example, youth clubs, burial societies, stokvels, women forums, trade unions, sport associations and political movements. In addition, "South Africa has a strong history of more localized civic organization, and this political level functions as a medium between official council representatives and the community" (Lemanski, 2006; 429). The South African National Civic Organization (SANCO) for example, is one of the popular civic organization in the country which is known for facilitating social networks at the local community level. The social networks at the community level should aim at bringing people of different socio-cultural background together. However, residents are likely to engage in social networks that suits their socio-cultural identity (Lemanski, 2006) for the benefit of their own personal well-being.

3.4.2.2. The state of personal well-being

There are many factors which should be considered to determine individual's personal well-being. These factors range from material to non-material aspects of life with which

a person could be satisfied. In general, "the personal well-being indicator reflects a good overview of satisfaction with life in terms of financial security, achievements in life, safety, standard of living, feeling part of a community, health, personal relationships and religion" (HSRC, 2011). In this regard, the HSRC (2010) indicates that there is a positive relation between personal well-being and the level of education attained by the individual. In essence, this finding suggests that people with high level of education are more likely to have a good personal well-being. The reason in this instance could be that highly educated people often have better job opportunities than those who are less educated, and as a result could easily satisfy both their material and non-material aspects of their lives. Now looking at the personal well-being in terms of gender, men are more satisfied with their personal well-being, whereas women reported to be less satisfied with their personal well-being (HSRC, 2010). The less satisfaction of women with their personal well-being may be related to their high level of fear of crime and the different forms of abuses and discriminations which they experience on day-to-day basis.

3.4.2.3. Discrimination and tolerance in the society

The issues of discrimination and tolerance are the primary determinant of social cohesion in the social-cultural domain given that the democratic South African government has inherited a racial and ethnic divided society. The extent of discrimination in the country could be seen in terms of the nature of association amongst the citizens. In this regard, it is mentioned that "South Africans continue to associate strongly with a range of social identity groups, rather than a single shared national identity" (HSRC, 2011; 29). Such form of association is contrary to the non-racist and non-ethnic values enshrined in the Constitution of the country, which therefore suggests that discrimination between the different ethnic and racial groups in the country is prevalent. When looking on the other side of the same coin, tolerance amongst the different racial and ethnic groups is not satisfactory. That is, only 54% of the black people agree that, of course, they are trying to forgive those who hurt them during apartheid. In contrary, a few (33%) of the white people agree with the same statement, and a significant number (61%) of them remain uncertain about this

statement (HSRC, 2011). Again, this information suggests that the different racial groups in the country do not really tolerate each other. Nonetheless, the Limpopo Province is seen to be positive about tolerance between the different ethnic and social groups (HSRC, 2010).

3.4.2.4. The prevalence of fear of crime in the society

The HSRC (2010) revealed that the perception of fear of crime in the society varies in terms of different age groups, gender, and spatial location. That is, in general, the South African youth is less fearful of crime when compared to the elderly people. This assertion may be attributed to the allegation that the young people are the ones who are likely to be involved in criminal activities; hence they are less fearful of crime. In terms of gender, the survey also indicates that women are more fearful of crime than their men counterpart. The gender sensitiveness of crime is a major concern in South Africa; hence there is a prioritization of safety and security in many townhouse complexes across the country (Landman, 2013). With regard to spatial location, people who are living in informal settlement are more fearful of crime compared to those living in formal urban residents. Again, the low level of fear of crime in the formal residents may be as a result of the intensive security measures that are provided in the townhouse complexes. In some townhouse complexes in Polokwane for example, the intensity of safety and security is to an extent that gated complexes are built within a gated complex. Such buffering may limit the contact between the residents in that particular area (Haferburg, 2013).

3.4.2.5. Interracial contact and relations in the society

Interracial contact and relations is another significant indicator of social cohesion in the socio-cultural domain. In this context, interracial contact categorically refers to social relationship between the different racial groups in the country. The interracial indicator is considered important given that the apartheid government use to enforce policies which prevent the contact between the different racial groups in the country, the blacks and white in particular (Lemanski, 2006). One of the legislative frameworks which enforced

the segregation between the black and the white people was the Group Area Act of 1950s. Seemingly, the country is still experiencing the legacy of this Act, despite the 21 year of existence of the democracy. In this regard, a recent survey indicate that only "39% of South Africans report that they sometimes, often or always socialize with people from other race groups in more intimate settings, such as their own home or the homes of friends, and surprisingly, 42% stated that they never socialize across race lines" (HSRC, 2011). So, it is evident that interracial contact and relations in the country remains a myth.

3.4.3. The civic domain

The civic domain is seen to be the most crucial dimension of social cohesion in South Africa given the transformation which has occurred over the two decades of democracy. Over this period, the South African democratic government has undergone a tremendous transformation in rebuilding a good relationship between the state and the citizens. The country's transformation processes consist of measures which focused on promoting greater opportunities for active participation of the civil society in processes of decision making, and the strengthening of accountable and transparent governance (Norris, 2011), at the local government in particular. In this regard, though in a somewhat less positive finding, the HSRC, (2011) survey reveals that only 40% of South Africans agreed that people 'like themselves' have the power to influence decisions made by local government that affect their communities. These findings suggest the need to inculcate the spirit of active citizenry in the South African society. As it is reflected in the National Development Plan (NDP), 2030, active citizenry requires showing in aspirational leadership at all levels of the society. That is, dynamic leadership should be encouraged in every aspects of life, and that leaders should demonstrate leadership qualities such as honesty, integrity and trustworthiness to the civic society (RSA, 2011). Therefore, indicators such as legitimacy and participation are crucial in understanding active citizenry in the civic society.

3.4.3.1. Legitimacy of the public and private institutions

Social cohesion depends on legitimacy of public and private institutions to serve as mediators in addressing differences and conflicts of interest in diverse societies (HSRC, 2011). That is, the civic society must have trust in their public and private leadership as well as confidence in their public office bearers whom are assigned to deliver service to the society. The legitimacy sub-domain of civic cohesion in the South African context could be clearer understood through four major components, which is national identity, support of regime principles, evaluation of regime performance and confidence in the regime institutions.

3.4.3.1.1. Patriotism to national identity

The national identities component of legitimacy represents the most general set of attitudes towards belonging or attachment to the state, with common survey based measures and indicators including national pride, patriotism and feelings of national identity (HSRC, 2011). The national identity concept holds the view that the South Africans should see themselves as citizens of the country before considering themselves as specific ethnic and or racial group. That is, the citizens of the country must have pride of their nationality, and become one united nation despite the ethnic and racial dissimilarities. The most popular concept in South Africa which describes the notion of unity in diversity is that of "rainbow nation". Ironically, with twenty years into democracy, "South Africans continue to identify the groups they associate with most strongly as based on language, ethnicity and race…than that with a national identity as a South African or a regional identity as an African" (Table 3.1) (SARBS: 2013; 29).

Table 3.1: The way in which people in South Africa primary associate themselves with 2007–2011

	2007	2008	2009	2010	2011
Language	20%	24%	19%	21%	18%
Ethnicity	15%	18%	19%	19%	19%
Race	12%	12%	11%	15%	19%
Primarily South African	11%	12%	14%	14%	13%
Neighborhood	9%	7%	8%	9%	7%
Religion	7%	5%	7%	6%	6%
Class	7%	6%	5%	5%	6%

Source: (SARBS, 2013)

Surprisingly, in 2011 the survey indicate that only 13% of the respondents claim to identify themselves primarily as South Africans, let alone that only 6% of the surveyed population feel that they are predominantly African. On the other hand, the study reflects that most of the respondents identify themselves on the basis of ethnicity and race. These findings seem to highlight, on one hand, the lack thereof national identity in the country, and on the other hand, the strong loyalty to ethnicity and race among the citizens, which is contrary to the principles and values enshrined in the Constitution.

3.4.3.1.2. Support of regime principles and values

The second component of legitimacy is based on the approval and or support of the state's principles and values (HSRC, 2010), which in this instance refers to the prevailing democratic values and principles as legitimated in South Africa's Constitution. The principles and values on which the democratic South Africa is founded, and which every citizen should uphold are as follows: (a) "Human dignity, the achievement of equality and the advancement of human rights and freedoms; (b) Non-racialism and non-sexism; (c) Supremacy of the constitution and the rule of law, and; (d) Universal adult suffrage, a national common voters roll, regular elections and a multi-party system of democratic government, to ensure accountability, responsiveness and openness" (RSA, 1996). Importantly, "these principles are meant to serve as general guidelines to individuals', and as broad standards against which particular action are judged as good, right, desirable and worth of respect" (RSA, 2011). Therefore, the extent to which the public and private institutions comply with the constitutional principles and values,

determine the level of legitimacy of the regime. However, the major challenge facing South Africa is the scourge of corruption which undermines state legitimacy and performance of the state (RSA, 2011).

3.4.3.1.3. Evaluation of regime performance

The third component of legitimacy is the evaluations of regime's performance, which is mainly reflected by the views of citizens on the "democratic performance of the government, as well as assessments of decision making processes, policies and policy outcomes" (SARBS, 2013). There are two major concerns with regard to the performance of the democratic South African government. That is, the performance of the public sector is unequal, and that the scourge of corruption in the public sector continues to undermine the performance of the public service (RSA, 2011). The unequal performance of the public sector may be attributed to factors such as inadequate capacity and lack of accountability, while the corruption problem could be seen as lack of strong leadership and bad staff morale. However, there are some indications of good performance in the public sector, particular in the urban based municipalities.

3.4.3.1.4. Confidence in regime institutions

The component of confidence in regime institutions mainly refers to trust in public sector institutions which are responsible for providing service to the society (SARBS, 2013). Since 2006, the public confidence in public institutions has been drastically deteriorating, with the local government experiencing a very low level of trust by the public (Figure 3.1). Interestingly, the level of confidence in almost all the public institutions had a steep fall in 2009 (Figure 3.1), an era when the ruling party changed its top leadership structure after the ANC Polokwane Conference in 2008. The evolutional stepping-down of the former President Thabo Mbeki from government has brought a sense of doubt to many members of the society, given that there were many questions with regard to the capability of his successor. Suddenly, the figure reflects a bit of restoration of confidence in the public institutions. Perhaps this gain of confidence could be attributed to the excellent organizing of the FIFA World Cup in 2010.

Figure 3.1: The level of confidence in government institutions, 2006-2011
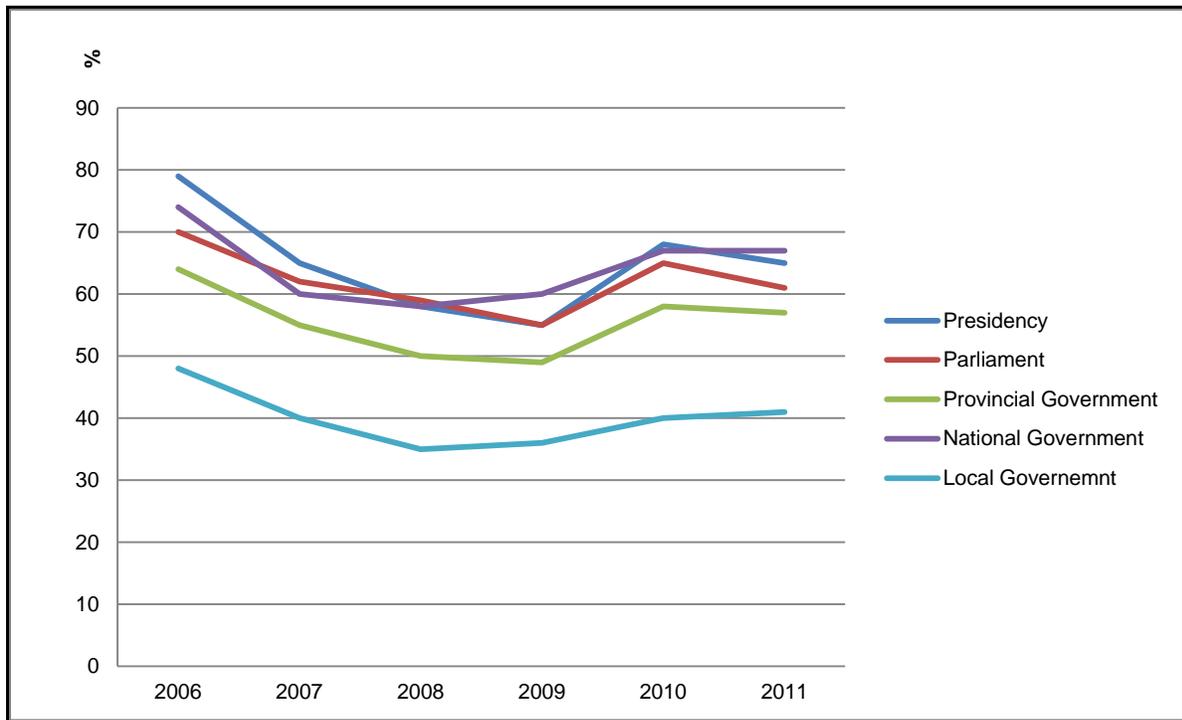
Regrettably, many communities in South Africa indicate to have a very low trust in their local municipalities, yet this is the closest sphere of government to the people. The low level of trust in this sphere of government could be attributed to the dissatisfaction in the provision of services, and this is evident in the country wide service delivery protests which occur almost on daily basis. Though there has been a higher voter turnout at the 2011 local government elections, which signifies greater democratic participation, few citizens agree that they could participate in local government decision-making processes (SARBS, 2013). Therefore, it also worth to re-emphasis that institutional trust is at the heart of most attempts at identifying indicators of civic cohesion, and that institutional trust forms the base for public participation.

3.4.3.2. Public participation in South Africa

Apart from political legitimacy, the second component or sub-domain of civic cohesion that has become a common inclusion in the multidimensional social cohesion models is the participation (SARBS, 2013). In the democratic South Africa, public participation is a

constitutional requirement in terms of chapter 7 of the Constitution of South Africa. This supreme policy framework assigns a developmental responsibility to the local government and emphasizes the participation of communities and community organizations in the affairs of the government (RSA, 1996). Apart from this provision, the Constitution in chapter 2 section 19 also guarantees a right for every citizen to participate in political activities.

3.4.3.2.1. Participation in protests

Protests and collective mobilization, particular for service delivery have become a common phenomenon in South Africa. In this context, participation in protests could be exercised in different forms, and be justified under different circumstances in the communities. In accordance with the findings of the SARBS (2013), it is evidenced that the majority of the citizens in the country often participate in demonstrations and strikes as a way of protesting, and only a few of the respondents reported to participate in violent protests. That is, in 2011, 45% of South Africans believe that participating in demonstrations is justifiable when an individual believes his or her human rights are under threat, and 43% agree that strikes are justifiable in these circumstances".

Figure 3.2: The different forms of protests in South Africa
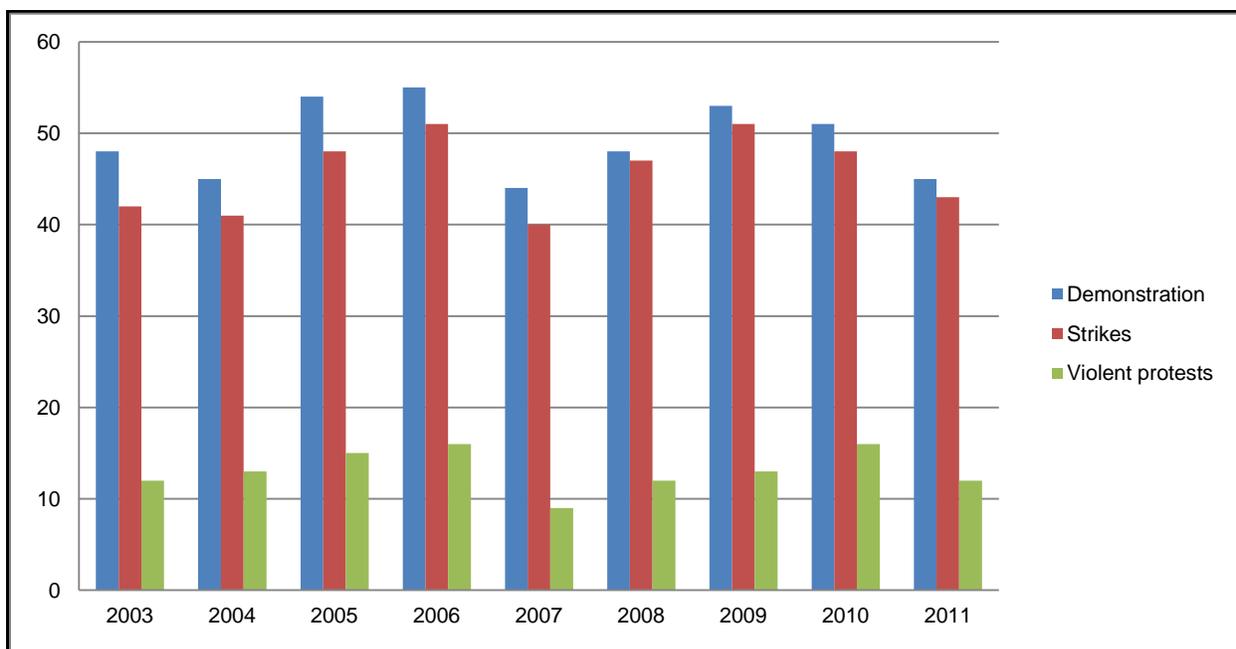
Source: (SARBS, 2013)

On the other hand, "evaluations of the justifiability of participating in violent protests, including those in which forceful methods such as the damaging of public property are used, have also declined slightly, from a high of 16% in 2010 to 12% in 2011" (SARBS, 2013). Therefore, South Africans seem to participate in different forms of protests depending on subjective justification in different circumstances (Figure 3.2).

3.4.3.2.2. Political participation

In general, South Africans have interest in political issues. However, political participation in the country seems to vary in term of age and gender. According to the HSRC (2010), political participation increase with age in a sense that the older the citizen becomes, the more they become interested in political activities. This trend of political interest gives an indication that the South African youth is not having a keen interest in political matters of the country. In terms of gender, it has been found that women are less likely to be politically engaged when compared to their counterpart (HSRC, 2010) despite the effort made by the government in terms of mainstreaming the issue of "increased formal political participation of women" (McEwan, 2003; 471) and the establishment of mechanisms like the Commission on Gender Equity. Nonetheless, when comparing the level of political interest across different racial groups in the country, the Black Africans are more likely to be politically active than other racial groups (HSRC, 2010).

3.4.3.2.3. Embracing citizenship norm

Given that a significant number of South Africans indicated that they see themselves first as a particular racial and ethnic group before being South Africans (HSRC, 2010), this serves as an indication of the lack of citizenship norm amongst the citizens of the country. As a result, the NDP, 2030 highlights the need to build a citizenship norm which will embrace social solidarity. On the basis of this citizenship norm, it is assumed that all the citizens will live in harmony and carry for each other's wellbeing, with an understanding that the development of South Africa is the development of every one who lives in the country regardless of their race and class belonging (RSA, 2011). In

this regard, the vision of the NDP, 2030 is aligning with the legislative provision made in the Constitution in chapter 1, section 3 which state that "all citizens are equally entitled to the rights, privileges and benefits of citizenship; and equally subject to the duties and responsibilities of citizenship" (RSA, 1996; 2). Therefore, it could be argued that embracing of the citizenship norm is the cornerstone of the development of South Africa.

3.5. Manifestation of Social Cohesion in the Mixed-income Housing Environment in South Africa

The primary objective in the development of mixed-income housing in South Africa is to enhance integration along racial and social grounds whilst simultaneously correcting for the perception that the poor cannot cohabit with the middle-income households (Department of Housing, 2004; Onatu, 2010). In this regard, it is believed that there is a realistic potential that new culture, values and norms could manifest to create conditions for coexistence between the different income groups in the urban landscape, though the class division in South Africa appears to create an added complexity to urban social cohesion. Similarly, the recent housing policy asserts that the mixed-income housing "intervention may make a strong contribution to urban renewal and integration" (Department of Housing, 2004; 21) in terms of race, class, culture, ethnic and gender bases in the country. Though "there is a growing concern that policies of social mix have had a limited effect in reducing income and ethnic segregation and that inclusionary housing policy is ineffective in developing countries" (Klug *et al*., 2013; 668), mixed-income housing has become a preferred housing model (Landman, 2013) for building social cohesion in South Africa's urban areas. To this extent, it has been found that mixed-income housing projects in the country may offer a number of positive outcomes in relation to the building of social cohesion (CSIR, 2007).

The development of mixed-income housing is regarded as one of the key intervention towards building a cohesive South African society. As such, it is assumed that the concentration of poverty will be reduced; neighborhoods revitalized; enables greater social mix; Improves safety; provides alternative housing types; promotes affordable

housing options; enables close proximity to economic and social opportunities; and provides for the possibility to use subsidies (Haferburg, 2013; Onatu, 2010; Landman *et al*, 2009; Department of Housing, 2004; CSIR, 2005).

3.5.1. Poverty reduction

Mixed-income housing is considered to have a potential to reduce poverty in the urban areas, and ultimately contribute to the socio-economic. In this regard, it is assumed that the high-income group would disseminate information related to economic emancipation to the low-income group in the residential area (Onatu, 2010). In social term, Schwartz &Tajbakhsh, (1997) believe that mixing differing income groups in one neighborhood could produce more desirable social outcomes in a sense that the high-income group will influence the poor low-income group in terms of social values and behavior. This situation seems to suggest that the low-income group will adopt the social values and behavior of the high-income group because the latter's social behavior is deemed necessary for socio-economic development. In addition, it is also assumed that the affluent group in the mixed-income housing would mobilize the delivery of basic services such as water and sanitation, schools, and security services (Schwartz & Tajbakhsh, 1997). Against this background, the South African government has three objectives related to poverty reduction in mixed-income housing. That is, a "to Accelerate housing delivery as a key strategy for poverty alleviation; b) to use housing provision as a major job creation strategy; and c) to ensure that housing property can be accessed by all as an asset for wealth creation and empowerment" (Department of Housing, 2004; 10). Therefore, it is evident that mixed-income housing has a potential to revitalize the urban neighborhood.

3.5.2. Neighborhoods revitalization

In general, neighborhood revitalization is considered to be achieved through the integration and densification spatial planning principles (Haferburg, 2013; Hyra, 2013; Musana & Vestbro, 2013). According to Landman (2012), densification can been enhanced through the provision of medium- and higher density housing and clustered

social and economic facilities. In spatial terms, housing density refers to "the amount of built floor area on a specific site, which is frequently measured as the ratio of floor area to site area" (Musana & Vestbro, 2013; 31). In the South African context, "medium density mixed housing is defined as housing that has a minimum of 50 dwelling units per hectare (du/ha) and a maximum of 125 du/ha" (Osman & Herthogs, 2010; 2). On the other hand, integration can be achieved through the development of multi-dimensional nodes and corridors, mixed land-use in neighborhoods and mixed residential developments (Landman, 2012). That is, the social and economic infrastructure is integrated as part of the human settlement development. Therefore, the housing plan of the government seek to achieve neighborhood vitalization through the integration of "services such as parks, playgrounds, sport fields, crèches, community halls, taxi ranks, satellite police stations, municipal clinics and informal trading facilities" (Department of Housing, 2004: 15) as part of the human settlement, and in turn enabling greater social mix.

3.5.3. Greater social mix in the neighborhood

A number of experiences in the country have demonstrated that mixed-income housing developments   could facilitate opportunities for social mix through a mix of different income groups, gender, age groups and to some extent a mix of ethnic and racial groups (Landman, 2012). With such extent of social mix, the promotion of social relationship is highly possible given that the residents in such housing arrangement use common social facilities. Consequently, the formation of social ties at the local level may have an "impact on the ability of individuals to establish trust and identity with the wider community beyond the neighborhood" (Fonseca & McGarrigle, 2013; 21). Therefore, the existence of greater social mix in the mixed-income housing could be considered a necessary condition for the manifestation of social cohesion in the neighborhood. Evidently, the experience of mixed-income housing has indicated a new phenomenon of "social integration and racial desegregation in post-apartheid urban South Africa in a sense that different races are not only living peacefully in shared physical environment but also actively mixing in social, economic and to a lesser extent political and cultural

spaces" (Lemanski, 2006; 433). Consequently, the level of safety in the neighborhood could also be improved.

3.5.4. Improved safety and security measures

It is the fundamental objective of the South African government to use housing in "combating crime, promoting social cohesion and improving quality of life for the poor" (Department of Housing, 2004; 10). Therefore, mixed-income housing is seen to have almost all the spatial elements which are necessary to improve safety and security in the neighborhood. That is, the spatial elements which enhances safety in the mixed-income residential lies on the design and configuration of the housing. For example, housing features such as windows and main entrances are designed in a way which enables the residents to overlook public spaces like streets and parks (Landman *et al*, 2009). In addition, balconies at the upper housing unit also provide a clear view to the housing outdoor space which is usually used by children for playing (Macdonald, 2005). Therefore, it is arguable that the spatial design of mixed-income housing facilitates casual surveillance to the public spaces in the neighborhood, which as a result reduce the occurrences of criminal activities in the neighborhood. However, with too much overlooking of the housing features may create a feeling of less individual responsibility amongst the residents in a sense that one resident may think that fellow residents are potentially available to overlook the public spaces (Brown *et al*., 2009). Nonetheless, people seem to have a sense safe in mixed-income residential projects, especially in a country like South Africa with a high crime rate and the associated fear of crime (Landman, 2012).

3.5.5. Provision alternative housing types

Mixed-income housing provides alternative housing types to meet the different housing needs of the various residents in the neighborhood. According to Landman (2012), the housing types normally vary from semi-detached or row houses to a mix of unit types and sizes within different multi-story buildings. Such housing provision is meant to cater the different households as their needs change overtime. For example, a household

with children may need a different house from that of a household without children. So, household members may move from one housing type to another without necessarily relocating from their neighborhood (Haferburg, 2013). Therefore, it is for this reason that the South African government, through the Department of Housing, seeks to "deliver a range of housing typologies which consist of double-storey, semi-detached, row, duplex, 3-4 storey walk-ups and apartments in a village type environment, catering for a range of income groups (Department of Housing, 2010; 15). Though mixed-income housing is understood to provide accommodation that caters for a variety of household needs, the issue of affordability is also a determinant in choosing the type of housing in the residential area. Therefore, mixed-income housing also promote affordable housing options for different income groups.

3.5.6. Promotion of affordable housing options

The provision of different housing option in mixed-income housing is facilitated in terms of different income range and housing tenures. That is, there is a provision for social rental housing for households who have a monthly household income of less than R3 5000; credit-linked housing which could be either rented or purchased, for household with a monthly income of between R3501 and R8000; and bonded houses for household with a monthly income of more than R15 000 (Department of Housing, 2007; Onatu, 2010). Furthermore, the South African government has introduced the affordable housing option mainly for the "working class and lower middle occupations such as nurses, shop workers, clerical staff—those earning more than the groups targeted for fully-subsidized housing. House prices needed to be within a range of R50000 to R350 000, and rentals between R600 and R3 000 per month (Klug et al., 2013). According to Landman et al., (2009; 19), such housing provision is likely to "increases affordability, and may be able to attract and support a higher level of services, facilities and a variety of shops" in the neighborhood. Therefore, this assertion seem to suggest that the development of mixed-income housing assist in bringing people closer to economic and social opportunities.

3.5.7. Close proximity to economic and social opportunities

The development of mixed-income housing in South Africa is informed by the principles National Spatial Development Perspective (NSDP). The NSDP, 2006 emphasis that "in order to overcome the spatial distortions of apartheid, future human settlement and economic development opportunities should be channeled into activity corridors and nodes that are adjacent to or that link the main growth centers" (RSA, 2006). The ultimate objective of this principle is to ensure that residents are placed in close proximity to economic and social opportunities in order to be able to improve their quality of life. That is, "the importance of greater proximity of housing projects to a range of socio-economic opportunities, considered as a critical success factor for the development of medium-density mixed housing in South Africa" (Landman, 2010; 10). Therefore, given the apartheid spatial distortion, the provision of mixed-income housing is seem to be the key intervention in terms of bringing the people closer to places of work, which will in turn reduces the travelling cost for the residents. Thus, the government has introduced some subsidized for different income groups to facilitate the process of bringing people closer to social and economic activities (Onatu, 2010).

3.5.8. Access to subsidy opportunities

The South African government provides for housing subsidy which is referred to as a grant that the government gives to South African citizens or permanent residents who need help to get a house of their own (Onatu, 2010). That is, this form of subsidy is provided specifically to facilitate the house ownership tenure which has not yet improved in past twenty years in many urban areas across the country. The Census confirms this challenge by indicating that the proportion of households that owned and paid off their house properties was at 43% in 1996 and 2011 respectively (STATS, 2013). In addition, "the government housing subsidy scheme is divided into different categories, namely, project-linked subsidies, individual subsidies, consolidated subsidies, institutional subsidies, rural subsidies and people's housing subsidy" (Onatu, 2010; 209). In this regard, the subsidy which is mainly used for residents in the mixed-income housing is the individual subsidy. This subsidy mechanism was introduced to

facilitate the availability and accessibility of affordable housing to medium income households (Department of Housing, 2004). The medium income household refers to households who earn a monthly income ranging from R3 500 to R 7 000 (Klug *et al.*, 2013). According to Onatu (2010), beneficiaries of this subsidy are not expected to pay back the money, though it is not money in the beneficiaries' hand, this money is deposited to the account of the developer or constructor to help in covering the land and housing costs.

3.6. Conclusion

Apartheid spatial planning ensured that many people were located far from social and economic opportunities, denying them access to opportunities for employment, wealth creation and social progress. As such, spatial marginalization from economic opportunities and social amenities continues to be a significant feature of the space economy and must be addressed (RSA, 2006). In this regard, it is mentioned that the lack of economic opportunities and social amenities within the settlement as well as the spatial division between the income groups are detrimental to the development (Haferburg, 2013) of the country. Therefore, it is against this background that the democratic government has introduced the BNG housing policy, with an aim to realize a non-racial, integrated society through the development of sustainable human settlements and quality housing (Department of Housing, 2004). To implement this policy, the CSIR provides a detailed guideline for the planning and design of sustainable human settlement, while the HSRC (2010) provides a good basis for assessing the status of social cohesion in terms of the economic, sociocultural and civic domains. It has also been indicated that there are numerous benefits associated with the development of mixed-income housing in the country. In this regard, the subsequent chapter will provide observation data from Serala View to testify the assumed positive contributions of mixed-income housing towards social cohesion.

CHAPTER 4

EVIDENCE OF THE INTERFACE OF MIXED-INCOME HOUSING AND SOCIAL COHESION FROM SERALA VIEW

4.1. Introduction

The Serala View residential development is one of the residential areas in the Polokwane City which portrays the design features of a gated townhouse complex mixed-income typology. On this note, the residents in Serala View have different views with regard to the significance of the spatial features which configure their residential neighborhood. Most importantly, the security feature has been identified by the majority of the residents as the very important feature in the residential area. In this regard, security measures are important in bringing the sense of safety among the residents, and eventually allow the residents to be more interactive and cohesive with each other. Similarly, the residential area is characterized by integrated house sizes, types and tenure, provision of public streets, aesthetic and attractiveness of the house units, and the demarcation between the public and private spaces in the neighborhood. Therefore, all these features and characteristics are considered to have some contribution towards livability in the residential area, and subsequently contribute in the manifestation of social cohesion in the residential area. In essence, the portrayed physical features and characteristics is seen to have a role in facilitating the presence of social order and control; communitarianism shared values; spirit of social solidarity; social interaction; and, last but not least, to build residents' sense of place attachment to their neighborhood. This chapter will analyze, interpret the findings on the characteristics of mixed-income housing and the domains of social cohesion in Serala View, and subsequently provide conclusion and recommendations.

4.2. Significance of the Design Features in the Serala View Gated Townhouse Complex Typology

Through the observation made, it has been noticed that the Serala View residential development is configured as a townhouse complex typology of mixed-income housing. That is, the residential area have all the physical features which characterize a

townhouse complex in a sense that there is integration of different house size and types; provision of accessibility through streets; the houses have appealing outlook and allow the residents to overlook the main public spaces; there is clear separation between the public and the private space; and there is a provision of security measures. In this regard, the residents in Serala View have different opinions with regard to the significance of these physical features in their living environment (Figure 4.1). To some extent, the views and opinions of the residents in this context are influenced by their experiences and expectations in the residential neighborhood.

Figure 4.1: The importance of the physical features that configures the Serala View mixed-income housing

	Integration	Accessibility	IMAGE AND AESTHETIC	SURVEILLANCE	OWNERSHIP AND TERRITORIALITY	TARGET HARDENING
VERY MUCH IMPORTANT	10	4.4	5.6	3.3	15.6	61.1
MUCH IMPORTANT	13.3	13.3	20	18.9	30	8.9
JUST IMPORTANT	18.9	22.2	24.4	16.7	8.9	6.7
LESS IMPORTANT	21.1	27.8	13.3	23.3	8.9	7.8
LEAST IMPORTANT	8.9	17.8	20	26.7	23.3	4.4
NOT IMPORTANT	27.8	14.4	15.6	11.1	13.3	11.1
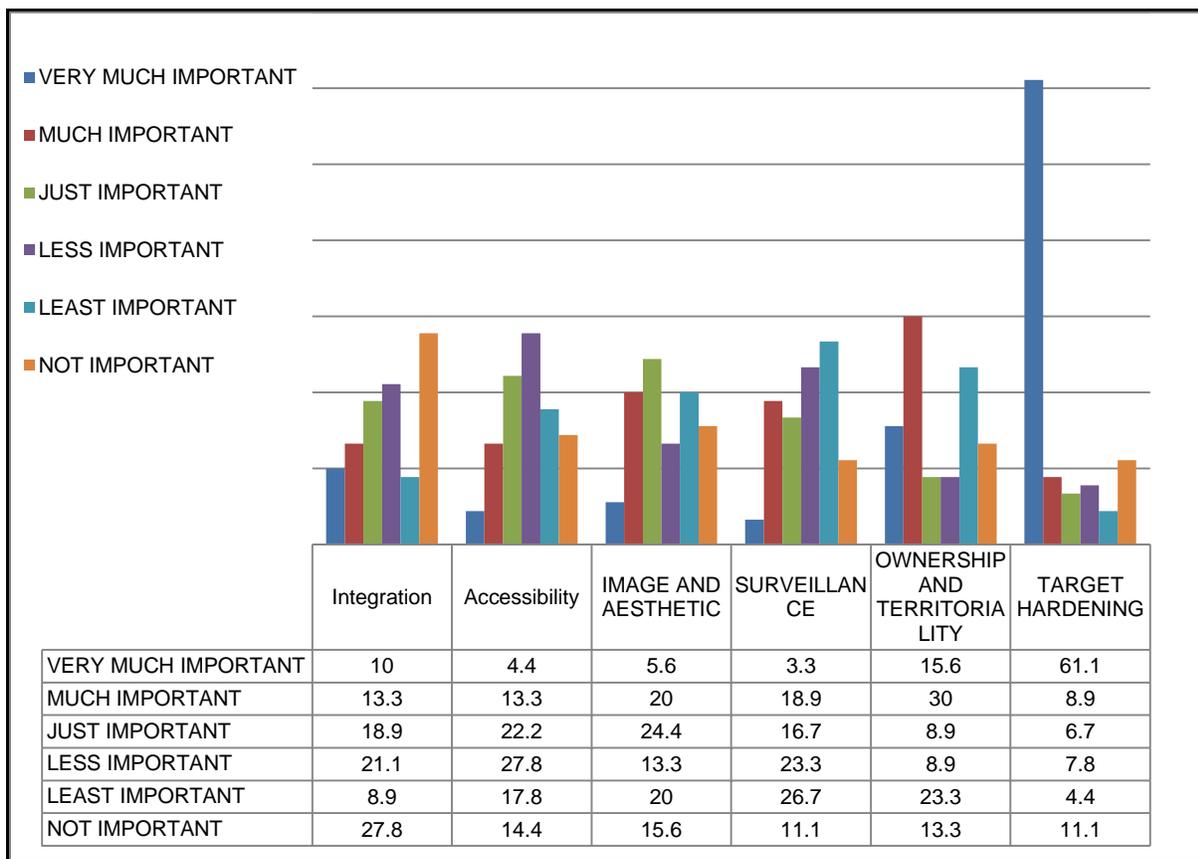
That is, people in the urban residential areas are more concerned of their safety and security. Such finding does confirm the statistics which indicate a high crime rate in the urban areas of South Africa. Therefore, it is in this context that the Serala View residents proactively make provision of security measures in their homes.

4.2.1. Provision of strong security measures

Remarkable, More than 61 % of the residents regard the target hardening as the very much important feature in their residential area. The target hardening feature refers to security measures such as gates, walls and buckler proofs. Seemingly, security and safety issues are a major concern for the residents in the Serala View residential area. It could therefore be argued that it is for this reason that most of the residents have made provision for high security measures at their homes (Figure 4.2).

Figure 4.2: The personally provided safety and security measures
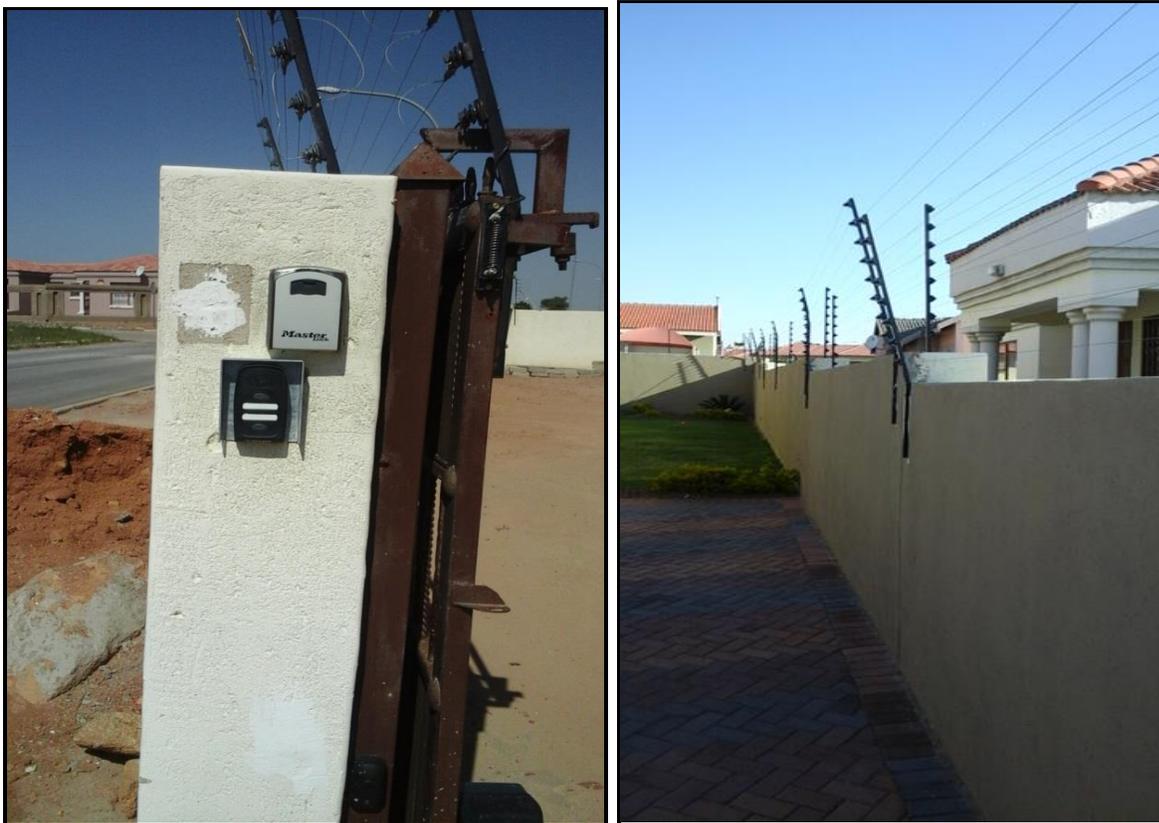
This situation seem to suggest that the residents in Serala View have a substantive spending on security features in order to have the sense of security in their homes. However, most of the boundary walls in the residential area are very high, to an extent the ability to oversee their public spaces from home is concealed.

4.2.2. The ability to overlook public spaces from home

Given the high level of concern on safety and security issues in Serala View, it appears to be strange that surveillance is, by a significant proportion of the respondents (32.3% and 26.7%) respectively, considered as least and less important feature. In general, surveillance is important because it refers to the ability to overlook the public space from your home, and it is during such time that a strange suspicious person could be noticed and reported to relevant security personnel and or authorities. Therefore, this finding may seem to suggest that the residents in Serala View are not much concerned about what is occurring in their public spaces like streets when they are at their homes. Instead, they are more concerned with their individual private security.

4.2.3. Integration of housing types and sizes

With regard to the integration feature, about 30% of the residents have a sense that it is not important to have a mix of different house types and sizes. Most of the respondents who referred to integration as not important were observed to be those who are living in big houses like double storey and mansions houses. While on the other hand, a proportion of 10% feel integration is very much important, and most of these residents live in 3-4 bedroom houses. Amongst this proportion of residents, there are those who stated that integration of different house units' size and types indicate the level of wealth accumulated by the different residents. Therefore, for the residents living in the smaller size houses, integration is seen as an advantage in a sense that it enables this proportion of residents to interact and acquires advises from the more well-off residents. That is, the integration feature is seen to be more favorable to the low-income group than the high income group in the Serala View residential development.

4.2.4. Demarcation between public and private space

A significant proportion of the respondents (15.6% and 30%) consider the ownership and territoriality very much and much important respectively. These responses seem to suggest that the residents in the Serala View are concerned about the separation between their private space and the public space. In some instances, the residents

have highly personalized the transition between the private and the public space in order to make a clear indication of the demarcation. That is, some of the front yard facades, as observed, are nicely paved and landscaped (Figure 4.3).

Figure 4.3: Demarcation between the public and private space

The respondents in this proportion mentioned that clear separation between the public and the private space is important because they are able take responsibility of their private space, and in turn makes them to feel a sense of ownership of their private spaces. However, the study also indicates that some residents (13.3%) consider the ownership and territoriality feature as not important in the residential area. Most of the respondents in this proportion are likely to have been living in the residential area for less than one year. Therefore, it could be suggested that residents who have lived in the residential area for more years are more likely to invest in creating a clear separation between the public and the private space. Such demarcation does not only provide enhance privacy at the house units but also enhances the attractiveness and the aesthetic of the entire neighborhood.

4.2.5. Attractiveness of the house outlook

With regard to the image and aesthetic feature, 5.6% and 20% of the respondent consider image and aesthetic as very much important and much important respectively. This finding seems to suggest that the residents in Serala View do not much consider the maintenance of their houses' outlook as a top priority. In contrary, through observation it has been noticed that most houses have appealing outlook and painting. One respondent mentioned that most home owners in Serala View prefer to paint their houses to maintain the outlook of their houses than to use the so-called "first brick". The reason behind the popular use of painting is that a painted house has a high market value compared to a house made with "first bricks". Therefore, it may be concluded that residents in Serala View have built their house not only for settling but also for future investment.

4.2.6 Provision of pedestrian and cyclist friendly streets

When looking at the accessibility feature, seemingly most of the respondents consider it to be having lesser significance in relative to the other physical features. That is, 27%, 17% and 14% of the respondents see the provision of adequate accessibility in the residence as less important, least important and not important respectively. However, some of the respondents had a view that accessibility is very much important (4.4%) in the residential area. To this extent, among this proportion of respondents there was a concern that the two main entrance and exit points are insufficient and inadequate in terms of facilitating accessibility in the Serala View residential area. In this regard, there are allegations that some members of the community have broken down some parts of the surrounding wall in the residential area in order to have easy of access to and from the residential area. Therefore, such instance seems to suggest that there is a need for pedestrian entrance and exit points in order enhance accessibility in the residential area. Again, when observing accessibility from the houses to the streets; in generally, the accessibility is adequate. However, the street connectivity in the Serala View residential area is problematic. The Mamba Street which is the main street is in a form of a ring road, but does not adequately connect through with other small streets in the

residential area. Therefore, the lack thereof proper connectivity in the residential area may be a limiting factor because it discourages the residents to walk within the residential area, and in turn limits the possibility of social interaction amongst the residents.

4.3. The Characteristics of the Serala View Mixed-Income Housing

The Serala View residential development depicts characteristics of a gated townhouse complex in a sense that in the residential area there is mixed housing types, sizes and tenure; accessibility to the nearby social and economic facilities, though these facilities are not in close proximity for residents who would like to walk; attractive and appealing image of the housing units; ownership and territoriality of public and private space; provision of target hardening measures, though the residents feel this measures are inadequate; allowance for surveillance on public spaces, though in not all instances. Nonetheless, the integration of different house types, sizes and tenure is considered to be a significant determination of a mixed-income housing in a sense that people with different income would occupy different housing sizes and types depending on individual's affordability.

4.3.1. Mixed housing types, size and tenure

The provision of different house units in terms of types, size and tenure is considered to be one of the major characteristics of the mixed-income housing (Landman *et al*, 2009). That is, it is through the provision of different housing sizes and types that the owners and tenants with different incomes could be integrated in the urban residential area (Figure 4.4). Such integration has been observed in Serala View, and the respondents have also attested the integration of different house types, size and tenure in the residential area. In this regard, about 50% of the respondents strongly agree that indeed in Serala View there is provision of different housing types and tenures. In the same sense, the majority of the respondents (53% and 47%) agree that in the residential area there are different housing unit sizes and types, respectively.

Figure 4.4: Integration in terms of house unit sizes, types and tenure

	STRONGLY AGREE	AGREE	UNDECIDED	DISAGREE	STRONGLY DISAGREE
DIFFERENT HOUSE UNITS SIZE	28.9	53.3	8.9	6.7	2.2
DIFFERENT HOUSING TYPES	48.9	46.7	2.2	2.2	0
DIFFERENT HOUSE TENURE	50	34.4	8.9	5.6	1.1
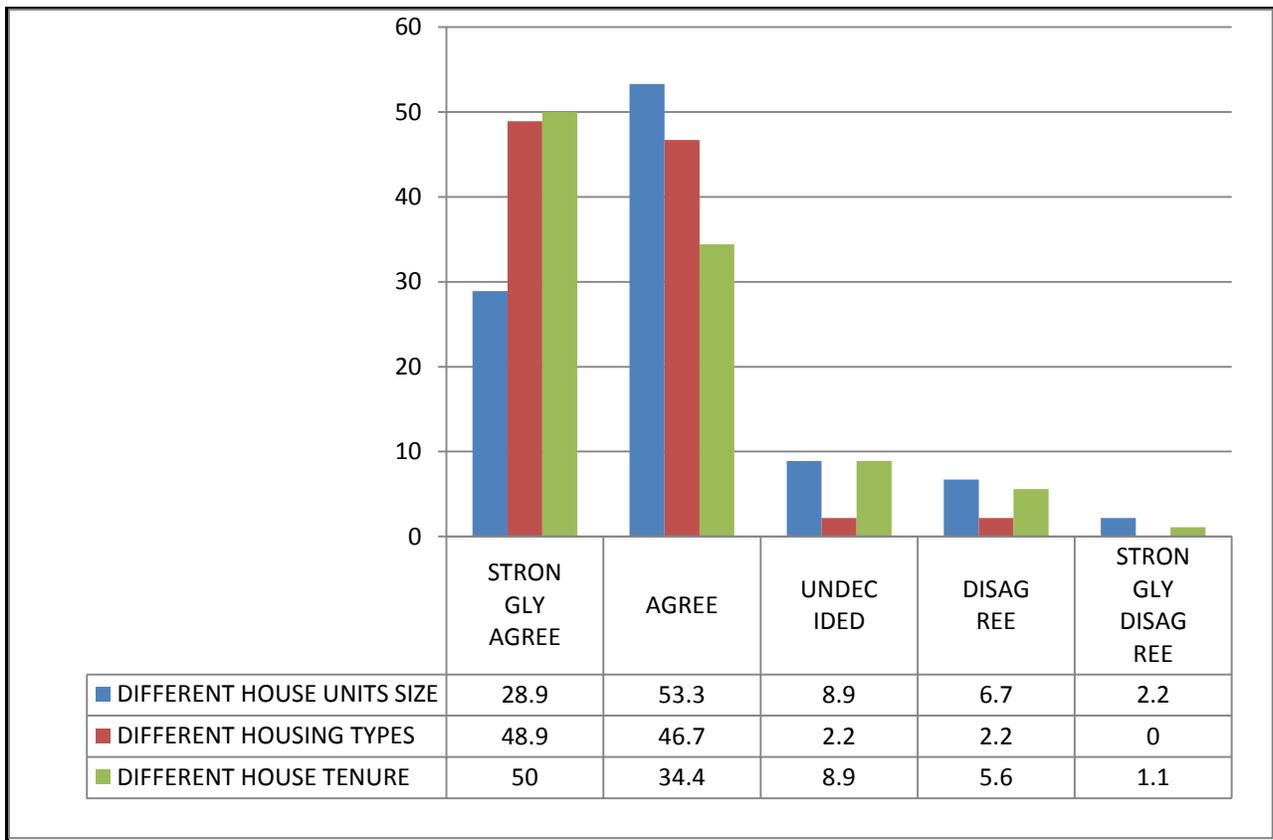
Such integration is very significant in promoting social interaction amongst the residents in urban residential development (Abdul Aziz & Ahmad, 2011).To some extent, the house variance in terms of size in Serala View is influenced by the size of the plots allocated for different houses. The size of the plots, range between 500 and 800 meter square, and the house size must not be less than 400 meter square for the former and not less than 700 Meter square for the later size (Respondent). However, the allocation of the plots is integrated which therefore allows for integration of the different sizes. Similarly, the provision of housing with various tenures also allows for integration of different income groups in the residential area. Though the owner house tenure is seen to be the dominating one (85%), there is a marginal number of respondents who are renting (10%) and renting to own (5%) in the Serala View residential area (Figure 4.5).

Figure 4.5: The distribution of different house tenures
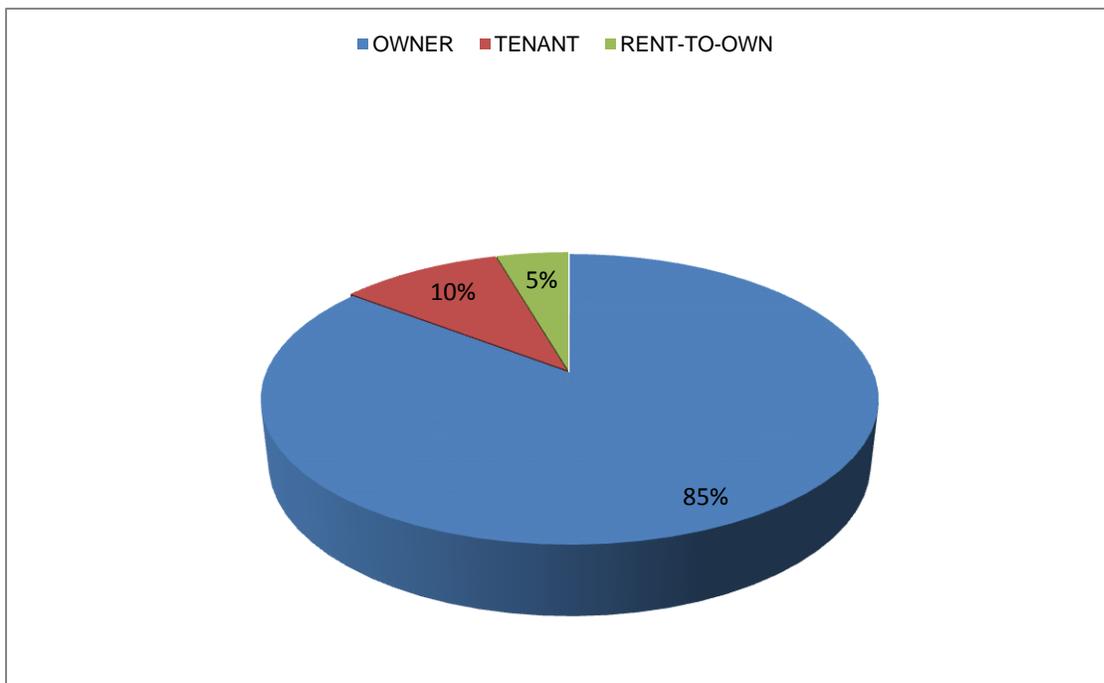
Interestingly, the home owners in the Serala View residential development have an organization called Serala View Homeowners Association. This association was formed to address all socially related issues in the residential area. Therefore, it seems that the association has become a mechanism to facilitate social cohesion among the home owners in the residential area.

4.3.2. Accessibility to social and economic facilities

In terms of location, about 50% of the respondents strongly agreed and 30% agreed that their homes are located in close proximity to the shopping center (Figure 4.6). This proportion of residents mentions that the Savana Mall is the closest to their residential area. However, most of them couldn't walk or use bicycle to the shopping center, instead they indicated private cars as their frequently used mode of transport when going to the shopping center. When estimating the distance from the residential area to the shopping center, the residents state that it took roughly 5 minutes' drive. However, the distance may vary depending on the location of the houses within the residential development. For the residents who are situated just after the entrance to the residential area, the distance to the shopping center would be lesser compared to those who are at

the far end of the residential area. Therefore, it could be for this reason that a handful proportion (5%) of the respondents disagree with the statement that their homes are close to the shopping center. In addition, seemingly it is those who use public transport and walking who disagree with the statement that their houses are in close proximity to shopping centers.

Figure 4.6: Intensity of respondents in terms of their houses' proximity to a shopping center
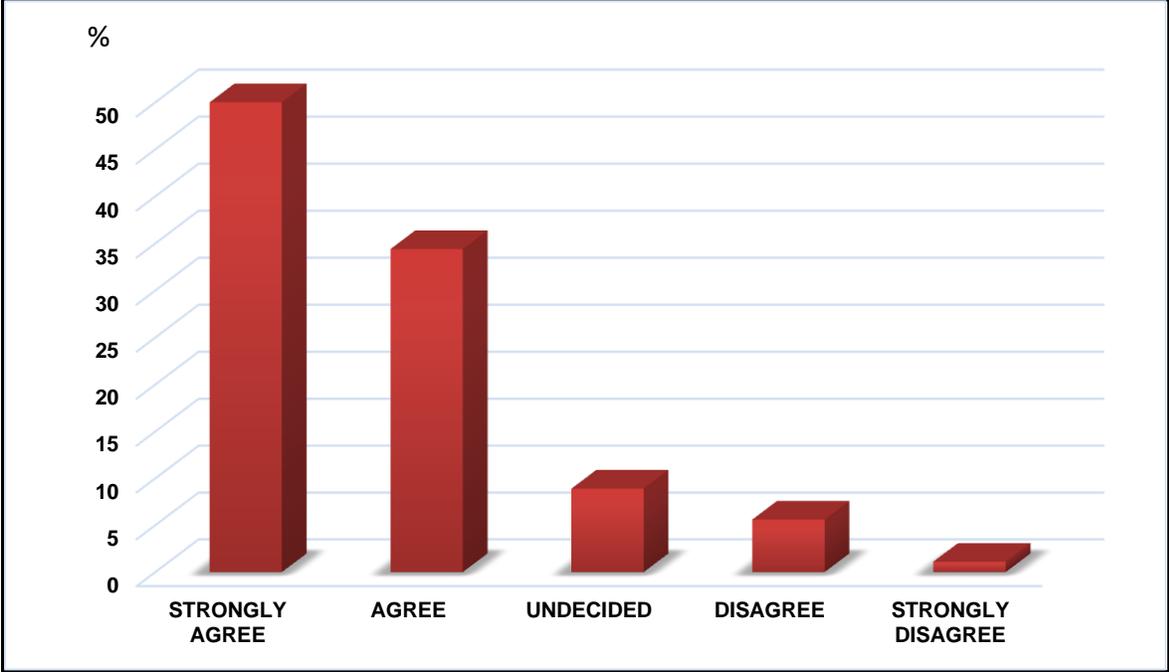
Overall, this situation seems to suggest that the majority of the residents in Serala View are automobile dependent (figure 4.7). Seemingly, the residents consider their houses to be in close proximity to the shopping center because they use automobile than walking or cycling to the shopping center. As a result, they seem to miss the opportunity of casual physical interaction on the streets. Casual interaction on the streets is considered important in facilitating social cohesion in a neighborhood (Farida, 2013). Thus, most of the respondents suggested that a shopping center or convenient shops should be developed within the premises of the Serala View residential area.

Figure 4.7: Mode of transport used by the residents
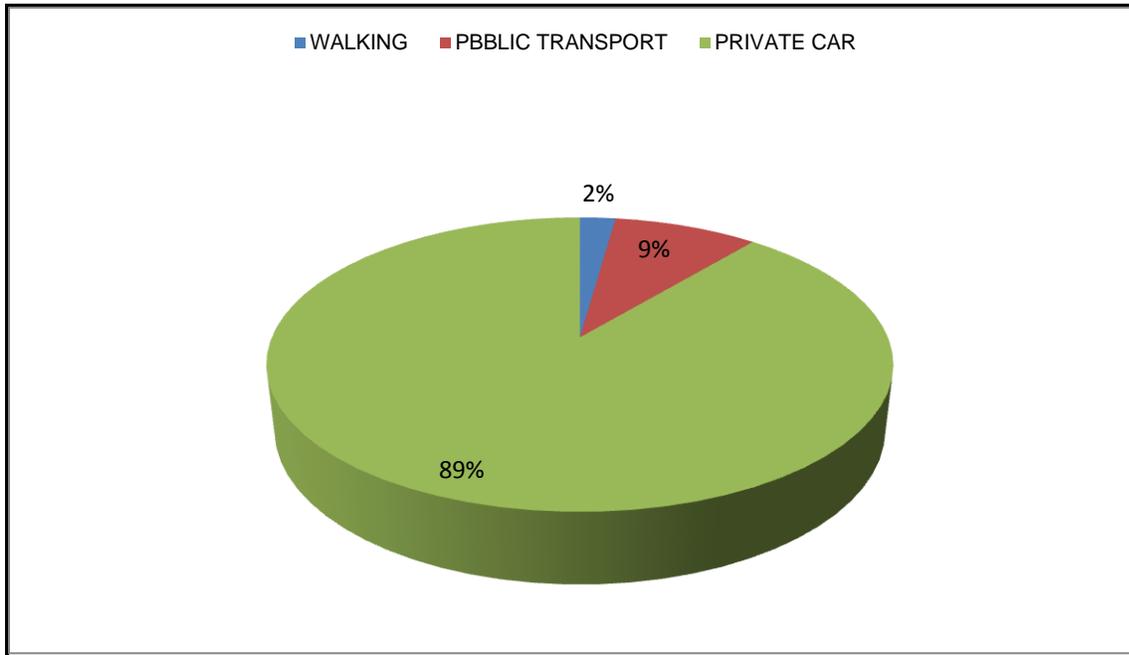
However, the popular use of private transport in Serala View is considered important particular by the respondents who transport their children to different schools outside the residential development. Even though a significant proportion of the respondents (30% and 35%) strongly agree and agree respectively that their houses are close to school (Figure 4.8), and most of these respondents have children who are attending a primary schools located at the nearby suburbs. That is, there are two primary schools which are located in the suburbs that are adjacent to Serala View; hence the parents often use their private cars to transport their kids to school. This situation could suggest that the parents of the children are more likely to have interaction during the time of "dropping-off and picking-up" time their children.

Figure 4.8: Intensity of respondents in terms of their houses' proximity to schools
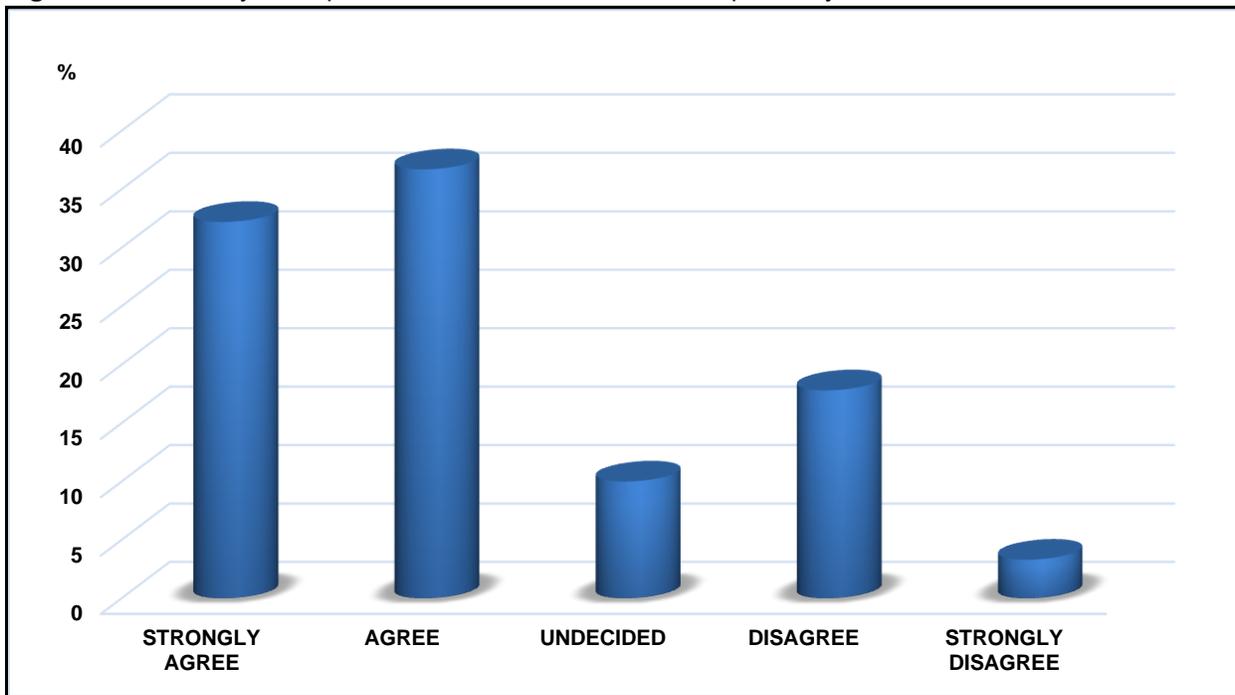
About 15% of the respondents disagree with the statement that their homes are close to schools. In this instance, most of the respondents in this proportion have children in their households who attend secondary schools in town. Therefore, the responses of the respondents are seen to be subjective, depending on whether or not in a particular household there are school attending children. Nonetheless, the bottom line is that in Serala View there is no any schools; be it a primary or a high school. The provision of schools, particular a primary, within Serala View may be seen as a necessity given the high number of children in the residential area. That is, children below the age of 18 years constitute 40% of the entire population in Serala View (Table 4.1). Schools have a potential to facilitate integration amongst the children who are coming from households with different incomes.

Table 4.1: Percentage of household distribution in terms of gender and age

Age	Gender		Percentage
	Male	Female	Total
Below 18	23%	17%	40%
18-30	7%	10%	17%
31-43	12%	15%	27%
44 and Above	8%	8%	16%
Total	50%	50%	100%

In essence, it could be argued that each household in Serala View has an average of 2 children. On the other hand, these children also need some recreational and sport facilities because currently it has been observed that the children in the area normally play on the streets due to the lack of recreational facilities in the residential area. And for that reason, the streets in the neighborhood have some speed humps to control the flow of motor cars (Figure 4.9). Evidently, there is less security for children in the residential area.

Figure 4.9: Children playing on the streets and a street with a speed hump

Nonetheless, a significant proportion of the respondents show to be positive about the pedestrian friendliness of the streets in their residential area. In this regard, 35% and 24% of the respondent strongly agree and agree respectively that the streets in Serala View are user friendly to pedestrians (Figure 4.10). Such response seems to suggest that the streets in Serala View are wide enough to accommodate both motorists and pedestrians. In some parts of the area as observed, there are specific pedestrian designated paths which allow the residents to walk without interruption by the automobiles. Therefore, such streets are likely to encourage walking as a preferential mode of transport in the neighborhood, and eventually facilitate interaction among the pedestrians (Brown *et al*, 2011).

Figure 4.10: Intensity of respondents in terms of the pedestrian friendliness of their streets
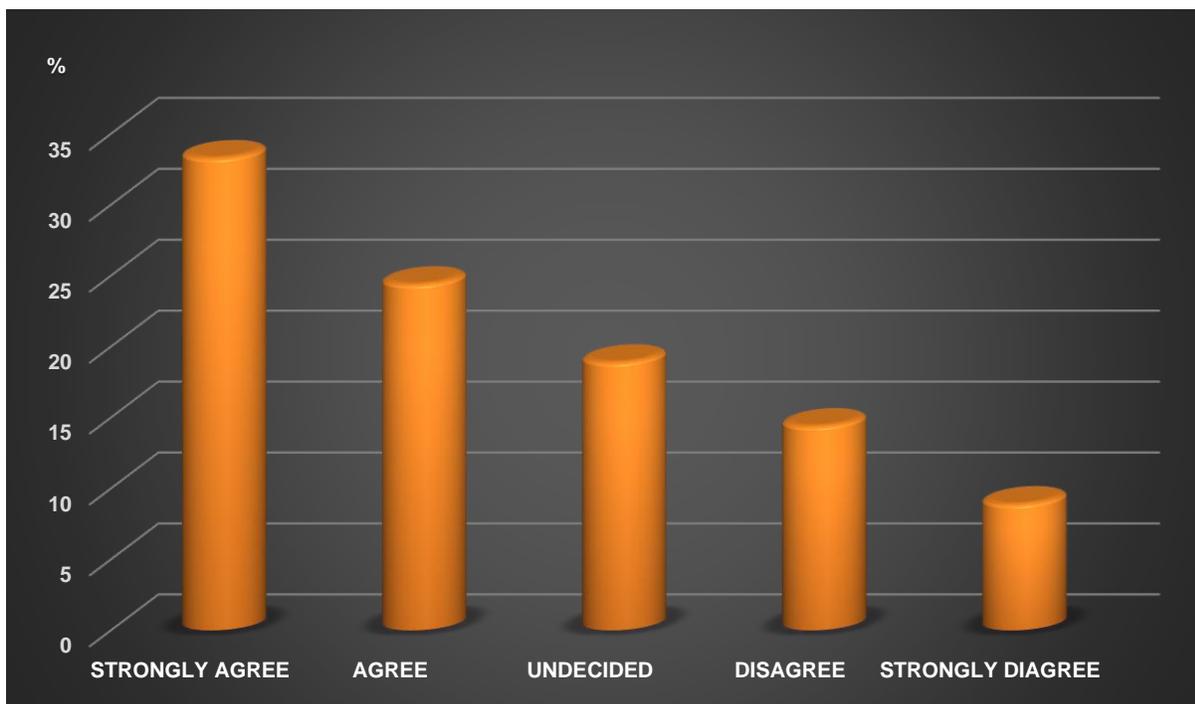
However, 16% of the respondents are seen to be unsure of whether or not are the streets in Serala View pedestrian friendly. This proportion of residents together with the 12% which disagree claim that for the fact that there is no pavement in the residential area, the streets may not be considered as pedestrian friendly. Therefore, these responses seem to suggest that residents have different views with regard to pedestrian-friendly-street in a sense that some consider the wideness of the streets

while some look at the provision of pavement in ensuring pedestrian-friendly-street. In either instance, residents are able to walk freely and interact with each other in the meantime. Still in relation to streets in the Serala View, it is important to also consider the distance the residents have to walk from their home to the main streets.

The majority of the respondents in Serala View have positive response in terms of the distance they walk from their homes to the main streets. That is, 40% and 39% of the respondents strongly agree and agree respectively with the statement that the distance from their homes to the main streets is short (Figure 4.11). In this regard, it was observed that most of the houses in the residential area are about few meters to the main streets. Seemingly, the distance from most homes, as observed, indicates that the residents are able to have oversight to the streets while at their homes. The ability to overlook streets from home in a neighborhood is important for ensuring "eye-on-the-street" surveillance (MacDonald, 2005).

Figure 4. 11: Intensity of respondents in terms of distance's shortness from home to the street
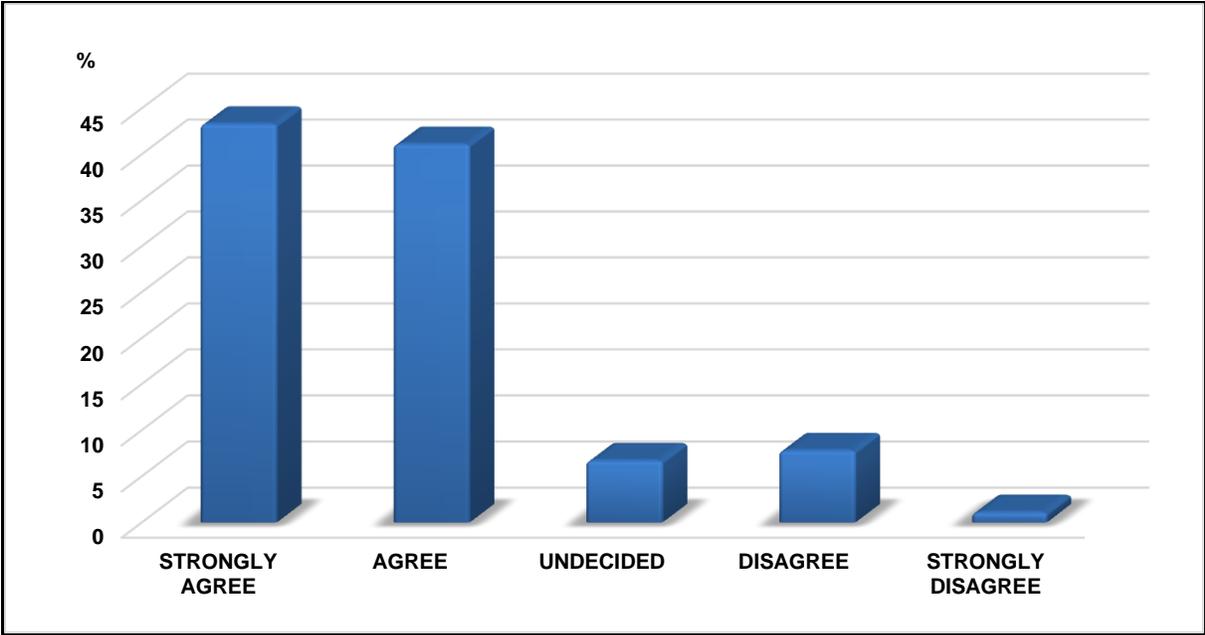
However, there is a handful minority (5%) which disagree with the statement that the distance from their home to the street is short. Through observation, it has been

noticed that some houses are not only a distance away from the street but also lack adequate access to the street (Figure 4. 12).

Figure 4.12: Lack of adequate access to connect the house and the street

With such situation indicated above, the residents living in this house unit seem to have a challenge in terms of accessibility and oversight to the street. That is, such situation may limit the opportunity of the residents to have accessional observation on what occurs on their nearby street. Therefore, it could be argued that street connectivity in some parts of the residential area is not adequately designed.

4.3.3. Image and aesthetics of the housing units

With regard to the exterior outlook of the housing units in the Serala View residential area, the majority of the respondents (35% and 37%) respectively indicate that their houses have attractive painting (Figure 4.13). Most of the respondents in these proportions state that they have purposefully used painting colors of their choice to ensure that their houses have an attractive outlook. Through observation, it have been noticed that colors such as cream white, grey, brown and white are the dominating painting colors used in Serala View. In some instances, some of the houses have a

combination of two of the aforementioned colors in order to increase the appealing of the house outlook. One of the respondent mentions that such colors for not only enhance the aesthetic of the houses but also stimulate its market value. In addition, it has been observed that most of the residents in the residential area prefer their houses to be painted.

Figure 4.13: Intensity of respondents in terms of the attractiveness of their house painting
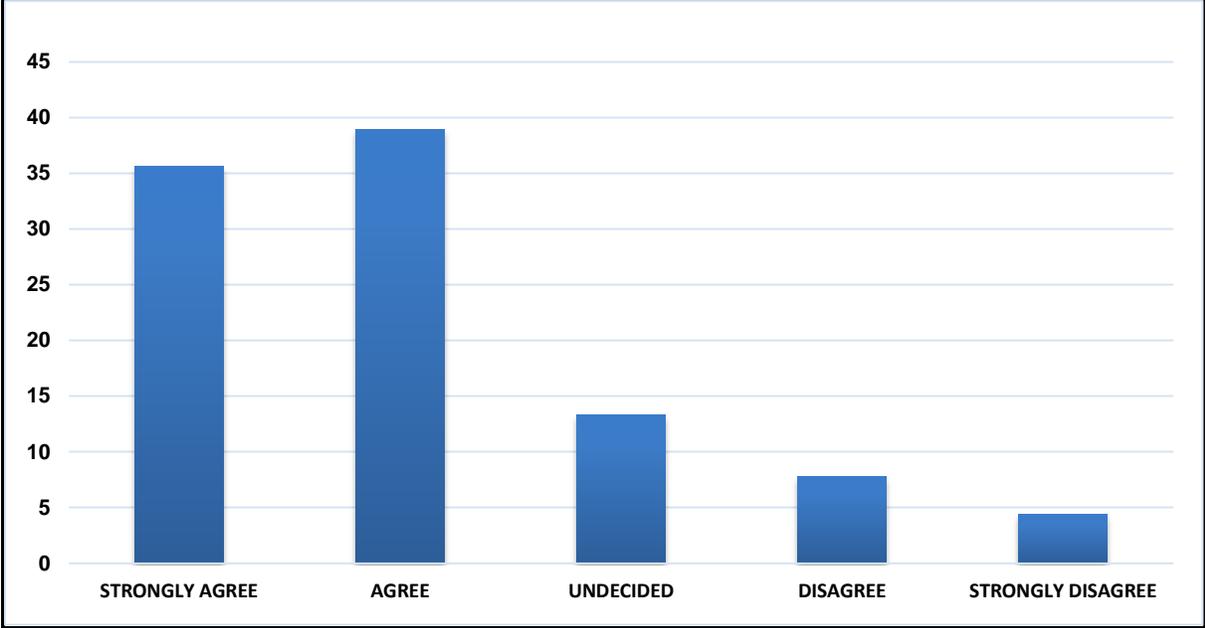
However, there is a minority proportion (7% and 8%) which seems to not be satisfied with the attractiveness of their house painting. This proportion of respondents include respondent whom their houses are not painted at all and those that have painted but still want to change the color of the current painting. Seemingly, it was noticeable that these proportions of respondent feel that their houses have painting colors which is inferior to the one which are commonly used in the neighborhood. Therefore, it could be argued that they disagree because they feel like their housing painting does not conform to the neighborhood house character in terms of painting aesthetic. Attractive neighborhood character is also complemented with the gardening and landscaping on both the public and private spaces in the residential area.

About 26% and 24% of the respondents strongly agree and agree respectively that the gardening and landscaping in the neighborhood is appealing (Figure 4.14). In essence, this proportion of respondents has a sense that the residents in the neighborhood do take care of their environment in terms of gardening and landscaping. Through observation, it has been noticed that landscaping in the residential area includes the planting of lawn, flowers and tree.

Figure 4.14: Intensity of views in terms of the attractiveness of gardening in the neighborhood
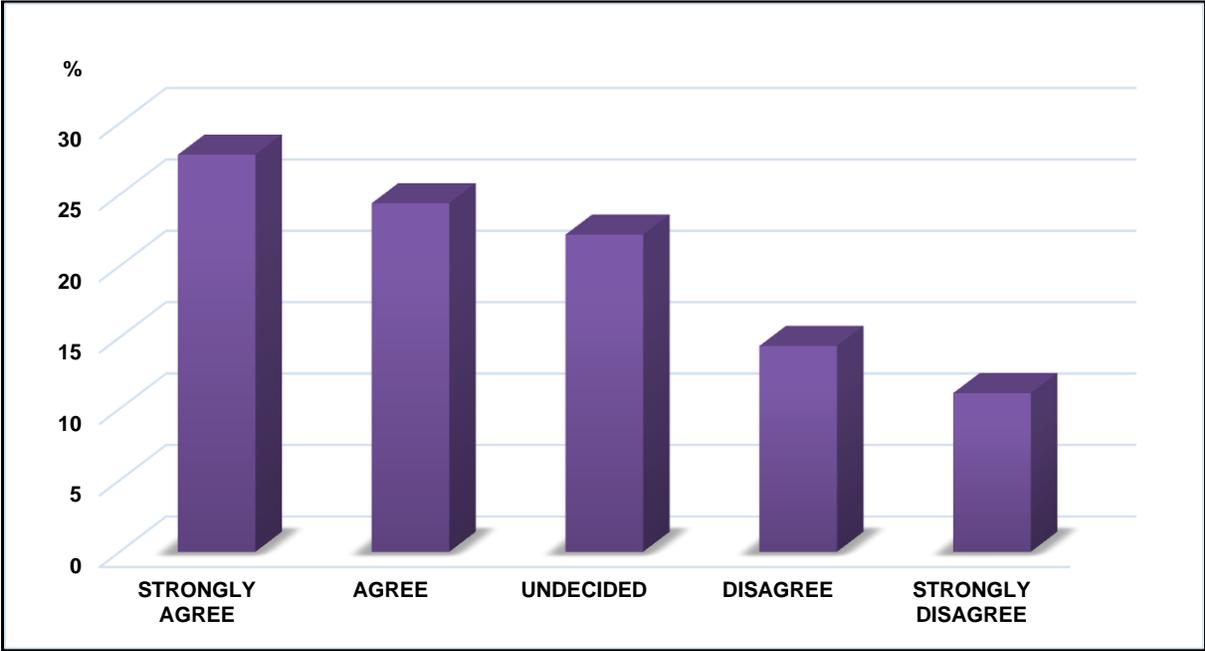
In general, a neighborhood with an appealing gardening indicates that the residents have a high sense of ownership and responsibility over their territory. Therefore, with this understanding, it could be argued that the residents in Serala View have a common responsibility of keeping their surrounding in a good and attractive condition. In essence, the maintenance of the gardening in the residential area indicates the presence of the values of shared common on one hand, and the sense of responsibility and ownership on the other hand.

4.3.4. Ownership and territoriality in the neighborhood

The sense of responsibility and ownership over the neighborhood territory is also enhanced by the clear demarcation between the public and private space. In this context, the majority of the respondent in the residential area show to be positive about the statement that there is a clear separation between their public and private space. That is, 26% and 35 % of the respondent strongly agree and agree respectively that in there is a clear separation between the public and private space in their residential area. In some instances, the public-private demarcation is highly personalized, in a sense that the so called public-private transitional space which ought to be neutral, seem to be privately owned. Conversely, there are house plots which are not bordered for separation between the public and private space (Figure 4.15).

Figure 4.15: Illustration of demarcations between public and private space

In the study, there is also a minority of respondents (4% and 6%) who disagree and strongly disagree respectively, with the provision of separation between the public and private space in the residential area. This proportion of response could have been be

informed by the fact that, as observed, not all the houses in the Serala View residential area have notable boundaries between the public and the private space. The lack thereof of a clear demarcation between the private and public space in the residential area could reduce the sense of privacy of the residents (Landman *et al.*, 2009). Therefore, in a situation where there is no clear division between the private and the public space, it is likely that people could use one's private space thinking it is a public space. Conversely, a well separation between the public and private space could allow for sense of ownership and responsibility for the private space.

Figure 4.16: Intensity of responses in terms of the provision of division between public and private space
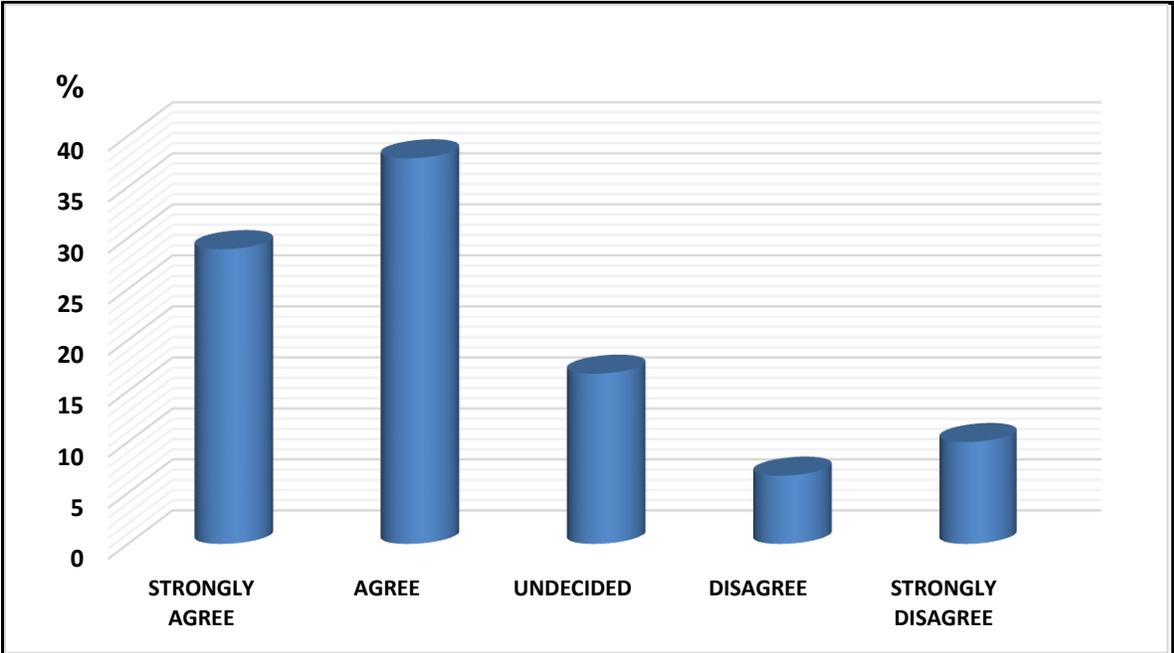
Therefore, given that the majority of the respondents in the residential area have made efforts in creating a clear demarcation between the private and public space, this seem to suggest that the residents in Serala View have a high sense of privacy in their homes. While still looking at the issue of privacy, almost everyone in Serala View seems to contend that there is privacy in his/her house.

4.3.5. Target hardening in the neighborhood

That is, 40% and 38% of the respondent strongly agree and agree that there is privacy in their housing units (Figure 4.17). The presence of the sense of privacy is fundamental

in reducing vulnerability to criminal attacks, in a sense that an intruder who passes by could not easily get access to the house, let alone to see through to the house.

Figure 4.17: Intensity of respondents' view in terms of the sense of privacy in their houses
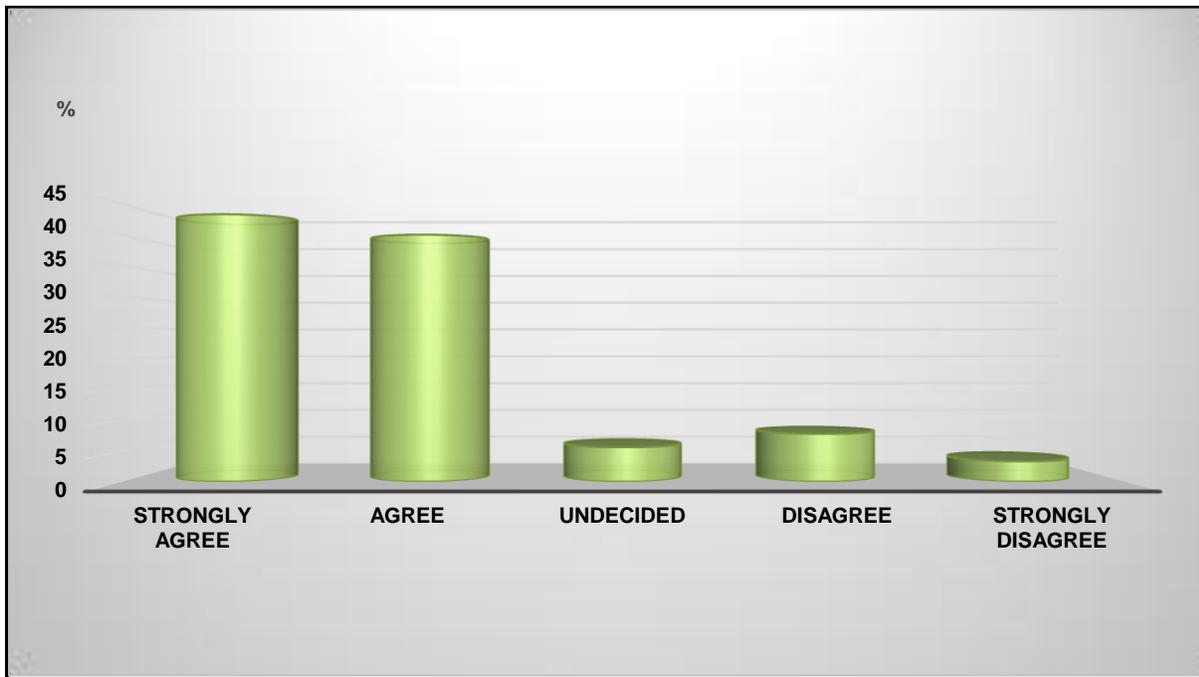
In some instances, some houses have windows which allow only the person who is inside the house to see through a closed window while others have high security measures like walls. In this regard, one of the key informants mentions that the erection of the security walls in Serala View is a compulsory responsibility. However, as observed, there seems to be no restrictions in terms of the height and design of the walls in the residential area. As a result, some housing units have high security walls which therefore conceal the residents to overlook some of the public space from their home. Notable, social cohesion in a neighborhood is ensured when there is a balance between the assurance of privacy and the ability to overlook some of the public spaces (Landman *et al.*, 2012).

4.3.6. Occasional surveillance of public spaces

Noticeable, a significant proportion of the residents confirm that are able to overlook some of the public spaces from their houses. In this regard, 24% strongly agree and

40% agree, which therefore seem to suggest that the majority of the houses in Serala View have been designed to allow surveillance to the public spaces (Figure 4.18). Noticeable, the proportion of residents who strongly agree with the notion of ability to overlook the public space are those that their houses have almost all the architectural features which enhance surveillance from a house. These architectural features include balconies, windows and front doors.

Figure 4.18: Intensity of respondents' experiences in terms of ability to overlook the public space from their homes
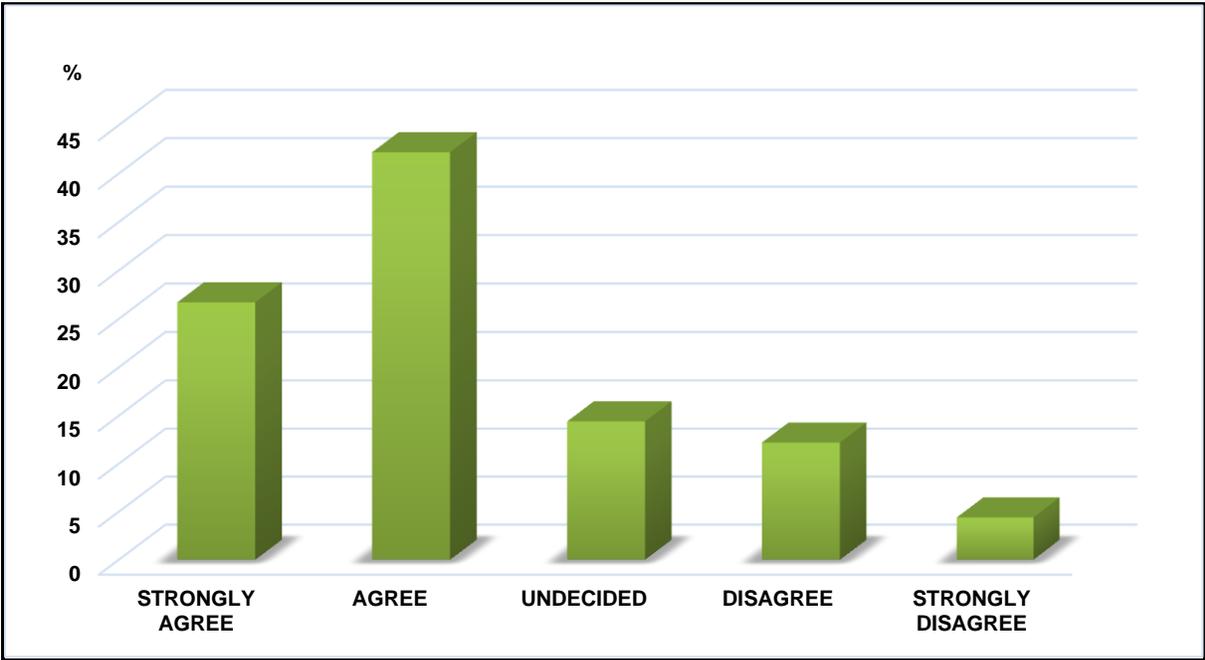
Conversely, the proportion which disagrees, their houses does also have some of these features, but could not overlook the public space because of the high security wall surrounding their houses. As a result, the high walls limit those residents the ability to interact with the activities which occur in their nearby public spaces such as streets. Consequently, such situation may have negative effect in the building of social cohesion in the residential area, though it is believed to strengthen the sense of security in the neighborhood.

The majority of the residents in Serala View deny that there is provision of security measures at the main access point of the residential area. That is, approximately 35%

and 27 % of the respondents disagree and strongly disagree respectively with the statement that there is a provision of security measures to control access to the residential area (Figure 4.19). Similar, it has been observed that indeed, the public could enter the Serala View residential area without any security restrictions. Therefore, the lack of security controls at the main entrances of the residential area is seen to threaten the security of the residents. As such, the lack of security measures seem to compromises the formation of social cohesion in a sense that the residents in the area would be afraid to interact openly with any person they meet on the streets because that particular person would have entered the residential area without any permission, unlike when there is security at the access points.

Figure 4.19: Intensity of respondents' view in terms of the provision of security at the main access point of the residential area
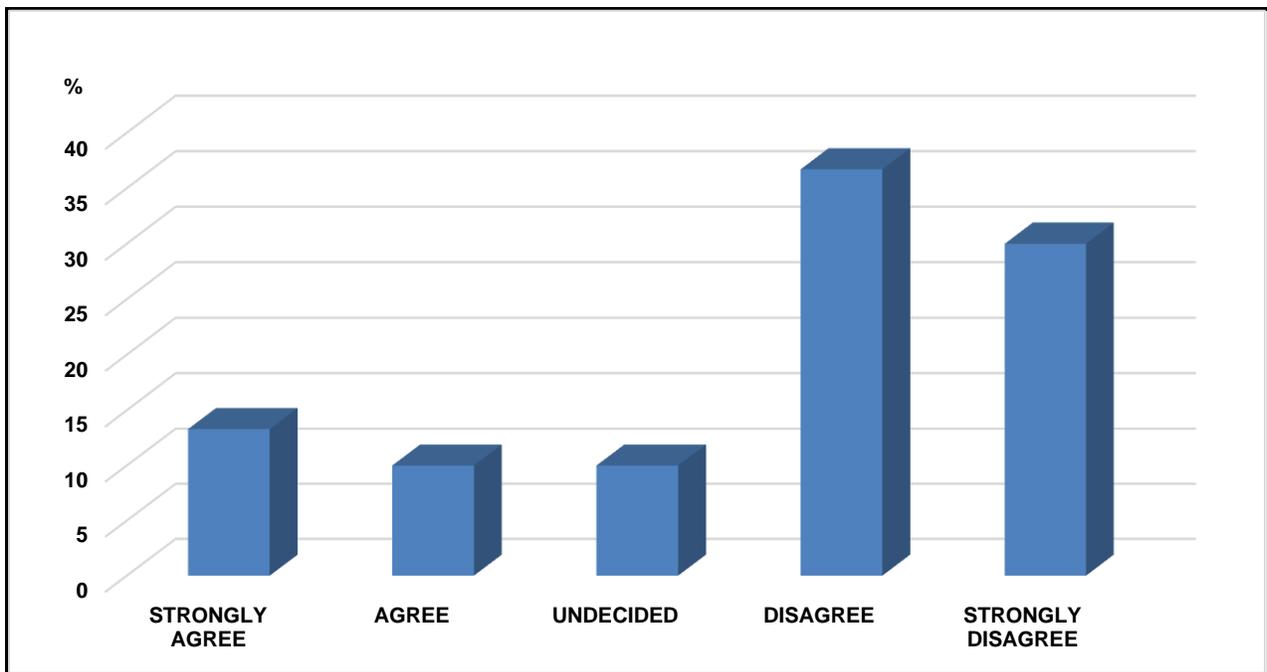
On the other hand, a handful proportion of respondents (10% and 7%) does strongly agree and agree respectively with the statement of security measures at the main access points of the residential area. With regard to this proportion of respondents, there is an assumption that the available gate structure at the entrance serves as a security control. Arguable, a gate alone does not enhance security in the residential area; the gate should be controlled to monitor those who come in to the residential area

in order to maintain a high level of safety in the residential area. For that reason, the majority of the respondents (29% and 26%) have a negative response with regard to the presence of high level sense of safety in the residential area (Figure 4.20). The major reason which has prompted such response is the lack of security controls at the main access points of the residence. In essence, it could be argued that there is a low level of safety in the Serala View residential area, and accordingly, this situation seem to compromise the formation of social cohesion in this mixed-income residential area.

Figure 4.20: Intensity of respondents' view in terms of the presence of high level of safety in the residential area
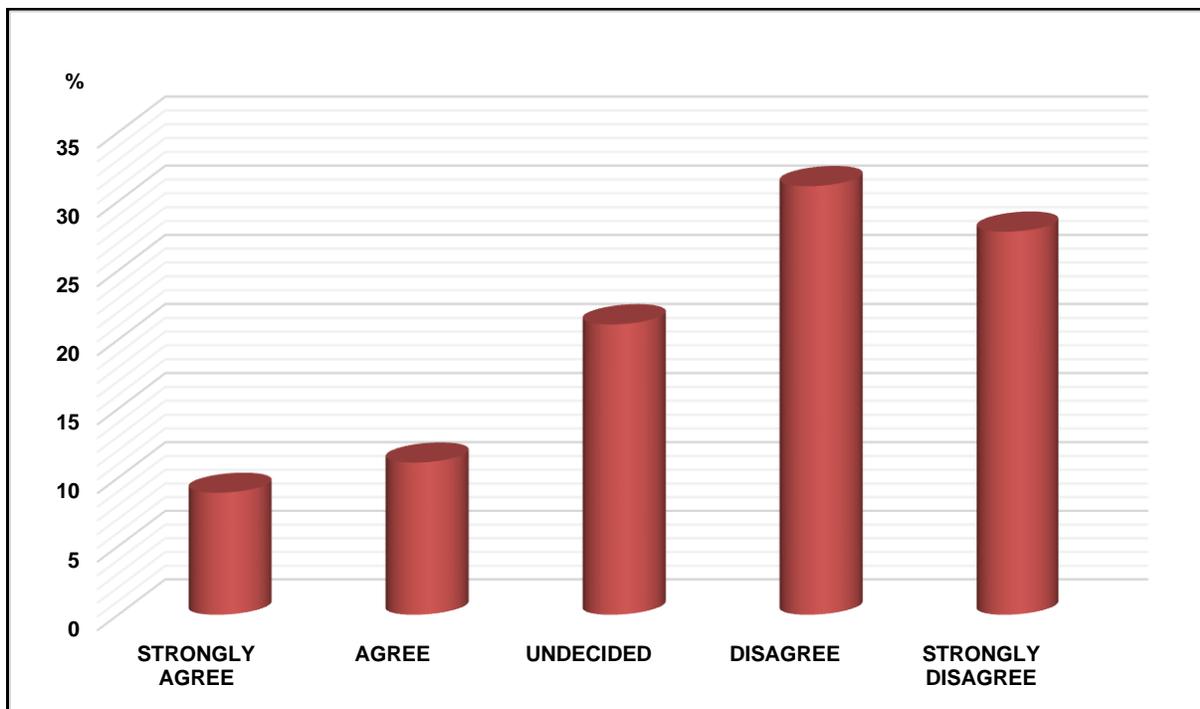
On the other hand, there are a proportion of respondents who feel that of course there is high level of security in the residential area. That is, 6% and 8% strongly agree and agree respectively that there is high level of security in their residential area. Noticeably, most of the respondents in this proportion have personally installed high security measures and have security response systems at their homes (Figure 4.21).

Figure 4.21: Typical high security measures in houses in the residential area

Despite the low level of safety in the residential area, the majority of the respondents (10% and 50%) indicate that they are highly satisfactory and satisfactory respectively with their living environment in the Serala View mixed-income residential area. Therefore, this finding could suggest that the provision of high security measures in the residential area make the residents to feel satisfactory in their neighborhood. In addition, this finding could also suggest that the more you invest in the provision of security measures, the more one would have a high level of satisfactory in the residential area.

Figure 4.22: Intensity of respondents' view in terms of their level of satisfaction with their living environment
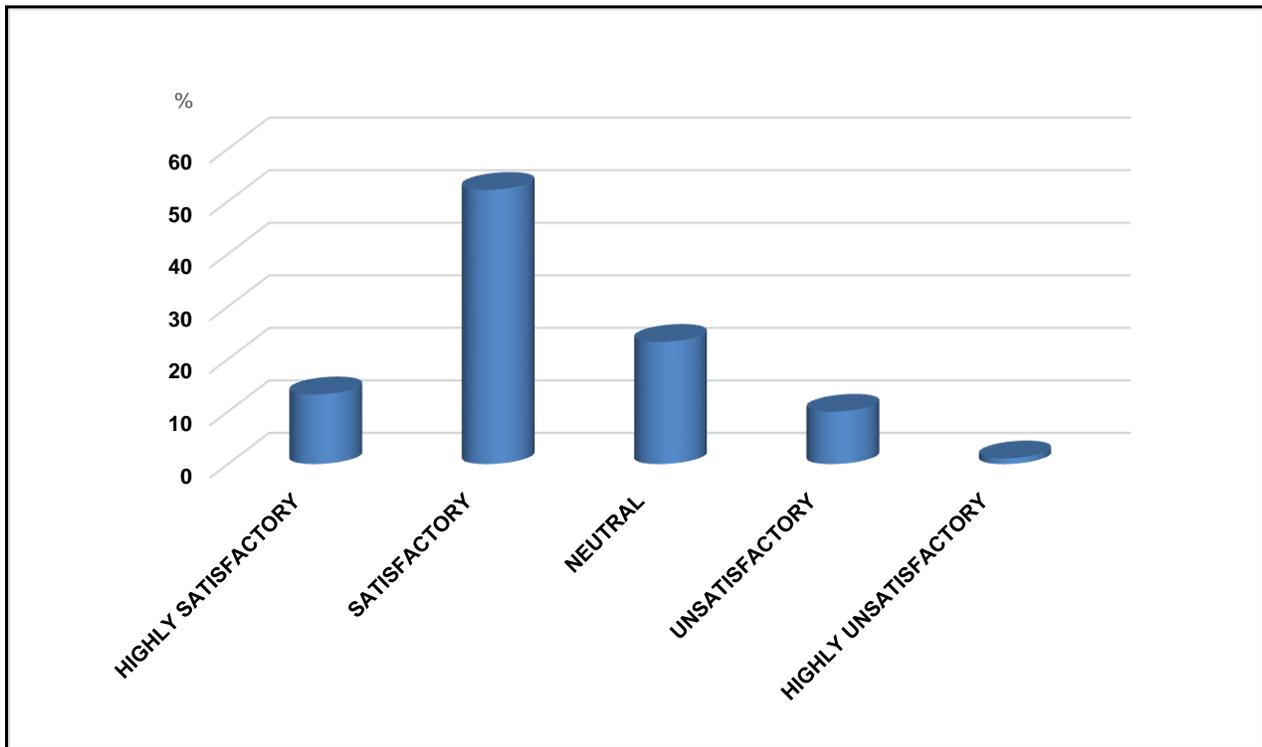
That is, as indicated early, the aesthetic together with the integration features in the neighborhood seem to be the major contributing factors which make the residents to be satisfied the living environment in Serala View. For that reason, the Serala View residential area could be defined as one of the livable residential areas in the Polokwane City. The more the residents feel satisfactory with their living environment, the higher the possibility for the formation of social cohesion in the urban residential area (Dekker & Bolt, 2005). However, there is a proportion of respondent which claimed to be unsatisfactory with the living environment in Serala View. One of the respondents in this proportion cites the issue of security as the cause of her unsatisfactory with the residential area. Indeed, the security challenge could be a serious threat in the formation of social cohesion in a residential neighborhood.

4.4. Manifestation of Social Cohesion

Importantly, social cohesion is a comprehensive phenomenon which generally manifest through the establishment of social order and control; the formation of shared values

and civic culture; the creation of social networks and connections; the presence of social solidarity; and the realization of the sense of place attachment and identity amongst the residents (Forrest & Kearns, 2001). In this context, the residents in Serala View have different understanding and views on the issues constituting the manifestation of social cohesion in their neighborhood. That is, the residents in the area seem to have diverse experiences in relation to the different domains of social cohesion in their neighborhood.

4.4.1. State of social order and control in the neighborhood

Social order and control is one of the domains of social cohesion, and in the context of the study, aspects such as the occurrence of criminal activities, respect among the different socioeconomic group and the general life style of the residents was assessed to determine the manifestation of social cohesion in the Serala View Mixed-income residence. In this regard, the residents provide different responses on the various aspects of social order and control in their residential area. That is, a significant proportion of the respondents (33%) claim that they sometimes hear of criminal activities in their residential area. While 26% and 17% of the respondents often and always hear of criminal activities respectively (Figure 4.23). These responses seem to suggest that there are a lot of criminal activities which frequently occur in the Serala View mixed-income housing. Consequently, 43% of the respondents indicate to be neutral on the state of social order in the residential area. Similarly, such response is an indication that the residents in Serala View are not quite sure with the state of social order in their residential area given the frequency of criminal activities which usually occur in the residential area.

Figure 4.23: Intensity of respondents' experiences in terms of hearing of criminal activities in their neighborhood
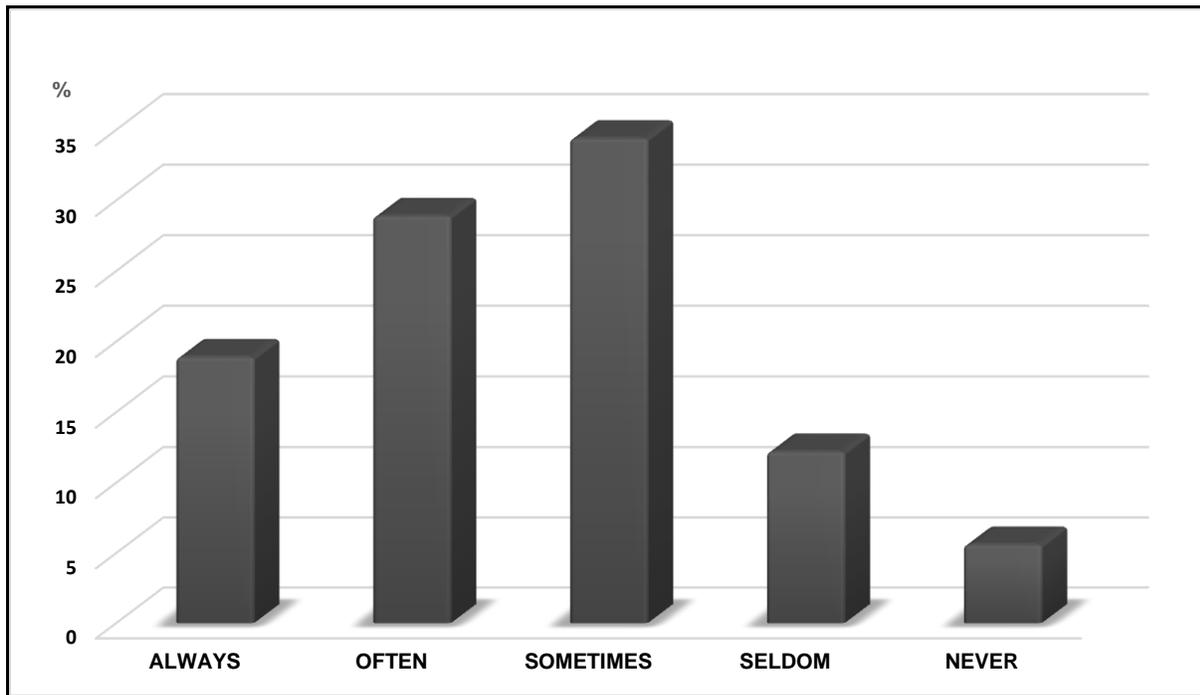
In general, most respondents mention burglary and theft as the most popular criminal activities they hear of in the residential area. There is a handful proportion (3%) of respondents who claim that they have never heard of criminal activities in the residential area, and this segment of respondents reflects that they have been living in the area for less than 1 year. That is, they may not hear of criminal activities because are still new in the residential area. To address the scourge of criminal occurrences in the Serala View residential area, the community has jointly formed a Community Police Forum. Such effort is valuable in the establishment of social order and control, and could in turn lead to the formation of social cohesion in the residential area. Similarly, the majority of the respondents (58%) mention that the community members themselves do enforce communal rules which seek to bring social order and control in the residential area. In this regard, the key informant states that the community members have patrol activities which are randomly conducted at night in the residential area. During this patrol, they target suspicious people who walk around the residential area, and ask them their residential addresses. In addition, the community members have also made a rule that

immediately after the contractors are done building a house in the residential area must leave the house, not staying in it while looking for other jobs.

Figure 4.24: The institutions that enforce communal rules in the residential area
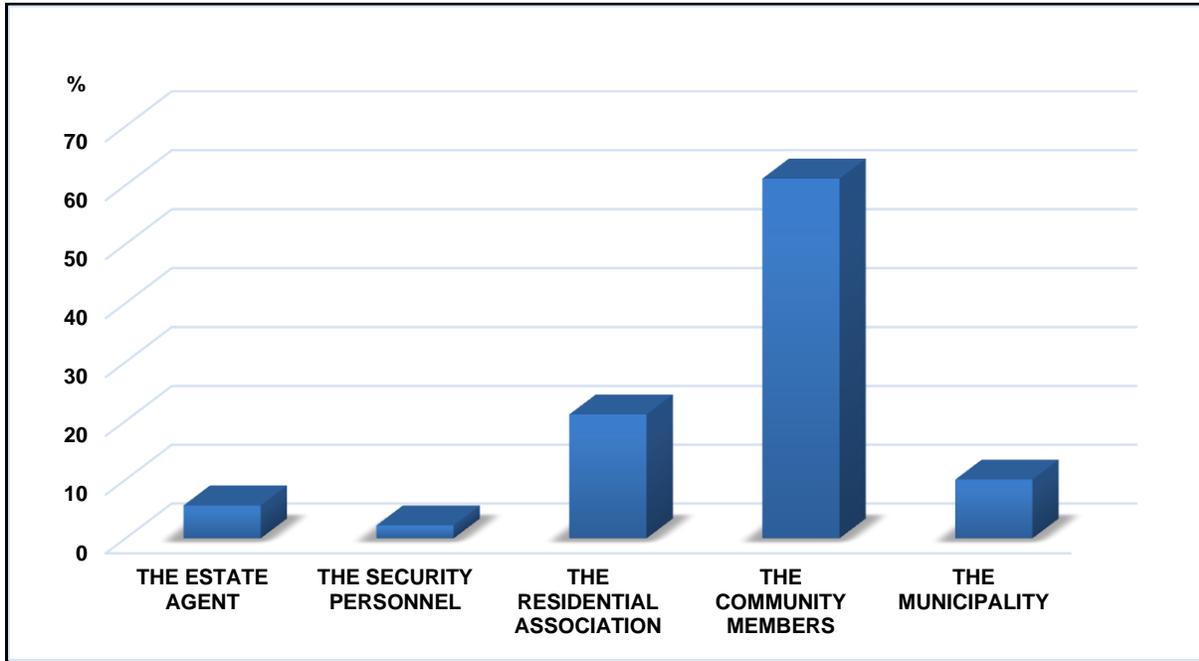
About 20% and 5% of the respondents state that the Serala View Residential Association and the municipality are the institutions that are responsible for enforcing the communal rules (Figure 4. 24). That is, the municipality enforces the communal rules by imposing by-laws such as restrictions on illegal waste disposal. While the Homeowners Association enforces social order through imposing restriction on walking at night in the residential area, it also becomes a watchdog in ensuring compliance with the municipal by-laws which restrict disorderliness (Figure 4.25). Evidently, it is noticeable that the community in Serala View has a full responsibility in terms of ensuring social order and creating livable environment in their residential area.

Figure 4.25: A mark that prohibits dumping on open spaces in the neighborhood

Given that the majority of the residents are of the view that the community members themselves are responsible for maintaining social order and control in the residential area, this seem to serve as efforts towards building social cohesion in the residential area, for the reason that the community members are seen to have taken a full responsibility to maintain social order in their territory. When working as a community, it is important to ensure that there is respect among the community members, despite the differences in terms of their economic conditions. In this regard, more than ½ (50%) of the respondents in Serala View show to be satisfied in terms of respect amongst the diverse income groups in the residential area. As such, the presence of respect amongst the residents could be seen as an indication of harmony between the low and the high income groups in the Serala View mixed-income housing. Therefore, where there is harmony there is also social cohesion (Hulse & Stone, 2005), in a sense that the residents will always be willing to work together towards addressing their social needs, regardless of the income disparities in the different households.

Figure 4.26: Intensity of respondents' satisfaction in terms of respect among the diverse income groups in the residential area
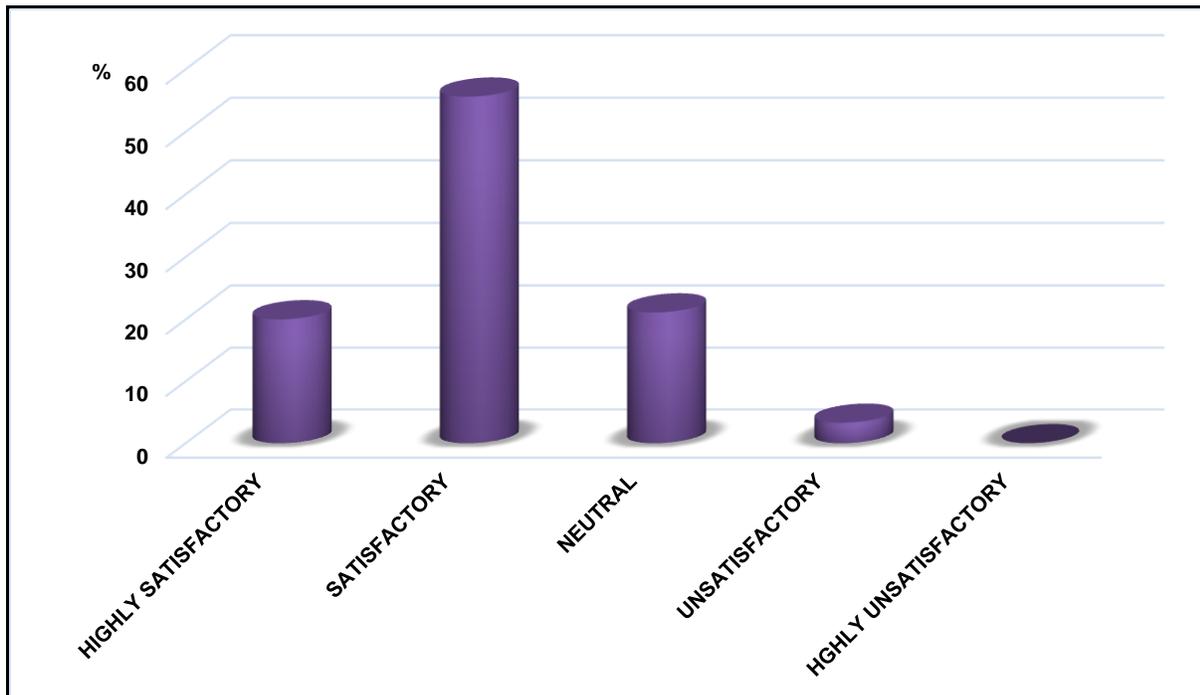
The study indicates that there are huge income disparities amongst the residents in Serala View. That is, the household incomes of the residents range from less than R10 000 to more than 25 000 per month (Figure 4.27). Seemingly, about 50% of the residents in the residential area have a monthly income which is above R25 000. On the other hand, the other 50% has a monthly income of less than R25 000. Interestingly, this income disparities are also reflected on the type and size of house the residents own. As observed, the residents with high level of income have bigger and smarter houses than those with low income level.

Figure 4.27: Diverse households' income in the residential area
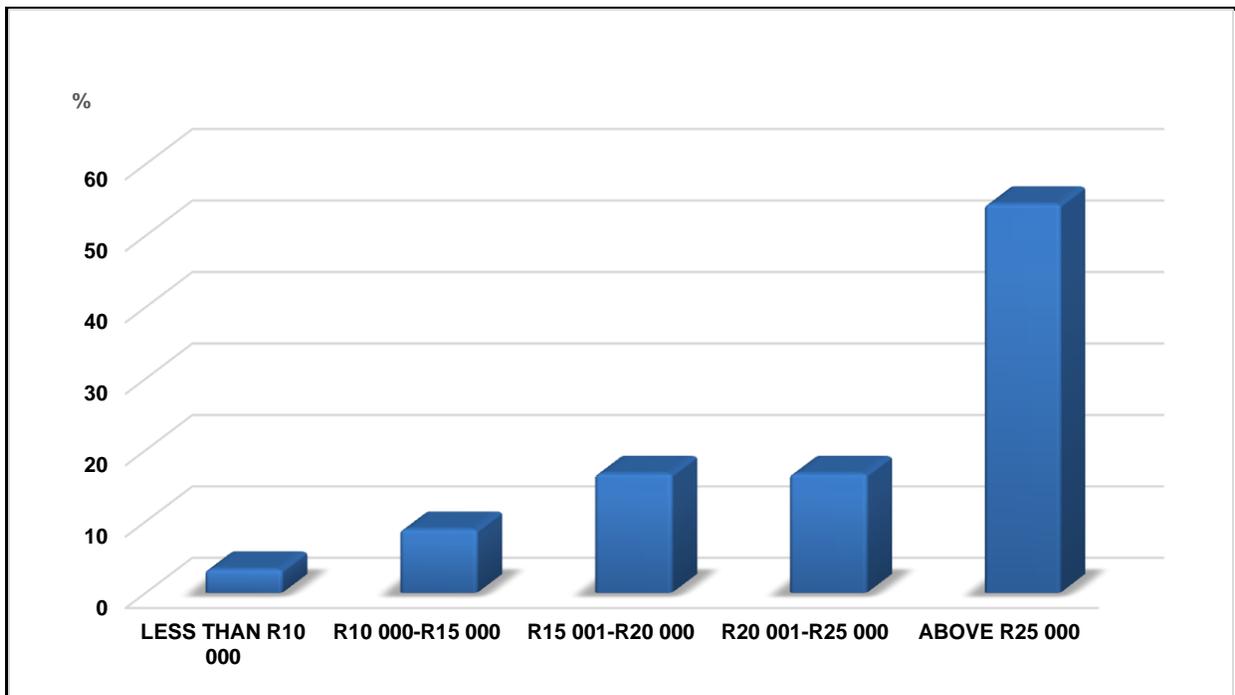
In the context of the study, residents with monthly income of less than R15 000 are considered to be the low-income group, whereas those with R15 000 to R25 000 are middle, and above R25 000 are the high-income group. The variance in the household's income among the residents could suggest that the residents in Serala View have different lifestyle. Nonetheless, the residents indicated to have a sense of respect towards each other. That is, their neighborliness is formed on the basis of communitarianism values than that of economic classes.

4.4.2. Presence of communitarianism values

The majority of the respondents (69%) identify communitarianism as their backbone principle which influences the life style and conduct of the people living in the Serala View residential area (Figure 4.28). In this regards, the residents in this proportion are of the view that in general, the residents in their neighborhood demonstrate social values which are based on the philosophy of working together as a community when dealing with the social issues in the neighborhood. These communitarian values are witnessed, as other respondents stated, through the support the community members provide to one another during grieves for death in particular.

Figure 4.28: Proportions of the social life style of the residents
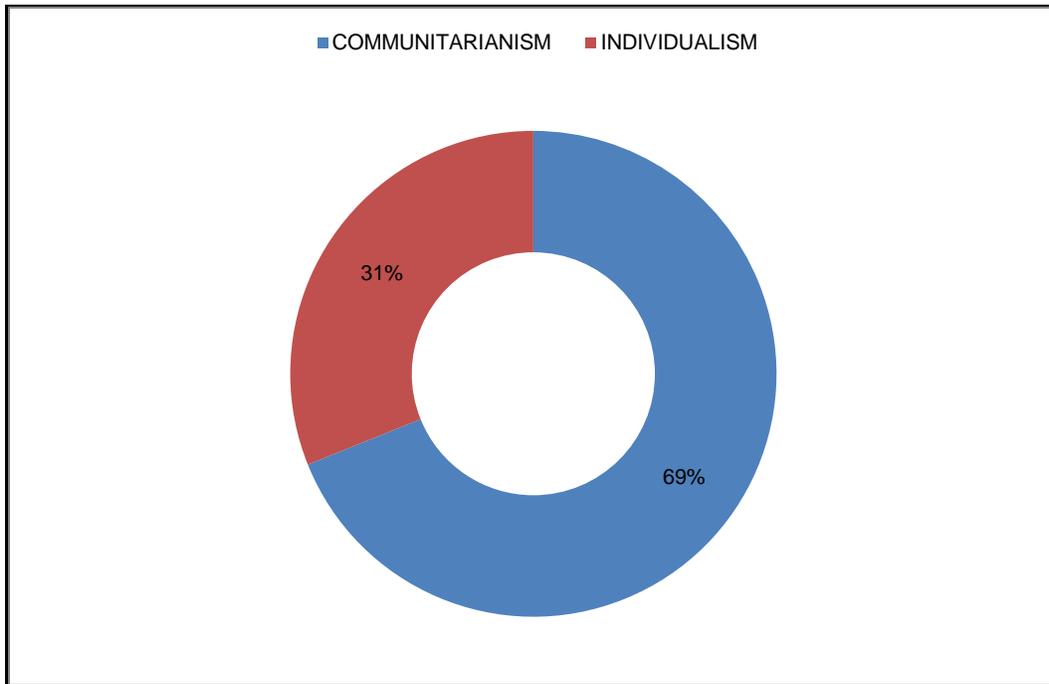
There are respondents (31%) however, who believe that the residents in Serala View demonstrate lifestyle which is based on individualism understanding of life. Interestingly, most of the respondents in this proportion are those that have income above R25 000. It could therefore be argued that the higher the income the more people may become individually based in terms of their lifestyle and conduct. Nonetheless, the individual lifestyle seems to have no effects on the level of trust among the residents in the Serala View mixed-income housing given that the majority of the residents in Serala View indicate to have positive relations of trust with their neighbors. That is, 40% and 31% of the respondents state that their relation of trust with their neighbors is very much and much respectively (Figure 4.29). As such, the residents seem to have a good relation to and high level of trust amongst each other. These responses seem to suggest that the residents in Serala View could depend on each other in terms of assisting and caring for each other on as needed basis.

Figure 4.29: Intensity of respondents' relation of trust on each other among the neighbors
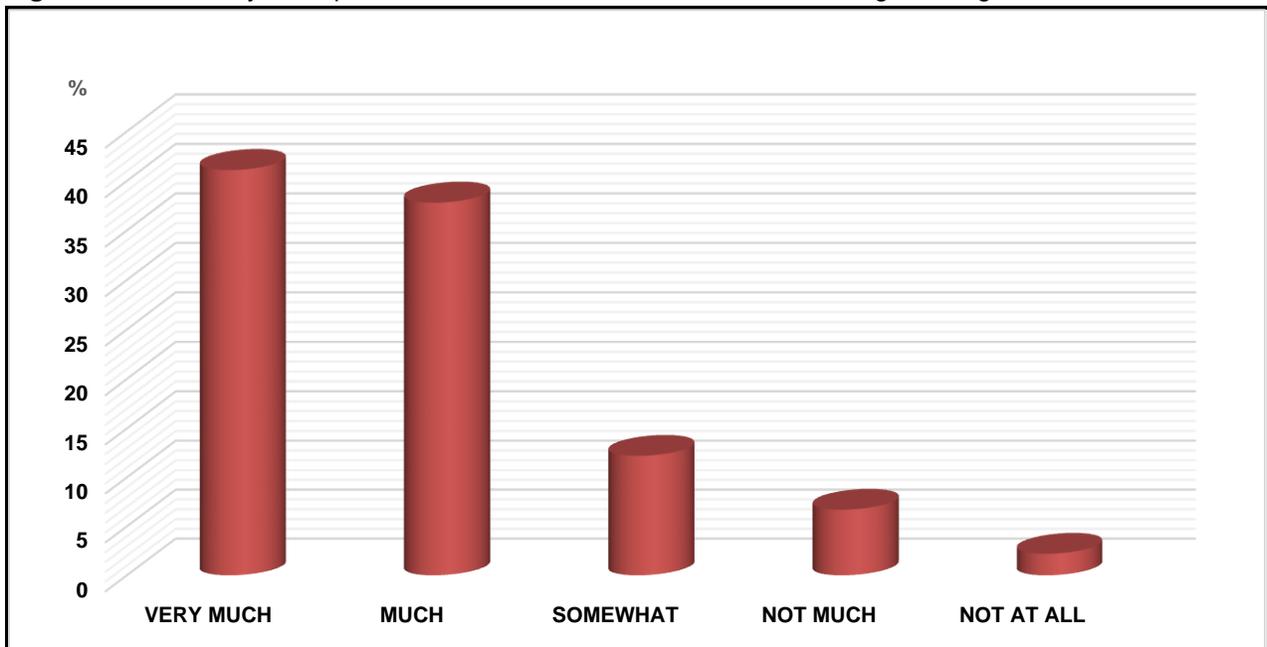
For example, one female respondent mention that she normally calls her neighbor to collect her laundry on the washing line when it is about to rain. Such neighbor relation is a strong indication of the presence of social cohesion, and it is as well a reflection that the residents in Serala View do emphasize with each other.

4.4.3. Prevailing spirit of social solidarity in the neighborhood

The prevalence of the spirit of social solidarity in Serala View could be noticed in the finding that the majority of the residents in the residential area indicate that they empathize with one another in the event of distress and sadness. That is, 42% strongly agree and 42% agree that people in the Serala View neighborhood does empathize with each other when needed (4.30). Evidently, it could be argued that in general the residents in Serala View have a sense of Ubuntu which is an essential character for a socially cohesive society.

Figure 4.30: Intensity of respondents' empathy with each other in the neighborhood
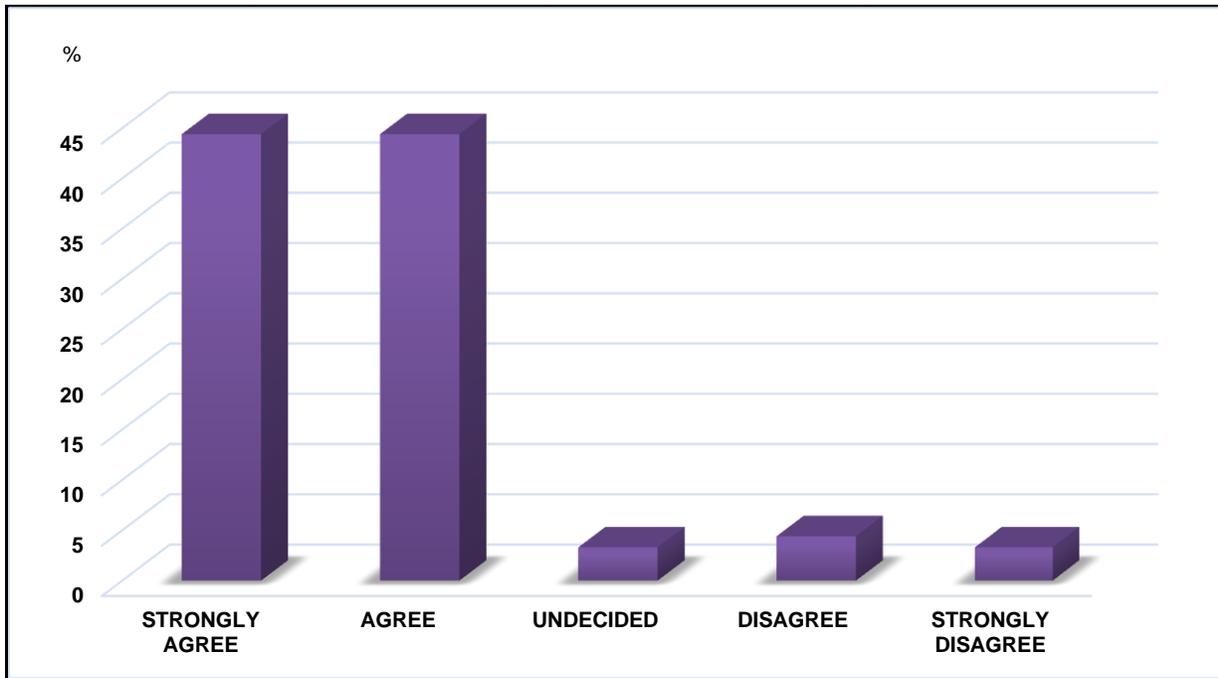
In this regard, most of the respondents state that in cases where one of the community members has passed away, the community members are subject to contribute R20 per household. Such contribution could be regarded as a mean to empathize with the grieving family in the residential area. It is for this reason that most of the community members in Serala View believe that to empathize with each other is a norm in their residential area. Moreover, the majority of the respondents are positive with the assertion that empathizing with each other in the residential area is normal. That is, 35% and 40 % of the respondent strongly agree and agree respectively that emphasizing with one another is a normal thing in the Serala View residential area (Figure 4.31). Such response seems to suggest that the residents in Serala View take care of each other, and one could rely on his or her fellow community members for support and help in the case of need. Therefore, the prevailing mutual assistance in Serala View could be regarded as the cornerstone in the manifestation of social cohesion in the mixed-income residential area.

Figure 4.31: Intensity of respondents' view in terms of perceiving empathy a norm in their neighborhood
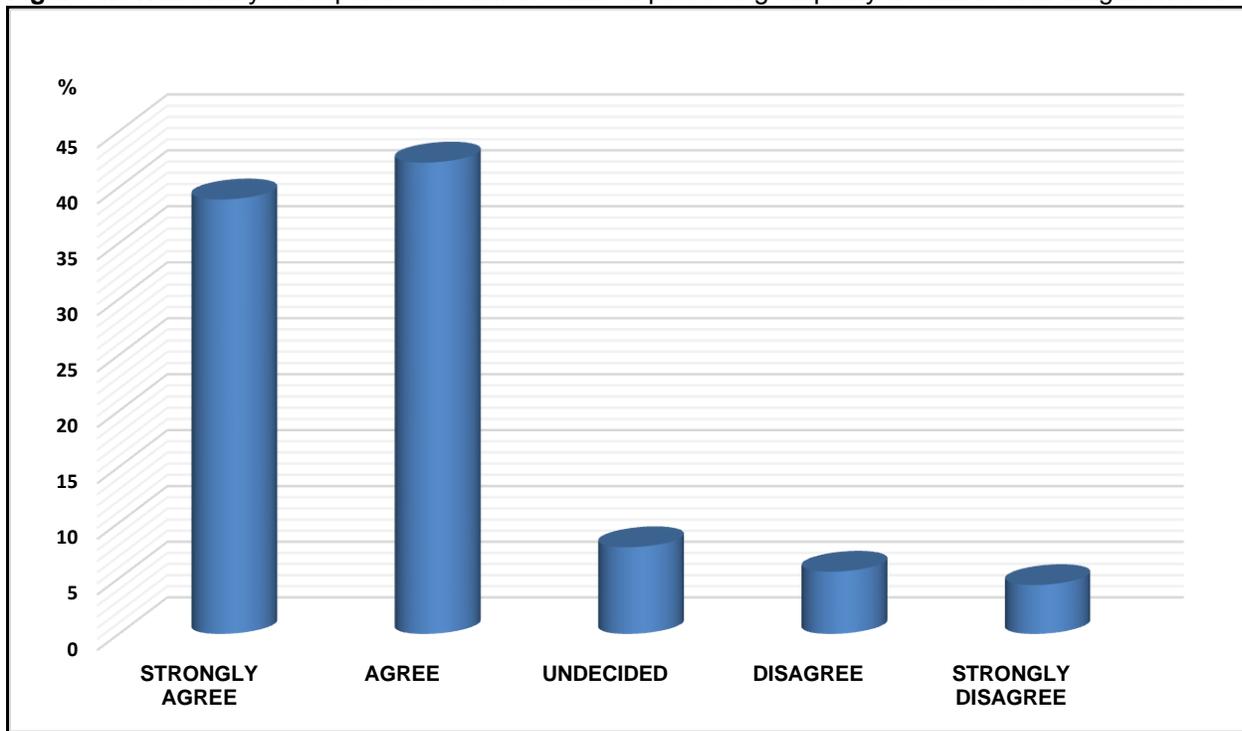
As such, given the prevalence of the spirit of mutual support in the Serala View mixed-income housing, the residents to various extent, therefore expect to give and /or receive help from their follow neighbors in the case of need. That is, to some extent there is a sense of dependent on each other for mutual support when needed. In this regard, 31% and 33% of the respondents state that they always and often respectively, expect to give or receive help from fellow members of the community when needed (Figure 4.32). One male respondent mentions that he normally ask his neighbor to assist when his car fail to start. Evidently, such instance seems to suggest that the people in Serala View often assist and support each other. Such assistance could be seen as the manifestation of social cohesion in the neighborhood (Forrest & Kearns2001).

Figure 4.32: Intensity of respondents' expectations in terms of giving/receiving help when needed
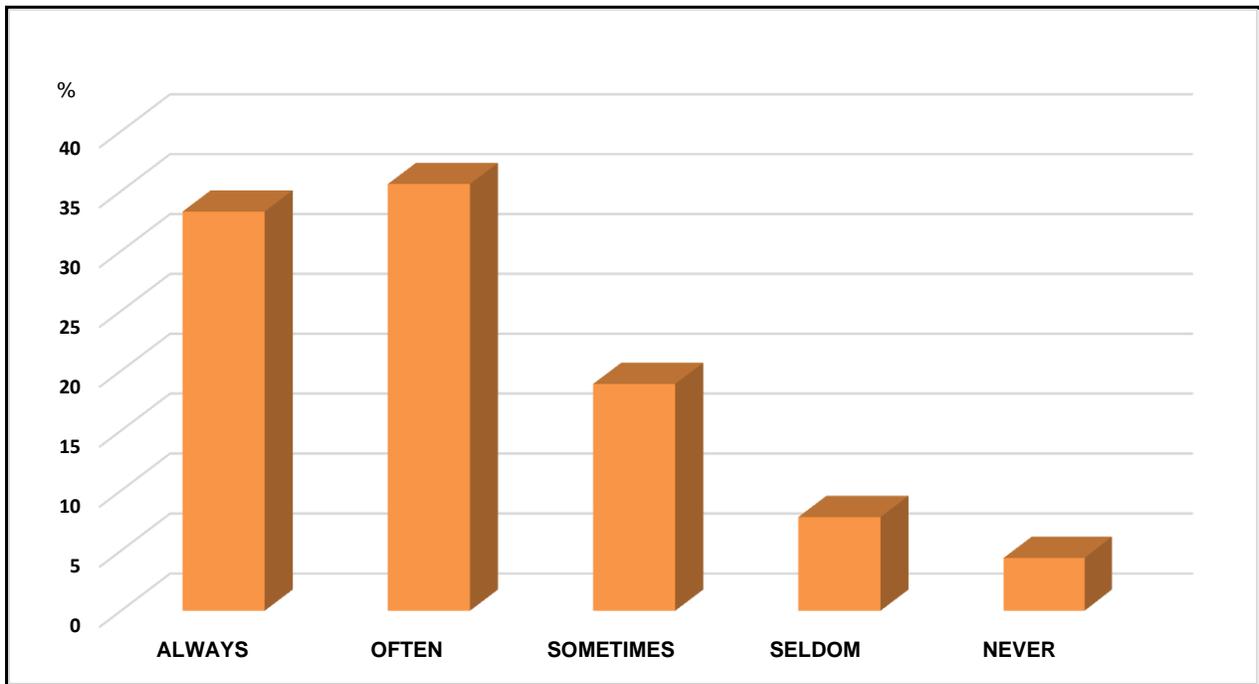
Remarkable, only 2% of the respondents indicate to have never expected to give and /or receive help from the fellow residents when needed. It could be that the residents in this proportion have been living in the area for less than a year. For example, one female resident who has been a resident for just 2 months state that she is not yet familiar with her neighbors, as such she could not expect to receive any help yet. However, the majority of the respondents indicate that they expect to give to and receive help from their neighbors; hence most of the residents feel the need to know their neighbors' surnames. Then, about 38% and 35% of the respondents indicate that to know the surnames and where their neighbors originally come from is very much important and much important respectively (Figure 4.33). These responses seem to indicate that the residents in Serala View are kin and interested to know each other. That is, knowing each other's surname and where they originally come from is an indication of the extent to which one seeks to relate to that particular person in the neighborhood. However, there is also a minority of respondents (10%) which feels it is not much important to know the names and where their neighbors originally come from.

Figure 4.33: Intensity of respondents' view in terms the importance of knowing each other in the neighborhood
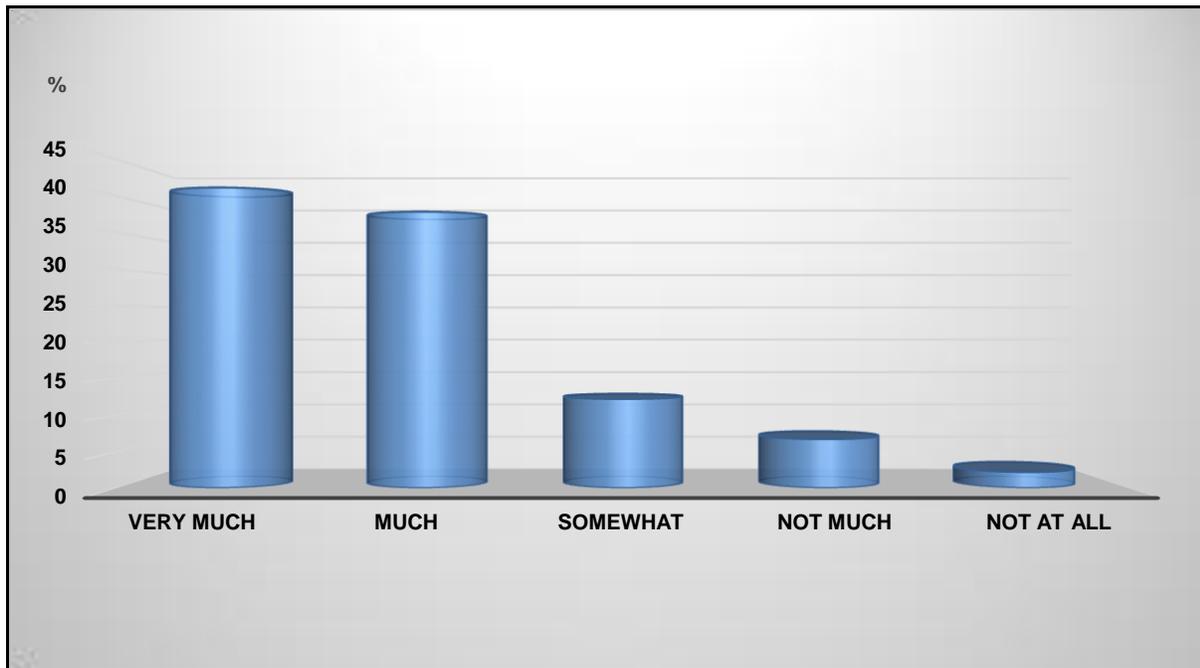
To this extent, it could be stated that most of the residents in Serala View know each other's' surname, and as a result, they are likely to have constant contact and interaction with each other in their residential area.

4.4.4. Level and nature of social interaction in the residential area

With regard to social interaction, the majority of the respondents in the residential area concur that exchanging contact information with each other is a normal thing in the neighbor. That is, the use of information technology is seen to be important in keeping the contact between the neighbors in their neighborhood. In essence, 36% and 40% of the respondents in the Serala View residential development respectively strongly agree and agree that the exchange of information contact with each other is a normal occasion (Figure 4.34). Such finding may be considered to indicate that on one hand, the residents in Serala View are willing to interact with each other. On the other hand, this could be seen as an indication of trust among the residents, given that the residents seem to free to exchange contacts with one another. Such contact information sharing is a very significant determination of the manifestation of social cohesion in the urban neighborhood (Galster, Andersson& Musterd, 2010).

Figure 4.34: Intensity of respondents' opinions in terms of making the exchange of contact information with fellow neighbors a habit
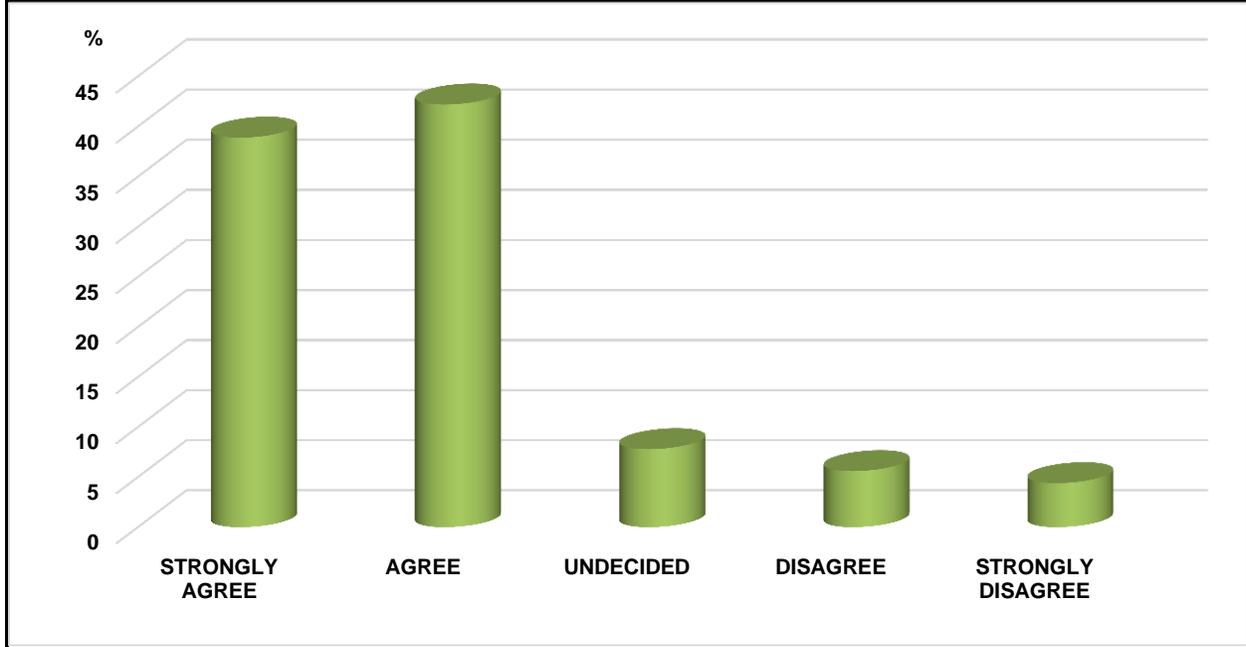
In this regard, there are various mode of contact information which the residents exchange with each other in the neighborhood. However, the cell number is the most mode of contact which the majority of the residents in Serala View seem to exchange with each other. That is, about 50% of the respondents indicate that they always exchange their cell numbers with their fellow neighbors. On the other hand, a significant proportion of respondent (24%) state that they always exchange their WhatsApp contact (Figure 4.35). In this regard, one of the key informants indicates that the residents in Serala View have a WhatsApp social network group through which the residents in the area communicate and share information. That is, the residents in Serala View are using the information technology social network to enhance their social cohesion. With the emerging of these information technology social network, the physical social interaction has is fading (Forrest and Kearns, 2001) in many urban areas.

Figure 4.35: The different mode of telecommunication which the residents normally exchange with each other

	CELL NUMBER	WHATSUP	EMAIL ADDRESS	TWITTER ACCOUNT	TELEPHONE NUMBER	FACEBOOK ACCOUNT
ALWAYS	47.8	24.4	8.9	1.1	7.8	1.1
OFTEN	24.4	15.6	5.6	8.9	4.4	2.2
SOMETIMES	16.7	16.7	17.8	7.8	15.6	7.8
SELDOM	3.3	7.8	11.1	2.2	7.8	7.8
NEVER	7.8	35.6	56.7	82	64.4	81.1
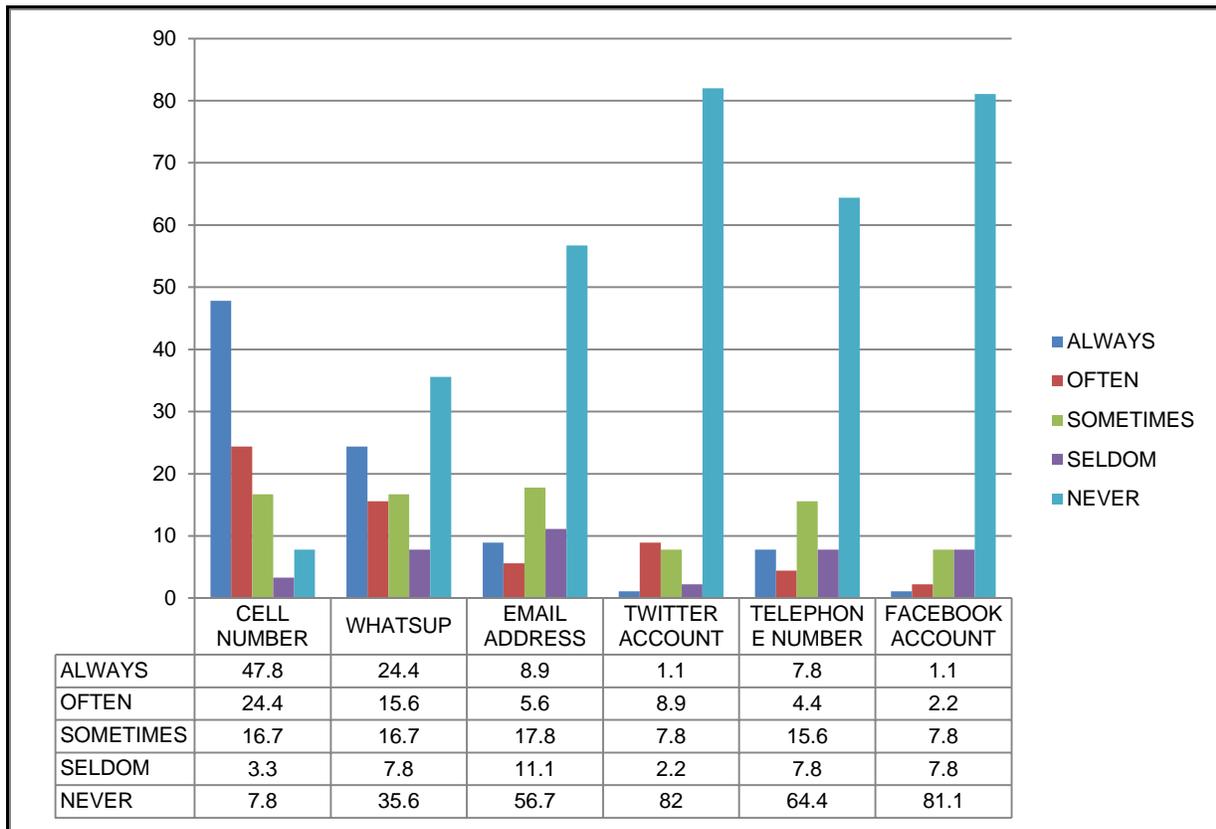
Ironically, a significant proportion of respondents (80%) indicate that they have never exchange their Facebook contacts with their fellow residents in the neighborhood. Such response seems to be very strange given that Facebook is a popular mode of contact used by the young people in particular. In the case of Serala View, approximately ¾ of the respondents are in the category which is inclined to the use of social networks like Facebook and twitter. Therefore, such response could suggest that the Serala View residents, though they interact with one another, are less likely to Facebook and Twitter for social contact. Similar, about 20% of the respondents indicate to have many friends in the neighborhood, while only less than 5% claim to have too many friends. That is, in general, the residents in Serala View are seen to be people who like to make friendships in their neighborhood, except for a minority (1%) which claim to not have any friend in the neighborhood. Again, the willingness to make friendship with fellow neighbors in the residential area could be considered as a very significant determination of the formation of social cohesion in the neighborhood.

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Figure 4.36: The number of friends respondents have in the neighborhood
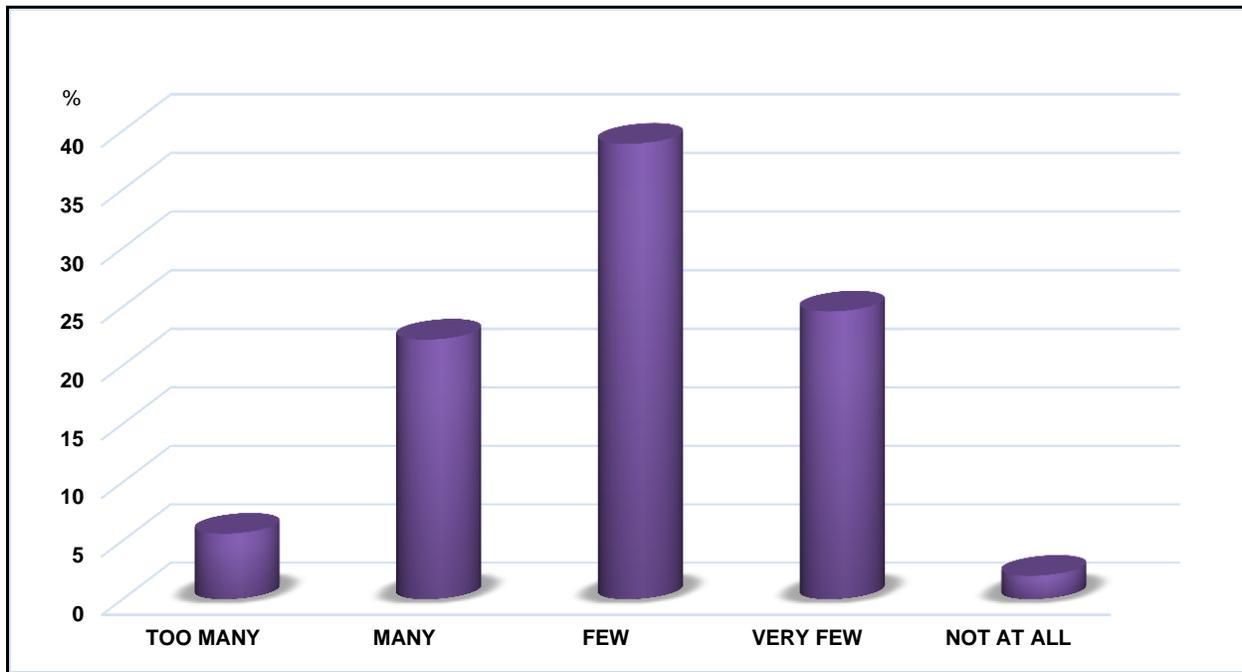
The number of friends one has in the neighborhood could be looked in relation to the frequent of interaction between the friends in the neighborhood. That is, most of the respondents (35%) often interact with their friends, while another significant proportion (33%) state that they sometimes interact with their friends (Figure 4.37). It is only 19% of the respondents who indicated that they always interact with their friends in the neighborhood. Therefore, social interaction is considered as one of the dimensions of the manifestation of social cohesion in the urban neighborhood (Forrest and Kearns, 2001).

Figure 4.37: Intensity of respondents' experiences in terms of interacting with their friends
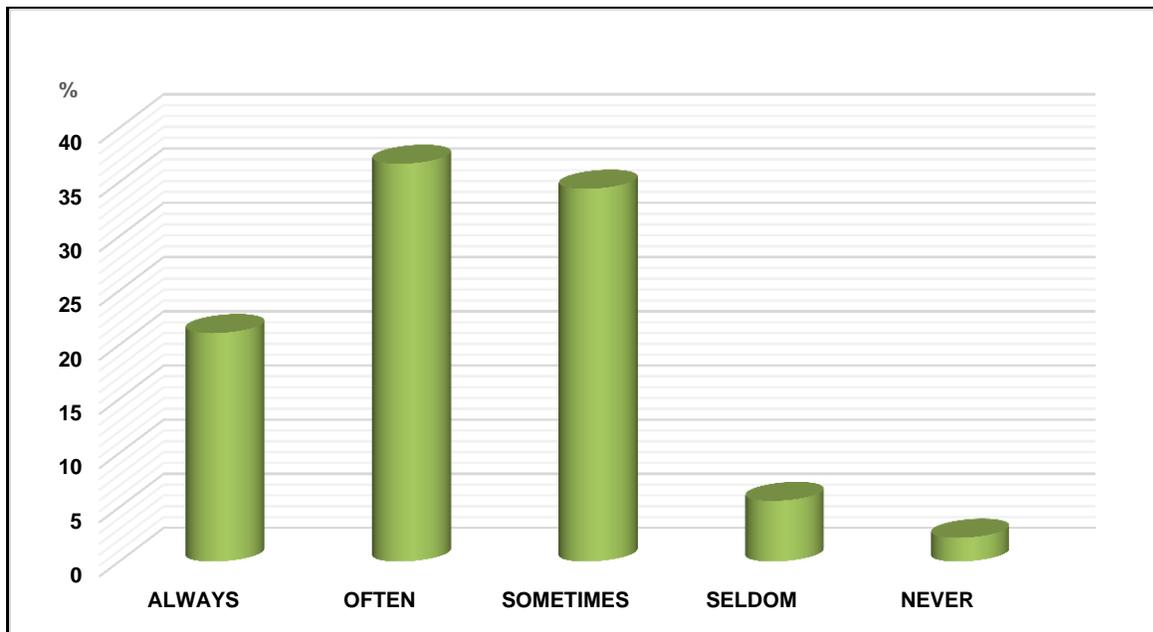
In generally, there is an indication that the residents in Serala View have a constant interaction with their friends in the neighborhood. Possible, those who say they always interact with their friends see them every day, often could be 2-3 times a week, and sometimes could mean the friends interact maybe once in a week. Basically, there are regular friendship interactions between the neighbors in Serala View; and as such, these friendship interactions could be seen as crucial activities in the building of a socially cohesive society. In addition, it is this form of relation which mostly intensifies neighborliness in a neighborhood, and consequently makes the residents feel satisfactory in their neighborhood.

4.4.5. Residents' sense of attachment to their neighborhood

The majority of the respondents in Serala View seem to be pleasant with their neighborhood. In this regard, about 25% and 45% of the respondents reflect that they are highly satisfactory and satisfactory with their neighborhood respectively (Figure 4.38). The more the residents become satisfactory with their living environment, there more the chances for creating social cohesion are (Dekker & Bolt, 2005). Therefore, the Serala View residents could be perceived as residents that are probable living in a

socially cohesive environment, given the high level of satisfactory with the neighborhood in general.

Figure 4.38: Intensity of respondents' satisfaction with their neighborhood
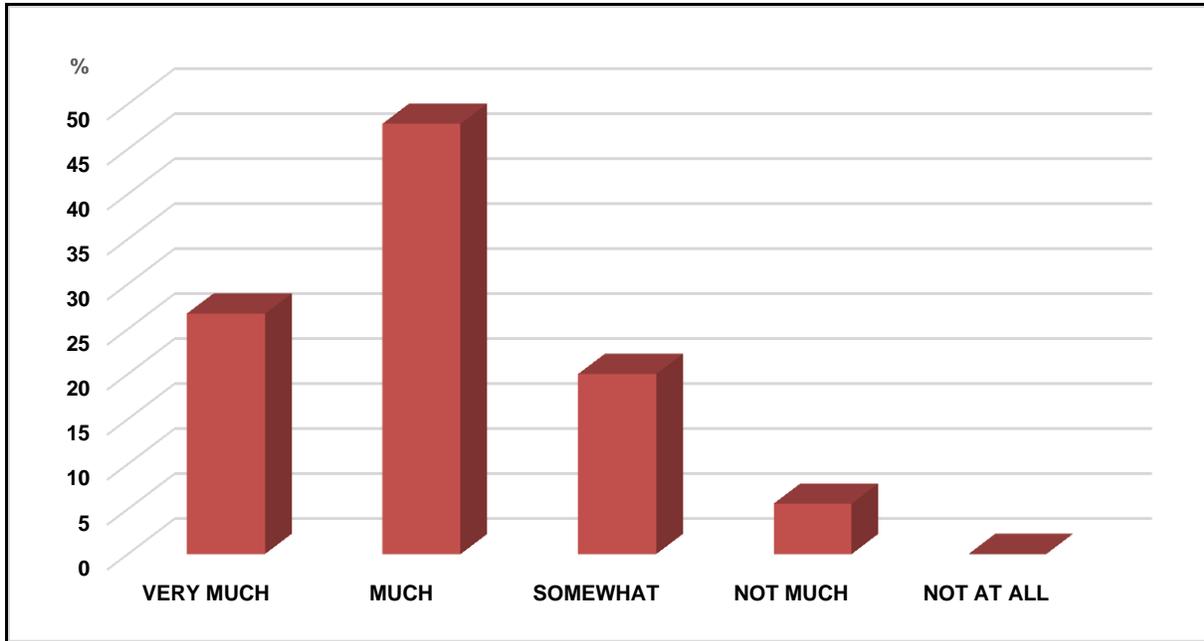
Interestingly, none of the respondents reflect to not be satisfactory at all with the neighborhood, though there is a minority of residents (3%) which claim to be not much satisfactory with the neighborhood. That is in essence, the residents in Serala View are happy with their neighborhood, hence the majority of them feel proud to be associated with the people living in the residential area. Therefore, this reflection seems to suggest that the people in Serala View have a high sense of attachment to their neighborhood. According to Dekker and Bolt (2005), place attachment leads to a feeling of security, builds self-esteem and self-image, provides a bond between people, cultures and experiences, and maintains group identity. The majority of the respondents in Serala View indicate that they are happy to be associated with the people in their neighborhood. That is, 32% and 38% of the respondents state that they are very much happy and much happy respectively (Figure 4.39). However, there is a minority proportions of residents (2%) who seen to be not quite happy to be associated with the people in their residential development.

Figure 4.39: Intensity of respondents' satisfaction in terms of being associated with the people in the neighborhood
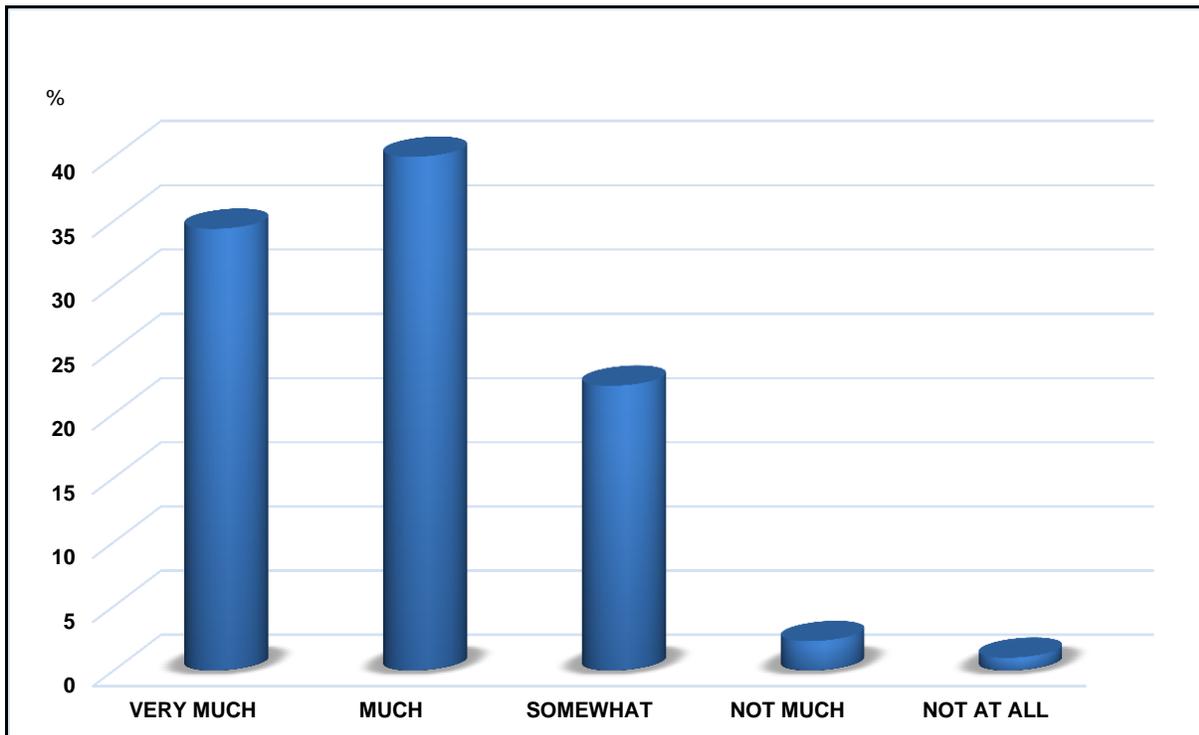
Therefore, given the extensive level of contentment of the respondents, this could be an indication that the residents in Serala View are happy with one another. As such, happiness amongst community members is considered to be the fundamental principle for a livable human settlement, and to a large extent, it is a reflection of a socially cohesive society. In this sense, it could be also argued that the residents in Serala View are socially attached to each other, given their level of happiness in association with each other. Apart from the level of social attachment, it is important to also consider the sense of environment attachment. That is, the level of satisfactory the residents have with their built environment.

Figure 4.40: Intensity of respondents' satisfaction with their neighborhood
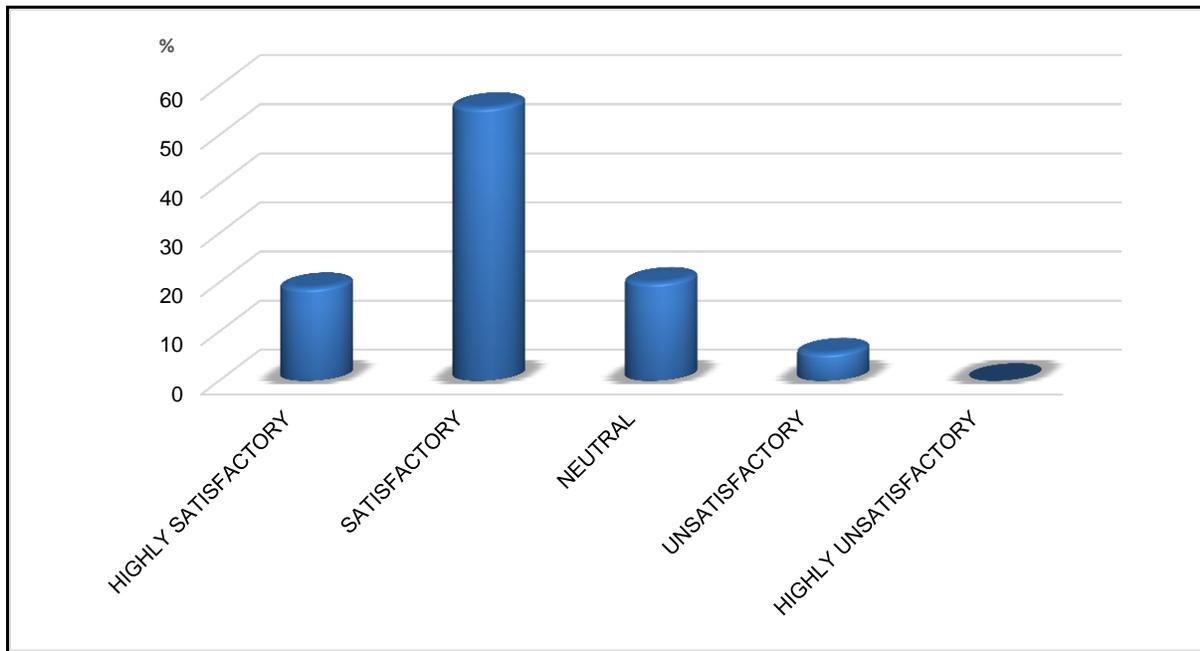
As a result, the residents in Serala View residential development state that they always maintain their built environment to ensure that it keep revitalizing their sense of connectedness to their built environment, and the general neighborhood character. In doing so, the sense of ownership, which is central to the manifestation of social cohesion, is ultimately achieved.

4.5. Determinants of Social Cohesion in Serala View Mixed-Income Housing

In general, the gated townhouse complex typology of mixed-income housing seems to have a positive contribution in the formation of social cohesion in urban neighborhood. That is, feature such as the provision of communal parks, security measures, housing integration, house architectural features like windows and doors, and streets are perceived to have a significant contribution in facilitating the formation of a cohesive society in the urban residential area.

4.5.1. User-friendliness of the communal park facility

Similarly, public spaces like communal parks are also essential for facilitating social interaction, and eventually the formation of social cohesion in the Serala View

residential environment. However, with regard to the communal parks in the residential development, the majority of the residents in residential area are of the view that the available communal park does not provide conducive space for meeting and relaxing with friends. In this sense, a proportion of 25% and 40% respectively disagree and strongly disagree with the conduciveness of the available communal park in Serala View. This response seem to suggest that the residents in Serala View are missing the opportunity of meeting and relaxing at a public park because the one provided currently is not conducive (Figure 4.41).

Figure 4.41: An open space used as a communal park in the residential area

Therefore, there are two factors which could be looked at with regard to the lack of conduciveness in this communal park (Figure 4.42). Firstly, this communal park seems to be abandoned and not taken care of in terms of maintenance; secondly, the communal park is far away from the residences, which make it difficult to have surveillance on it. In essence, cleanness and safety seems to be the major factors which make the communal park in Serala View to be not user-friendly to the residents. Evidently, the residents in Serala View are seen to not taking a responsibility for the maintenance and cleaning of their communal park.

Figure 4.42: Intensity of respondents' view with regard to the conduciveness of the communal park
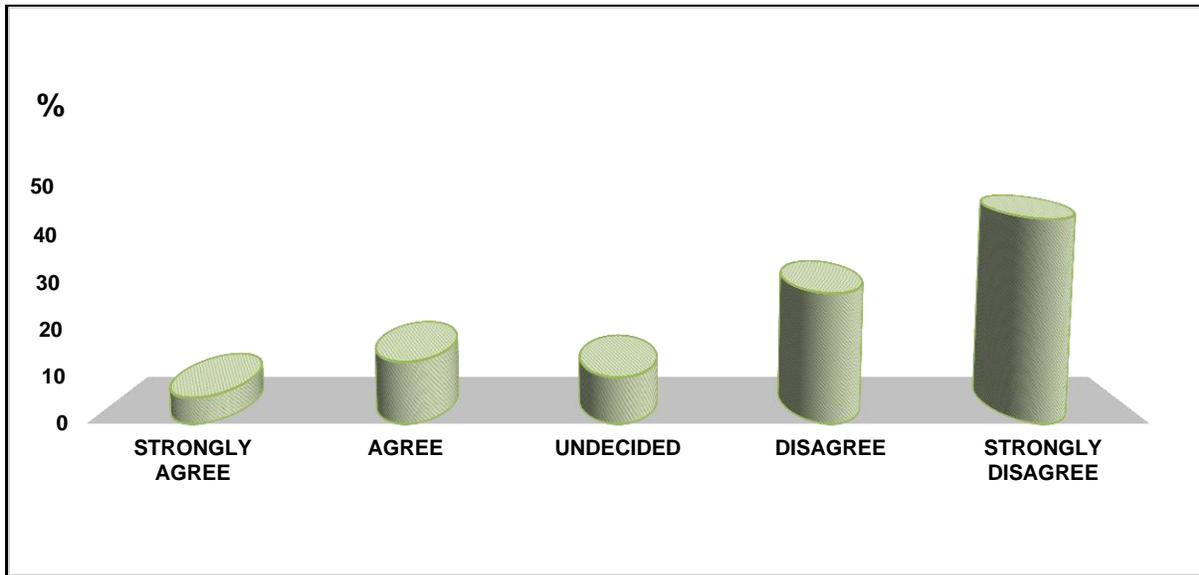
Arguable, given that the residents in Serala View have no access to a communal park, the creation of social cohesion through the use of such public space is missed. Neighborhood parks are considered to be the most essential facility for facilitating social cohesion amongst the residents (Abdul Aziz *et al.*, 2012), of course, provided there security in those communal parks.

4.5.2. Adequacy of security measures in the residential area

With regard to the provision of security measure in the residential area, the respondents have different opinions. On one hand, a significant proportion of respondents 24% agree that in Serala View there are adequate security measures provided to enhance safety. While on the other hand, a proportion of 30% and 14% respectively disagree and strongly disagree with the provision of security measures (Figure 4. 43). That is, those who agree are mainly the residents that have personally installed their own security measure at their homes, while those who disagree may have not had intensive security measures at their homes.

Figure 4.43: Intensity of respondents' view with regard to the enhancement of safety with the provided security measures
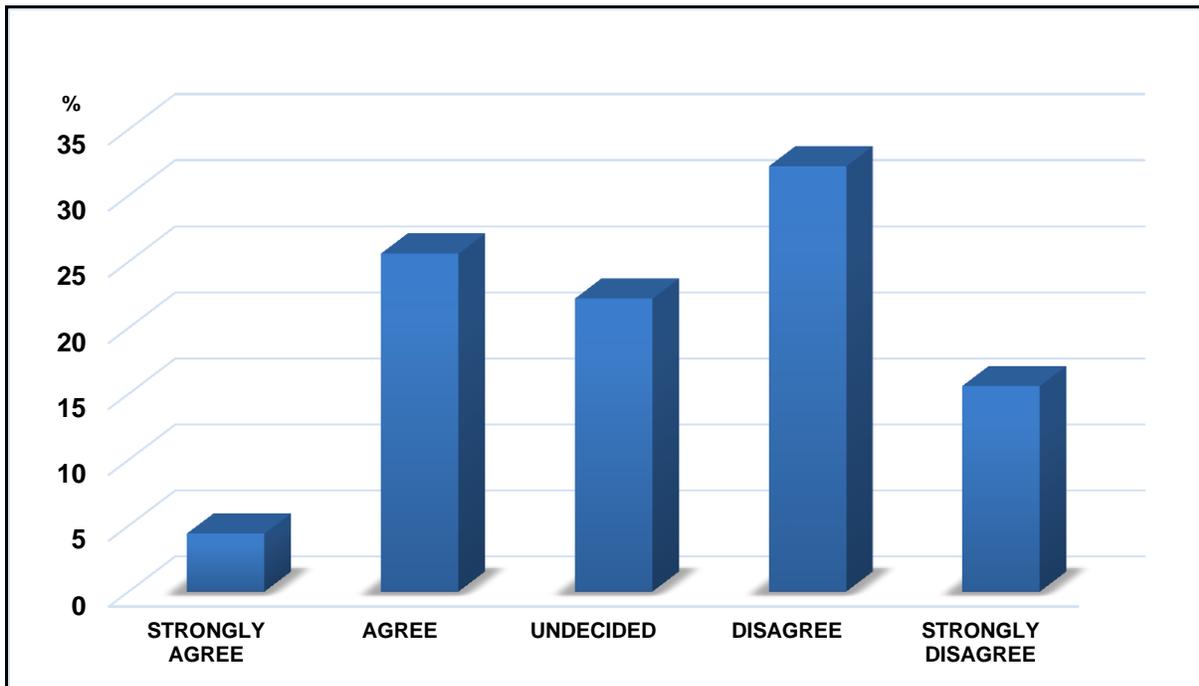
Therefore, it could be argued that some residents may feel secured only when they are at their home, but feeling less secured to be in the general neighborhood. Seemingly, it is the residents than the municipality who make effort to enhance safety in Serala View residential development. However, besides the inequality of the residents in terms of the ability to provide adequate security measures in the neighborhood, the residents indicate to live in harmony.

4.5.3. Diverse cultural groups in the residential property

The majority of the respondents are positive with the statement that in Serala View residence there are people from diverse sociocultural backgrounds. In essence, 27% and 50% of the respondents strongly agree and agree respectively that the residents in Serala View residential development are from different sociocultural groups (Figure 4.44). Seemingly, the residents in Serala View live in harmony despite the sociocultural diversity amongst themselves.

Figure 4.44: Intensity of respondents' view on the accommodation of the different cultural groups in the residence
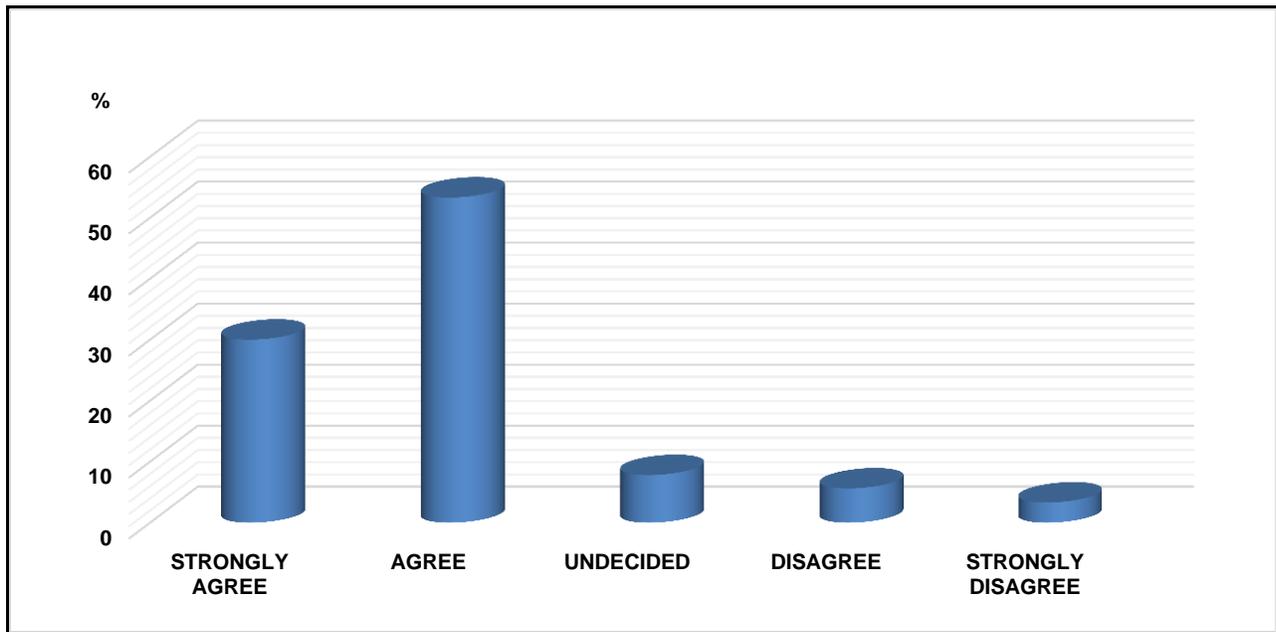
With regard to the prevailing sociocultural diversity in the residential area, it has been noticed that the neighborhood consists of households of different ethnic groups, which include for example, Pedi, Tsonga, Venda, Zulu and Tswana ethnical groups. Such integration could be seen to be a significant achievement when looking at the historical background of the country which was, and still is in most urban areas, characterized by racial and ethnic divisions (Haferburg, 2013). Therefore, given this context, it could be argued that the development of mixed-income housing has to some enhanced the integration of diverse sociocultural groups in the Polokwane City, and eventually is likely to build a cohesive society, in a sense that the neighbors become concerned about each other's' wellbeing and properties.

4.5.4. Structural configuration of house units in the residential area

The structural configuration of the house property in the residential area enables the residents to oversee each other's property and their public space.   That is, the designing of doors, windows and balconies are crucial in facilitating the neighbors to oversee each other's property and their public spaces (Brown *et al.,* 2009). In this regard, the majority of the respondents (30% and 55%) indicate a positive response in

terms of the design of their house architectural features and the ability to overlook their neighbors' property and public spaces such as the main streets (Figure 4.45).

Figure 4.45: Intensity of respondents' view in as far as doors and windows allow oversight to the streets
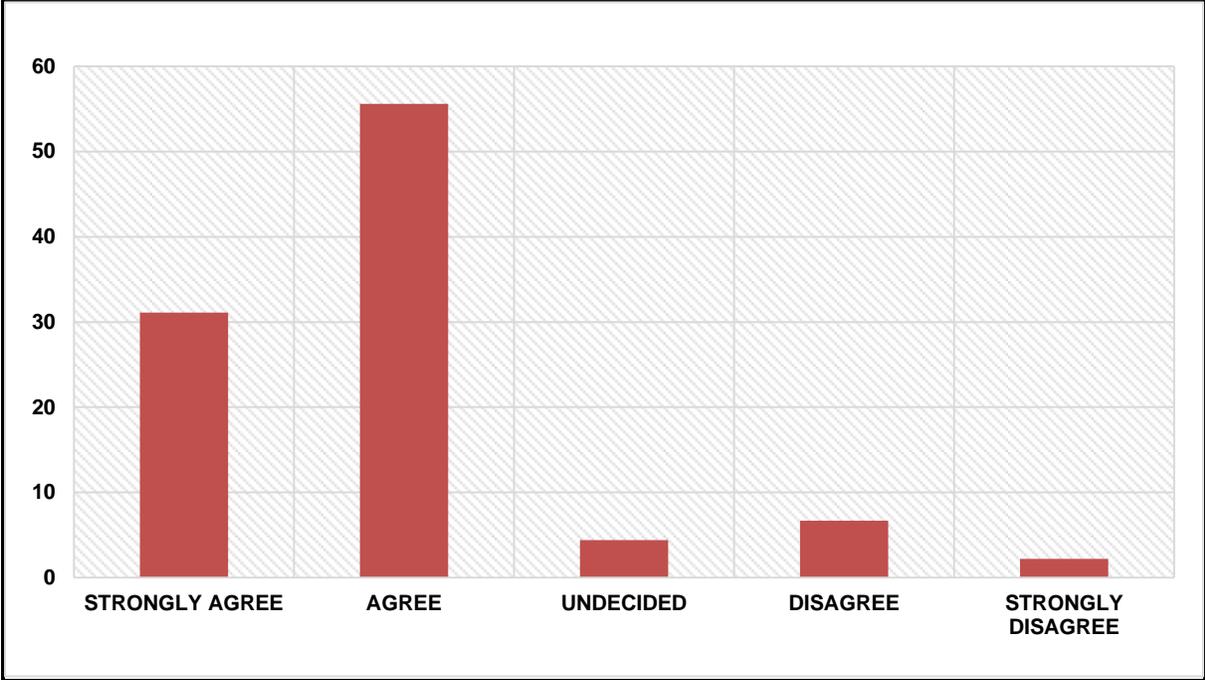
The ability to overlook one's property through house windows, doors and balconies promotes a sense of caring for each other's property in the neighborhood, in a sense that the neighbors could occasionally watch their neighbors' property when they have left their houses. In some instances, other neighbors have transparent wall boundaries to facilitate the ease to overlook one another's property (Figure 4.46). Such wall boundary design does not only allow ease of oversight between the neighbors but also enable occasional communication between the neighbors. However, in most of the residents in Serala View, it has been observed that some of the houses' side does not allow oversight between the neighbors as a result of the wall boundary height.

Figure 4.46: Transparent wall for ease of oversight between the neighbors

Such restriction is may be seen to compromise the interaction between the neighbors in the neighborhood. In addition, high wall could also limit the neighbors to occasionally survey one's property especially when there is no one at the neighbors' house. Nonetheless, the streets in the neighborhood seem to have a positive effect in terms of facilitating interaction among the residents.

4.5.5. Street design and layout in the residential area

The majority of the residents are of the view that the street design and layout in Serala View are conducive for allowing ease of informal interaction among the street users in the neighborhood. That is, 15% and 45% of the respondents respectively strongly agree and agree that the layout of the streets in their residential area are wide enough to allow informal interaction between the pedestrian users (Figure 4.47). In this regard, it means that the residents in Serala View are able to occasionally meet and chat on their neighborhood streets.

Figure 4.47: Intensity of respondents' view regarding their streets allowing informal interaction
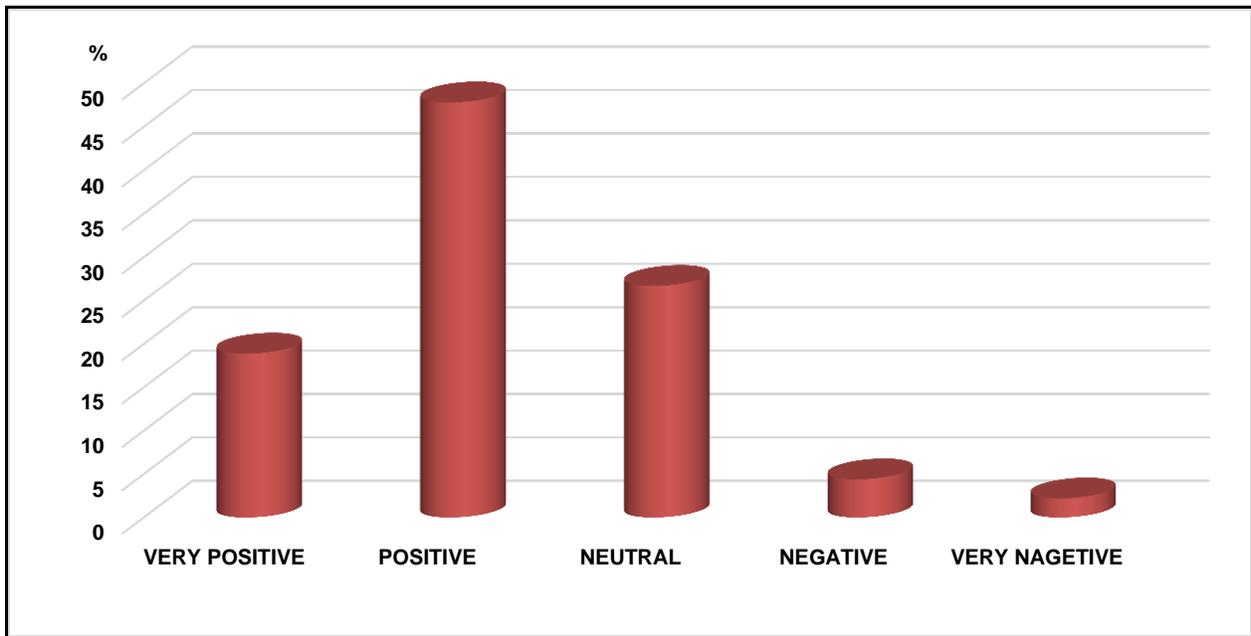
Therefore, the streets in the mixed-income housing could be seen a public space which enhances social interaction between the residents; as such, social interaction is considered to be one of the dimensions of social cohesion in a living environment which has people of different lifestyles.

4.5.6. Provision of different sizes and types of house units

The majority of the respondents are positive with the statement that the Serala View residential mixed-income housing provides for different sizes and types of house units for people of diverse lifestyle. To this extent, a proportion of 25% and 57% strongly agree and agree respectively (Figure 4.48). As such, this response may be seen as an indication of inclusiveness in the Serala View mixed-income housing. As observed, the residential development consists of different types of houses which include stand-alone houses, double storey, mansion, and townhouses.

Figure 4.48: Intensity of respondents' view on different houses accommodating diverse people in the residential development
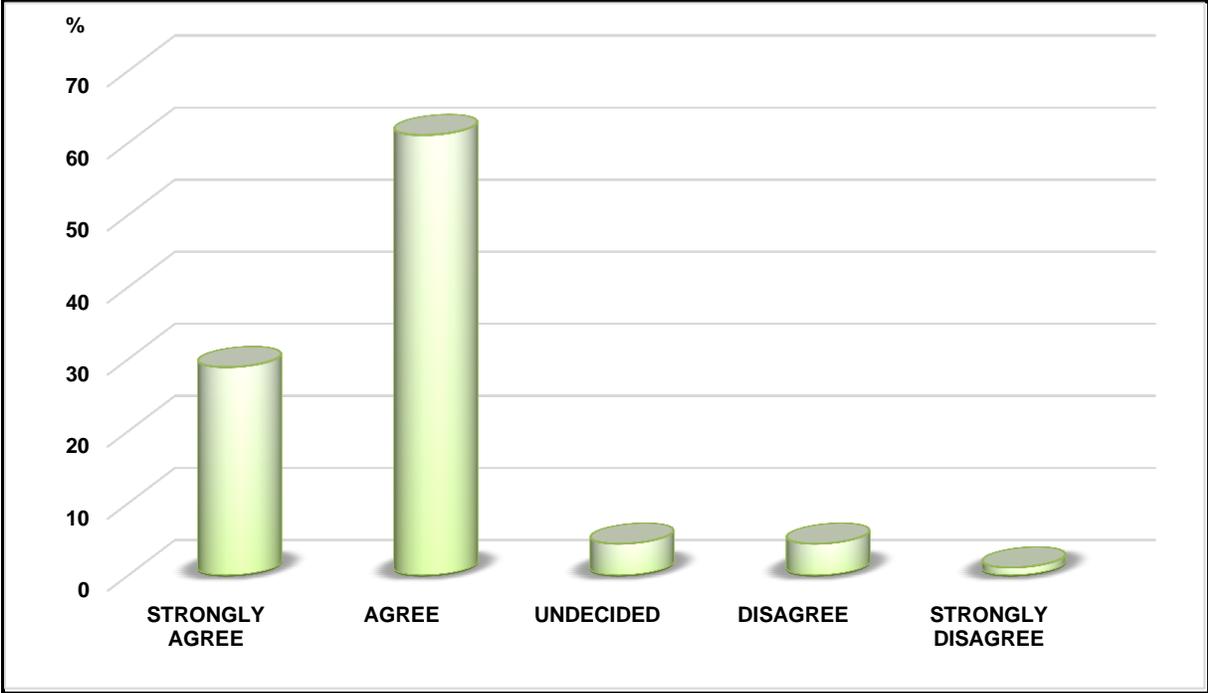
With these house variances in the neighborhood, it is noticeable that the people who live in the area are diverse in terms of their lifestyles, given that the housing size and type, to a large extent indicate one's level of wealth and lifestyle. Regardless of the lifestyle variances in the Serala View residential development, it seems there is a sense of community amongst the residents.

4.5.7. Prevailing sense of community in the residential area

The prevailing sense of community in Serala View seems to influence the interaction and chatting in particular amongst the residents. In this regard, a proportion of 14% and 53% of the respondents respectively state that the prevailing sense of community in the residence influence them to chat with each other (Figure 4.49). That is, given that the majority of the residents claim to have common communitarian values, it seems that chatting with each other in the residence neighborhood is a normal practice.

Figure 4.49: Intensity of respondents' view in terms of the prevailing sense of community influencing chatting
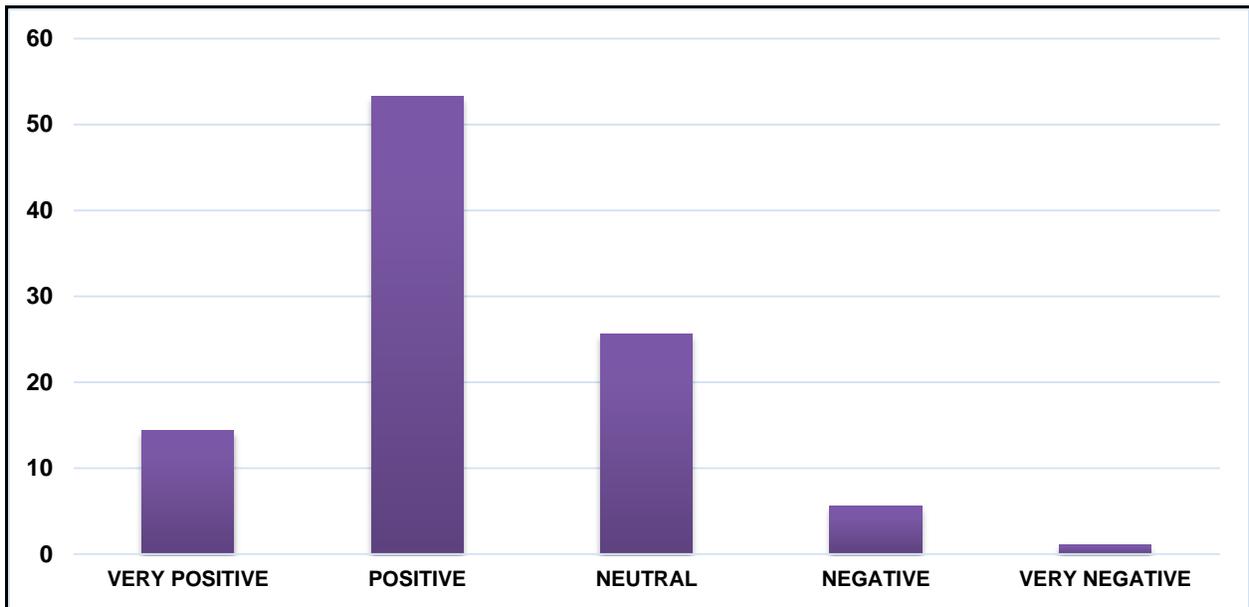
However, there is a proportion of 25% which indicate to be neutral on about the prevailing sense of community in terms of influencing them to chat with fellow members of the residence. Such response could be attributed to the fact that some of the residents in the neighborhood demonstrate lifestyle which is based on individualism social values. Therefore, this proportion of respondents may not be feeling any presence of communitarianism; hence they seem to be undecided on the influence made by the sense of community in the neighborhood. Nonetheless, there is a general consensus that the design and configuration of the Serala View mixed-income housing have a positive contribution in all the domains which determine the manifestation of social cohesion in the neighborhood.

4.5.8. Residents' perceptions on social cohesion in the residential area

In this regard, the majority of the respondents are of the view that their residential development indeed contributes positive in the creation establishment of social order and control (65%); the creation of shared values and civic culture (59%); formation of social solidarity (65%); the creation of social networks and connections (60%); and the enhancement of place attachment and identity (66%) (Figure 4.50). Overall, it is seen

that the majority of the residents in the Serala View believe that their residential neighborhood indeed has a positive contribution in the formulation and eventually the manifestation of social cohesion.

Figure 4.50: Intensity of respondents' view on the contribution of the Serala residential development on the different domains of social cohesion

	SOCIAL ORDER AND CONTROL	SHARED VALUES AND CIVIC CULTURE	SOCIAL SOLIDARITY	SOCIAL NETWORK AND CONNECTION	PLACE ATTACHMENT AND IDENTITY
POSITIVE	64.4	58.9	64.4	60	65.6
NEUTRAL	33.3	35.6	27.8	34.4	28.9
NEGATIVE	2.2	5.6	7.8	5.6	5.6
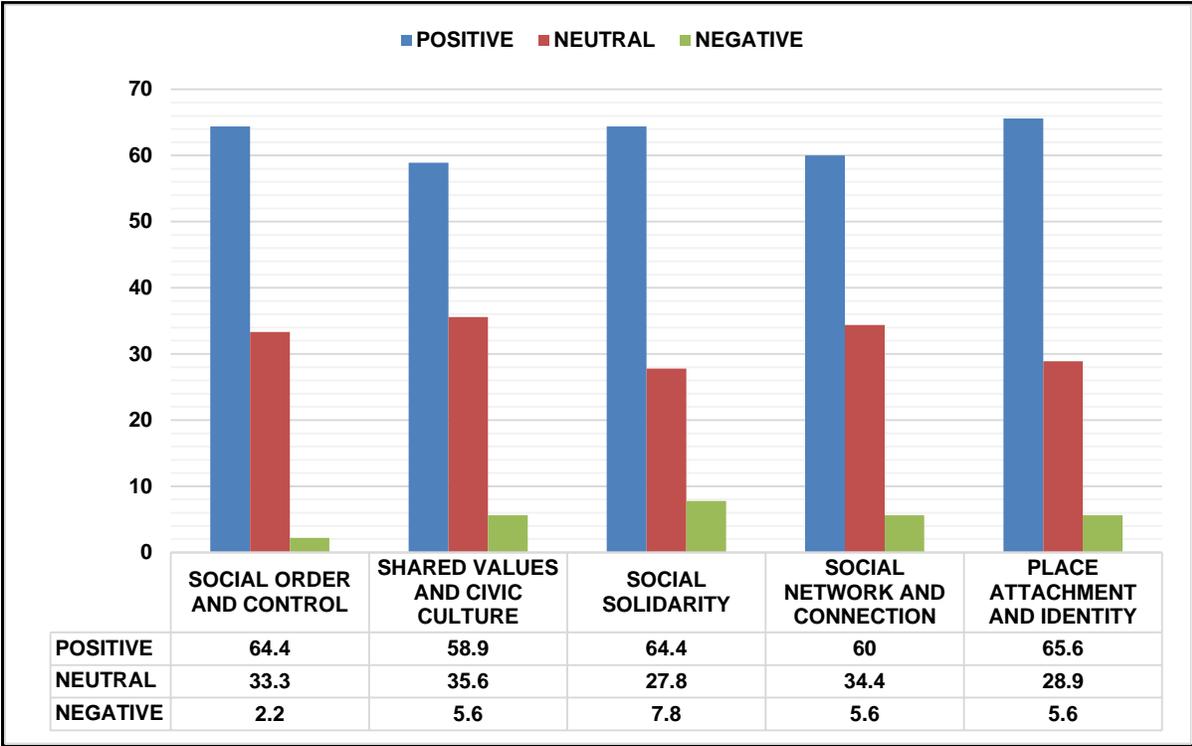
In contrary, a handful proportion of respondents believe that their residential development contribute negative in the manifestation of social cohesion. Nonetheless, it is noticeable that the provision of a gated-townhouse complex typology of mixed-income is seen to have a significant contribution in facilitating the manifestation of social cohesion in the urban area. That is, the configuration and the architectural design of such hosing typology is crucial in enabling the presence of social order; creation of shared values; formation of social solidarity; creation of social networks; and developing the sense of place attachment and identity among the residents.

4.6. Conclusion

There are several physical features and characteristic which configure the Serala View residential development as a mixed-income housing typology. These physical characteristics include the integration of different sizes and types of houses; accessibility to the neighborhood; the image and aesthetics of the houses; surveillance to public areas; the demarcation between private and public space; and the security measures in the residential development. The majority of the residents in the residential area regard the provision of security measures as the most important feature in their neighborhood. Hence, most of the housing units are surrounded by high security walls. As such, some of these high walls are seen to compromise the other characteristics in the residential area in a sense that the residents in some instances are unable to oversee their neighbor's property and some of the public spaces like streets. Moreover, the characteristic of overseeing the public spaces and neighbors' property is considered as the least important feature in the Serala View residential neighborhood. As a result, such spatial features are seen to be a limitation to "eye-on-the-street" neighborhood principle which seeks to promote neighbors to watch activities occurring in the neighborhood streets. Furthermore, the communal park in the residential area is not user friendly for the residents, and not situated in close proximity to the residents, which in turn has become an abandoned open space in the neighborhood. That is, the residents in the residential area do not access to a communal park which is an essential facility in promoting and creating social interaction in urban neighborhood. However, the residents in Serala View are seen to be proactive in enforcing social order and control in their neighborhood. To this extent, a Community Police Forum was established to ensure that there is social order and control in the residential area. In this regard, the community members in the residential area are subject to comply with the by-laws and regulations enforced by the community policing structure. Moreover, the residential development consists of houses households of diverse cultural groups. One of these cultural groups has initiated its cultural initiative which promotes the need to know each other in the neighborhood. As such, these initiatives could be considered as a significant determination of social cohesion in the residential area. In this regard, the following chapter will provide the findings, conclusion and recommendations.

CHAPTER 5

FINDINGS, CONCLUSION AND RECOMMENDATIONS ON MIXED-INCOME HOUSING AND SOCIAL COHESION

5.1. Introduction

The development of mixed-income residential estates is seen to be one of the mechanisms considered in the restructuring of the socio-spatial disparities created by the apartheid government in South Africa. To this extent, the building of social cohesion among the diverse socio-cultural groups in the urban areas of the country is seen to be the major objective. Thus, the study was aimed at investigating the determinants which propelled the manifestation of social cohesion in Serala View mixed-income residence in the Polokwane City. To guide the systematic process of the study, the study adopted both qualitative and quantitative research approaches, in order to solicit and explore information in the residential neighborhood in both qualitative and quantitative terms. A qualitative research approach was used to collect information in terms of the resident's views and experiences in relation to the manifestation of social cohesion in the residential area. The study also collected photographic data to depict the some of the spatial characteristics of the Serala View residential development. In addition, the study further considered the textual data which is in a form of literature from journal, articles, books and government documents in relation to the different typologies and characteristics of mixed-income housing and the determinants of social cohesion based on the dimensions of social cohesion. The information in the residential neighborhood was collected through a questionnaires data collection technique, and eventually captured accordingly in the International Business Machine-Statistical Package for the Social Sciences (IBM-SPSS) version 22 software. Ultimately, the use of this software helped to produce descriptive numerical outcomes. These numerical outcomes are presented in a form of graphs and pie charts which were developed by using the excel software. As a result, this diagram illustration produced percentage proportion and frequency of the views of the respondents in relation to the list of questions in the questionnaire. Therefore, this data analysis procedure becomes useful in drawing the findings, recommendations and conclusion of the study.

5.2. Findings

❖ Theoretically, there are three typologies of mixed-income housing which are generally recognized in urban areas of many countries. First, is the high-rise apartment which is configured in a form of vertically and horizontally stacked dwelling unit, built in a way that the walls of one residential unit is also the wall of another and the floor of one unit is the ceiling of the unit on the below floor. Second, is the Semi-detached or terrace row houses built in a form of blocks of row house units that are connected by shared walls and are built in a similar style, but not always in repeated facades. Third, is the gated townhouse complex which is normally fenced and have controlled access through a gate with a variety of housing types inside the precinct.

❖ From an empirical perspective, the study found that there are six physical characteristics which are generally found in the mixed-income housing development. That is, integration, accessibility, image and aesthetics, surveillance, ownership and territoriality, and target hardening. The residents in Serala View residential development consider the target hardening characteristic as the most important one, and as such, the issue of security is the major concern for people living in the gated townhouse complexes in urban areas.

❖ Notwithstanding the security concern in the residential area, the study found that there is no provision of control measures at the entry point of the Serala View residence. As such, the residents turned to feel unsafe and not trusting strange people and visitors moving around the premises of their neighborhood as they would not know if that particular person has come to their residential area for a good cause.

❖ From an empirical perspective, the study found that the residents in Serala View constantly maintain the image and aesthetic characteristic of their housing units in order to enhance the market value of their house properties. Thus, most of the houses in the residential area are painted because the residents believe that a

painted house has a high market value as compared to a first brick built house. In essence, people who live in a gated townhouse complex often maintain the outlook and image of their houses to enhance the market value of the house property.

❖ The study found that accessibility to the Serala View residence is inadequate, in a sense that motorists and pedestrians have to share the access and exit points. In essence, there is no provision for pedestrian only entrance in Serala View, and with that, pedestrian mobility and accessibility is constrained given that the pedestrians in and to the residential area have to use the long and inconvenient roads network to enter and exit the residential neighborhood.

❖ In Serala View there are different house types, size and tenure. The dominant house tenure in the residential area is the ownership tenure and most of the home owners have been subsidized for their house development; be it for the plot or for the actual house project. Interestingly, the home owners in the residential area indicated that they are unable to relate with the tenant resident because most of them often come and go as they please. As such, the home owner residents claim it is difficult to relate with people who are not attached to the residential area.

❖ Though most of the residents in Serala View indicated that a shopping center is in close proximity to their residents, this proximity is only a reality to the residents who are automobile dependent, not for walking and commuting residents. That is, for the residents who use public transport and pedestrians, the shopping mall is not convenient for them given the long distance they have to commute to the nearby Savana shopping mall.

❖ The study found that though each household in the Serala View residential development has, on average, two school going children; there is no school infrastructure, let alone recreational facilities for the children in the neighborhood. Most school going children in the residential area have to daily commute to the nearby school in Polokwane and in other suburbs using children transit or their parents cars.

❖ The study found that the residents in Serala View perceive their neighborhood streets as pedestrian friendly. This perception is based on the fact that most of the streets in the residential area are wide enough in terms of allowing a parallel flow of movement between the pedestrians and motorists. However, observation in the study reveals that there is no designation for pedestrian use only or pavements on the streets of the residential neighborhood.

❖ The study revealed that there is a dilemma created by the security walls that are built by individuals in their homes. That is, on one hand the walls are built as measures to enhance security for the residents in their house, while on the other hand the walls are seen to obscure the ability to oversee neighbors' property and the public streets. Some respondents indicated that they only manage to oversee from one side of their houses, and that the other sides are hidden by the high walls which serves as a security measure given the wide perception of crime in the residential neighborhood.

❖ The study found that the majority of the residents in Serala View have heard of criminal activities taking place in their neighborhood. The common known criminal activities in the area are house breaking and theft. In response to this scourge, a Community Police Forum (CPF) has been established to enforce by-laws which, among others, prohibit the casual movement of people at night in the neighborhood. In this regard, the residents in Serala View indicated that it is the community members themselves who take a full responsibility in ensuring social order and control in their neighborhood.

❖ The study revealed that despite the income disparities among the residents in the Serala View residential development, the residents have a sense of respect to each other. In this instance, it has been found that the majority of the residents in Serala View have a household income of above R25 000.00. Nonetheless, the study found that there is neighborliness in the residential area, to an extent that communitarianism was seen as the principle on which the residents' behavior and lifestyle is based.

❖ The study found that the majority of the residents in Serala View have positive relations of trust with one another. To this extent, most of the residents indicated that they always and often expect to give to and or receive help from their fellow neighbors in the case of need. Therefore, it is for this reason that the residents in Serala View feel it is very important to know each other in terms of knowing their one' surname and where they originally comes from. Therefore, the exchange of information technology contacts among the residents in the residential area is a normal occasion. That is, the residents often times exchange cell and WhatsApp numbers, in addition, the community in Serala View has a WhatsApp group which is used to disseminate and share community based information. Strangely, the study found that the use of Facebook for communication among the residents is not popular. Nonetheless, the residents show to have a constant interaction with their friends and neighbors in the neighborhood. Such interaction is regarded as a crucial aspect in the formation of social cohesion in urban areas.

❖ The study found that the residents in Serala View are happy to be associated with the people and their neighborhood in the residential area. That is, the majority of the residents indicated to be very much satisfied with regard to their residential neighborhood. In essence, the residents showed to be proud of their neighborhood's built and social environment to an extent that most of them have indicated a very strong sense of identity with the Serala View neighborhood in general.

❖ The study found that the available communal park in Serala View is not conducive for meeting and relaxing with friends and relatives, let alone for playing for children. From observation point of view, the communal park seems to be abandoned and not maintained. In addition, the park is a distance away from the residents, as such; the opportunity for public surveillance is limited. Against this background, the study found that cleanness and safety are the major obstacles to the effective use of the communal park in Serala View. Therefore, the residents in Serala View miss the opportunity to meet and interact in a communal park, which to some extent, compromise the manifestation of social cohesion in the residential area.

❖ The study found that the residents in Serala View have two opposite views with regard to the enhancement of safety and security in their neighborhood. That is, on one hand, for those who have provided their own security measure in their homes indicated to feel safer when at their homes than when moving around in the neighborhood. On the other hand, those who have not provided their own security measures indicated that despite the provision of security wall and gates around the entire neighborhood, they still do not feel safe in their homes. Against this background, the study found that it is the residents than the municipality that make efforts in enhancing safety and security in the Serala View residential development.

❖ The study found that in Serala View there are households of diverse ethnic groups and culture. These ethnic groups include North Sotho, Tsonga, Venda, Zulu, Tswana and Afrikaner. Such integration is seen to be a significant achievement, given the historical background of the country which was, and still is in many urban areas, characterized by racial and ethnic divisions. However, the study found that other ethnic groups embrace their cultures more prevalent than other ethnic groups. In this regard, the Tsongas for example, have a cultural group called "*Ahitivaneni*", which means let's know each other. Members of this cultural group constantly meet to celebrate and have fun together. Therefore, it is such kind of social gathering which bring about the manifestation of social cohesion in the Serala View neighborhood.

❖ The study revealed that most of the houses in Serala View have architectural features such as front doors, windows and balconies which are designed to allow for oversight on neighbors' property and public spaces like streets. However, the study also found that there are no by-laws which regulate the building of security walls in terms of the height and form of the wall. As a result, some residents are unable to oversee their neighbor because of the high walls erected in some houses.

❖ Overall, the study found that the residents in Serala View have a positive view in as far as the configuration and design of their mixed-income residential development

contributes towards the manifestation of social cohesion in the neighborhood. In essence, the resident in Serala View are positive that their residential development enhances social order and control; promotes a sense of shared values and culture; facilitates the spirit of social solidarity; enhances the formation of social networks and connections; and stimulates the sense of place attachment and identity as it is measured in terms of the domains of social cohesion.

5.3. Conclusion

In general, the literature suggests that there are three typologies of mixed-income housing that are prevalent in most urban neighborhood in various countries in the world. Most importantly, these mixed-income housing typologies have different spatial features and characteristics which are essential in the design and configuration of such housing development. With regard to the gated townhouse complex as one of the mixed-income housing typologies, the main findings of the study suggest that the security feature is the most important aspect for the residents in such residential neighborhood. As such, the residents in such neighborhood have personally provided high security measures like electronic fencing, in ensuring safety and security in their residents. Therefore, in relation to the aim of the study which seeks to investigate the contribution of mixed-income housing towards social cohesion in the urban, the study revealed that lack of proper security measures could restrain the manifestation of social cohesion in the gated townhouse complex. In this regard, hereunder, a synopsis of the findings is provided in order to make provision for a consolidated interpretive statement that links them to the thesis statement.

That is, in determining the manifestation in the context of the five predominant dimensions of social cohesion, the study found a positive contribution. That is, when determining the manifestation of social cohesion in terms of the formation of social networks and connections, the study found that in Serala View the residents have formulated social network group on WhatsApp, and at the same time there is a socio-cultural group. In terms of the establishment of social order and control, the study found that the Serala View community has formulated a Community Police Forum to maintain

social order and compliance with communal by-laws. In terms of the presence of shared of shared values and civic culture, the study revealed that the behavior and life style of the residents in Serala View is guided by communitarian values, despite their diversity in terms of income and ethnicity. With regard to the presence of social solidarity, the study found that the residents in Serala View have a strong mutual support on one another, to an extent that the residents do expect to give to and receive form other neighbors in the case of need. In addition, the residents demonstrate social solidarity by making a contribution of R20 per household for grievances to families whom their family members have passed away. In terms of the sense of place attachment, the study revealed that the residents in Serala View are strongly attached to their houses and the entire neighborhood, to an extent that they keep their streets and landscape clean. In addition, the study also found that though the configuration of houses in terms of enabling oversight to public spaces is adequate, the building of the unregulated security wall for the houses is improper given that these high walls are seen to obstruct the residents in terms of exercising neighborhood watch. Similar, the lack of a proper recreational and park facility is seen to be a limiting factor in terms of the manifestation of social cohesion in the Serala View residential area.

Despite all the limitations mentioned above, the gated-townhouse complex mixed-income housing typology is seen to have a significant contribution in facilitating the manifestation of social cohesion in an urban neighborhood setting. That is, from the analyses and interpretation of the theoretical and empirical evidence, the dissertation concludes that the contributions of mixed-income housing towards social cohesion are mixed and non-straightforward. However, there is theoretical validity of the notion that such an approach could cultivate social cohesion among different socio-economic classes. Results from Serala View Residential area largely confirm this theoretical positioning. Therefore, this dissertation concedes that implementation discrepancies could be the real elephant in the room, rather than the fault of the idea itself.

5.4. Recommendations

Based on the analysis, interpretations and the findings of the study related to the Serala View mixed-income residential development, hereunder are the recommendations suggested to enhance the manifestation of social cohesion in the residential area.

❖ From a theoretical perspective, there is a need to refine the conceptualization of typologies of mixed-income housing and how they relate to social cohesion.

❖ There is a need for strengthening the safety and security measures at the Serala View gated townhouse complex mixed-income housing. That is, there is a need for security controls at the entrances of the residential area, in order to ensure that the residents feel safe, and subsequently feel free to socialize and interact with they happen to meet within the residential precinct.

❖ By-laws should be enforced to regulate the design and configuration of the security walls in terms of the height and transparency. Such regulation will assist in ensuring that the home security walls in the Serala View are at a height level which does not limit the ability of the residents to oversee their neighbors' property and some of the public spaces such as streets and communal parks. On the other hand, the by-laws will ensure that the home security walls that are built in the residential area contribute in enhancing the appearance and the aesthetic character of the Serala View neighborhood.

❖ In order to ensure efficient movement in the Serala View residential area, there is a need for the provision of pedestrian friendly pathways. Such provision will assist in facilitating the interaction among the residents, given that there will be a movement ease in the residential area which would allow for casual contacts on the streets of the residential area.

❖ Pedestrian oriented access points are needed to promote efficient accessibility to the residential area. The current entrances in the residential area are meant for

automobile dependent residents, and as such, these entrances are inconveniencing the residents who will prefer walking in and out of the Serala View residential area. Therefore there is a need for pedestrian friendly entrances to promote efficiency and accessibility in the residential area. That is, efficiency in terms of walkability, and accessibility in terms of close proximity to nearby social and economic facilities.

❖ New coming residents in the Serala View residential area should be introduced to the residence community by the Serala View Homeowner Association. This practice would ensure that the community becomes aware of the new residents in the residential area. Ultimately, to relate and interact between the new coming and the long staying residents would be very easy, and eventually social cohesion would manifest among all the residences in the neighborhood.

❖ Given the high number of school going children in the Serala View residential area, there is a need for the provision of school infrastructure within the residential area. That is, the government should provide at least a primary school within the Serala View precinct. A school infrastructure is key in facilitating the building of social cohesion in urban neighborhood, in a sense that the children and perhaps also the parents of the children get to know each other at different levels of the society; at home and at school.

❖ Given the prevalence of the crime incidences in the Serala View residential area, there should be regular police patrol in the residential area. Such police patrol would eventually make the residents to have a sense of security in their residents, and ultimately would freely engage and interact with each other. Basically, a crime free built environment is conducive for the formation of social cohesion.

❖ Seasonal social and cultural festivals are needed in the Serala View residential area in order to bring together all the residents of diverse cultural groups in the neighborhood. Such gathering is necessary for creating more integration among the

diverse cultural groups in the residential area. As a result, through the social festivals social cohesion could be fostered.

LIST OF REFERENCES

Abdul Aziz, A. & Ahmad, A. S. (2011). Flat layouts and children outdoor activities. *Asian Journal of Environment-Behaviour Studies*, 2(4):51-62.

Abdul Aziz, Z., Ahmad A.S. & Nordin, T.E. (2012). Flats outdoor space as a vital social place*. Asian Journal of Environment-Behaviour Studies*, 3(7):14-24.

Al-Homoud, M. & Tassinary L. G. (2004). Social interactions at the neighborhood-level as a function of external space enclosure. *Journal of Architectural and Planning Research*, 21(1):10-23.

Australian Housing and Urban Research Institute (AHURI), (2007). *Housing and Social Cohesion: An Empirical Exploration*: *Final Report No. 100*. AHURI, Canberra.

Babbie, E. (2010). *The Practice of Social Research 12th Edition*. Cengage Learning, Wadsorth.

Brophy, P.C. & Smith, R.N. (1997). Mixed-income housing: Factors for success. *Cityscape: Journal of Policy Development and Research,* 3(2):4-31.

Brown, S.C., Mason, C.A., Lombard, J.L., Martinez, F., Plater-Zyberk, E., Spokane, A.R., Newman, F.L., Pantin, H. & Szapocznik, J. (2011). The relationship of built environment to perceived social support and psychological distress in Hispanic elders: The role of "Eyes on the Street". *Journal of Gerontology: Social Sciences*, 64(2):234-246.

Burchfield, K.B. (2009). Attachment as a source of informal social control in urban neighborhoods. *Journal of Criminal Justice*, 37:45-54.

Cabrera, J. F. & Najarian, J. C. (2014). Can New Urbanism Create Diverse Communities? Journal of Planning Education and Research, 33(4):427-441.

Cassim, L. (2015). *Postgraduate toolkit [DVD]. 2nd ed*. Layla Cassim ERS Consultants CC, Johannesburg.

Chaskin, R.J. &. Joseph, M.L. (2011). Social interaction in mixed-income developments: relational expectations and emerging reality. *Journal of Urban Affairs*, 33(2):209-237.

Council for Scientific and Industrial Research (CSIR). (2005). *Guidelines for Human Settlement Planning and Design 2005: Volume 1*. CSIR, Pretoria.

Dekker, K. & Bolt, G. (2005). Social cohesion in post-war estates in the Netherlands: differences between socioeconomic and ethnic groups. *Urban Studies*, 42(13):2447-2470.

Dempsey, N., Brown, C. & Bramley, G. (2012). The key to sustainable urban development in UK cities? The influence of density on social sustainability. Progress in Planning, 77:89-141.

Department of Housing (1997). *Urban Development Framework, 1997*. Department of Housing, Pretoria.

Department of Housing (2004). *Breaking New Grounds: A Comprehensive Plan for the Development of Sustainable Human Settlements, 2004.* Department of Housing, Pretoria.

Donaldson, R. (2005). Intro/retrospection on a provincial capital: Pietersburg/Polokwane revisited. *Urban Forum*, 16(4):352-368.

Donaldson, R. & Kotze, N. (2006). Residential desegregation dynamics in the South African city of Polokwane (Pietersburg). *Royal Dutch Geographical Society*, 97(5):567-582.

Du Toit, L.; Cerin, E.; Leslie, E; & Owen, N. (2007). Does Walking in the Neighborhood Enhance Local Sociability? *Urban Studies*, 44 (9):1677-1695.

Farida, N. (2013). Social interaction in communal outdoor spaces of residential housing estates in Biskra-Algeria. *International Journal of Environment, Ecology*, 3 (1):45-58.

Fonseca, M.L & McGarrigle, J. (2013). Modes of neighborhood embeddedness in three multi-ethnic neighborhoods in Lisbon an exploratory analysis. *Finisterra*, XLVIII (96):17-42.

Forrest, R. & Kearns, A. (2001). Social cohesion, social capital and the neighborhood. *Urban Studies*, 38(12):2125-2143.

Glaeser, E.L. & Sacerdote, B. (2000). The Social consequences of housing. Working Paper 8034. http://www.nber.org/papers/w8034.

Galster, G., Andersson, R. & Musterd, S. (2010). Who is affected by neighborhood income mix? Gender, age, family, employment and income differences. *Urban Studies*, 47(14):2915-2944.

Grant, J. & Mittelsteadt, L, (2004). Types of gated communities. Environment and Planning: Planning and Design, 31:913-930.

Haferburg, C. (2013). Townships of to-morrow? Cosmo City and inclusive visions for post-apartheid urban futures. *Habitat International*, 4(39):261-268.

Hess, P. M. (2008). Fronts and Backs: The Use of Streets, Yards, and Alleys in Toronto-Area New Urbanist *Neighborhoods. Journal of Planning Education and Research*, 28:196-212.

Ho, D., Yau, Y., Wong, S., Cheung, A., Chau, K. & Leung, H. (2005). Effects of building management regimes of private apartment buildings in Hong Kong. *Property Management*, 24 (3):309-321.

Housing Development Agency (HDA), (2012). *Research Report, 2012*. HAD, Johannesburg.

Human Sciences Research Council (HSRC), (2010). South African Social Attitude Survey (SASAS), 2010. HSRC, Cape Town.

Human Sciences Research Council (HSRC), (2011). *Towards a Social Cohesion Barometer for South Africa, 2011*. HSRC, Cape Town.

Hulse, K & Stone, W. (2005). Housing and social cohesion: What role for housing policy and assistance? *Building For Diversity National Housing Conference, Swinburne University of Technology*.

Hyra, D. (2013). Mixed-income housing: where have we been and where do we go from here? *Journal of Policy Development and Research*, 15(2):183-234.

Jiang, S. & Lambert, E. G. (2009). Views of formal and informal crime control and their correlates in China. International Criminal Justice Review, 19:5-24.

Jiang, S., Wang, J. & Lambert, E.G. (2010). Correlates of informal social control in Guangzhou, China neighborhoods. *Journal of Criminal Justice*, 38:460-469.

Joseph, M.L. & Chaskin, R.J. (2011). Social interaction in mixed-income developments: relational expectations and emerging reality. Journal of Urban Affairs, 33(2):209-237.

Kearns, A. & Mason, P. (2007). Mixed tenure communities and neighborhood quality. *Housing Studies*, 22(5):661-691.

Kearns, A., McKee, M. J., Sautkina E., Cox, J. & Bond, L. (2013). How to mix? Spatial configurations, modes of production and resident perceptions of mixed tenure neighborhoods. *Cities*, 35:397-408.

Klug, N., Rubin. M. & Todes, A. (2013). Inclusionary housing policy: a tool for re-shaping South Africa's spatial legacy? *Journal of Housing and the Built Environment*, 28(1):667-678.

Lemanski, C. (2006). The impact of residential desegregation on social integration: Evidence from a South African neighborhood. *Geoforum*, 37:417-435.

Landman, K. (2010). A home close to opportunities in South Africa: Top down vision or bottom up demand? *Town and Regional Planning*, 56:8-17.

Landman, K. (2012). Urban space diversity in South Africa: Medium density mixed developments. *Open House International*, 37(2):53-62.

Landman, K. (2013). Diversity in townhouse complexes in South Africa. *Essays Innovate*, 109-111.

Landman, K., Matsebe, G. & Mmonwa, M. (2009). Assessing the physical characteristics of medium density mixed housing in South Africa. *Town and Regional Planning*, 54:15-26.

Landman, K. & Napier, M. (2010). Waiting for a house or building your own? Reconsidering state provision, aided and unaided self-help in South Africa. *Habitat International*, 34(3): 299-305.

Leyden, K. M. (2003). Social capital and the built environment: The importance of walkable neighborhoods. *American Journal of Public Health*, 93 , 1546-1551 .

Macdonald, E. (2005). Street-facing dwelling units and livability: The impacts of emerging building types in Vancouver's new high-density residential neighborhoods. *Journal of Urban Design,* 10(1):13-38.

Mann, M. (1970). The social cohesion of liberal democracy. *American Sociological Review*, 35 (3):423-439.

Martin, M.D. (2002). The case for residential back-alleys: A North American perspective. *Journal of Housing and the Built Environment,* 17:145-171.

Mason, S. & Fredericksen, E. (2011). Fostering neighborhood viscosity: does design matter? *Community Development Journal*, 46(1):7-26.

McEwan, C. (2003). Bringing government to the people: women, local governance and community participation in South Africa. *Geoforum* 34:469-481.

Miciukiewicz, K. & Vigar, G. (2012). Mobility and Social Cohesion in the Splintered City: Challenging Technocentric Transport Research and Policy-making Practices. *Urban Studies*, 49(9):1941-1957.

Mugnano, S. & Palvarini, P. (2013). "Sharing space without hanging together": A case study of social mix policy in Milan. *Cities*, 35:417-422.

Musana, A.N. & Vestbro, D.U. (2013). Upgrading with densification - learning from Kampala, Uganda. *Global Journal of Engineering, Design and Technology,* 2(1):27-72.

Newman, O. (1996). *Creating Defensible Space.* Rutgers University, Chicago.

Onatu, G.O. (2010). Mixed-income housing development strategy: perspective on Cosmo City, Johannesburg, South Africa. *International Journal of Housing Markets and Analysis*, 3(3):203-215.

Osman, A. & Herthogs, P. (2010). Medium-density mixed housing: sustainable design and construction of South African social housing. *Conference Proceedings*, Reference: BE03-PA-F.

Ou, Y.; Jia, B. & Lau, S. S. S. (2004). Work-unit and commodity neighborhoods: Evaluating the residents' preference. *International Conference: Adequate & Affordable Housing for all. Toronto, June 24-27 2004.*

Pendola, R. & Gen, S. (2007). Does "main street" promote sense of community? A comparison of San Francisco Neighborhood. *Environment and Behavior*, 40(4):545-574.

Polokwane Local Municipality, (2012). *Integrated Development Plan (IDP) 2012-2015.* Polokwane Local Municipality, Polokwane.

Rahnama, M. R.; Roshani, P.; Hassani, A & Hossienpour S. A. (2012). Use principles of new urbanism approach in designing sustainable urban spaces. *International Journal of Applied Science and Technology*, 2(7):195-203.

Rogers S. H.; Halstead, J. M.; Kevin H. G & Carlson, C. H. (2011). Examining walkability and social capital as Indicators of quality of life at the municipal and neighborhood scales. *Applied Research Quality Life*, 6:201-213.

Rogerson, C. M. (2006). Pro-poor local economic development in South Africa: The role of pro-poor tourism. *Local Environment*, 11(1):37-60.

Rosen, G. & Walks, A. (2013). Rising cities: Condominium development and the private transformation of the metropolis. *Geoforum*, 49:160-172.

Rosenbaum, J.E., Stroh, L.K. & Flynn, C.A. (1998). Lake Parc Place: A study of mixed-income housing. *Housing Policy Debate*, 9(4):703-740.

Republic of South Africa (RSA), (1995). *Development Facilitation Act, 1995.* Government Printers, Pretoria.

Republic of South Africa (RSA), (1996). *The Constitution of South Africa, 1996.* Government Printers, Pretoria.

Republic of South Africa (RSA), (1997). Urban Development Framework, 1997. Government Printers, Pretoria.

Republic of South Africa (RSA), (2006). *National Spatial Development Perspective, 2006.* Government Printers, Pretoria.

Republic of South Africa (RSA), (2011). *National development Plan (NDP) 2030.* Government Printers, Pretoria.

Schwartz, A. & Tajbakhsh, K. (1997). Mixed-income housing: unanswered questions. *Cityscape,* 3(2):71-92.

Stal, G.Y. & Zuberi, D.M. (2010). Ending the cycle of poverty through socio-economic integration: A comparison of moving to opportunity (MTO) in the United States and the Bijlmermeer revival Project in the Netherlands. *Cities,* 27(6):3-12.

Statistics South Africa (Stats SA), (2011). *Census 2011.* Statistics South Africa, Pretoria.

Statistics South Africa (Stats SA), (2013). *General household survey, 2013.* Statistics South Africa, Pretoria.

South African Reconciliation Barometer Survey (SARBS), (2013). Confronting Exclusion: Time for Radical Reconciliation, 2013. South African Reconciliation Barometer Survey, Pretoria.

Svendsen, G.L.H. (2010). Socio-spatial planning in the creation of bridging social capital: the importance of multifunctional centers for intergroup networks and integration. *International Journal of Social Inquiry*, 3(2):45-73.

The Delta Foundation (2010). *Guidelines for Higher Residential Densities in New Low Income Developments Based on the Missionvale Experience (2010)*. The Delta Foundation, Port Elizabeth.

Wood, L.; Shannon, T.; Bulsara, M.; Pikora, T.; McCormack, G. & Giles-Corti, B. (2008). The anatomy of the safe and social suburb: An exploratory study of the built environment, social capital and residents' perceptions of safety. *Health & Place*, 14:15-31.

Wood, L.; Frank, L. D. & Corti, B. G (2010). Sense of community and its relationship with walking and neighborhood design. *Social Science & Medicine*, 70:1381-1390.

APPENDIX A: HOUSEHOLDS SURVEY QUESTIONNAIRE

RESEARCH QUESTIONNAIRE

Masters in Development Planning and Management Research Project

Research Project Title: The Contribution of Mixed-Income Housing towards Social Cohesion in Serala View Residential Development, Polokwane City in Limpopo Province

This questionnaire is intended to collect information on the contribution of Mixed-Income Housing towards Social Cohesion in the Serala View Residential Development. This research project is registered with the Department of Development Planning and Management at the University of Limpopo, Turfloop Campus. The survey results will be used exclusively for academic purpose. No information will be used against any member of your household and the community at large. Anonymity of the respondents is guaranteed, and you do not need to write your name and contact details on this questionnaire. Participation in the study is voluntarily and respondents have the right to withdraw from the study at any time.

Thank you!

Demographic and Economic Status of the Household

1. Please state the number of household members in terms of age and gender categories

Age	Males	Females	Total
Below 18			
18-30			
31-43			
44&above			
Total			

2. What is your population group?

Black African	1
Coloured	2
Indian or Asian	3
White	4

3. What is your marital status? (Please tick one option only)

Married (civil/religious or traditional/customary or polygamous)	1
Living together like married partners (Cohabitation)	2
Never married	3
Widower/widow	4
Separated or divorced	5

4. Please indicate the household's level of education by marking the appropriate number of household member(s) in terms of their level of education.

	Educational Level	Number of household members				
		1	2	3	4	5
1	No schooling or some schooling					
2	Grade 12/Standard 10					
3	Certificate or diploma					
4	Bachelors or honours degree					
5	Masters or doctoral degree					

5. What is the current employment status of the household head? (Please tick one option only)

Employed (either permanently or temporarily or self-employed)	1
Unemployed (but looking for work)	2
N/A (either student or retired or pensioner or housekeeper)	3

6. Please mark with an X the category that best describes your household's monthly income?

Less than R2 500	1
R2 501 – R5 000	2
R5 001 – R10 000	3
R10 001 – R20 000	4
Above R20 000	5

7. What is the daily mode of transport that you and the members of your household use? (Please mark one option only)

Walking	1
Bicycle	2
Public transport	3
Private car or motorcycle	4
Other (Specify)	5

8. What is your house tenure for the housing unit you have occupied currently? (Please tick one option only)

Owner	1
Tenant	2

9. Is your current residence subsidized in any way? (Please tick one option only)

Yes	1
No	2

10. How long have your household been living in this residence?

Less than 1 year	1
Between 1 and 2 years	2
Between 2 and 4 years	3
More than 4 years	4

11. Do you have a family/relatives living in the neighborhood or nearby? (Please tick one option only)

Yes	1
No	2

Section B

The physical characteristics of mixed-income housing development

1. The list below provides with the physical characteristics that are considered important in the success of your housing typology. How would you rank the importance of these physical characteristics; where 1 represents very important and 6, least important? Write 1 to 6, depending upon your order of relative priority.

	Integration (mixed housing types and sizes)
	Accessibility (pedestrian and cyclists friendly streets)
	Image and aesthetics (attractive and appealing house outlook)
	Surveillance (able to overlook public spaces from the house)
	Ownership and territoriality (clear demarcation between public and private spaces)
	Target hardening (strong security measures in the residential property)

2. On an differential scale of 1 to 5; where '1' is 'strongly agree' and '5' is 'strongly disagree', please specify with an X the option that matches your opinion.

The physical characteristics of mixed-income housing development	Strongly agree	Agree	Undecided	Disagree	Strongly disagree
	1	2	3	4	5
1. There is provision of different house tenures for various income groups in different parts of the residential property					
2. There is a variety of house unit sizes in the neighborhood					
3. Your house is in close proximity to places of work					
4. Your house in close proximity to shopping centres					
5. Your house in close proximity to school					
6. Roads in the residence are user friendly to pedestrians and cyclists					
7. The distance from your house to the main streets is short					
8. Your house is in close proximity to transport infrastructure					
9. Your house painting is attractive					
10. The gardening and landscaping in the neighborhood is appealing					

11. The interior features of your house unit are of high quality					
12. You are able to overlook some of the public spaces from your house					
13. Doors, windows and balconies allow oversight to the main streets					
14. There is clear separation between public and private spaces in the area					
15. There is privacy in your house unit					
16. There is control and security measures at access points to the neighborhood					
17. There is high level of safety in the neighborhood					

Section C

The manifestation of social cohesion in the urban residential development

Social order and control dimension

1. How frequent do you hear of criminal activities and people's victimization in your neighborhood?

Always	1	Often	2	Sometimes	3	Seldom	4	Never	5

2. In general, how would you rate the state of tolerance and respect amongst the different socio-economic groups in your neighborhood?

Highly satisfactory	1	Satisfactory	2	Neutral	3	Unsatisfactory	4	Highly Unsatisfactory	5

Shared values and civil culture dimension

1. The lifestyle and conduct of the people in your neighborhood demonstrates social values which are based on which attitude?

	Communitarianism
	Individualism

2. How do you think your household members could feel when seeing an irregular behavior by one of your neighbors; for example, witnessing a drunken young person insulting women on the street?

Very happy	1	Happy	2	Normal	3	Sad	4	Very sad	5

Explain………
………
………

3. Which of the following events would you regard as the popular social or cultural activities occurring in your neighborhood? Please write 1 to 6 depending on the order of its popularity in your neighborhood.

	Weddings
	Birthday parties
	Festivals
	Customarily rituals
	Funerals
	Others (Specify)

4. How often do members of your household attend the above mentioned social and cultural events occurring in your neighborhood?

Always	1	Often	2	Sometimes	3	Seldom	4	Never	5

Explain……….
………
………
………

Social solidarity dimension

1. On a differential scale of 1 to 5; where '1' is 'strongly agree' and '5' is 'strongly disagree', please specify with an X the option that matches your opinion: In your neighborhood people empathize with each other in the event of distress and sadness.

Strongly agree	1	Agree	2	Undecided	3	Disagree	4	Strongly disagree	5

Explain………
………
………

2. How frequent does your household expects to give or receive help from other neighbors when needed?

Always	1	Often	2	Sometimes	3	Seldom	4	Never	5

3. How important for your household to know the names of your neighbors and where they originally come from.

Very much	1	Much	2	Somewhat	3	Not much	4	Not at all	5

Social networks and connections dimension

1. How often do you exchange contact numbers with your neighbors?

Always	1	Often	2	Sometimes	3	Seldom	4	Never	5

2. With which mode of chatting do your household members frequently use to chat with your neighbors?

Mode of chatting	Frequency								
Technological	Always	1	Often	2	Sometimes	3	Seldom	4	Never	5
Physical	Always	1	Often	2	Sometimes	3	Seldom	4	Never	5

Explain……………………………………………………………………………………………………
………
………
………

3. How many friends and/or relatives does your household have in the neighborhood?

Too many	1	Many	2	Few	3	Very few	4	Not at all	5

Explain……………………………………………………………………………………………………
………
………
………

Place attachment and identity dimension

1. How proud is your household with regard to your residential area and its people?

Very much	1	Much	2	Somewhat	3	Not much	4	Not at all	5

Explain……………………………………………………………………………………………………
………
………

2. On a differential scale of 1 to 5; where '1' is 'strongly agree' and '5' is 'strongly disagree', please specify with an X the option that matches your opinion: Your household members feel at home in this neighborhood.

Strongly agree	1	Agree	2	Undecided	3	Disagree	4	Strongly disagree	5

Section D

Mixed-income housing and social cohesion

1. How would you rate state your house's attractiveness in terms of making you to feel attached to the residential area?

Highly satisfactory	1	Satisfactory	2	Neutral	3	Unsatisfactory	4	Highly Unsatisfactory	5

2. Communal parks provide a conducive space for meeting and relaxing with friends.

Strongly agree	1	Agree	2	Undecided	3	Disagree	4	Strongly disagree	5

3. The residential property accommodates people from different sociocultural background.

Strongly agree	1	Agree	2	Undecided	3	Disagree	4	Strongly disagree	5

4. Your house feature like front door and windows allow you to overlook the main streets and your neighbors' property.

Strongly agree	1	Agree	2	Undecided	3	Disagree	4	Strongly disagree	5

5. What is your state of satisfaction with the provided security measures in terms of enhancing safety in the residential area?

Highly satisfactory	1	Satisfactory	2	Neutral	3	Unsatisfactory	4	Highly Unsatisfactory	5

6. In the residential property there are different house sizes and types which provide accommodation to people of diverse lifestyle.

Strongly agree	1	Agree	2	Undecided	3	Disagree	4	Strongly disagree	5

7. How frequent do you meet and chat on the streets with your neighbors?

Always	1	Often	2	Sometimes	3	Seldom	4	Never	5

SECTION E

Measure to improve the contribution of mixed-income housing on social cohesion

1. Which measures could you suggested to improve the contribution of mixed-income housing on social cohesion in the residential area?

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APPENDIX B: INTERVIEW SCHEDULE FOR KEY INFORMANTS

RESEARCH INTERVIEW SCHEDULE FOR KEY INFORMANTS IN SERALA VIEW RESIDENTIAL DEVELOPMENT: POLOKWANE CITY

Masters in Development Planning and Management Research project

Research Project Title: The Contribution of Mixed-Income Housing towards Social Cohesion in Serala View Residential Development, Polokwane City in Limpopo Province

This interview schedule is formulated to probe and soliciting community-wide information from key informants. As the key informant of the study, you are required to provide an overview of the Contribution of Mixed-Income Housing towards Social Cohesion in Serala View Residential Development, Polokwane City in Limpopo Province. The information to be obtained will be solely used for the academic purpose, and that your participation in the research project is voluntary. The interview schedule is structured based on the following question:

1. How would you describe the layout and design of the Serala View residential development in terms of the following?
   ❖ Integration;
   ❖ Accessibility;
   ❖ Image and aesthetics;
   ❖ Surveillance, ownership, and;
   ❖ Target Hardening.
2. What are the prevailing cultural norms in the residential development?

3. What are the available social facilities in the residential development?

4. What are the regular activities through which the Serala View residents demonstrate to sympathize with each other?

5. In which way would you say the Serala View residents feel proud of in the residential properties and its appearance?

6. Which measures would you suggest in terms of promoting social cohesion in the Serala View residential property?

Thank you!

APPENDIX C: LETTER FOR REQUESTING PERMISSION TO COLLECT DATA IN SERALA VIEW
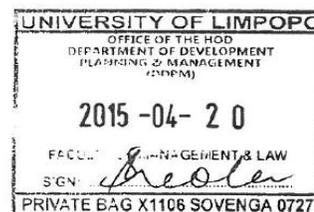
University of Limpopo
Private Bag X1106, Sovenga, 0727, South Africa
Tel: 015 268-3198, Fax: 015 268-2215, Email: johannes.tsheola@ul.ac.za

TO:	Mr HM Maboa, Chairperson, Serala View Homeowners Association
Cc.:	Mr TM Lukhele (9958282), Lecturer & Masters Candidate, University of Limpopo
From:	Professor Johannes Tsheola, HOD & Supervisor, Development Planning & Management
Subject:	Request for Permission that Mr TM Lukhele Conducts Survey in Serala View

As HOD and Supervisor, I herewith make a sincere request to you to allow Mr TM Lukhele to conduct fieldwork and household survey in Serala View. This request is referenced hereunder:

1. Mr TM Lukhele (9958282) is a Lecturer in the Department of Development Planning & Management at the University of Limpopo and is currently registered for a Masters Qualification with the same Department and University as follows:

Title:	*The Contributions of Mixed-Income Housing towards Social Cohesion in Serala View Residential Development, Polokwane City in Limpopo Province*
Supervisor:	Professor Johannes Tsheola

2. Mr Lukhele's Masters Research Proposal has been approved by the University of Limpopo's School of Economics & Management as well as the Faculty of Management & Law Higher Degrees Committees (HDCs); and, the Turfloop Research Ethics Committee (TREC) requires that the Candidate secures a letter of permission for his fieldwork and survey in Serala View.
3. The fieldwork and survey will include observations, photographic information, administration of questionnaires among selected households as well as interviews with Committee Members.
4. The purpose of the survey is to establish how the mixed-income housing model contributes towards social cohesion.
5. The relevant data collection tool, questionnaire and interview questions, will be made available to the Committee.
6. Mr Lukhele will be assisted by four Postgraduate Students: Mr KI Makalela (201210837); Ms AV Ndlovu (201110263); Ms L Mmotlana (201212236); and, Ms DG Malebana (201211454).

Mr Lukhele would be greatly assisted if he could be allowed permission to conduct fieldwork and survey as requested; and, shall observe all relevant research ethics in keeping with the University of Limpopo's standards and requirements. He is

thoroughly trained as researcher and he knows that he has to uphold the value, principles and guidelines applicable to the Serala View Community.

Also, all information to be collected will be kept confidential and made available to the Committee.

I herewith kindly request you to allow Mr Lukhele and his Assistants the opportunity to conduct the fieldwork survey as requested.

I look forward to your favourable response.

Sincerely,

UNIVERSITY OF LIMPOPO
OFFICE OF THE HOD
DEPARTMENT DEVELOPMENT
PLANNING & MANAGEMENT
(DPPM)

2015 -04- 2 0

FACULTY OF MANAGEMENT & LAW

SIGN..............................
PRIVATE BAG X1106 SOVENGA 0727

Professor Johannes Tshikuru, HOD & Supervisor
Development Planning & Management

APPENDIX D: LETTER FOR PERMISSION TO COLLECT DATA IN SERALA VIEW

SERALA VIEW HOMEOWNERS

P O BOX 3677   _WENDY HOUSE_
SOVENGA   _MAMBA STREET_
0727   _SERALA VIEW – POLOKWANE_
                                          _0699_

21 July 2015

Professor Johannes Tsheola, HOD & Supervisor
Development Planning & Managegement
P O Bag x 1106
SOVENGA, 0727

Attention: Professor Johannes Tsheola

RE: REQUEST TO ALLOW MR TM LUKHELE TO CONDUCT FIELDWORK AND HOUSEHOLD SURVEY IN SERALA VIEW

1. We refer to your letter dated 20th April 2015,

2. This serves as a confirmation that the Institution (University of Limpopo) or Mr TM Lukhele is allowed to conduct a fieldwork and survey imperatives in Serala View

3. The community will be kept informed about your present and the exercise you are intending to perform and also to give your goodself support.

4. Your cooperation is always appreciated.

Kind regards.
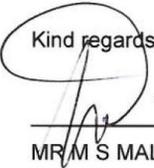
_____
MR M S MALULEKE
INTERIM GENERAL SECRETARY
Email- malulekems@coghsta.limpopo.gov.za Cell. 083 597 1609

APPENDIX E: TURFLOOP RESEARCH ETHICS COMMITTEE CLEARANCE CERTIFICATE

University of Limpopo
Department of Research Administration and Development
Private Bag X1106, Sovenga, 0727, South Africa
Tel: (015) 268 2212, Fax: (015) 268 2306, Email:noko.monene@ul.ac.za

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TURFLOOP RESEARCH ETHICS
COMMITTEE CLEARANCE CERTIFICATE

MEETING:	02 September 2015
PROJECT NUMBER:	TREC/137/2015: PG

PROJECT:

Title:	The contribution of mixed-income housing towards social cohesion in Serala View Residential Development, Polokwane City in Limpopo Province
Researcher:	Mr TM Lukhele
Supervisor:	Prof JP Tsheola
Co-Supervisor:	N/A
Department:	Development Planning and Management
School:	Economics and Management
Degree:	Masters in Development Planning and Management

PROF TAB MASHEGO
CHAIRPERSON: TURFLOOP RESEARCH ETHICS COMMITTEE

The Turfloop Research Ethics Committee (TREC) is registered with the National Health Research Ethics Council, Registration Number: REC-0310111-031

> **Note:**
> i) Should any departure be contemplated from the research procedure as approved, the researcher(s) must re-submit the protocol to the committee.
> ii) The budget for the research will be considered separately from the protocol.
> PLEASE QUOTE THE PROTOCOL NUMBER IN ALL ENQUIRIES.

Contribution to mixed income housing

ORIGINALITY REPORT

| 12%	5%	9%	2%
SIMILARITY INDEX	INTERNET SOURCES	PUBLICATIONS	STUDENT PAPERS

PRIMARY SOURCES

1	"Mixed-Income Housing, Urban Transformation and Social Cohesion in Post-apartheid South Africa", Mediterranean Journal of Social Sciences, 2014. Publication	6%
2	researchspace.csir.co.za Internet Source	<1%
3	repositories.cdlib.org Internet Source	<1%
4	www.huduser.org Internet Source	<1%
5	www.landcom.com Internet Source	<1%
6	www.csir.co.za Internet Source	<1%
7	www.melbourneinstitute.com Internet Source	<1%
8	137.214.16.100 Internet Source	<1%

APPENDIX G: LIST OF PUBLICATIONS

Lukhele, T.M. (2015). The practical implications of the policy frameworks which guide the planning and design of human settlement in South Africa. *South African Association of Public Administration and Management (SAAPAM) 15th Annual Conference Proceedings*, 440-450.

Lukhele, T.M. (2014). Mixed-income housing, urban transformation and social Cohesion in post-apartheid South Africa. *Mediterranean Journal of Social Sciences*, 5(25):36-43.

APPENDIX H: LETTER FOR PROOF OF EDITING
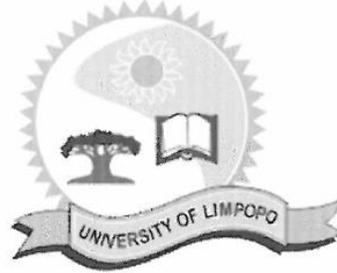
University of Limpopo
School of Molecular and Life Sciences
Private Bag X1106, Sovenga, 0727, South Africa
Tel: (015) 268 2209, Email:mkateko.ngobeni@ul.ac.za

TO WHOM IT MAY CONCERN

This is to confirm that the dissertation entitled "**The contribution of mixed-income housing towards social cohesion in Serala view residential development, Polokwane City, Limpopo Province.**" **By Lukhele TM, Student no: 200901901** has been proofread and edited, and that I am satisfied with both its current academic and technical layouts.

Yours truly
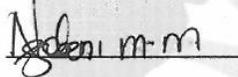
Ms M.M Ngobeni (English Lecturer and Language Editor)

(MA in Translation studies and Linguistics)

School of Molecular and Life Sciences