HOUSING SECTOR IN SAUDI ARABIA: PREFERENCES AND ASPIRATIONS OF SAUDI CITIZENS IN THE MAIN REGIONS

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Abstract

During the last few decades, Saudi Arabia, as one of the developing countries, has witnessed a noticeable and rapid development with regard to different development sectors and fields. This is mainly attributed to the increased revenues from oil exports. While, a huge increase in population numbers has accompanied this development, as well as higher rates of migration to the cities. In addition, there has been significant governmental support given to the development of cities and raising the living standards of citizens (Bahammam, 2002). Of late, there has been a huge increase in the size and population numbers in Saudi Arabia, more specifically in the main Region and cities. Accordingly, and due to other economic and social changes, the housing crisis has become a more serious issue in Saudi Arabia.

The main objective of this research was to explore the views of Saudi citizens regarding the current housing situation, how far their needs are matched, identifying their housing needs, preferences and aspirations with regard to future housing in the main Region of Saudi Arabia, as well as the various dimensions of the housing issue from the residents’ points of view. Moreover, the city of Jeddah was selected as a micro case study. This research is built upon a theoretical framework, achieved via the review of practical studies and previous reports related to the subject of this research. In addition, a descriptive analytical framework was used for the collection of the data relating to the main objective of this study, collected through questionnaires and interviews with residents and specialists. Then, it was analysed in order to determine results and final recommendations.

The results demonstrated a low level of residents’ satisfaction and a lack of offered products that meet their needs and financial capabilities. Therefore, this contributes significantly to the difficulties of sourcing suitable housing and exaggerates the housing issue further. Moreover, the results also showed that, for ownership, residents generally prefer to possess detached houses, such as villas and duplexes. However, the most common type of housing in Saudi Arabia are apartments, despite there being less desire to own them as permanent houses. Furthermore, the desires relating to homeownership and matching financial capabilities were not entirely complimentary for most of the
respondents. This is clearly reflected in the residents’ high expectations in terms of bigger houses as compared to their actual income. The respondents mainly carry the housing crisis, to higher property and housing units’ prices, on one side. On the other side, to the ministry of housing as an official authority in charge of the housing sector.

This study recommends that more attention be paid to the promotion of cultural awareness among Saudi Arabia’s residents in order to eliminate misconceptions related to housing. Cultural misconceptions are linked to the ingrained cultural and social characteristics of the society. The main issue is promoting better use of space. In addition, a good option would be to speed up the process of providing new housing solutions that match both the housing needs and the financial capabilities of the citizens.

This study is an attempt to help public and private housing authorities and sectors with regard to the development and improvement of the housing sector in Saudi Arabia through providing information that may aid better understanding in terms of the needs and desires of the residents. It may also help determine ways in which to provide suitable and affordable housing solutions. This, in turn, will create housing stability for the residents through the realisation of their expectations and better understanding of their problems, which will thus mitigate the overall housing issues.
Resumen

Durante las últimas décadas, Arabia Saudita, como uno de los países en desarrollo, ha sido testigo de un rápido y evidente progreso en diferentes campos y sectores de desarrollo. Esto ha contribuido principalmente al aumento de ingresos de las exportaciones de petróleo. El crecimiento significativo de la población ha acompañado a este progreso y a los altos índices de migración a las ciudades. Además, ha habido un importante apoyo gubernamental al desarrollo de las ciudades y al aumento de los estándares del nivel de vida de los residentes (Bahammam, 2002). Recientemente ha habido un gran incremento en el tamaño y número de poblaciones en Arabia Saudita, específicamente en las principales regiones y ciudades. De acuerdo con esto y debido a otros cambios económicos y sociales, la crisis de vivienda en Arabia Saudita ha comenzado a agravarse.

El principal objetivo de la investigación es conocer el punto de vista de los ciudadanos de Arabia Saudita acerca de la vivienda actual, qué tanto cumple con sus necesidades; descubrir sus necesidades, preferencias y aspiraciones de vivienda para futuras casas en las regiones principales de Arabia Saudita; y encontrar la dimensión del problema de vivienda desde el punto de vista de los residentes. Adicionalmente, la ciudad de Jeddah fue elegida para realizar un micro caso de estudio. Esta investigación depende de un marco teórico a través de la revisión de estudios prácticos e informes previos relacionados al objeto de la misma. Además, se utiliza un marco analítico descriptivo para la recolección de la información del principal objetivo de este estudio mediante cuestionarios y entrevistas con los residentes y especialistas. Posteriormente se analizó para obtener los resultados y las recomendaciones finales.

Los resultados muestran un bajo nivel de satisfacción de los residentes, así como una falta de oferta de productos que cumplan con sus necesidades y capacidades económicas. Esto contribuye significativamente a las dificultades de encontrar casas adecuadas y exagera el problema de vivienda. Los resultados muestran que para ser propietario de una vivienda, generalmente se prefiere tener casas independientes, como villas y dúplex. Esto hace frente a la alta oferta de apartamentos, ya que son el tipo de vivienda más común en todo Arabia Saudita, y es menos deseable tener apartamentos como hogares permanentes. Y los deseos de ser propietario de una casa que cumpla con
las capacidades económicas no fueron muy claros para la mayoría de los encuestados. Evidentemente, esto se refleja en mayores expectativas de áreas y espacios más amplios en comparación con los ingresos. Por un lado, los encuestados de este estudio llevan la crisis de vivienda a mayores precios de propiedades y unidades habitacionales. Por otro lado, lo hace el ministerio de vivienda, como una autoridad oficial encargada de dicho sector.

El estudio recomienda que se ponga una mayor atención a la promoción de la conciencia cultural entre los individuos de la sociedad para eliminar algunos conceptos erróneos relacionados a la construcción. Estas ideas erróneas están vinculadas a aspectos culturales y sociales que están profundamente arraigados entre los individuos de la sociedad, y eso promovería un mejor uso de los espacios. Además, que se acelere el proceso de proporcionar nuevos productos de vivienda que cumplan con las necesidades tanto de vivienda como financieras.

Este estudio intenta ayudar a las autoridades y sectores de vivienda públicos y privados en el desarrollo y mejora del sector de vivienda. Esto a través de la provisión de información que ayudaría a entender mejor las necesidades y deseos de los residentes, lo que hará que estén disponibles viviendas adecuadas y accesibles. Esto, a su vez, creará una estabilidad de vivienda para los residentes a través del cumplimiento de sus expectativas y una mejor comprensión de sus problemas, lo que mitigará el problema de vivienda.
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List of acronyms

NDP: National Development Plans
MENA: The Middle East and North Africa region
GCC: Gulf Cooperation Council
GAStat: General Authority for Statistics
KSA: Kingdom of Saudi Arabia
REDF: Real Estate Development
CDSI: Central Department of Statistic and Information
SA: Saudi Riyal
CHAPTER ONE

INTRODUCTION
14.1 Introduction

Having a suitable house is one of the most important issues for all people. The Universal Declaration of Human Rights (1948, article 25) emphasised the right of every human to have a proper house. Thus, many studies have since highlighted the importance of having suitable homes that serve the needs of all people. This would help ensure social and economic stability for everyone and enable individuals to be more active community members.

Due to several major demographic, social, cultural and economic changes, many countries have faced housing issues and issues around the provision of suitable houses in the last few decades.

Recently, oil revenues have enabled the GCC\(^1\) countries to witness rapid development that has transformed them from poor countries into advanced ones. Many developments have also been witnessed. As a result of such development, the governments in GCC countries have advanced the cities and raised the living standards through making improvements to the economic, social and urban environment.

Saudi Arabia, as one of GCC countries – the largest and the most populated one, has achieved noticeable development in many sectors and fields within a short time. This is attributed mainly to the increased revenues produced by oil exports.

The housing sector is one of the sectors that has witnessed significant development over the last few decades, both The housing policies of Saudi Arabia are characterised by the giving of huge support to this sector in order to make the acquisition of houses easier for the citizens. However, due to rapid urban development, alongside economic and social changes, including migration to cities, different Region of Saudi Arabia have experienced major and ongoing changes to the urban environment and the residents’ lifestyles.

\(^1\) Gulf Cooperation Council
These changes have therefore affected the needs, desires and aspirations of the residents and moreover, the demand for housing.

Now, the housing sectors in Saudi Arabia are facing different challenges, including, among other things:

- A requirement to provide a large number of houses. There has been a decrease in the number of house offered on affordable payment plans.
- Increased house and property prices.
- Ownership rates needing to be raised as they have decreased over the last decade.
- More demand being generated in the main Region and cities.

As residents are the main stakeholders and players in terms of the housing issue, the study of their views, housing requirements and the factors affecting their current and future housing selections would be helpful in framing future perceptions and plans. It is worth mentioning here that the housing issue in Saudi Arabia has attracted the attention of researchers from a number of different fields and backgrounds. However, during this research, it was noted that there has been a decrease over the last few years in the number of academic studies being undertaken that focus on the investigation of this issue from the point of view of the residents and their desires. Therefore, this is the main motivation for the selection of the subject of this research.

Finally, as 63% of the total populations are residents of only three Regions out of the 13 of Saudi Arabia, where the highest demand on houses is generated, this also constitutes one of the main motivations behind selecting these Regions as the main case study. Subsequently, one of the main cities, specifically the city of Jeddah, was selected to represent these three Regions as a micro case study for study purposes.

14.2 Problem identification

In the last few decades, Saudi Arabia’s population has multiplied more than over the previous four decades. Based on the results of the last demographic survey carried out in 2016, the population exceeded 31 million people. While, the average population growth is estimated to be at a rate of 2.54%.
at the demographic structure of the population, it can be observed that the percentage of that population that is aged less than thirty years old was 50% of the total population in 2016. This percentage is even higher among Saudi citizens, where they represent 59%. Additionally, the number of immigrants increased from 11% of the total population of Saudi Arabia back in 1973 to up to approximately 37% in 2016. Moreover, migration to the major cities saw an increase, where the number of cities’ residents reached up to 84% of the total population in 2010 and is expected to increase to 88% in 2025.

The Saudi government has been paying more and more attention to the development of cities in terms of urban, social and economic aspects, especially over the last few decades and during the time of economic flourishing the country witnessed due to the increased revenues produced by oil exports. Consequently, this led Saudi Arabia to adopt new comprehensive planning policies and strategies that would increase the urban population in the main cities and make of suitable housing available and easier to acquire by the citizens. This continuous support provided by the Saudi government over the last few decades through various programmes they offered to the housing sector was the main reason that decent housing units were able to be provided and which also enabled most Saudi families to acquire their own homes (Bahammam, 2002).

Types of houses have changed significantly, yet traditional houses\(^2\), which relied on the affluent, prevailed until villas and buildings began to emerge in the late forties. While, recent houses are different in terms of the type and area, ranging from villas, to one-story houses, to duplexes and apartments.

Since the influx in population numbers and the associated higher demands on housing occurred simultaneously to other economic changes and a successive increase in living costs, the housing issue in Saudi Arabia has become exaggerated. Moreover, many social and cultural changes have affected the design and construction of houses.

While, the results of five-year plans have shown that there is a gap between the supply and demand in terms of houses that the governmental or private

\(^2\) The dwellings, current or of former times, that characterize a given culture
Programmes have been unable to address. Further, a study carried out by (al shura consultation)\(^3\) stated that the housing issue has been significantly affected by the increase in house construction costs.

One of the challenges that the housing market in Saudi Arabia is facing is the increased number of unoccupied housing units. The General Authority of Statistics (GAStat) published a report on their website, citing the total number of unoccupied housing units had reached 969.7 thousand housing units at the end of 2010, representing 17.2% of the total number of existing housing units in Saudi Arabia.

What constitutes a suitable house for a Saudi family is difficult to define, as suggested by (Bahman, et al., 2005) who highlighted that the identification of a proper house for a Saudi family differs from one researcher to another, according to their specialty, practical experience, and their status in the surrounding community. Many researchers tend to consider the design and construction of houses as a social matter, as families have different characteristics in terms of size, social class and financial capabilities. Despite these different definitions of a suitable house, it can be agreed that there are some overall characteristics that would generally be accepted by Saudi families in terms of design and function, according to their general need and Saudi traditions. For instance, the design of any house may be influenced by a set of general requirements, such as the location, ambience, technology and the culture of the local community (Ouqba, 2005).

As mentioned previously, housing studies have been approached from a number of points of view. However, it must be noted that there are few studies that have investigated this issue from the perspective of residents, particularly in the GCC countries.

That emphasises the importance of studying the opinions of the residents in the area and determining how far their current houses are meeting their needs, raising any issues they may face and their future desires. This will therefore create data that will assist the housing market stakeholders, both

public and private, with regard to taking proper decisions and setting out appropriate plans for the current day and in the future. Moreover, this will improve the houses on offer and potentially fill the gap between the supply and demand of homes, based on a better understanding of the needs and aspirations of the residents. Further, this study comes at a time when Saudi Arabia is planning to enact laws, regulations and adopt policies that will better organise the human and infrastructure developments in order to address development issues within The Kingdom, including the housing issue.

14.3 The purpose of the study

14.3.1 Overall aim and specific objectives

The main objective of this research is to study the conditions of current houses, how far they are suited to Saudi residents’ needs, as well as identifying their housing needs, preferences and aspirations for future houses in the main cities and Region of Saudi Arabia, and particularly, in the city of Jeddah (the micro case study). This will help in the improvement and development of the housing sector, creating suitable housing options that meet the aspirations and capabilities of the residents, alongside raising their living standards and satisfaction levels.

For this main objective to be achieved, a set of goals were set as follows:

- Reviewing previous studies and research related to the housing issue so as to identify the factors that affect this sector, including, for example: supply and demand, selection, preferences and affordable houses in order to better understand the housing system.
- Studying and reviewing such changes and factors that affect the development of the housing and house sector in Saudi Arabia. This will be carried out through the review of some previous reference studies and research, analysing some official reports on demographic changes and types of houses, the influence of the public and private sectors, and the main issues the housing sector in Saudi Arabia faces, with more focus being paid to main cities and Region.
- Opinion polls for the Saudi citizens in the main Region of Saudi Arabia on their housing needs in order to better identify the factors that affect the decision-making process with regard to house ownership.
Studying the difference between the residents' financial capabilities and their desires and preferences. For example, is there a realistic vision of their financial capabilities and the types and sizes of the preferred housing units?

Identifying the trends of the residents for future houses and their preferred housing options.

Studying and analysing the satisfaction levels of the residents in relation to the housing sector and the main issues they face.

14.3.2 Research questions

The study focused on a set of questions that aimed to address the research objectives. They were as follows:

- What is the current condition of the housing market of Saudi Arabia after the major changes that have occurred in the last few decades? And what are the most relevant changes?
- What are the factors that affect the selection of a house and housing type in the main Region of Saudi Arabia?
- How far are current houses suitable and do they meet the residents’ needs?
- What are the main obstacles and issues the residents face in the renting and ownership sectors?
- What are the difficulties home seekers are facing in Saudi Arabia?
- What are residents' needs and aspirations for future houses and preferred housing types?
- What are the evaluations and opinions of the residents with regard to the current condition of the housing market?

14.4 Development stage

To achieve the research objectives and to answer its questions, the study is divided into four stages.

First Stage: A review of selected previous literature and studies relating to the housing field and related areas. For example, research in the field of urban development, the housing market, supply and demand, and studies relating to
populations. Subsequently, more focus will be paid to those studies related to the specific research area (the main Region of Saudi Arabia), through the undertaking of a chronological review and analysis of the main changes that have occurred in the housing sector.

Second Stage: The main objective of this stage is to gather data related to the opinions and aspirations of the population in the research study (the main Region of Saudi Arabia) through the design and formatting of a questionnaire that is to trialed on a random sample of specialists and average people. It will then be revised based on the feedback and proposals made by the test sample and refined for the main study.

Stage Three: For better communication with the residents and due to the vast size of the population used in this research, one of the main cities of Saudi Arabia, the city of Jeddah, has been selected to represent a micro case study so as to gather the data related to the opinions and desires of residents through face-to-face interviews that will be carried out with a sample of residents. In addition, there will be interviews undertaken with some specialists from the housing market, including engineers, architects, and real estate developers. The reason behind the selection of the city of Jeddah will be detailed in chapter three that covers the adopted methodology.

Stage Four: The last stage will be where the results of the previous stages are collected and discussed. The aim is to obtain answers to the research questions and to reach conclusions and formulate final recommendations.

14.5 The research structure

Herein, below, is a summary of the structure and chapters of the study. The research is composed of seven chapters.

Chapter 1: describes the background and objectives of the research, goals, questions, stages and structure.

Chapter 2: an overview of selected studies that focus, in general, on the housing sector. It covers topics like urban planning issues, supply and demand of houses, housing needs, homeownership and affordable houses. In
addition, this chapter provides a general overview of the housing sector and the affecting factors relating to different aspects of the housing sector.

Chapter 3: this chapter describes the methodology used in this research. A theoretical framework is used, which is dependent on the analysis of previous studies. A practical framework is also used, including the polls of opinions and desires, which will be collected via the use of questionnaires in relation to the Saudi residents of the houses in the main Region. The city of Jeddah, one of the main cities, has also selected to represent a micro case study, where interviews will be carried out with residents and specialists. The methods and steps for data collection and analysis are also described.

Chapter 4: the objective of this chapter is to present the most important issues affecting the housing sector in Saudi Arabia. It starts with an introduction to Saudi Arabia, the legislative system and its relation to the housing sector. It also studies the demographic and economic changes, chronological development of the types and number of houses, the role of the public and private sectors in the provision of houses, and an gives an overview of the housing market and the difficulties it has faced recently, with more focus being given to the main Region of Saudi Arabia.

Chapter 5: this chapter reviews the analytical results of the study questionnaire. It is divided into five sections. The first section discusses the demographic and economic characteristics of the sample, the second section focuses on the characteristics of current houses, while the third section contains an analysis of the characteristics of the future houses, while the final section discusses the opinions of the sample regarding housing issues.

Chapter 6: the objective of this chapter is the review and discuss the results obtained through the interviews carried out with residents and specialists.

Chapter 7: in this chapter, results will be collected and displayed for the theoretical and practical methodologies. They will be discussed in order to reach conclusions and make recommendations. In addition, research limitations and future study fields are presented. This chapter ends with the references and Appendices.
CHAPTER TWO

REVIEW OF RELATED LITERATURE ON HOUSING
CHAPTER TWO: REVIEW OF RELATED LITERATURE ON HOUSING

28.1 Introduction

The analysis that will follow in this chapter relies upon the literature on the concept of housing and the principles that apply in this field as they occur in certain developing countries. This chapter is divided into five sections as follows:

The first section includes a series of definitions of housing and other concepts surrounding the notion of housing, followed by a second section that reviews the importance of housing, housing rights and policies, house pricing and urban housing problem.

The third section examines literature about the concept of supply, demand and the need of housing. The fourth section includes a series of studies important for the concept of choices and preferences of housing together with housing satisfaction and the factors affecting them, and the last fifth section deals with the concept of affordable housing.

28.2 Definition

28.2.1 Home

A home is defined as a building that provides cover to an individual and possesses what is wanted or needed for both the individual and the family in achieving their mental health and social happiness. If specific circumstances and cultures are taken into account homes differ from one country to another, and still there is a general agreement that homes support and strengthen values of the family system⁴.

A home has a great influence on family life, determining the quality of life as it is considered to be among primary necessities, like food, clothing, education, and health. Moreover, a home provides not only a shelter but different possibilities and facilities for comfort, reassurance, and safety in a family life in such a way that is physically and psychologically observed, and it also facilitates personal expression and desires (Alsweedi, 1985).

⁴ Ahmed Zaki Badawi: Dictionary of Social Sciences, Beirut, p. 201
According to (Suliman, 1996) home is considered to be the one of the main physical necessities of life, right after food, water, and health, as it provides permanence and a suitable environment for each family members’ enhanced productivity. As the basis for achieving secondary physical goals such as improving the standard of living and providing services, a home allows for the people to achieve intangible goals, such as security, identity, justice, freedom, or responsibility.

From the architectural point of view, (Okasha, 1999) definition of home relies on professional experience and creative potential of a society and therefore presents a reflection of cultural images expressed through the above. In summary of what has been highlighted so far we can derive a conclusion that a home offers security and strengthens social and family ties.

28.2.2 Housing

Housing can be defined in view of the various criteria, such as for instance a definition according to which housing stands for buildings or other structures that individuals and their families may occupy that meet certain legal criteria, and different housing situations may depend on age, family situation, and geographic location. These differences can be portrayed by taking an example of a young university graduate and a middle-aged entrepreneur, where the first could be renting an apartment at a central location, and the latter could be an owner of a property in suburbs, where we witness different legal implications (rights and obligations) in both cases.

Nevertheless researchers point out the importance of a unified approach in finding a single definition of housing as a concept, with a consensus of experts, decision makers and dealers that would correct the negative interpretations.

(Stafford, 1978) argued that the concept of housing is defined in general for statistical purposes as dwelling units, more precisely as housing units occupied separately by households while comprising a great variety of quantities and qualities.

Housing is later defined (Salau, 1992) relaying on the entire residential neighbourhood/environment or smaller physical environment with all necessary services and means for the total health and social well being of the individual and family. From the perspective of an academic inquiry, we can define housing as an integrated system encompassing social science, economy, architecture, planning, internal design, policy, psychology, and law. Therefore, housing is seen as a series of

larger and complicated elements beneficial to welfare and safety. Some might consider housing limited to the concept of house, while others might find that a house is one of many housing elements.

On the other hand, we can discover housing being defined as a study of residential units and of the housing market. In that regard it is emphasizing psychological, social and cultural effect of housing while researching difficulties people have in finding appropriate housing and people’s expectations of their home.

According to (Abram, 1964), “housing is not only a shelter but also part of the fabric of the neighbourhood life and of the whole social milieu”. Such definition highlights economic criteria and serves as a guideline for determining a social status. It is worth noticing that the social system has a direct effect on the housing system. This notion can be explained if we look into how the family system and shifting attitudes about family organization will equally influence the housing and the social system. Furthermore, it can be suggested that such interdependence might serve as a trigger for change in many countries in view of their housing policies. As an example, most young families tend to choose independent housing instead of multiple-dwelling houses. (Aroni, 1982) and (Achuenu, 2002), point out that housing should be considered as a home and a resting place. From the perspective of the socio-cultural functionality housing is viewed as „an area for recreation and identification (Gallent et al, 2004).

If we take country political and economic system into consideration, we can look into housing as part of a national public policy. Moreover, housing market as part of an economic system is affected by the rules of supply and demand, or exports for foundation materials.

In addition, housing as an investment is important at the level of individual and its family, local community and national economy (Bello, 2003).

In that regard, housing can be perceived as a private or public investment, that activates big share of the family budget or that of an establishment, with the most tangible results created (Kinyungu, 2004).

From above we can see the interconnectivity of housing with families or individual occupants as well as with political, economic, planning, and social systems, as shown in Figure 2-1.
28.2.3 Neighbourhood

The definition of neighbourhood as given by (Pitkin, 2001) states that “neighbourhood is a multidimensional bundle comprised of spatially based attributes associated with clusters of residences, sometimes in conjunction with other land uses”.

Furthermore, a neighbourhood also as defined by (Pitkin, 2001) is broadly connected to spatially based attributes such as structural characteristics of residential and non-residential buildings, infrastructure, demographic characteristics of the resident population or their class status, environmental characteristics, political characteristics implying the degree to which local political networks are influential and social characteristics implying degree of interaction.

All the attributes above may not be present in a particular neighbourhood but (Avery, 2006) and (Hunter, 1974) emphasize that while most of them are, the quantity and composition of constituent attributes typically vary across neighbourhoods within a single metropolitan area. That said, neighbourhoods can be distinctly categorized by type and or by quality. Neighbourhood classification is necessary for understanding of the neighbourhood change.
A neighbourhood can be grasped as a consumable commodity possibly beneficial to four types of users (Galster, 2001). These users are households, businesses, property owners and local governments.

- **Households** through the act of occupying a residential unit and using the surrounding private and public area.
- **Businesses** through the act of occupying a non-residential structure.
- **Property owners** by extracting rents and/or capital gains from the land and buildings.
- **Local Government** by collecting tax from the owner or a tenant.

### 28.2.4 Household

According to business dictionary[^6], household can be defined by taking into account all persons related by blood or law that live in one house or in one part of a house, with direct access to the public area or access to separate cooking area.

Household definition in the Kingdom of Saudi Arabia, according to General Authority for Statistics (GAStat) relies on description of a group of people, regardless if they are relatives or not, that share residence. Furthermore, the household includes nationals of Saudi Arabia and other nationals who have their natural residence within the same family but were absent for a time like businessmen or tourists, than family members absent for night shifts at work like nurses or airport staff, also resident domestic workers and members of a family that are travelling within the Kingdom.

Households can be perceived as single or multiple occupancy dwellings. Occupants of a household may be single occupants or growing nuclear families[^7] or also large extended families[^8]. Occupants of a household may have different status in terms of employment – working, retired, or unemployed, or they may be disabled individuals.

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[^7]: Meaning of “nuclear family” in the English Dictionary: a family consisting of two parents and their children, but not including aunts, uncles, grandparents, etc. [Online web site] Available at: https://dictionary.cambridge.org/dictionary/english/nuclear-family
[^8]: Meaning of “extended families” in the English Dictionary: a family unit that includes grandmothers, grandfathers, aunts, and uncles, etc. in addition to parents and children. [Online web site] Available at: https://dictionary.cambridge.org/dictionary/english/extended-family
28.2.4.1 Head of the Household

Head of the household is a family member above 15 years old and responsible for family affairs and decisions and that is accepted as a chief member from the other members of a family. Also a mother can be considered to be the chief member in the household in a specific case when a relative not living within the household provides for them and the family is children and their mother. In a described household situation relative that is providing support cannot be regarded as a head of the household or as one among the family members.

28.2.5 Building

A building could be perceived as any structure with various features, long-lasting or short-lasting structure, with one or more levels, one room or more than one, or one entrance or more than one. A building could be used for different purposes, such as family life or religious cause. Additionally, a building could be structured as a complex of buildings, or as an urban building, but also as a house or villa, a government building or a mosque, or as a shop. A store and a garage count as annexed buildings, whereas villa annexes are not accepted as building parts, nor are the annexes like water pumps, bridges or engine chambers.

28.2.6 Dwelling

Dwelling is a unit in a building with one or more rooms intended for one household but more households are optional, with a separate entrance or more entrances, regardless of its status if it is lived in or empty, or not even fully constructed. A dwelling might be designed for households or businesses, and is recognized as any inhabited building, from shops and schools to villas, houses or apartments.

28.2.6.1 House

House represents a separate unit in a way that no sharing of space or other features with other dwellings is envisaged, except for the exterior space.

28.2.6.2 Villa

The luxurious building facing the street separated by a veranda used for gardening, car park or other utility is a villa. State legal framework regulates that a villa as a residence can be expanded by building additional floors, and not by occupying other surrounding space.
28.2.6.3 Duplex house
A Duplex House is recognized as a two floor residential unit for a family with single kitchen and dining area and separate entrances to both of the floors. In Saudi Arabia starting at 200 square meters, the duplex house is a bit above the size of a flat but is smaller than a villa, which it resembles in appearance.

28.2.6.4 Detached house
Detached house means that it is fully separate, implying that there are no walls that are shared between the dwellings.

28.2.6.5 Semi-detached house
Semi-detached, unlike previously explained, means that between dwellings there is a minimum one common wall, and ‘terraced’ means that there are two or more dwelling in a row and that those dwellings are connected.

28.2.6.6 Apartments or flats
Apartments or flats represent units in a building that share internal space and possibly maintenance and other services.

28.2.6.7 Room
A room is an area accessible from the inside of a house, its minimal size is four square meters and it is over two meters high. A room can have various functions, and can be a kitchen or a dining room, living room, bedroom, cellar or attic, and can have other dwelling functions.

More precisely, when talking about number of rooms, a kitchen is observed as separate room if it is used just for cooking, and if a room is used as kitchen and dining room as well it counts as one room. Furthermore, bathroom and toilet, hall and lobby, utility room and terrace do not represent a room. It is worth noticing that in a dwelling with more households, and where there are shared rooms, number of those ought to be contrasted to household number s to attribute the equal share of rooms per household.

28.2.6.8 The courtyard
The core of all Islamic-Arab houses is a courtyard as their most important part, different in size or number, depending on resources. Traditional architecture, in urban or rural areas, commonly adopts the concept of courtyard, and it is inherent to Muslims, in supporting their religious and social needs in particular in view of the privacy. The concept of the courtyard deals also with some environmental issues successfully.
28.2.7 Ownership and rent

One of the strongest incentives for capital formation, as well as for savings, is a prospect of owning a house (Ozo, 1990).

The owner is usually also a household member. On the other hand, households paying part rent and part mortgage for their settlement and possessing a title deed are to be regarded as owners too. In respect of the concept of ownership, it is also important to mention a "Homebuyer" as a term represents any person or a couple that does not own a home before buying of a home.

Rent generally refers to amounts charged for the occupation of space regardless of the legal definition and it includes utilities expense to the extent not covered by the owner. A rent- free accommodation exists in such cases when rent is not paid in connection to the job, or accommodation is initially without rent if private source is providing the rent. The job, or is provided rent-free from a private source.

28.2.8 Homeownership

The centerpiece of a working population ambition is to own a house and to pass the ownership to the children, especially in developing countries. Inside a household, homeownership is perceived as a successful living.

Homeownership has economic repercussions in a way that it generates activity in the real estate sector (Galster, 1987). One of the important housing policy determinants is preference for ownership over renting (Saunders, 1990).

It has been suggested that homeownership affects in a positive way status of an individual, which can lead to better social and economic stability in a country. Psychologically, homeownership is a social status symbol (Megbolugbe and Linneman, 1993). Homeownership supports values such as family dignity, protection and self-expression, as a result of independence from landlords. Homeowners assert more control over the estate they have unlike tenants (Stegman, 1994), which can have effect on a greater feeling of control over their life (Saunders, 1990).

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There are many other positive effects of homeownership, like higher appreciation of the house, higher maintenance and more improvements of homes (Saunders, 1990). Furthermore, this behaviour is determined by social interactions that occur in the community, as well as neighbourhoods around (Galster, 1987; Rossi and Eleonor, 1996). On the other hand, renters are less appreciative of improvements and do not renovate too often because after they move out they are left without the benefits of improvements they made (Galster, 1987; Saunders, 1990). Homeowners have higher motivation to improve their home and hence they create certain social impact in a way that their behaviour leads to higher levels of participation in local community (Rohe et al., 2001; Rossi and Eleonor, 1996).

Due to the economic value of their homes, likelihood of homeowners to move is decreased in comparison to renters (Rossi and Eleonor, 1996). In that regard, homeowner’s decisions are influenced by high transfer costs when selling or buying a home against the costs of a lease agreement. (Cox, 1982). As a consequence there is neighbourhood stability, likely paving the way for better neighbourhood “health” and also increasing values of the property values (Rohe et al., 2001).

A question raises whether the type of residential dwelling can influence the determinants of homeownership. Also whether the behaviour of homeowners differs in case if they own a single detached dwelling or multiple-unit dwellings. These questions are based on the fact that most research of homeownership was focused on a single detached low-rise dwelling. (Glaeser and Sacerdote, 2000) discovered that owners of apartments in medium-sized and large (above ten units) apartment complexes are more inclined to social contacts with their neighbors but less interested in local politics in comparison to those that are owners in fewer unit apartment complexes.

As (Wekerle et al. 1980) argued it is a question of control because even though homeowners are more independent and free from landlords and their pressure, the social and psychological benefits are not fully realized in multi-story residences since owners have limited control.

28.2.9 Housing cost

Term housing cost stands for really paid costs on a monthly basis, including the cost of utilities, aligned with the right to live in the house.

Components that have to be included in housing costs are mortgage interest payments for owners and rent payments for tenants (net of any tax relief), gross of housing
benefits (i.e. housing benefits should not be deducted from the total housing cost), structural insurance, mandatory services and charges (sewage removal, refuse removal, etc.), regular maintenance and repairs, taxes, and the cost of utilities (water, electricity, gas and heating).

28.3 The importance of housing

All humans have the right to live in adequate shelter according to The Universal Declaration of Human Rights from 1948. The Declaration clearly provides in Article 25(1) that:

“Everyone has the right to a standard of living adequate for the health and well-being of himself and of his family, including food, clothing, housing and medical care and necessary social services, and the right to security in the event of unemployment, sickness, disability, widowhood, old age or other lack of livelihood in circumstances beyond his control”.

For many basic human needs, such as safety, survival, and dignity housing represents a foundation. According to (Onibokun, 1982) housing constitute a vital component of man’s welfare and life expectations. Broadly speaking, housing is both essential and largest financial investment or expenditure for most people. This supports the idea that the distribution of housing fundamentally affects a country’s social and economic structure. The housing sector accounts for 10 to 20% of total economic activity and 20 to 50% of reproducible wealth in general. In the US,11 more than 20% of Gross Domestic Product (GDP) is set apart for consumer spending on housing construction and housing-related goods and services, greater than all other industrial sectors (Seiders, 1997). The correlation of housing sector to many macroeconomic sectors, such as interest, savings, and inflation rates or unemployment, wage rates, and even the balance of payments, is not that surprising anymore since the considerable influence of these links are increasingly being recognized and documented (Zhou, 1999).

In the hierarchy of man’s needs, housing has been ranked second to food, due to its influence on welfare of the community and social behavior satisfaction, efficiency and health, efficiency, social behavior satisfaction and general welfare of the community. As

11 United States of America
it was mentioned before, housing is generally recognized as a basic human need, with a profound impact on the life of the human being (Dunn, 2000).

Returning to all of the above definitions it can be stated that housing, especially what is known as the housing level is extremely important. Apart from the positive effects that were presented, it is also useful to notice how bad housing leads to social and economic downfall, especially of morality as it negatively affects individuals, families, and societies.

28.3.1 Housing rights

Housing rights are human rights that allow people to live in a decent and secure home, and the most important is the right to adequate housing guaranteeing everyone to live in security, peace and dignity. Therefore, person’s social or economic status cannot limit the access to adequate housing. In addition, the United Nations Committee on Economic, Social and Cultural Rights in its 1991 communiqué explained what it further means and recognized seven elements of the right to adequate housing. Those elements are legal security of tenure applicable to every type of housing, services and materials, affordability, habitability, accessibility, location and cultural adequacy.

28.3.2 Housing policy

Governments all over the world as part of their political agenda usually place as top priority housing development in their national development plans (NDP) (Ajanlekoko 2001). Over the years, seems that governments realized the power of the housing sector policy and the importance of ensuring that its citizens are housed reasonably well. Moreover, as expressed in available literature, dynamic housing sector is a sign of stable investment potential of a country and can be observed as foundation of the future economic and social progress. There have been various efforts made to try to find balance between population growth and challenges of the absolute housing shortage/affordability.

In view of what has been said about the housing policy so far, attempt by the government to create standards and remove imbalances in housing sector, to define institutional framework at central and local level and everything else needed to make housing available is usually summarized in a National Housing Policy. Even though challenges are being addressed on a governmental level, sometimes with direct provision of houses for those in most need, still the desired results may not always be
achieved as observed by (Hasan, 2006) because of the lack of understanding and interaction between high class and technocrats making policies and those that represent low class and the poor that ought to be helped. The same author argued that, in view of the above, government housing policy actually helps high class at the expense of the less privileged ones.

28.3.3 Adaptability in housing

In modern societies where changes occur often, it is difficult to predict future demographic trends and national economic performance, or to identify technologies important for industry and businesses. The same goes for designing or arranging homes in future to come. However one can rely upon the influence of people who inhabit them and of new technologies as well (Whitehand, Christine and Carr 1999), and these determinants put together can serve as guidelines on how people modify or transform their dwellings. Historically it has always been part of human habitation to adapt shelter because the conditions that influence housing adaptability are variable or provisional. Examples to support the above are many, such as factors that shaped building of a house became outdated, or changes in policy planning regarding number and size of households over the course of time.

One example provided by (Avi, 2002) and (Coleman and Salt, 1992) draws our attention to London and Wales, and a situation in which a parallel has been made between the needs of the traditional inter-war family household of three to four persons with a three bedroom house and a garden, and changed needs of households of one to two persons that by 1981 constituted well over one-half of the entire region.

Furthermore, other factors have been found to influence change in homes and they include amongst others family transformation, avoiding unnecessary mobility, new technologies, social and economic dynamics (Whitehand, Christine and Carr 1999).

28.3.4 The Influence of Housing Components on Prices of Houses

Location, neighbourhood or structural aspects represent housing components that can be used to determine value of a residential property. The structural aspects that also influence the price could be construction date, construction quality, design quality, layout, number and size of rooms, landscaping and space in general. Equally affecting the price of houses are the aspects like connection to public transport, proximity of work, markets and shopping centers, as well as sport facilities. When determining
house prices neighbourhood components can be taken equally as a plus or minus, and serve as an important aspect because of their spatial correlation to the housing market (wan & usman, 2015).

28.3.5 Urban housing problem

In countries around the world rapid growth of population and migration to urban regions has caused major and complex housing problems.

To start from, a phenomenon of scarcity and too few available and appropriate housing units is one aspect of a housing problem today. It can be argued that described situation is a result of insufficient construction or problems in the construction industry in connection to high labor costs or construction materials shortage. In all cases the insufficient supply affects house prices in such a way that low-income households will have difficulty to pay.

A housing problem is outlined mostly as an urban problem and suggested qualification relies on the rising number of people moving from rural areas to the city. Migration is inevitable and increasing and results are also many problems that negatively affect individuals and families socially, economically, and technologically. That said, the effects of increased urbanization and demographic growth are easily measurable in high rates of overcrowding, high multi-story buildings, increase of housing prices and rents, or environmental problems. Something else that is very important to mention is the growing poor performance of the construction industry as reported in literature (Adams, 1996; Aniekwu and Okpala, 1988; Mansfield, Ugwu & Doran, 1994; Wells, 1986). In light of the challenges related to the housing market, at least when developing countries are in question, there is a line of barriers that deserves special attention, and some of those barriers are low incomes contrary to high costs, land speculation and high prices, lack of effective planning or savings plan, limited architectural resources, weak environmental protection, underdevelopment in construction industry.

28.4 Supply, demand and need of housing

Equilibrium price and quantity of a good can be best understood in the framework of supply and demand.
28.4.1 Demand

Term demand is used in economy to address to the volume of goods or services that consumers are willing or able to pay. Two factors relevant for understanding demand are needs and wants of a consumer, though economists see it as one and the same, and ability to pay.

Price represents what is paid by a consumer per unit of a certain good or service. The total number of units purchased at a price represents the quantity demanded. A rise in price of a good or service almost always decreases the quantity demanded of that good or service. Contrary, a drop in price increases the quantity demanded.

Market demand curve is representing many household choices regarding market demand for housing in the economy, shown in Figure 2-2 It is a way of looking at markets in macroeconomics, and not looking at underlying decisions of individuals.


The market demand curve shows the quantity of Houses demand at each price.
28.4.1.1 Shifts in Demand

In the demand curve analysis price is varying but other factors are kept fixed. In particular, income level, preferences of households and goods and services prices in the economy, and if such other factors are altered, then the market demand curve\textsuperscript{12} will shift and the quantity demanded will change at each price.

Many factors can activate leftward shift of the market demand curve for houses as shown in Figure 2-3 like household income decrease in a market, concerns about economy stability, a reduction in typical rental price, an increase in mortgage interest rates, a social change in what is accepted as a status symbol and to this regard if house owning is not seen as a status symbol anymore.

![Figure 28-3: A shift in the market demand curve](https://2012books.lardbucket.org/books/theory-and-applications-of-economics/s23-01-housing-supply-and-demand.html)

If there is a decrease in demand for houses the demand curve shifts leftward, and fewer houses are demanded at each price.

\textsuperscript{12} The number of units of a good or a service demanded at each price.
28.4.1.2 The difference between demand and quantity demanded

There is a difference between the two terms demand and quantity demanded in economic terminology. As illustrated by a demand curve demand represents the relationship between a range of prices and the quantities demanded at those prices. On the other hand quantity demanded represents a certain point on the demand curve.

28.4.2 Supply

Market supply curve is a match to the market demand curve\(^\text{13}\), which is achieved by putting together the individual supply curves in the economy. As price increases, the quantity supplied to the market increases too. As price increases more companies enter the market and produce certain positive quantity above zero, and if the same price trend lasts these companies tend to increase the quantity they want to produce. These are two underlying issues in connection to price increase Figure 2-4.

Figure 28-4: The market supply of houses


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\(^{13}\) The number of units of a good or a service supplied at each price.
Quantity of houses supplied at a price is shown by the market supply curve. The number of houses supplied to the market increases as the price of houses increases.

### 28.4.2.1 Shifts in Supply

In the supply curve analysis, once again price is varying but other factors are kept fixed, and altering any other factor will affect the market in a way that supply curve will shift. As indicated in Figure 2-5, a leftward shift of the market supply curve for houses could be caused by many factors, like increase in production costs such as cost of loaning or price of oil, than delays or damaged construction due to the weather conditions or legal barriers on the market making building more difficult.

**Figure 28-5: A shift in supply of houses**


If there is a decrease in supply of houses, the supply curve shifts leftward, and the fewer houses are supplied at a price.
The analysis of housing supply in literature, in developing countries, teaches us that actors with their different incentives in housing sectors are from the public sector (for example politicians), landowners, real estate agents, banks, savings and loans associations, also from the labor sphere such as public direct labor, private enterprises and finally consumers such as owners and tenants. In view of what has been said, we can categorize housing production and consumption by mentioned actors into two sectors: formal and informal as in Figure 2-6.

Figure 28-6: Housing supply in developing countries

![Figure 28-6: Housing supply in developing countries](image)

Source: Drakakis-Smith (1981)

**28.4.3 Market Equilibrium: What Determines the Price of Housing?**

If the market demand and market supply curves are put together the result is a supply and demand picture in Figure 2-7, and the moment when supply and demand meet represents a perfect match between how much the buyers want to buy and how much the sellers want to sell, called the equilibrium in the market.

Equilibrium in a market entails an equilibrium price and an equilibrium quantity. The features are that given the equilibrium price, sellers supply the equilibrium quantity and buyers demand the equilibrium quantity.
If a market is competitive than equilibrium price and quantity are determined by the point where the supply and demand curves meet.

Pictures like Figure 2.6 "Market Equilibrium" are helping to grasp the way a market functions. Even so, organization occurs by itself, through the workings of the market, and actors on the market do not need to have more previous knowledge apart from the prevalent market price. Therefore, it can be suggested that the price of housing represents the main factor that affects demand for housing. As price decreases, the quantity of housing demanded increases by the rule of demand. Wealth of household is also vital for the demand of housing.

Price of housing equally represents the main factor that affects supply of housing. As price increases, the quantity of supply also increases, and the housing supply is shifted through alteration in the price of inputs and in technology.

Determination of the quantity and price of housing traded is the equilibrium of the housing market.
28.4.4 Demand for housing

Nature of the housing market, the tenure structure, and the socio-economic attributes of households are just some factors among the many that influence the demand for housing. Factors that are different from region to region, and are also important to mention are the quality of buildings, average standard of living, and the preferences and habits of consumers. Consumption and investment demand for housing also often motivate decisions to buy a house (Henderson and Ioannides, 1983).

According to (Mayer, 1990), we can distinguish between housing demand and residential mobility as two ways in which housing choices are expressed. The dilemma of control remains, in sense of wondering if we control demographics and focus on economic parameters, or vice versa, and the answer is important because it opens the door to alternative research designs and different model specifications. Mayer also emphasized importance of the recognition of specific interconnections within housing demography, and the lack of available data to that regard.

Major features of housing are financial, fiscal, and government regulation (Renaud, 1955). Realizing that population growth drives demand demographic factors can be accepted as ones driving the housing demand. To add to the list, attractive social facilities and social capital can be desirable features, as well as the good neighbourhood. Public services, the availability and quality of schools, and housing consumption are influenced by these features, as well as the other.

A goal for the Kingdom of Saudi Arabia was the construction of houses to bolster the industrial economy and because subsidized government financing was made available a high level of oil production was required. Another goal for the government was also to diversify and improve the structure of the economy through the housing sector, implying an increased demand for housing, which would accelerate the construction of houses. As the income increased, the availability of larger homes and lots would result in higher prices, and population growth generated a rise in demand for housing units, for more desirable neighbourhoods and housing locations. Differential designs have also affected the housing market. Recently, there are concerns about the tendency to build housing in the traditional style, in connection to changing lifestyles, choice of housing location, and suitable services. In response to government policies and to higher prices, the stock of housing reached the stage that cities in the Kingdom were experiencing high vacancy rates for existing housing units, although increasing housing
demand coupled stagnation in housing supply was expected to absorb the surplus by the year 2000 (Al-Hathloul and Edadan, 1995).

For investors purchasing a property, the return on investment is the primary concern and for both owner-occupiers and investors prospect of possible selling of the property in future is important before making a decision to buy which also suggests that liquidity is a desirable property feature. Household size is determined by household demographics and income, and mortgage interest rates also influence the demand for owner-occupied housing.

According to (Patrick, 1976), the demand for houses is affected by three main factors that he finds in population growth, family size and the need to replace housing, even though improved construction technology and commitment to high quality renovation fix existing buildings in a way that it reduces the demand for new housing units.

Benefits on both strategies on the demand and supply side are that both are able to activate the private sector and therefore bolster government resources. Housing affordability is at the crossing of more homes and more financing, of supply and demand to deal with the increasing crisis, MENA governments should simultaneously mobilize the private sector on the supply side and demand sides. Figure 2-8 shows the level of satisfaction with housing services in MENA countries.\(^\text{14}\).

**Figure 28-8: Level of satisfaction with housing services provided**

![Figure showing level of satisfaction with housing services in MENA countries]


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14 The Middle East and North Africa region
28.4.5 Housing need

In the analysis of the housing need it is important to establish the difference between housing demand and housing need as these two terms have very different meanings.

Housing demand represents entire households in a defined market that would possibly move into the other housing units that must possess certain characteristics such as size, construction date or tenure. Demand components could refer to household growth, turnover, living in substandard conditions, rent over-burdened households and wrecked housing units.

Housing need encompasses the number of units available in the market for the household growth, for the homeless and the substandard households. It could happen that there is an unmet demand for certain type of housing in a community and there could be an existing desire to live in that housing, but the need is not present if people in such community are already living in reasonable housing.

From the macro perspective, distribution of households across housing units is determined by ones housing need and his or hers ability to gratify that need (Rossi, 1955). To a certain level housing choices are guided by demographic factors, such as movement through the life cycle (Speare, et al., 1975), taking as an example newly married couples looking for housing suitable for a growing family, or neighbourhood characteristics, such as school quality. The ability to satisfy housing needs depends on resources, and In contrast to options of those with lower incomes people with high incomes will enjoy more freedom to choose where to live, or those with higher education may gather better information about housing opportunities. The idea of need is often relative, and the same can be said relation to housing need. Housing needs are subject to policy issues and individual perceptions where needs are seen as a lack of something or as a necessity (King, 1996). Need is more the perception of wanting housing of a particular standard and suitability (Whitehead and Kleinman, 1992). Even when households have suitable dwellings the perception of needed improvements remains and therefore, housing need should be seen as a personal necessity (King, 1998). Accordingly, housing need cannot be isolated from a particular circumstance and seen as easily defined or tangible social need.

(Bramley et al. 2010) developed the concept of need in the following way: ‘Need is the shortfall from the certain normative standards of adequate accommodation’. In contrast, the concept of demand is described, as ‘the quality and quantity of housing
which households will choose to occupy given their preferences and ability to pay at a given price’.

Hence, the term need is in use when referring to the inadequate housing provision in comparison to what is desired housing in the society. Contrary to that, term demand is a description used by economists when referring to the relation of the price of housing and the quantity and quality of housing for which people are able and willing to pay.

Perception of need may vary among different life-styles, depending household formation, housing preferences, demographics, availability, demand, mobility, and neighbourhood, and remaining desire for various choices leads to alternative designs and different specifications. In the development of housing and spatial standards good understanding of the nature of human needs is crucial.

(Myers, 1990) in his book Housing Demography emphasizes that housing demography can be classified into four general areas. Those areas are housing construction and inventory change, household formation and composition, housing choices and spatial patterns and consequences. Myers further suggests that in household demography the first dimension is household formation and composition, at the same time calling attention to a fact that the most housing research begins with the behaviour of households. As the second dimension author highlights housing choices and divides those choices according to tenure (owning or renting), unit size or structure type (mobile home, single- or multifamily).

28.5 Housing Choice, Preference and Satisfaction

28.5.1 Housing choice

An array of different factors affects the type of home a family chooses or has to live in. Some of the factors are direct in a way that they affect housing choice and those are family resources and decisions based on those resources, and many factors are indirect relating to surrounding systems that influence the family when making decisions about home such as availability of information about vacancies in the housing market or factors related to local and international social, economic, and political systems. Builders and developers and banks as well can affect a family’s decision when choosing a home.
In addition, a distinction should be made between choice and preference of housing. First term reflects decisions and trade-offs made and the second is inspirational and continual. In general when deciding upon a housing option, many trade-offs must be made and the process of deciding can be affected by so many different factors such as influence of family, friends, or market, and also the legal framework (Coolen, Jansen, and Goetgeluk, 2011; Levy, Murphy and Lee, 2008).

In a broader sense the choice as a concept is not consistent and most of the time terms “choice” and “preference” are mutually used. To a certain limit these concepts are interconnected but differences remain. In short, housing ‘choice’ refers to the decisions and trade-offs made in a housing environment, while housing ‘preference’ is inspirational and continual in its meaning.

28.5.1.1 The concept of housing choice

Broadly speaking the term ‘choice’ implies the idea of being responsible, free and autonomous still choice has its limits and constraints. In a nutshell, to have a choice means to have an ability to decide between alternatives, also if solutions are not that perfect due to our capacity to prefer one option above the other. (Brown and King, 2005) use the housing context, to discuss choice concept relying on (Elster, 1986) theorizing of rationality, in view of three key dimensions - beliefs, desires and information of a decision-maker. Connecting the three dimensions (Elster, 2000, p. 145) reiterates that choice is rational when “people make the most out of what they have.” (Brown and King, 2005) point to the importance of definition mentioned because it is linked to of the personal side of rationality. However, choice is based on numerous limitations.

As in the International Encyclopedia of Housing and Home, the term ‘real housing choice’ was created to serve to oppose the use of the term ‘housing choice’, by definition “being able to choose a preferred option from a set of distinctive alternatives” (Brown and King, 2005; van Ham, 2012, p. 42). Therefore, choice set is subject to limitation and alternative options are not given to everybody searching the market. Choice set is “the total set of realistic options available to households given their needs, preferences, resources, and restrictions, within the opportunities and constraints offered by the housing market” (van Ham, 2012, p. 42).
### 28.5.1.2 Influences on housing choice

Decision-makers are exposed to many influences and have to make trade-offs when choosing a housing option. Choosing can refer to interconnected influences such as personal style or availability, market regulations, legal framework and as well as factors such as lifestyle and status (Coolen, Jansen, and Goetgeluk, 2011). It is very important to understand that realistic housing choice is influenced by factors such as culture, perception, time that is available and other factors that touch upon consumer behavior. (Gibler and Nelson, 2003) Bearing in mind choice limitations it is not always the case that decisions and preferences are harmonized. (Jarvis, 2003; Vasanen, 2012). Looking into dwellings as ‘composite goods’ means when households choose a house they are making arrangements between dwelling characteristics. (van Ham, 2012), and mentioned characteristics such as size, quality or style cannot be purchased separately.. The characteristics also include house location, in particular kind of neighbourhood surrounding it, with good or bad reputation, or also ease of access to public facilities. That said, it could be that dwelling satisfies household preference for quality neighbourhood, however it does not satisfy size preference. Searching for a new home is “a dynamic problem-solving process in which a relatively unfamiliar, complex, and ill-structured problem must be solved” (Coolen et al., 2011). Households looking for a home usually do not have their prepared preferences. One of the ways to exert influence over a housing preference could be through the problem-solving process. (Coolen et al. 2011) described problem-solving with stages of recognition; formulation; designing and screening; choice; deliberating about commitment; action as well as reaction see (Coolen et al., 2011) for a detailed description of each stage in the housing choice process). Besides that, choice of housing directed by values and goals (Coolen and Hoekstra, 2001; Coolen et al., 2011; Jansen, 2014). It is worth noting that consumers pick how to bring decision by looking into certain goals, by boosting their choice accuracy, lowering the cognitive effort, as well as negative emotion experience, and increasing the prospect of the decision justification (Bettman, Luce, and Payne, 1998).

Also, in further discussion of influences, another way to influence final decisions is the influence of others. Through analyzing estate agents’ experiences (Levy and Lee, 2004) observed how members of family influence housing purchase. On the ground of observations made, (Levy, Murphy and Le, 2008) researched the process at the family level arguing that housing choice is “inherently social activity”, that consists of setting of goals, discussion of family needs and also wants, and other elements. (Levy et al.,
What influences activities mentioned above could be gender, social status, economical well being, ethnicity or the structure of a family. In view of estate agents and adult family members that bought a house recently, the study puts accent to role of the others in decision process., such as friends and extended family, Estate agents often possess power to influence housing choices as ‘active participants in creating markets’ in Auckland, (Levy et al., 2008), sometimes assuming the role of a friend and advisor for those confused in the decision process..

Where studies on residential mobility focused more on decision-making process and housing choice, (Levy et al. 2008) pointed to emotions in their decision strategies, explaining their big influence. Influence of emotions is not always irrational and could also bring to utility maximization, anyhow it affects choices that are not easy predictable when a usual decision making process is applied.

28.5.1.3 Theoretical approaches to residential mobility and housing choice

At the time of its release, ‘Why Families Move’ (Rossi, 1955) represented an influential theory on residential mobility and housing choice. The author put ‘family life-cycle’ concept to housing requirements and preferences context and explained that different life cycle stages reflect the requirement of space, basing these stages on the nuclear family model. Stages encompassed formation (living together/marriage), expansion (having children), contraction (children moving out), and dissolution (divorce or death of a spouse). Still alternative household settings such as being single or divorced also project consequences for housing choices.

In addition, a difference can be made between two approaches, the life cycle approach and the life course approach. The ‘life-cycle’ approach was criticized because of its formal and deterministic nature that does not support mobility research most of the time (Clark and Dieleman, 1996;Pickles and Davies, 1985). Described approach was succeeded by the ‘life-course’ approach which is observant of macro and micro environment. (Kok, 2007) Individual life course provide information to housing preferences and needs, while household resources affect the extent of preferences fulfillment (Feijten, 2005). Besides, a choice set is regulated by the housing market and political, economic, and sociocultural system surrounding it (Mulder and Hooimeijer, 1999). The life-course approach is favored for being able to provide “a framework for studying phenomena at the nexus of social pathways, developmental trajectories, and social change” (Elder Jr, Johnson, and Crosnoe, 2003).
(Mulder, 1996) argues that rationality sets up housing choice process and that it is the events that occur that influence the idea of moving, the idea that is not constant.

According to the life-course approach, people employ in, interconnected ‘careers’ across their life spheres, and there are four career types that consider residential mobility, those are family, education, labour and housing (Coolen et al., 2011; Mulder and Hooimeijer, 1999), each being a potential trigger for moving, and influential in a wider sense in making the choice to move (Mulder, 1993; Mulder and Hooimeijer, 1999). As an example young people may be obliged to move for education if they are not willing to commute (Clark and Onaka, 1983), even if the student choice is not the optimal for a housing example.

To meet the triggering career can have an impact that is detrimental for the careers of the others (Mulder and Hooimeijer, 1999). Moving house is a complex strategic activity which includes trade-offs with different household members careers. (Coolen et al., 2011).

The life-course approach has its strengths and weaknesses. The strength is in keeping track of complexities and reactions in life course path or career. The work of (Mulder, 1993) also describes how careers affect need to move and the prospect of the actual moving.

Investigating preferences fundamentally means asking questions on preferred place for living or ways of living and also measuring feedback that people have about the hypothetical house typologies. However, it is a potentially problematic approach because preferences shift to meet realistic choices. (van Ham, 2012). Declared preferences or choice models follow a principle based on the idea of combined influences (Timmermans et al., 1994).

28.5.2 The determinants of housing satisfaction

In some societies housing is seen as a basic need, so it is protected by constitution such as in Spain for example. Once housing is recognized as a universal need one can also find big heterogeneity in the demand for housing services. Big diversity in individual circumstances and technological factors may lead to different outcomes. The level of housing satisfaction, for example elicited valuation, derived after the optimal housing choice, can fluctuate. Based on the utility theory, it is assumed that individuals
will do their best to maximize their utility within the set of limitations. In this maximization process, certain features of their decision such as autonomy, participation or self-determination may be appreciated (Frey, et al., 2002). Accordingly, a subjective approach to utility offers psychologically and sociologically better way of analyzing individual behaviour and satisfaction. From the observations in the literature it is possible to state that people are able to evaluate the degree well-being with regard to circumstances and comparisons to others, past experience and expectations of the future (Diener et al., 1999) and (Diener et al., 2002) providing responses that are comparable among individuals. Hence conclusion can be made that the main approach in measuring individual satisfaction with housing is direct questions about their level of housing satisfaction.

Furthermore, there is a difference to be spotted between the terms individual housing satisfaction and the true housing satisfaction. Reported individual housing satisfaction can be used as an ordinal measure of true housing satisfaction in a way that higher reported housing satisfaction is equal to higher true housing satisfaction. Likewise, satisfaction level learned from a given housing situation will ultimately serve as an important determinant of individual happiness. As argued by Diener and Biswas-Diener (Diener et al., 2002) housing satisfaction may serve as a “mediator” of individual happiness for financial satisfaction. Interest in satisfaction as described was triggered some decades ago as alternative measure to objective quality of life indicators. That said, a survey in the US (Campbell et al., 2002), although rather dated (1976), discovered that for the most housing is set at fourth place after financial situation, leisure activities and job status, when questioned about the everyday life satisfaction and importance of various sources of that satisfaction.

As a specific part of individual happiness housing satisfaction was not researched enough in Economics. Authors like (Van Praag and Ferrer-i-Carbonell, 2004) suggested a double approach, hedonistic and predictive, explaining individual housing satisfaction by precise description of the house in which the respondent is living, following Lancaster’s approach to product characteristics, and also referring to individual characteristics. (Lu, 1999) studies the effects of a combination of housing, neighbourhood, and household characteristics on individuals’ satisfaction with dwelling. However, to the best of our knowledge, there was no research on the relevance of social interactions for housing satisfaction. Main argument is that individuals are parts of social groups and that their behaviour is influenced by the group, with objective and subjective outcomes.
28.5.2.1 Housing economics

Most of the research of housing in Economics deals with the optimal choice of housing tenure and the ownership indeed has an impact in economic performance, both at the individual level and at the aggregate.

Positive outcomes related to ownership are brought up in several works. One of the positive sides is increased social capital, because it is logical for the individuals to invest in the permanent relationships with their long-term neighbours. Homeowners have increased interest in publicly provided amenities, like schooling or different public services, since they have invested in their neighbourhoods. Ownership also produces other positive externalities (Bajari, P., et al., 2005), (Di Pasquale and E. Glaeser, 1999), (Green and White, 1997).

However, there are negative sides as well, and one is that ownership also limits mobility which may impose costs by increasing unemployment (Oswald, 1999). The argument goes that an economy's "natural rate" of unemployment is connected to possibility of its citizens to move in searching for jobs, and that is why efficient economies are connected to fluid societies. The housing market could influence the degree of mobility of workers by increasing price of location change. In view of the impact of the ownership on subjective well-being it can be said that this impact is likely to have an influence on both individual and aggregate levels and they can be positive and negative.

28.5.2.2 Social Interactions

Social interactions represent interdependencies between individual decisions and the decisions and characteristics of others within a common group. As argued by (Brock and Durlauf, 2003), in any economic model the decisions of one individual will be influenced by the behaviour and characteristics of others.

Following (Manski, 1993), who adopted the term social interaction from the literature in sociology, an agent’s interactions with respective neighbourhood could be viewed as consisting of two alternative factors: contextual and endogenous. The contextual factors are group specific and based on characteristics of the group members. The endogenous factors refer to how agents are affected by the simultaneous behavioural choices of group members. These factors are described in the context of residential neighbourhoods, that represent an important leading case in the social interactions literature, see for example, (Brock and Durlauf, 2003); (Ioannides and Zabel, 2003).
view of the above, it is becoming increasingly recognized in economics how significant social interactions are for the individual behaviour and its explanation, as well as for individual’s assessment of a range of behaviours. Moreover, it can be pointed out that individual satisfaction level could also depend on the outcome of the comparing of the achievements with another individual. Reflecting on this Veblen composed the notion of “conspicuous consumption”, serving to impress other people. These types of non-functional demands include the situation when individuals consume a good because a large proportion of the society does it too. In these cases, purpose of social belonging is highlighted. The reference group (relevant “others”) can include all members of a society, or a subgroup, such as individuals from the same neighbourhood or with same education. Certain theoretical and empirical work was conducted on the choice and importance of the reference group for individuals’ welfare (Falk and Knell, 2000); (Ferrer-i-Carbonell and Frijters, 2004). Empirical evidence of this divergence from and valuation of the objective outcome can be found in research on both financial and job satisfaction. In research of the financial satisfaction, it is income in relative terms that provides satisfaction while striving to keep up with the rest. Thus, the presence of richer people in reference group imposes a negative externality while the opposite does not hold (Ferrer-i-Carbonell and Frijters, 2004), (Luttmer, 2005) and (Vera Toscano, et al., 2006). In the research of the job satisfaction, the unemployment impact on well-being is negative once that a social norm functions in the given reference group (Clark, 2003).

In addition to presented effects of social interactions on housing satisfaction, it is useful to consider the impact of individual’s social capital as a measure of the intensity of social interactions. Individual’s social capital may shape the relevance of interpersonal dependence, if we understand social capital as an individual’s resource built from her integration in social networks attempting to maximize her utility function. Furthermore, trust is one of the most studied approaches to individual’s social capital measurement, and another frequent approach considers social interactions. At a community level, (Putnam, 1993) argued that economic development is closely related to the importance of social capital since the presence of social networks increases trust, decreases transaction costs and makes information and innovation more fluent. These results certainly offer fresh knowledge about housing satisfaction determinants.
28.5.3 Housing preference

28.5.3.1 Preference on housing characteristics

Homebuyers’ preference for various housing characteristics is widely investigated by housing studies. These characteristics vary from intrinsic housing attributes such as cost and size to extrinsic attributes such as exterior design and space or neighbourhood and location attributes such as public amenities, transportation. The relative importance of intrinsic and extrinsic attributes also makes up a good topic for researchers (Opoku & Abdul-Muhmin, 2010).

(Lindberg, Gärling, & Montgomery, 1989) examined the role of life values to consumer behaviour through preference of 36 adult respondents in Sweden for 12 housing attributes. These attributes include intrinsic attributes of (cost, size, standard); location attributes (distance to work, friends, recreation, downtown), and neighbourhood attributes (facilities, noise level, transportation, reputation) which are presented at different level and linked to various values of life.

Furthermore, (Louviere and Timmerman, 1990) examined a wide range of housing attributes in a survey with 315 respondents who have just changed residence in Roermon, Netherlands. The authors assumed that individuals who face complex decision-making will categorize influential attributes into sections, and then ranked sections into overall preference or choice. They made distinction of four sections: housing attributes, residential environment attributes, economic and social ties, and relative location. Housing attributes include number of rooms, type of house, mortgage/rent, size of backyard, building period and tenure. Environment attributes consist of distance to parking facilities, amount of traffic, view, privacy, greenery and children’s playgrounds. Economic and social ties include relatives, friends, work in municipality and previous residential place. Relative location characterizes accessibility to primary school, bus stop, neighbourhood shopping center, regional shopping center, work and urban recreational facilities.

Besides major attributes such as cost, size, type of dwellings and location, elements such as design of living and dining room (Lawrence, 1987), interior decoration (Amaturo, Costagliola, & Ragone, 1987), energy use (Wan & Yik, 2004) attract attention of researchers as well. With regard to interior and exterior design (Al-Momani, 2000) investigated the needs and preference of homebuyers in Jordan. The author conducts a survey questionnaire with 400 respondents and finds out that space
and cost of housing are the main factors considered by consumers, and that other important attributes are the interior design of building, out-door space, neighbourhood quality, size, functionality, and community kind, housing proximity to public facilities, and heating system.

A large scale study on commuting patterns between home and work by (Wachs, Taylor, Levine, & Ong, 1993) demonstrated that, choices of residence in terms of location rely on many factors of which neighbourhood characteristics, quality of schools and perceived safety are proved to be critical. On the other hand, a study by (Levine, 1998) showed evidence that commuting time is the most influential factor in the choice of residential location at regional level (Opoku & Abdul-Muhmin, 2010).

In a research on preference of Beijing residents, (Wang & Li, 2004) discovered that neighbourhood attributes such as accessibility, public services, convenience, environmental quality are more important than dwelling attributes. (Kauko, 2006) performed a cross-country research on housing consumer preference based on expert elicited residential location quality profiles and the result was that location is significantly more important than the house itself because consumers choose factors such as accessibility and pleasantness over housing quality and spatial factors. In research by (Opoku & Abdul-Muhmin, 2010), low-income consumers in Saudi Arabia ranked living space and aesthetics dimensions as intrinsic attributes far higher than proximity to relatives, outdoor space and street location as extrinsic attributes.

In contrast to the research results described, many studies showed that location or accessibility is not as important as housing attributes and neighbourhood attributes. (Whitbread, 1978) observed that quality of the dwelling is crucial to people’s preference while environmental considerations are insignificant. Research by (Louviere and Timmerman, 1990) (as cited above) showed that housing attributes are essential subsets, follow by residential environment and social and economic ties. Relative location, or accessibility, is the least important set of attributes in research by (Molin & Timmermans, 2002). Another study by (Molin, Oppewal and Timmermans, 1997) explored preference of respondents in Eindhoven based on housing and location attributes. Housing attributes include housing type, number of bedrooms, size of the bedroom for children, monthly costs and tenure and location attributes are represented by type of neighbourhood, frequency of public transport and travel time to work of father, work of mother, and school. The result provided strong evidence that housing-related characteristics are more important than the ones that relate to location-. Among location attributes, child's travel time and type of neighbourhood are ranked higher than
the rest. Some other studies carried out in Europe (Molin & Timmermans, 2002) also revealed that accessibility is much less important than housing characteristics and neighbourhood attributes. The authors assumed that, as long as people are able to afford flexible means of transport, accessibility does not have significant influence on housing choice behavior.

28.5.3.2 The role of demographics and socioeconomics in housing preference

A. Demographic and socioeconomic determinants

Homebuyers’ preference based on demographic and socioeconomic characteristics was attempted to be explained in by many researches. A classic study is the one by (Rossi, 1980) which examined housing preference in respect to age, household composition, income and current housing situation (Sirgy, Grzeskowiak, & Su, 2005). Many other studies followed, with the extension of demographic and socioeconomics variables. (Dökmeci & Berköz, 2000) investigated residential preference for different age groups and family sizes in Istanbul, Turkey. The result showed that young people prefer living close to job locations, and older prefer living close to relatives. Empirical results in study of (Al-Momani, 2000) suggested that the needs and preference of households are in line with their lifestyles, values and family patterns. (Wang and Li, 2004) also observed that factors such as family income, age, education, nature of employment organization etc. have influence on housing preference. (Niedomysl, 2008) carried out a questionnaire with response collected from 5000 Swedes in order to study residential preference with respect to determinants in the field of demography, socioeconomy and geography and the author pointed out that all the chosen demographic variables (sex, age and number of children) produce significant effects on residential preference, while socioeconomic variables do not.

Most of studies on housing preference are based on data collected from individuals. But (Molin, Oppewal, & Timmerman, 2001) argued that most of the households consist of more than one person, and family members may have similar or dissimilar preference for housing. The authors employed a group-based conjoint analysis to address the association between residential preference and socio-demographics. Family members were asked to express opinion on residential profiles. Socio-demographic characteristics are age, educational level, income, number of children, working time. The result suggested that residential preference of a family are highly indiosyncratic, or at least not systematically related to the chosen socio-demographic attributes. Similarly, (Fransson et al, 2001) stated that socioeconomic variables such as
income and education are important but have fairly small effects on preference for neighbourhood attributes of residents in major Swedish cities (Niedomysl, 2008).

Significant branches of housing studies concerning demographic determinants are the change of residential preference during lifespan and family life cycle, as well as the relation between residential preference and mobility.

**B. Family life-cycle and residential mobility**

One of the earliest studies on residential preference and life cycle is the one by Peter Rossi as cited in (McAuley & Nutty, 1982). The author asserted that housing requirements are closely connected to a family's life cycle stage, and residential mobility is the result of households’ efforts to satisfy housing needs generated by changes in each stage.

In their research on residential decision-making and family life cycle, (McAuley and Nutty, 1982) reviewed previous researches that name space deficits as one of the biggest concerns that come along with life cycle changes. In particular, families have desire for larger living space during the expansion and child rearing stages and experience space surplus at later stages. Additionally, the “over crowdedness” seems to be more of a concern to younger households than the “under crowdedness” to older households.

Some studies cited by in research of McAuley and Nutty revealed that during the child rearing stage, local amenities such as parks, clinics, as well as schools and neighbourhood are carefully considered by families. Concerning distance to the city center as well as to services and stores, families at different life cycle stages have dissimilar preference. The single people may prefer living closer to downtown areas while married couples and those who have young children tend to move to suburban areas (AbuLughod and Foley, 1960; Pickvance, 1973). Commonly, households with children trade-off the quality of living environment against accessibility to job location. Research by (Lindberg, Terry, Garvill, & Garling, 1992) came to similar conclusion that households with children at home like to live further from city centers while the youngest and oldest households prefer living close to city centers.

For people who choose to live far from city center, the most important qualities are lower cost of living, lower crime rate, clean air and water, better environment for raising children. For those that prefer living close to city cores better jobs and wages, recreation and culture are the most important (Fuguiti & Zuiches, 1975). (Lindberg,
Terry, Garvill, & Garling, 1992) took another approach that links housing attribute evaluations with beliefs about the value fulfillments. Their research showed that values change over the life-span, and it influences residential preference. Particularly people who choose to live further away are more influenced by values such as freedom, well-being and togetherness, while comfort is the preference of people who remain in cities.

Regarding distance to cities, Fuguitt & Zuiches emphasized proximity to a large city as an important determinant of preference for living in rural areas or small towns. The authors figured out that a majority of respondents want to live within 30 miles or “in commuting range” of metropolitan central city area. Some authors shared similar findings when investigating distance from city centers with regard to residential locations within the city (Lindberg, Terry, Garvill, & Garling, 1992).

In general, housing studies conducted in developed countries provided a common conclusion that households with young children tend to move to suburban areas because of the child-friendly features. However, a recent study on preference for residential location (Karsten, 2007) pointed out that there is a tendency against the dominant trend of households with children moving towards suburbs, and a portion of middle-class households decides to stay in the city though they can afford suburban houses. Based on empirical data collected from interviews with middle-class families living in Rotterdam, the author developed three sets of explanations for the retention of these households in city. Daily activity patterns and commuting time are named as the first explanation. Living in the city where the parents both work is their strategy to cope with the lack of time in lives. Social networks with neighbors, friends and relatives are also strong motivation for staying in the city. And lastly, these families have preference for being “true urbanite”, they love the feeling of belonging to a city, and do not think that suburban is the most favorable living environment.

Regarding mobility (McAuley and Nutty, 1982) proved that young single people and young couples with preschool children are the more likely to response to the availability of their favorable housing attributes than older people. In developed countries young adults at the age of 20-35 are the most mobile in the population. The mobility decreases in middle-age group (35-64) and is lowest in elder group (65 and over).

(Dökmeci & Berköz, 2000) reviewed two studies by (Speare et al., 1974) and Clark and (Onaka, 1983) on the age and mobility relationship. The studies showed that for any age group, the most regular reason for mobility is housing unit adjustment (or space adjustment), such as young couples search for smaller houses, in contrast to older
couples with more children, and those who have children leaving home may return to smaller houses. The second and third reason for mobility are changes in life course and neighbourhood adjustment. For young households either in marriage or not, cost of housing, tenure and structure type are the most important, while middle age households (with the head between 35-45 years old), normally with young or teenage children, key factors that could motivate relocation are housing quality and size, as well as tenure.

Contrary to findings in studies in Western world, in their study on residential location in Istanbul, (Dökmeci & Berköz, 2000) recognized that middle and older age people have more aspiration to move. According to their study, majority of young people choose to live in the periphery, due to the proximity to job location. Middle and older age people have a preference for mobility between the core and the periphery, which is the most accessible to a city. They appreciate proximity to relatives, and a clean and quiet environment. Other findings were the desire for mobility decreases when the households live closer to city center and bigger size the households show more desire to live in the periphery.

28.5.3.3 Motivational determinants of homebuyers’ preference formation

Traditional and contemporary research on housing preference have rather different views on motivational determinants of homebuyers’ preference or choice formation (Sirgy, Grzeskowiak, & Su, 2005). In their study, Sirgy, Grzeskowiak, & Su reviewed the role of the two approaches, functional-congruity and self-congruity, in determining homebuyers’ preference and choice.

Traditionally the home is viewed as a bundle of utilities that need to be traded off against cost. Homebuyers evaluate the home using functional (utilitarian) criteria, which are the features related to core functions of a home, for example to house daily activities including eating, sleeping, living, etc. Traditional view of housing preference thus base on “functional congruity”, defined as “the psychological evaluation of a home based on comparison of utilitarian aspects of the home with ideal features”. The authors proposed that, housing preference or choice is positively influenced by functional congruity, for example the better match between perceived utilitarian features and homebuyer’s desired features, the more probable that the homebuyer will have preference for and be motivated to buy that home.
In a different way, contemporary research stated that housing preference or choice is affected by the match between image of the home and the self-concepts of homebuyers (self-congruity). This means that a homebuyer may perceive a residential unit to have certain occupant features, which serve as a symbol of his self. For instance, a high-income manager usually buys a house with luxury amenities. The authors assumed that, housing preference or choice is positively influenced by self-congruity, as the better match between the residential occupant image and the homebuyer’s self-concept, the more probable that the homebuyer will have preference for and be motivated to buy that home.

According to Sirgy, Grzeskowiak, & Su, both functional congruity and self-congruity seemed to cooperate to influence housing preference and choice, and their effects were moderated by homebuyers’ experience, homebuyers’ involvement in the purchase, and time pressure. This has various implications for developers, real estate agents and policy makers. Developers could identify the perceived utilitarian features and investigate the occupant image of the house to construct housing that better fits the desire of target homebuyers. Agents could help to polish or to form occupant image of the home in perception of target groups. Policy makers may promote housing projects that have desired features of a certain group to retain them in a certain area.

28.6 Affordable housing

Access to affordable housing is increasingly becoming a major cause of concern, especially in many Asian countries today Figure 2-9. Disproportion between price of housing and income level is generally accepted as vital factor that determines access to housing. Situations vary and on one side construction costs and housing price are reasonable just that the income is low, and on the other even if income is satisfactory there is a limited housing supply. As it was mentioned, many households in Asia are affected by the price of housing and most live in slums and informal settlements. What is attracting even more attention is a fact that poor households often spend their income on housing while their spending on other basic needs is necessarily reduced.
If a household has low-income, proportion between spending and income becomes even more important. Willingness to invest or tendency to buy a house is high if capital costs, and by these we consider financing and household income, are achievable. (Lee, 1990). (Hancock, 1993), referencing (Bramley, 1993), takes this further and highlights that housing is affordable for households if they have remaining sufficient resources to provide the necessities of life after deducting housing costs (rent or loan). For the families below or close to the poverty line is somewhat more difficult to achieve affordable housing and the focus is not only on the ability to find housing that's fits household income. In that way, the notion of affordability has to be regarded as different for households spending more than 30% of income on housing and utilities (City of Ashland, 2002).

Households' access to affordable housing is also influenced by government actions, because government can introduce measures such as financial instruments that facilitate the purchase of housing and regulate the housing market. That said, the financing of housing, especially social housing, is a major issue in both developing and developed countries. Affordability can be observed as a market problem as well as an income problem. Initial focus of government actions is usually income based, and as soon as housing affordability is seen as a market problem, a government's focus has a tendency to change. (Linneman and Megbolugbe, 1992).

As a consequence of economic growth and adequate access to affordable housing in the Kingdom of Saudi Arabia one can observe increased migration to metropolitan...
areas. Affordable housing in such areas has been of considerable interest for the
government as a significant policy target. However, even though loans for buying
houses are used by the private and public housing sector, what is contributing to higher
housing costs is a fact that land supply and planning permission are often restricted
and issues of land supply and income inequality are just as relevant. Since the early
1970s, the provision of decent housing to Saudi citizens has been a national objective,
and specialized financial institution, the Real Estate Development Fund (REDF), was
set up to provide interest free credit to individuals. The private sector also participated
by developing private housing (Al-Rahman, 1994).

28.6.1 Definition of Affordable housing

Affordable housing is defined as housing fitting in quality and location allowing its
occupants to afford other basic living costs and allowing them basic human rights.15

"Affordable housing"16 also means residential housing rented or privately owned which,
occupied by low-income households, paying monthly housing costs, including utilities,
other than telephone, limited to 30 percent of income of the householder.

"Affordable rent" is rent payed with utilities in one year on an affordable unit that is
qualified with the 30 percent limit. In better understanding of the criteria, it is good to
know that rent criteria is the number of bedrooms and an assumption of 1.5 persons
per bedroom, no matter how many persons are renting the unit. Rent criteria is the
income level attributed to the affordable unit and are not the actual income of the
household.

Access to appropriate housing in the market for the households whose incomes are
low and not allowing them the access without the assistance represents the idea of
affordable housing (Milligan et al 2004). This assistance for lower income households is
reflected in obtaining and paying for appropriate housing without unnecessary financial
burdening (Milligan et al 2004). In view of the above, many publicly or privately initiated
housing forms could fit the specification (Milligan et al 2007). Moreover, affordable
housing as a term is lately being accepted as a different option in comparison to other
terms such like ‘public’, ‘social’ or ‘low cost’ housing (Gabriel et al 2005).

15 The term ‘affordable housing’ is often used to describe a type of housing for low-income people, which
has a variety of other names for instance ‘social housing’, ‘public housing’, and ‘low-cost housing’. In this
publication, however, it does not refer to a type of housing (i.e., low-cost, social or public housing) but
rather relates to the financial affordability of housing with respect to occupants’ income.
16 [[Online web site] Accessed April, 2015: https://www.cob.org/documents/planning/housing/housing-
development-handbook.pdf
Another interesting definition of affordable housing is housing described as stress-free for the buyer in view of the mortgage he is facing (Select Committee 2008). Yi Tong (2004 in Gabriel et al 2005, p8) differentiates between the concerns of owners as opposed to concerns of other occupiers, and by doing so introduces the concept of home ownership affordability, what has often been seen as accessibility in Australian argument (e.g., Yates 1987 in Gabriel et al 2005). Furthermore, concerns about affordability of home buyers are typically about the accessibility of home ownership, or the ability of younger households to gain access to home ownership for the first time (Richards 2008).

It has been mentioned previously that ‘affordable’ housing is defined as not being above a specified proportion of household expenditure, and this benchmark is often now fixed at 30%. Critics argue that 30 % of a low income may be less ‘affordable’ than 40% of a high income, and it is so due to 60% out of a high income still leaves this household with an above-average disposable income (Paris, 2007). (Battellino, 2008) raises concern with the application of a single 30 % ratio to all households, including those with very high levels of residual income. He continues to argue that the rise in real incomes since the early 1990s has substantially changed the basis on which the 30 per cent benchmark was originally proposed. High-income households are able to spend over that housing criteria so it does not come as a surprise that authors that are committed to fixed benchmark are discovering increase of households beyond the benchmark (Battellino 2008).

According to (Monk, 2010) affordable housing in view of the social housing for eligible households whose needs are not met by the market, should meet their needs with regard to local incomes and local prices when determining the costs, and also with regard to provisions for the home to stay at the affordable price level for the future eligible households.

28.6.2 Components of housing affordability
Many different factors affect housing affordability, and primarily it is two main variables - capital meaning costs and the ability to buy a house, and occupation meaning costs and the ability to occupy a house. (UN-HABITAT, 2010) Figure 2-10 shows the components of housing affordability for households.

Affordability means much more than a purchase price and household income relation. It is important to stress that the ability to purchase a house is affected by the purchase cost and the ability to finance the purchase. Another feature that follows house purchase is the ability to occupy and pay for the house, and this is influenced by
material and financial inputs). On the example of many Asian countries, we can differentiate more variables that are counterproductive for the affordability, such as high land prices and weak land policies, lack of financing or barriers on the market, and this is mostly affecting middle and lower-income groups (World Bank, 1993 and Nenova, T., 2010).

28.6.3 Affordable housing in the kingdom of Saudi Arabia

The affordable housing concept has been introduced in the Arabic region including Kingdom of Saudi Arabia but many authors point out that the concept was not clear and it was not adapted to suit lifestyle and traditions of the local community.17

The affordable housing concept in Saudi Arabia has followed a traditional approach due to the population growth and emerging differences in income level. Even though the need was recognized, the focus was limited at the professional or research level,

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and many important factors were not taken into account apart from the cost reduction as a major factor. The lifestyle and social tradition of Saudi Arabia people were not considered. On the professional level, the architectural design is usually made by a design firm assigned by the client or may be directly by the city council. The council sets broad guidelines of how to do the design. At the research level, scarce information is provided on the importance of lifestyle and traditions of the local communities and the ways of integration in the design process. Explained professional and academic disregard has consequences to the user of private housing such as dissatisfaction about the house layout that does not support Saudi Arabia lifestyle and is inflexible enough to serve increased family. The privacy is missing or inadequate. There is no room saved for the housemaid too. The courtyard is not adequate for activities outdoor. The relation between spaces is not set as it should be.

According to (B. Sidawi, 2008) if people views were taken cared of in the architectural product design it would highlight lifestyle type or local traditions enabling decision makers to design and deliver better affordable housing.

(Habraken, 2003) highlighted that a designer is not supposed to make a design and push people into it and he should develop concepts in his design that include factors such as lifestyle and common conventions. (Salama, 2006) highlighted a complete picture of the user’s lifestyle and importance of not only getting information about the user, but also integral approach in information gathering. Although existing approach is interesting enough, housing policy that is realistic should be with a focus on balancing between needs, demands and supply in the housing market by means of household income increase in view of meeting housing demand, or housing cost decrease in view of housing need satisfaction, or a combination of the two see Fig 2-11.
The rising demands on affordable housing in Saudi Arabia and the increasing interest of developers to invest in affordable housing projects mandates a clearer understanding and appreciation of the lifestyles and cultural values of the local society. On the other hand, dealing with affordable housing as products or commodities only results in depressing environments that do not meet basic needs or preferences of potential users.

28.7 Summary

In the life of every individual and every society housing has great importance and greatly affects the development of countries. Housing affects the political, economic, planning and social systems of countries.

In general, housing is defined as a study of residential units and a study of the housing market, but also as a study of the challenges people meet in finding appropriate housing and people’s expectations of their home. Therefore, it is worth noticing that psychological, social and cultural effect of housing is significant.
All of the definitions reveal that housing, especially what is known as the housing level, is extremely important because bad housing leads to social and economic problems, and crisis of morality as it affects individuals, families, and societies negatively.

In light of the challenges related to the housing market, at least when developing countries are in question, there is a line of barriers that deserves special attention, and some of those barriers are overall limited capacity of the country, low incomes contrary to high costs, land speculation and high prices, lack of effective planning and lack of funding or savings, limited architectural resources, weak environmental protection, underdevelopment in construction industry.

The findings in this chapter lead us to an understanding that the nature of human needs is crucial in the development of housing and spatial standards. Perception of need may vary among many factors such as for example different life-styles, depending household formation and composition, housing choices, demographics, availability, demand, mobility, and neighbourhood. What can be regarded as a widely beneficial consequence is that the desire for a range of choices leads to alternative designs and different specifications. Researching these preferences involves asking about preferred places and ways of living and measuring of reactions that people have with regard to house typologies that are hypothetical. However, explained approach can be problematic as well as people tend to change their preferences to fit within the possibilities of their realistic choice set (van Ham, 2012). Stated preference and choice models are grounded on the principle that observed choices reflect the combined influences of market conditions, preferences and availability (Timmermans et al., 1994).
CHAPTER THREE

RESEARCH METHODOLOGY
CHAPTER THREE: RESEARCH METHODOLOGY

42.1 Introduction

The research methodology is defined as a process of linking research questions with the data (Denzin and Lincoln, 1994). According to (Peterson, 2000) and (Peil, 1982), research is an activity that aims to further knowledge by asking questions. Moreover, it is the process of gathering data, to ask questions, to read, to watch, to take notes, to surf the web, to identify problems and try to solve them, to evaluate alternatives and improve them, then allocate the best way to address the problem, and further, to make predictions regarding future expectations.

Qualitative and quantitative analytical methods are used for different types of studies and research, depending on the type of research and its objective. They can be divided into steps. According to (Neuman, 2006), the research framework can be divided into various steps of the research process. The exact sequence and steps however, varies slightly depending on the type of research and the approach adopted, which is either quantitative or qualitative. However, research essentially involves seven major steps, as illustrated below Figure 3-1.

Figure 42-1: Steps in quantitative and qualitative research

![Diagram showing steps in quantitative and qualitative research](Source: NEUMAN, 2006)

According to the aim of this study, which is gauging the opinions of residents and how
far they are satisfied with their current houses and what their aspirations and preferences for their future houses in the main Region of Saudi Arabia are, the researcher has adopted a descriptive analytical methodology. This methodology investigates the subject of the study, focuses on detailed description, and expresses it both qualitatively and quantitatively.

Qualitative description describes the problem of the research and defines its characteristics. While, quantitative description gives a numerical description that describes the problem of the research (Abidat et al., 2000).

These methods are not limited to the problem of the research, but are used in order to better investigate the research area’s various aspects and interrelations. Moreover, the methodology chosen is extended to the analysis, the correlations, and the interpretations within the research in order to reach conclusions, whereby the researcher gathers results and deduces explanations (Al-assaf, 1998). This is achievable through two integrated frameworks, which are the theoretical and practical methodologies.

### 42.2 Theoretical framework

This framework includes the review of previous practical studies and reports related to the research subject, generally, and in terms of specific studies relating to Saudi Arabia. It includes the demographic characteristics of the population, types of houses, an overview of the housing market, and an analysis of the records and statistics of the official authorities of Saudi Arabia. The purpose here is to build a theoretical basis in order to help with the practical approach. In addition, this helps the researcher in identifying the current situation of the housing sector and designing the study tools for the practical framework.

### 42.3 Practical framework

The descriptive analytical method was used as the researcher adopted the field survey approach. It is one of the important data collection resources that are used in research studies and considered reliable in terms of achieving results that can be generalised. This study relied on a sample survey as one of the important tools for population data collection. The main objective of the sample is the possibility of generalising the results to the whole of a society.
Could the sample survey can be implemented easily. It is also flexible in accordance with the type and quantity of data to be collected. Moreover, it is low cost in comparison to the total census approach. A sample survey was able to be conducted with the resources available. Further, the sample survey could provide results in a shorter time as compared to undertaking a comprehensive census. One of the usages of the sample survey is the provision of detailed data on some population phenomena for the purposes of population studies and research (Al Khraif, 2002).

This survey was conducted in two ways and involved two stages. The first stage was a survey relating to the opinions of the residents of the three main Region of Saudi Arabia regarding their current houses, preferences and aspirations for their houses in the future, and their perceptions of the current situation in the housing market. It was carried out through an electronic questionnaire that included a set of questions focused on the subject of the study. The purpose behind using the Internet, especially social media, in order to publish this questionnaire was to reach the maximum possible sample in a short time and at a low cost. Subsequently, the data was collected and analysed.

For the second stage, as it is important for researchers to have direct communication with the study sample so as to have a clearer idea and to investigate any missing information, information was collected through face-to-face interviews. This is one of the most common tools used to measure satisfaction levels (Prescott-Clarke, Atkins and Clemens, 1993).

As it was difficult to carry out interviews in all the cities of the main Region of Saudi Arabia, one of the most important cities, Jeddah, was selected to represent a minor case study. Interviews were carried out and divided into two parts; the first part was to be conducted with individuals and the second was a random sample of specialist workers of the housing sector in Saudi Arabia, such as real estate developers, architects and engineers.

42.3.1 First stage: The questionnaire

The questionnaire survey has become a common method of gathering information (Sharp and Howard, 1996). According to (Silverman (2005), the application of the method is useful in order to gain a general overview, as well as insightful opinions, from certain people, actors or stakeholders with regard to certain subjects or phenomena. This method has frequently been used in urban planning research to obtain views from certain groups of people, such as local residents, planners, administrators, investors,
tourists and developers. The main purpose behind the use of the interview method in this research was to identify and gauge the opinions of the populations of the main Region of Saudi Arabia with regard to their current houses, their needs, aspirations and preferences for their future houses, their perceptions of the current situation in the housing market and how to use these results for the creation of a database that would be of interest for future research on this subject.

### 42.3.1.1 Scope of study

The research population includes Saudi citizens of the main Region of Saudi Arabia Figure 3-2.

![Main Region of Saudi Arabia](https://en.wikipedia.org)

Figure 42-2: Main Region of Saudi Arabia

There are three most populated Regions, which are Riyadh, Makkah and the Eastern Region, as shown in Table 42-1.

**Source:** Modified by the author, [hppt://en.wikipedia.org](https://en.wikipedia.org)
The main reason for the selection of these Regions is that they represent 60% of the total Saudi Arabia population out of the thirteen Regions (CDSI, 2010). In addition, it is expected that the population in these areas will be greater in the future as they are expected to witness an urban population increase from 3.77% in 1992 to 88% in 2020. This therefore will create a significantly higher demand for houses in comparison to any of the other populated areas in the country (Al-Hathloul et al., 1995).

### 42.3.1.2 Sample size

As the study area is vast and the research population is wide, it is impossible to reach all the targeted population. Therefore, a sample representing the population, according to the study objectives and available resources, was tested. There are complicated calculation methods that can be used to determine the proper size of a sample. In addition, there are some academic websites that process these calculations on a scientific basis. Thus, the researcher used one of these websites that deals with surveying and sampling, which is called ‘surveysystem.com’, which offers a ‘Determine Sample Size’ calculator so as to specify the right sample size with confidence levels and confidence intervals. Most researchers use the 95% confidence level.

Based on the number of population within the scope of the research, which was 11,303,925 Saudi citizens, as shown in the former figure, and using the following percentages:

\[
\text{(Confidence level}^{\text{18}} = 95\% \text{ and } \text{Confidence interval}^{\text{19}} = 5\%\)
\]

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18 The confidence level tells you how sure you can be. It is expressed as a percentage and represents how often the true percentage of the population would pick an answer that lies within the confidence interval.

19 The confidence level tells you how sure you can be. It is expressed as a percentage and represents how often the true percentage of the population would pick an answer that lies within the confidence interval.
Therefore, the program showed that the proper sample size for the study was 384 Saudi citizens of the research population, as displayed in Figure 3-3.

**Figure 42-3: Determining the sample size**

<table>
<thead>
<tr>
<th>Determine Sample Size</th>
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<tbody>
<tr>
<td>Confidence Level:</td>
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<tr>
<td>Confidence Interval:</td>
</tr>
<tr>
<td>Population:</td>
</tr>
<tr>
<td>Sample size needed:</td>
</tr>
</tbody>
</table>

Source: author by http://www.surveysystem.com/sscalc.htm

### 42.3.1.3 Preparation for the main survey

Special attention was paid to the questionnaire design, according to the research objective and questions, and in light of the theoretical framework and previous studies. Questions were straightforward, whereby choices were provided when necessary.

There were blanks to be filled in by the respondents for those questions that had no choices to select. More focus was placed on the use of a tabular display of the questions that required choices to be in order of their preference. A Likert scale was used for the questions in relation to opinions, evaluations and the measurement of satisfaction levels.

The content of the questionnaire reflected the objective of the field survey. It included four main sections, as follows:

**A. Section one: Demographic and economic characteristics of the sample**

It included questions related to age, gender, marital status, number of family members, profession/occupation, academic background, where they live, place of birth, and possible movement out of that city. In addition, there were questions related to income,

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19 The confidence interval (also called the margin of error) is the plus-or-minus figure usually reported in the newspapers or on television for opinion poll results.

20 A Likert scale is a psychometric scale commonly involved in research that employs questionnaires. It is the most widely used approach for scaling responses in survey research.
spending, financing and housing programme applications. This section is not only used to give an introduction to social characteristics, but also to relate to them during analysis of their economic and urban characteristics.

B. Section two: Characteristics of current houses
This section was divided into two parts; the first one dealt with general questions for all respondents and included questions on the type of current house they have, the number of rooms, areas, type of tenure, and the opinions of residents regarding their current houses. In addition, there were questions on possible movement to other houses and the reasons why.

The second part:

- Dealt with participants who owned their own houses. Questions included house price, did they buy a new or previously occupied house, how they managed to obtain the housing financing, did they face any difficulties finding that house and how far they were satisfied with their current houses.
- Dealt with participants who rented their houses. Questions focused on rental payments and changes, their opinions in relation to how far these rental payments match their financial capabilities, rent payment methods and their preferred one, difficulties faced when they were looking for a house, how they found their houses, are whether they were the first tenants of the property and their opinions relating to rented housing.

C. Section three: future Preferences, aspirations and expectations
This section was based on the aspirations and needs to be met in their future house in terms of type, area, space, and usage. In addition, it focused on how important it was for these expectations to be met in their future house. Factors affecting the selection of a housing unit, purchase and preferred financing methods were also covered.

D. Section four: Discussions of respondents’ opinions of the housing issue
It covered questions related to residents’ opinions of the difficulties in possessing or financing a house. In addition, it included their opinions and evaluations of the ways in which to afford a house in the future, offered housing solutions and parties involved with the housing market.

Subsequently, the researcher presented the questionnaire to the supervisor of the study for comments and remarks. Comments and remarks included that the questionnaire should be presented to a sample of specialists and individuals prior to its publication. This was to ensure its validity and to avoid any issues or mistakes.
Moreover, due to the fact that the official language in Saudi Arabia is Arabic, the questions were translated into Arabic.

Next, Google's service (Google Drive\textsuperscript{21}) was used to design the electronic questionnaires. The information was input and the electronic questionnaire was designed. Once it was finished, a special electronic link to the questionnaire became available to the researcher and it was published.

Benefits of using this method included that this program is able record all answers in tables. Thus, all results could be extracted in one file, in the form of a Microsoft Excel spreadsheet. This saved time for the researcher in terms of entering the respondents’ data. This also provided the participants with the capability to answer questions using their PCs, laptops and smart phones, which made their participation easier.

Next, the researcher carried out an experimental study by sending the questionnaire via electronic email to a ten-person sample, including members of the teaching staff of universities and workers of the housing sector in Saudi Arabia as well as to some individuals. In light of the results of this experimental study, some questions were revisited and reordered in order for the final template to be produced.

An introduction was also introduced so as to explain the objective and purposes of the questionnaire. It mentioned that all information will be confidentially handled only by the researcher himself. Moreover, respondents were informed that they were free to fill in the whole questionnaire or to leave it blank wherever they wanted. At this stage, participants’ permission was also obtained in terms of the use, analysis and publication of the data collected via the questionnaires. Due to privacy issues, participants were allowed to register their names and contact methods if they decided to do so. At the end of the questionnaire, there was also a space for any proposals/suggestions or messages that participants might want to send to the researcher. Lastly, there was also a section detailing some information about the researcher and the thesis supervisors see Appendix A1. The questionnaire can be viewed via the following link:

\[\text{[Online web site]}\ \text{ Accessed August, 2014:} \]
\[\text{https://docs.google.com/forms/d/e/1FAIpQLScPCKmWBZh7ow-Igbpe2dDk5BxeB_QlqO0Kz6liEwVuJB6dww/viewform?c=0&w=1}\]

42.3.1.4 Conducting the survey

The questionnaire was published in the summer of 2014. A three-month time period

\textsuperscript{21}[Online web site] \text{ Accessed September, 2016:} \text{https://www.google.com/drive}
was allowed for answers from mid-August to mid-November of the same year. As mentioned above, the target number of participants was 384.

**A. Reasons for the selection of electronic publication and questionnaire distribution strategy**

Initially, it should be noted that social networking has had a huge and significant role in the recent events that have occurred in the Middle East, particularly at the end of 2010, in a time that has become known as ‘the Arab Spring’. Thus, these events contributed to the use and rise of these networks in many Arab countries.

Furthermore, a significant improvement in telecommunications services and the Internet’s great technological development, which have occurred recently in Saudi Arabia, has led to a significant increase in the use of social networking. Such networks have become places for virtual meetings, planning meetings, and putting forward ideas and issues of concern to the community, allowing participants of all areas of society to be involved.

According to the preliminary results of the Population and Housing Census 2010 (CDSI, 2010), it indicated that 84% of Saudi families have, at least, one Internet access point. It also indicated that total Internet usage in Saudi Arabia reached up to 85%, meaning that out of 1000 individuals in Saudi Arabia, around 855 individuals use the Internet. In addition, 97% of the Saudi families have, at least, one mobile phone.

Additionally, some specialised studies conducted in 2014 reported that the prevalence of Twitter among Internet users in Saudi Arabia is the highest in the world at 40%, with an annual growth rate of up to 45%, noting that Saudis and other residences in Saudi Arabia tweeting 150 million times per month. Moreover, a study conducted by the (Y2D Company, 2014), specialised in electronic marketing, also found that four out of every ten users of the Internet in Saudi Arabia have a Twitter account, highlighting that the number of users of this site in Saudi Arabia has reached about 7 million.

Regarding the use of social networking sites by Saudis, Facebook cannot be ignored, as the number of users in the kingdom of Saudi exceeded 7 million in 2013, according

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22 General Authority for statistics in Saudi Arabia
23 Thursday 23 October 2014 [Online web site] Available at: http://alhayat.com/Articles/1157060 ; Twitter is most commonly used in Saudi, Riyadh and Abdul-Majid al-Qahtani
24 Twitter is an online news and social networking service, where users post and interact with messages [Online web site] Accessed September, 2016: https://twitter.com
26 Facebook is an American for-profit corporation and online social media and social networking service based in Menlo Park, California. [Online web site] Accessed September, 2016: https://facebook.com
to a study carried out by the (Social Clinic for Social Media Consultation, 2014) based in Jeddah. According to the study, 74% of Facebook users in Saudi Arabia are men, and the largest age group on the site are between 26 and 34 years, followed by the age group between 18 and 25 years old, which is one of the most important age groups in this study. One of the important issues of this research is the role of social networking in relation to the issue of housing.

In this sense, searching for the most common networks and software used by the Saudis is incredibly useful and has helped in terms of implementing them as a tool in order to collect information and use them for the circulation of the questionnaire, which meant a large and diverse population could be reached.

Besides that, the researcher has previous experience in the circulation of questionnaires due to his master's degree in social networks, where the questionnaire was also distributed via Google Drive services.

42.3.1.5 Circulation of the questionnaire

A certain strategy for the circulation of the questionnaire was implemented. Firstly, the most common programs and ways of communicating in Saudi Arabia was determined and some of them were chosen, including, Twitter and Facebook, and the famous chatting program, WhatsApp. In addition, the researcher's work e-mail (linked to King Abdul-Aziz University) was utilised so as to take advantage of the mailing list.

Having determined the programs and methods of communication, the work was then divided into steps.

The first step (E-mail): A message was prepared regarding the participation and assistance in terms of circulation, with the questionnaire link included and sent to the mailing list for the university.

The second step (WhatsApp): A message was prepared and sent to family members, friends, relatives and colleagues, who were on the researcher's contact list. As with the previous step, the message included the questionnaire link and asked for participation and assistance in the circulation of the questionnaire to their families, friends and relatives ... etc.

The third step (Facebook): First, a private message was prepared, in addition to the link and a request to participate and provide assistance in the circulation of the questionnaire.

27 WhatsApp Messenger is a freeware, cross-platform and end-to-end encrypted instant messaging application for smartphones, [Online web site] Accessed September, 2016: https://www.whatsapp.com
questionnaire. The message was placed on the researcher’s Facebook page and also sent to the researcher’s friend list. Secondly, the message was featured on groups of interest in terms of housing issues in Saudi Arabia.

The fourth step (Twitter): A specific strategy for publishing the questionnaire was developed on this site, as detailed below.

a) Special hashtag\(^{28}\) for the questionnaire was established and named #Haytham_questionnaire_about_Housing (in Arabic), after which the researcher published a number of messages explaining the idea of the questionnaire and the importance of participating and delivering it to the largest possible number of participants. A message was subsequently prepared containing the request to participate and published. This message was published on the personal page of the researcher.

b) Number of messages were sent to writers and academics that are interested in housing issues and have many followers, and as in previous steps, they were asked to participate and assist with the circulation of the questionnaire.

c) Famous people, who have a huge number of followers were also targeted in order to reach the largest possible number of participants.

d) Some individuals with many followers were randomly chosen.

The questionnaire gathered the attention of a large number of targeted people as they participated and circulated it. The hashtag had a big impact and many support letters appreciating the significance of the subject were received, to the extent that a journalist at one of the local newspapers\(^ {29}\) contacted the researcher and asked him permission to publish the questionnaire (hashtag), and write about idea behind the research see Appendix, A 2.

Step five: An invitation to participate was made in a private message on Instagram\(^ {30}\) and a number of posts were noticed, as will be detailed later.

Step Six: A number of the questionnaire supporters\(^ {31}\) published the questionnaire link on other social networks.

42.3.1.6 Analysis of data collection

The next stage, which was the analysis, started as soon as the data was collected.

\(^{28}\) A hashtag is a type of label or metadata tag used on social networks and microblogging services, which makes it easier for users to find messages with a specific theme or relating to certain content.


\(^{31}\) Friends, students at King Abdulaziz University and Influentialers in social media
Microsoft Excel was used, in addition to the Statistical Package for Social Sciences (SPSS), which was used for data analysis and the creation of frequency tables that included frequencies and diagrams relating to the questionnaire’s results.

The researcher carried out a reliability test for the questionnaire using Cronbach’s alpha. This means that the questionnaire will provide comparable results if conducted more than once under the same conditions.

As shown in Table 42-2, the result of this test normally ranges between 0 and 1. In general, a score of more than 0.7 is considered acceptable, although some authors suggest higher values of 0.90-0.95 should be the norm.

### Table 42-2: Cronbach’s alpha reliability coefficient rules

<table>
<thead>
<tr>
<th>Cronbach’s alpha</th>
<th>Internal consistency</th>
</tr>
</thead>
<tbody>
<tr>
<td>$\alpha \geq 0.9$</td>
<td>Excellent</td>
</tr>
<tr>
<td>$0.9 &gt; \alpha \geq 0.8$</td>
<td>Good</td>
</tr>
<tr>
<td>$0.8 &gt; \alpha \geq 0.7$</td>
<td>Acceptable</td>
</tr>
<tr>
<td>$0.7 &gt; \alpha \geq 0.6$</td>
<td>Questionable</td>
</tr>
<tr>
<td>$0.6 &gt; \alpha \geq 0.5$</td>
<td>Poor</td>
</tr>
<tr>
<td>$0.5 &gt; \alpha$</td>
<td>Unacceptable</td>
</tr>
</tbody>
</table>


All results related to the analysis of the questionnaires are fully displayed in chapter five.

#### 42.3.2 The second stage: Interviews

Face-to-face interviews were adopted to collect data in this part of the study. As the main objective was to investigate the residents' needs, aspirations, preferences and opinions, direct communications with the research population was key since clearer ideas of the objective could be communicated.

#### 42.3.2.1 Scope of Study

As there are many cities within the main Region of Saudi Arabia to conduct interviews, one of the main cities, the City of Jeddah, was selected as a minor case study. The City of Jeddah is located in the Makkah Region, where interviews with some residents and some workers of the housing sector, including engineers, architects, and real estate developers, were conducted.
42.3.2.2 Background of Jeddah

The city of Jeddah in Saudi Arabia is located on the coast of the Red Sea and is the major urban center of western Saudi Arabia. It is the largest city in the Makkah Region, the largest seaport on the Red Sea, and the second largest city in Saudi Arabia after the capital city, Riyadh. There is currently a population of 4.2 million people\textsuperscript{32} Figure 3-4.

![Figure 3-4: Location of Jeddah](https://www.citypopulation.de/SaudiArabia.html)

Jeddah’s strategic coastal location, together with its special status as the entry point for pilgrims, makes the city both a major trading center, as well as a diplomatic center selected by the country’s political elite. Jeddah has characteristics that are similar to other cities in Saudi Arabia, which include substantial migration, rapid growth and a high percentage of young people (aged 30 years and younger).

According to (Behrendt, Hag et al., 2009), Jeddah is the largest commercial and business center in this part of Saudi Arabia with effective services and infrastructure developed through significant public and private investment. Developing job opportunities has increased the number of migrant workers, who have provided Jeddah with further economic benefits.

\textsuperscript{32}[Online web site] Accessed September, 2016: https://www.citypopulation.de/SaudiArabia.html
In addition, many immigrants from around the country, as well as other countries, make up the population structure of Jeddah. In 2002, the Jeddah Municipality reported that Jeddah had an older population when compared to other Saudi Arabian cities due to the large number of mainly middle-aged foreign immigrants, in addition to Jeddah’s lower birth rate when compared with other Saudi cities. Therefore, the male population of Jeddah has historically risen faster than the females (Mandeli, 2011).

A. General Information of Jeddah:

- Jeddah city is divided into 13 sub-municipalities.
- The built-up area of Jeddah has grown from 3.15 sq.km in 1951 to 1,350 sq.km in 2005.
- The population in Jeddah is equivalent to 50% of the population in the Makkah Region and 13% of Saudi Arabia’s overall population.

B. Demographics growth

The population of Jeddah has grown more than 100 times since the unification of the country in 1932 and 2004. Jeddah’s concentration of power, together with an accumulation of wealth, has attracted many newcomers to the city, alongside increasing its population. The national census (CDSI, 2004; 2010) revealed that Jeddah’s population has risen from 2.8 million in 2004 to 3.4 million in 2010. The following Figure 3-5. shows Jeddah’s population from 2011 to 2020, according to projections from the Jeddah Municipality. The average household size is forecast to decrease by 1.7% annually, following historic and regional trends.

**Figure 42-5: Jeddah’s population (2011 to 2020)**

Source: Jeddah municipality & Sedco co.
There are an estimated 1.7 million immigrant workers/residents in Jeddah, which is equivalent to 50% of the total population, which is also the highest ratio in the kingdom. There is also a projected growth rate of 3.2% p.a. (CDSI, 2010).

C. Some important points about the Residential Sector in city of Jeddah
Residents of Jeddah make their homes in a diverse variety of housing types, including villas, traditional houses and apartments. The market provides appropriate housing for some residents of Jeddah, while others struggle to find adequate accommodation for themselves and their families.

According to the municipality of Jeddah (2010), there is a severe shortage of suitable housing, particularly for low and middle-income families. While, the residential market remains dominated by small developers and individual owners, with the larger developers delivering just 2,010 additional units to the residential market in 2010. Moreover, the majority of new housing supply is constituted of luxury apartments.

D. Homeownership
The rate of ownership has dramatically changed. For instance, from 1977 to 2002, the share of home ownership increased from 19% to 35%. According to (Albeeah Consultant in the municipality of Jeddah, 2002)\(^{33}\), the highest percentage increase was in 1970, with an average of 31%. In addition, the proportion of tenants decreased from 77% to 58%, between 1977 and 2002. However, while there has been a decline in the proportion of tenants, the number of the tenants has increased 6 times over in the same period from 133,413 to 289,473.

E. Supply and Demand for housing
The ninth development plan forecasts demand for an additional 74,000 residential units per annum in the Makkah Region between 2010 and 2014. Approximately half of the total demand will be required in Jeddah (SEDCO Co., 2014)\(^{34}\). Moreover, estimates show that the demand for housing units in Jeddah will increase to 50,000 units by 2020, as shown in the following Table 42-3.

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33 Albeeah Consultant: a Saudi Company that was established in 1975 provides consulting services in relation to planning and design in Saudi Arabia and overseas. [Online web site] Accessed September, 2016: http://www.beeah-info.com
Table 42-3: Supply and Demand for housing in Jeddah (Gap analysis 2011-2020)

<table>
<thead>
<tr>
<th></th>
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<th></th>
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<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Demand</strong></td>
<td>37,902</td>
<td>39,115</td>
<td>40,366</td>
<td>41,658</td>
<td>42,991</td>
<td>44,367</td>
<td>45,786</td>
<td>47,252</td>
<td>48,764</td>
<td>50,324</td>
</tr>
<tr>
<td><strong>Supply</strong></td>
<td>18,642</td>
<td>19,4</td>
<td>20,219</td>
<td>21,054</td>
<td>21,783</td>
<td>22,621</td>
<td>23,508</td>
<td>24,444</td>
<td>25,187</td>
<td>25,973</td>
</tr>
<tr>
<td><strong>Gap</strong></td>
<td>19,260</td>
<td>19,714</td>
<td>20,147</td>
<td>20,604</td>
<td>21,208</td>
<td>21,745</td>
<td>22,278</td>
<td>22,808</td>
<td>23,577</td>
<td>24,351</td>
</tr>
</tbody>
</table>

Source: Jeddah municipality & SEDCO Co. 2014

From the above table, it is clear that there was a need for residential units in Jeddah from 2011 onwards and this same trend is expected to continue until 2020. The total accumulated deficit from 2011 to 2020 is estimated at 215,000 units, while the annual average is 22,000 units.

As previously mentioned, Jeddah's residential gap is reflecting the shortages of housing units. Furthermore, not all of residents can afford to buy housing units due to a disparity in their income level. According to (IPSOS, 2014) data, around 50% of households fall into the low-income categories, earning less than SR 8,000 per month.

Table 42-4: Monthly income (Jeddah residents)

<table>
<thead>
<tr>
<th>Income Bracket (SR/month)</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>High</td>
<td>10,45</td>
</tr>
<tr>
<td>Upper Middle</td>
<td>9,52</td>
</tr>
<tr>
<td>Middle</td>
<td>29,75</td>
</tr>
<tr>
<td>Low Middle</td>
<td>50,27</td>
</tr>
</tbody>
</table>

Source: IPSOS, 2014

42.3.2.3 Reasons for the selection of the city of Jeddah

It is expected that Jeddah city will witness an increase of population in the future due to

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35IPSOS Group S.A. is a global market research and consulting firm with worldwide headquarters in Paris. [Online web site] Available at: https://www.ipsos.com/en/about-us
the expected increase of urban residents in Saudi Arabia representing 88% of the population in 2020. Therefore, there will be a significantly higher demand for housing. In addition, there are some families with limited possession capabilities. Further, the offered housing units are not meeting the demand in terms of purchase capabilities. Lastly, land and construction costs are very high (Al-Herigi, 2005).

The researcher is familiar with and possesses existing knowledge of Jeddah in terms of its socio-cultural perspective and residential areas.

In addition, the researcher has previous experience in conducting Bachelors and Masters’ studies, as well as practical work experience in planning and designing proposals relating to the development of residential, and other spaces, across the city. The researcher graduated as a Bachelor of the Dept. of Architecture from King Abdulaziz University and later became a lecturer in the same university within the Faculty of Environmental Design. Academic and governmental contacts are also readily available, which could provide essential assistance in gaining relevant information from different parts of the city, such as the Jeddah Municipality and the Architecture office.

The researcher has the desire to promote the level of understanding of housing options and the housing market of the city as a service to be provided to the society.

42.3.2.4 Sample Size

According to (Kvale and Brinkman, 2009), between 10-15 participants is the common range for interview studies. They also stated that the number of interviews reflects upon a combination of time and resources, as well as the law of diminishing returns, meaning that after a certain point, a greater number of respondents will provide less information that is new. While, (Kuzel, 1992) also suggested that a general requirement for data sources is between 12-20. However, between 30-50 interviews and/or observations were suggested as being required by (Morse, 1994). Literature suggests that the sampling size may be variable and based upon the type of research and the aim of the interviews being conducted, with a range of opinions offered from researchers on what might be considered appropriate in a qualitative research context.

Based on these findings, the researcher selected ten different locations across Jeddah and conducted interviews with a sample population of 40 residents as the first stage of interviews and the second stage of interviews involved 5 pre-arranged interview with architects, real estate developers and an internal designer.

42.3.2.5 Conducting the interviews

Interviews were carried out in two stages, as follows:
A. First part: Interviews with individuals (residents)
Interviews were carried out with a random sample of the residents of the city of Jeddah. These interviews were conducted in malls and shopping centers. The reason for selecting these places to conduct these interviews was that these centers are like recreational centers and represent the most attractive places for the residents of all the Saudi cities\(^{36}\), whether individuals of families. Moreover, (Sajini, 2002) mentioned that in Jeddah, there are more than 300 markets and shopping centers, which represent more than 21% of the total Saudi shopping centers. These varied shopping centers are one of the pillars of tourism and recreational activities in Jeddah. In addition, weekends were selected to conduct the interviews to ensure that different participants of various neighbourhoods could participate.

Initially, the map of Jeddah was divided into four areas. Subsequently, the most important and main shopping centers for each area were identified. It was ensured that these centers were close to neighbourhoods that were occupied by Saudis citizens (the research population), as shown in figure A3 in the Appendix, which is a map showing the distribution of the interview locations in comparison to the population distribution of the neighbourhoods of the city of Jeddah, also in accordance with nationality. After which, 10 shopping centers were selected. Interviews were conducted in each shopping center, as shown in the following Figure 3-6.

A.1. Period of Interviews
Interviews were conducted from 6 August to 4 September 2015 when the researcher conducted forty interviews, with an average of four interviews in each location. Conducting all the interviews took five weeks at a rate of 8 interviews each weekend; four on Thursdays and four on Fridays. Interviews lasted from 15 to 20 minutes, depending upon the degree of elaboration offered by each interviewee.

A.2 Interviews questions
The interview questions were divided into four sections, as follows:

Section one: The demographic and economic characteristics of the participants. This included information relating to age, gender, marital status, income, monthly spending, and financing programmes.

Section two: characteristics of current houses. It included information on current houses, types and their level of satisfaction. Questions were divided into two parts,
based on the type of house; owned or rented.

Section three: characteristics of the future house and their desire to move. In addition, it included type of tenure, as well as future needs and expectations.

Section four: this section focused on the investigation of the opinions and evaluations of the participants with regard to the housing issue and some strategies proposed for the provision of houses.

Both open-ended and closed questions were used in these different sections and due to Arabic being the common language in Jeddah, interview questions were translated into Arabic for all participants.

A.3 Practical conducting of Interviews
Firstly, it was ensured that participants were one of the targeted sample. Then, the interview objective and expected time for finalising the research are described.

In Saudi Arabia, part of the culture is to forbid males and females who are not related from interacting together in public and private. Therefore, the researcher’s wife accompanied the researcher when conducting the interviews at the selected sites.

All participants fully cooperated, which allowed more questions to be asked. It was found that the respondents were very interested in the subject of the study, especially the selections, preferences and opinions.

B. Part Two: Interviews with housing sector workers and Specialists

B.1 Interview Sample
Various famous engineering and consulting offices in the city of Jeddah were contacted. They were asked to set dates for interviews in the period from August to September 2015. Five of them replied and the interviews were conducted.

The main objective of these interviews was to investigate the opinions of these housing sector specialists in terms of the residents' opinions, due to their experience in this field and their direct interactions with home seekers. This added another dimension to the research, which allowed the researcher to generate the final perceptions of the research. This also promoted understanding by the researcher in relation to the current conditions of the housing market. There was also a discussion of the results of the questionnaire in order to investigate its reality.

B.2 Interview questions
Interviews included questions on the current situation of the housing market, preferred housing options and reasons from the perspective of specialists. In addition, it included solutions and discussion of new projects in the area. Questions were open-ended when
more questions could be added, based on the respondents’ answers.

42.3.2.6 Results analysis

The data collected from the interviews was recorded in Arabic on a voice recorder or handwritten notes, which had to be transcribed and translated by the researcher. This posed challenges for the researcher when working in two languages, and particularly, when analysing the data collected to ensure the responses of the participants were correctly identified.

In the analysis phase, Microsoft Excel and the Statistical Package for Social Sciences (SPSS) were used for data analysis in order to create frequency tables that included frequencies and diagrams of the interview with residents. While, interviews with the housing sector specialists were collected, analysed and described in a descriptive way for each interview. All results of the analysis of interviews are displayed in chapter six.

42.4 Summary

This chapter has included a description of the research methodology that is divided into two main parts. The first part is a theoretical framework that included an overview of previous studies and analysis of the current situation based on studies, reports and official censuses. Part two is an overview of the practical framework that was adopted for data collection; the first was the distribution of the electronic questionnaire and second, the conduction of interviews in one of Saudi Arabia’s main cities (Jeddah) as a minor case study. Subsequently, the steps and procedures that were carried out by the researcher and the used statistical analysis methods were described.
CHAPTER FOUR

DEVELOPMENT AND HOUSING SECTOR IN SAUDI ARABIA
CHAPTER FOUR: DEVELOPMENT AND HOUSING SECTOR IN SAUDI ARABIA

56.1 Introduction

This chapter deals with an overall reference review for Saudi Arabia and the major Region in particular, which are related to the research’s objective. The first section includes an introduction to Saudi Arabia, the system of governance and those responsible for the housing sector. The second section deals with the study of the demographic changes and the preparation of housing in Saudi, based on studies and the official published reports of the General Authority for Statistics (GAS) in Saudi Arabia and the International Monetary Fund (IMF) websites. The third section involves a review of housing types and chronology in Saudi Arabia up to the present time. The fourth section reviews the governments’, as well as the private sector contributions, to the housing market in Saudi Arabia. The fifth section provides a fresh overview of the housing market in Saudi with regard to home ownership, alongside the supply and demand for housing and real estate prices in comparison to income and house financing. The collected information is based on previous studies and scientific research on the subject, in addition to the official published statistics.

56.2 Country Background

Saudi Arabia is a predominantly desert-state that was created in 1932 as a sovereign state by its founder, the late King Abdul Aziz Al Saud, following the disintegration of the Ottoman Empire during the early decades of the 20th century. Saudi Arabia was catapulted into the world scene due to the discovery of massive oil reserves. Over the last 70 years, Saudi Arabia has been transformed into a modern developing nation. It occupies an area of 2,250,000km, which constitutes about 80% of the Arabian Peninsula see Figure 56-1.

38 The General Authority of Statistics is a governmental body with an independent legal personality, whose board of directors is chaired by the Minister of Economy and Planning, with a membership of 15 representing relevant government agencies, as well as the private sector body. It is considered the only source of official statistical reference data and statistical information in Saudi Arabia.
The total population of Saudi Arabia is 31 million, and the demographics are highly skewed towards a young population. The group below 30 years old represents 59% of the aggregate (CDSI, 2016), implying strong future housing demands. Further, due to its vast geographic size, the country has a low population density\(^40\) of 15 P/Km\(^2\).

Saudi Arabia is divided into 13 Region, as shown in following Figure 56-2. Riyadh, Makkah, and the Eastern Region host 67.6% of the population collectively. According to (CDSI, 2016), immigrants make up more than 30% of the total population, who constitute a significant share of the rental market.

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Figure 56-2: Regions of Saudi Arabia

Source: https://af.wikipedia.org/wiki/Saoedi-Arabie

The Saudi capital is Riyadh in 2015, the estimated population was 6,195 million and the population estimates for 2016 show a continued growth for Saudi Arabia's major urban Region: Jeddah 4,076 million, Makkah 1,771 million, Medina 1,28 Million and the Eastern province cities, Dammam, Khobar, and Dhahran around 1,064 million. The population density of Saudi Arabia is illustrated in the following Figure 56-3.

Figure 56-3: Saudi Arabia's population density

Source: http://www.indexmundi.com, 2015

Saudi Arabia’s climate is mostly desert, apart from the south west of the country, therefore the day temperatures tend to be high (around 36ºC) during the spring, summer and autumn, and moderately high (around 17ºC) during the winter. Temperatures at night are low across the country. However, in the south west of the country, to the north of the border with Yemen, the climatic conditions are humid with mild temperatures due to the effect of monsoons from the Indian Ocean. However, the overall ecology of Saudi Arabia is defined by a desert climate.

The vast oil resources have shaped the kingdom’s development. The country also has large natural gas reserves, as well as deposits of bauxite, coal, copper, gold, iron, phosphates, platinum, silver, tungsten, uranium, and zinc. Non-mineral resources include limestone, glass sand, and stone. The Saudi Riyal (SR) is currently pegged to the U.S. dollar at SR 3.745 per dollar.

Saudi Arabia has a limited tax system, as it relies mostly on oil revenues, customs duties, and licensing fees so as to produce government income. Rather than paying income or property taxes, Saudi nationals pay what is called the Zakat. The Zakat revenue helps pay for social services, such as health care and education. Foreign companies and migrant workers in Saudi Arabia are not obliged to pay Zakat, but do pay income tax.

The government of the Kingdom of Saudi Arabia is a monarchy and its current ruler is the Custodian of the Two Holy Mosques, King Salman bin Abdulaziz. The constitution is based on the principals found within the Islamic Holy Book, the Qur’an, and the principals of Islamic Law.

56.2.1 Legislative principles and philosophy in the Kingdom

Saudi Arabia is an Islamic monarchy. The political system is governed, directed, and guided by the royal family. The country’s legal system is founded on the main principles of Islamic Law and Basic Law, promulgated by a royal decree in 1992. The relatively new Majlis al-Shoura is a consultative council, which has characteristics similar to an elected parliament. However, its 150 members are not elected by the people but are appointed by the King for four-year terms. Decision-making power rests with the monarch, acting as both the chief of state and the head of government, i.e., the King and Prime Minister, respectively.

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42 Zakat, an annual 2.5% assessment of a person's net personal wealth.
56.2.1.1 The King
The King heads the work of the government and oversees the preparation and consideration of matters that fall under the mandate of the government. He also monitors the implementation of government programmes and coordinates the consideration of national and foreign decisions. He rules through Royal Decrees that are equivalent to laws and has the right to appoint higher judges and oversee the judiciary.

56.2.1.2 The Council of Ministers
The Council of Ministers is comprised of the Prime Minister and, at most, 29 ministers. Each ministry is responsible for the preparation of matters within its sector and field of competence and for the proper functioning of administration.

56.2.1.3 Consultative Council
The new consultative council, the Majlis Al-Shoura or Shura Council, was established in 1992. It could be considered as a move to formalise and strengthen the participative elements in Saudi Arabia’s centralised government. The primary function of the Majlis Al-Shoura is to provide the King with good advice on issues of importance to the Kingdom.

56.3 Demographic changes and housing distribution

56.3.1 Family and residential characteristics
This part of the study is based on the search results, statistics and reports, as well official information published on the official website of the General Authority for Statistics in Saudi Arabia (GAStat).

56.3.1.1 Population growth in Saudi Arabia (1973 – 2016)
The number of residents in Saudi Arabia in 1973 was 7,009,466, however, the number increased in 1992 to 16,948,388, with an increase of 141.8%. The population continued to grow up to 22,678,262 people in 2004 and exceeded 27 million people in 2010. The latest demographic survey results for 2016 indicated that the population reached 31,742,308, or that the population has doubled over the past four decades by around nearly 350%, as shown in Table 4-1.
The annual growth average has seen rise and fall periods, as shown in Table 56-2. Moreover, the annual growth rate, according to the (CDSI, 1992), reached 3.7%. This high population growth average, especially for the Saudis citizens, is a result of the significant improvement in the field of healthcare. Nevertheless, this growth declined during (CDSI, 2004) and was estimated at 2.3%, with the decrease in the average being linked to low fertility rates, which was as a result of improved education for women and the use of family planning methods. Moreover, the growth average has declined again, according to the results of the (CDSI report, 2016) and was estimated at 2.54%.

Table 56-2: The population growth average (1992 to 2016)

<table>
<thead>
<tr>
<th>Years</th>
<th>The average of annual growth</th>
</tr>
</thead>
<tbody>
<tr>
<td>1992</td>
<td>3,7%</td>
</tr>
<tr>
<td>2004</td>
<td>2,5%</td>
</tr>
<tr>
<td>2007</td>
<td>2,3%</td>
</tr>
<tr>
<td>2016</td>
<td>2,5%</td>
</tr>
</tbody>
</table>
Comparing the results for the distribution of the Saudis citizens and immigrants during the survey (1973 - 2016), Table 56-3 shows the proportion of Saudis and immigrants. It can be seen that the number of immigrants has gone up from 11% in 1973 to nearly 37% of the total Saudi Arabian population in 2016. This increase of immigrants is related to the labour flow, which contributes to development projects in Saudi Arabia.

Table 56-3: The population by nationality (1973 to 2016)

<table>
<thead>
<tr>
<th>Year</th>
<th>Saudi</th>
<th>Non-Saudi</th>
</tr>
</thead>
<tbody>
<tr>
<td>1973</td>
<td>89%</td>
<td>11%</td>
</tr>
<tr>
<td>1992</td>
<td>73%</td>
<td>27%</td>
</tr>
<tr>
<td>2004</td>
<td>73%</td>
<td>27%</td>
</tr>
<tr>
<td>2007</td>
<td>73%</td>
<td>27%</td>
</tr>
<tr>
<td>2010</td>
<td>69%</td>
<td>31%</td>
</tr>
<tr>
<td>2016</td>
<td>63%</td>
<td>37%</td>
</tr>
</tbody>
</table>

Source: CDSI reports 1973 to 2016

Table 56-4 shows the high proportion of the population are males, who constituted 53% of the total Saudi population in 1973 and rose to 57% in 2016. This growth is likely due to the proportion of immigrants being male, with the Saudi population of males and females being similar but with a slightly higher proportion of makes. Of the percentage of Saudi males was 51.4% in 1973 and 51% in 2016.
56.3.1.2 Population age structure

As shown in Figure 56-4, the high proportion of the population is in the age group between 15 years to 64 years and statistics show a high percentage in this category; 47.5% in 1992, rising to 72% in 2016. The age of immigrants has also contributed to the rise in this percentage.

Figure 56-4: Rates of growth in the age group of 15 years to 64 years

In addition, the available results regarding the age structure of the population are collected in Table B1 in the Appendix. Table B1 also shows that the proportion of the population in Saudi Arabia under thirty years in 2010 and 2016 was around 55% and
50%, respectively. While, this age group Saudi of population rose to 63% in 2010 but decreased to 59% in 2016, however this remains a high rate as compared to many countries in the world.

Whilst, the (CDSI, 2007; 2016) reported that the average age of marriage among males in 2007 was 25 years, as compared to 20 years for females. In 2016, the average age of marriage rose to 26 for males and 22 years for females. This increase is due to several factors, including economic changes, the rising costs of marriage, in addition to the difficulty of obtaining affordable housing, either to own or to rent.

### 56.3.1.3 Dependency ratio

The method used to calculate the dependency ratios were:

\[
\text{Dependency ratio} = \left( \frac{\text{total population who are less than 15 years + the total population 65 years and older}}{\text{population in the age group between 15 and 64 years old}} \right) \times 100.
\]

In the following Figure 56-5, the rise in the dependency ratios, especially among the Saudi population in 1992, should be noted. As based on CDSI data (1992 to 2016), every one hundred of the population in Saudi Arabia had 111 dependents in 1992; while this number dropped to 100 people supporting 39 people.

**Figure 56-5: The dependency ratio**

![Figure 56-5: The dependency ratio](image)

Source: CDSI reports 1992 to 2016

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44 The dependency ratio theory is an age-population ratio of those typically not in the labour force (the dependent part) and those typically in the labour force (the productive part). It is used to measure the pressure on the productive population.
56.3.1.4 Illiteracy rate

Regarding the level of illiteracy, the findings suggest a reduction in the illiteracy rate among Saudis over the age of 15 years from 28.4% in 1992 to 13.7% in 2007, with a continued decline to 8.3% in 2016.

On the other hand, illiteracy disparity between male and female rates can be observed, as in 1992, the illiteracy rate among females was 40%, as compared to 16.9% for males. While, during the following years, the gap was reduced and became 6.4% for females versus 1.9% for males in 2016.

56.3.1.5 Unemployment rate

According to (IMF, 2013) reports, over the four years previous to 2013, non-Saudis were employed in 1.5 million new jobs, as compared to 500,000 Saudis gaining new jobs. Therefore, the unemployment rate for Saudis is 12%, but the unemployment levels for specific groups of Saudis is much higher, such as those under the age of Fifty years 30% and females 35%.

56.3.2 The geographical distribution of the population

The population of Saudi Arabia is geographically distributed among thirteen Regions. Saudi cities have grown rapidly in these Regions so that there are 28 cities where the population exceeds 100,000 people (CDSI, 2010). There are 4 cities with several million populations, i.e. Riyadh 5.1 million, Jeddah 3.8 million people, Makkah 1.3 million and Medina 1.1 million, therefore the proportion of urban residents in Saudi Arabia rose to 48% - 77% - 84% in the years from 1973 to 1992 - 2010, respectively, and is expected to record an increase in that percentage to 88% by 2025 (Al-Herigi, 2005).

With respect to the geographical distribution of Saudi Arabia’s population by sex and nationality, the results of the CDSI report (2016) showed that the Makkah Region is first among all the administrative Region in Saudi Arabia in terms of the percentage of the total population, followed by Riyadh, the Eastern Region, the Asir Region, the Al Madinah Region, the Jazan Region, the Al-Qassim Region, the Tabuk Region, the Ha’il Region, the Najran Region, the Al Jawf Region, the Al Bahah Region and the northern borders Region.

Regarding the Saudis, the Riyadh Region occupies first place, where there was the highest proportion of Saudi citizens living there in 2016, followed by the Makkah
Region, the Eastern Region, the Asir Region, the Al Madinah Region, the Jazan Region, the Al-Qassim Region, the Tabuk Region, the Ha'il Region, the Najran Region, the Al Jawf Region, the Al Bahah Region and the northern borders Region.

The age distribution of the Saudi male population is significantly similar to the Saudi female population in all Regions of Saudi Arabia, while the non-Saudi population varies. The majority of residents are single males and come to Saudi for work purposes. This therefore affects the entire population of Saudi Arabia, whereby there are significant differences between the distribution of the population age males and females.

Three Region, namely Riyadh, Makkah and the Eastern Region, have approximately 68% of the total population, with this ratio having increased since the 1992 survey, when the figure was 64%. These three Region were inhabited by 61% of all Saudis in 2016 and this rate has not changed much, where it's comparable to the proportion of Saudis in 1992 (59.3%) and rose to 60.4% in 2010.

The percentage of the immigrant population rose to reach 76.2% in 2016, as compared to 77.2% in 1992 and 77% in 2010, as shown in Table 56-5. The table illustrates a comparison of population ratios in the main Region, based on sex and nationality for the years 1992, 2010 and 2016.
Table 56-5: The population ratios in the main Region (1992 to 2016)

<table>
<thead>
<tr>
<th>Governorate</th>
<th>Total</th>
<th>Total</th>
<th>Total</th>
<th>Total</th>
<th>Total</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Males</td>
<td>Females</td>
<td>Total</td>
<td>Males</td>
<td>Females</td>
<td>Total</td>
</tr>
<tr>
<td>Al-Riyadh</td>
<td>2223503</td>
<td>1611483</td>
<td>3834986</td>
<td>1341594</td>
<td>1272321</td>
<td>2613915</td>
</tr>
<tr>
<td>Ma'ahd Al-Mokarrarah</td>
<td>2497723</td>
<td>1969947</td>
<td>4467670</td>
<td>1400917</td>
<td>1380138</td>
<td>2781075</td>
</tr>
<tr>
<td>Eastern Region</td>
<td>1503424</td>
<td>1072396</td>
<td>2575820</td>
<td>967301</td>
<td>914807</td>
<td>1882108</td>
</tr>
<tr>
<td><strong>Total population (3 Region)</strong></td>
<td><strong>6224650</strong></td>
<td><strong>4653826</strong></td>
<td><strong>10878476</strong></td>
<td><strong>3729812</strong></td>
<td><strong>3567286</strong></td>
<td><strong>7297098</strong></td>
</tr>
<tr>
<td><strong>Total of population</strong></td>
<td><strong>9479973</strong></td>
<td><strong>7468415</strong></td>
<td><strong>16948388</strong></td>
<td><strong>6215793</strong></td>
<td><strong>6094260</strong></td>
<td><strong>12310033</strong></td>
</tr>
<tr>
<td><strong>%</strong></td>
<td><strong>65.66</strong></td>
<td><strong>62.31</strong></td>
<td><strong>65.19</strong></td>
<td><strong>60.01</strong></td>
<td><strong>58.54</strong></td>
<td><strong>59.28</strong></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Year</th>
<th>Governorate</th>
<th>Total</th>
<th>Total</th>
<th>Total</th>
<th>Total</th>
<th>Total</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>2010</td>
<td></td>
<td></td>
<td></td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Males</td>
<td>Females</td>
<td>Total</td>
<td>Males</td>
<td>Females</td>
<td>Total</td>
<td></td>
</tr>
<tr>
<td>Al-Riyadh</td>
<td>3993552</td>
<td>2797424</td>
<td>6790976</td>
<td>2229089</td>
<td>2078902</td>
<td>4307991</td>
<td></td>
</tr>
<tr>
<td>Ma'ahd Al-Mokarrarah</td>
<td>3923492</td>
<td>3003985</td>
<td>6927477</td>
<td>2095639</td>
<td>2032847</td>
<td>4128486</td>
<td></td>
</tr>
<tr>
<td>Eastern Region</td>
<td>2444153</td>
<td>1685880</td>
<td>4130033</td>
<td>1507532</td>
<td>1393457</td>
<td>2890989</td>
<td></td>
</tr>
<tr>
<td><strong>Total population (3 Region)</strong></td>
<td><strong>10362997</strong></td>
<td><strong>7487289</strong></td>
<td><strong>17850286</strong></td>
<td><strong>5832260</strong></td>
<td><strong>5505206</strong></td>
<td><strong>11337466</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Total of population</strong></td>
<td><strong>15531471</strong></td>
<td><strong>11704685</strong></td>
<td><strong>27236156</strong></td>
<td><strong>9572527</strong></td>
<td><strong>9202153</strong></td>
<td><strong>18776510</strong></td>
<td></td>
</tr>
<tr>
<td><strong>%</strong></td>
<td><strong>66.72</strong></td>
<td><strong>63.97</strong></td>
<td><strong>65.54</strong></td>
<td><strong>60.91</strong></td>
<td><strong>59.83</strong></td>
<td><strong>60.38</strong></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Year</th>
<th>Administrative Area</th>
<th>Total</th>
<th>Total</th>
<th>Total</th>
<th>Total</th>
<th>Total</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>2016</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Males</td>
<td>Females</td>
<td>Total</td>
<td>Males</td>
<td>Females</td>
<td>Total</td>
<td></td>
</tr>
<tr>
<td>Al-Riyadh</td>
<td>8002100</td>
<td>3267091</td>
<td>4572060</td>
<td>4579570</td>
<td>2204529</td>
<td>2375041</td>
<td></td>
</tr>
<tr>
<td>Ma'ahd Al-Mokarrarah</td>
<td>8325304</td>
<td>3593383</td>
<td>4738717</td>
<td>4440571</td>
<td>2188046</td>
<td>2252525</td>
<td></td>
</tr>
<tr>
<td>Eastern Region</td>
<td>4780619</td>
<td>1913869</td>
<td>2366673</td>
<td>3087687</td>
<td>1482009</td>
<td>1607478</td>
<td></td>
</tr>
<tr>
<td><strong>Total population (3 Region)</strong></td>
<td><strong>21108023</strong></td>
<td><strong>8774343</strong></td>
<td><strong>12333680</strong></td>
<td><strong>12107828</strong></td>
<td><strong>5872784</strong></td>
<td><strong>6235044</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Total of population</strong></td>
<td><strong>31742308</strong></td>
<td><strong>13508344</strong></td>
<td><strong>18233964</strong></td>
<td><strong>20064970</strong></td>
<td><strong>9839320</strong></td>
<td><strong>10225650</strong></td>
<td></td>
</tr>
<tr>
<td><strong>%</strong></td>
<td><strong>65.50</strong></td>
<td><strong>64.95</strong></td>
<td><strong>67.64</strong></td>
<td><strong>60.34</strong></td>
<td><strong>59.83</strong></td>
<td><strong>60.97</strong></td>
<td></td>
</tr>
</tbody>
</table>

Source: CDSI reports 1992 to 2016

This rise in population percentages is due to the availability of workplaces in these Regions, which led to the internal migration of many of the Saudi population to these Regions. In addition, migration was due to the availability of all the necessary services. Also, the major cities in these Region are of great importance, such as Riyadh, which is the capital of Saudi Arabia and is located in Riyadh Region, while the Makkah Region is characterised by the existence of the city of Makkah (the holy place for Muslims), and the city of Jeddah is one of the most important commercial and tourist cities in Saudi Arabia. Moreover, the Eastern Region and its cities, which are located on the east coast of the country and on the border with the Gulf Arab States, are the
headquarters of the most important companies in the country, for instance the Saudi Aramco oil company.  

56.3.2.1 Housing and geographical distribution  
Based on the results of demographic reports relating to the number of Saudi household occupied houses during the period from 2004 to 2016, the number of housing units were inhabited by 16,527,340 people (the total number of Saudis in that period, or an average of 5.98 people per dwelling), rising from 2761738 in 2004, to 2,996,253 in 2010, with an increase of 8.5% in the number of houses. These houses were inhabited by 18,707,576 people.  

The number of Saudi occupied households reached 3,417,788 in 2016. These houses were inhabited by 20,064,970 people. The rise was estimated as 23.8% in comparison to 2004, however, the average number of people per house had dropped to 5.87, which was less than the number in 2004.

With regard to the distribution of housing in Saudi Arabia by Region, Table 56-6 shows the Saudi households with occupied houses in various Regions during the years from 2004 to 2016.

Table 56-6: Occupied Saudi households by Region (2004 to 2016)

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Al-Riyadh</td>
<td>22.7</td>
<td>22.5</td>
<td>22.7</td>
<td>23.7</td>
</tr>
<tr>
<td>Makkah Al-Mokarramah</td>
<td>26.2</td>
<td>24.9</td>
<td>25.8</td>
<td>25.1</td>
</tr>
<tr>
<td>Al-Madinah Al-Monawarah</td>
<td>7.3</td>
<td>7.5</td>
<td>7.1</td>
<td>7.0</td>
</tr>
<tr>
<td>Al-Qaseem</td>
<td>4.5</td>
<td>4.2</td>
<td>4.5</td>
<td>4.4</td>
</tr>
<tr>
<td>Eastern Region</td>
<td>14.4</td>
<td>15.7</td>
<td>14.2</td>
<td>14.5</td>
</tr>
<tr>
<td>Aseer</td>
<td>8.2</td>
<td>8.4</td>
<td>8.4</td>
<td>8.2</td>
</tr>
<tr>
<td>Tabouk</td>
<td>3.5</td>
<td>3.4</td>
<td>3.5</td>
<td>3.4</td>
</tr>
<tr>
<td>Hall</td>
<td>2.1</td>
<td>2.2</td>
<td>2.3</td>
<td>2.2</td>
</tr>
<tr>
<td>Northern Borders</td>
<td>1.1</td>
<td>1.1</td>
<td>1.1</td>
<td>1.1</td>
</tr>
<tr>
<td>Jazan</td>
<td>5.1</td>
<td>5.3</td>
<td>5.0</td>
<td>5.0</td>
</tr>
<tr>
<td>Najran</td>
<td>1.9</td>
<td>1.8</td>
<td>2.0</td>
<td>1.9</td>
</tr>
<tr>
<td>Al-Baha</td>
<td>1.8</td>
<td>1.7</td>
<td>1.8</td>
<td>1.8</td>
</tr>
<tr>
<td>Al-Jouf</td>
<td>1.3</td>
<td>1.3</td>
<td>1.6</td>
<td>1.6</td>
</tr>
<tr>
<td>Total</td>
<td>100.0</td>
<td>100.0</td>
<td>100.0</td>
<td>100.0</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Total of 3 Region</th>
<th>2004</th>
<th>2007</th>
<th>2010</th>
<th>2016</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>63.2</td>
<td>63.1</td>
<td>62.8</td>
<td>63.3</td>
</tr>
</tbody>
</table>

Source: CDSI reports 1992 to 2016

46 The total number of Saudis in 2010, with an average of 6.24 people per dwelling
47 The total number of the Saudi populations
In addition, according to the report of the ninth development plan (Ministry of Planning, 2010-2014), these three Region had 74% of the total number of businesses operating in Saudi Arabia in 2007; with the Riyadh Region having the largest share with 31%, followed by the Makkah Region with 26% and the Eastern Region with 17%.

56.3.2.2 Types of housing

Demographic reports’ results for the period 2004 to 2016, as shown in Table 56-7, demonstrate that apartments were the most prevalent type of housing, constituting 32.6% of total Saudi households and this figure reached nearly 40% of the overall housing in 2016. Traditional houses came in the second place during the period between 2004 to 2010, with 28%, 27.9% and 26.9%, respectively. While, villas were in third place with 24.7%, 25.4% and 25.5%, respectively, of the total housing in the country. A decrease in the proportion of traditional housing against a rise in the proportion of villas during this period can be noted, nevertheless these ups and downs have not affected the overall standings in terms of the spread in this period.

In 2016, results showed a high proportion of villas, bringing the total to 30% of the total housing in Saudi Arabia and they have become the second largest in terms of spread, with traditional housing falling to third place with 19% of the total housing.

Table 56-7: Type of housing occupied by Saudi citizens (2004 to 2016)

<table>
<thead>
<tr>
<th>Year</th>
<th>Type of Housing Unit in all Region (%)</th>
<th>Total of Occupied With Saudi Households</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Other</td>
<td>Apartment</td>
</tr>
<tr>
<td>2004</td>
<td>2,4</td>
<td>32,6</td>
</tr>
<tr>
<td>2007</td>
<td>2,2</td>
<td>32,9</td>
</tr>
<tr>
<td>2010</td>
<td>1,3</td>
<td>34,3</td>
</tr>
<tr>
<td>2016</td>
<td>0,1</td>
<td>39,9</td>
</tr>
</tbody>
</table>

Source: CDSI reports 2004 to 2016
In addition, Table 4-8 shows the distribution of Saudi’s occupied houses, based on the type of housing in the three major Regions (Makkah, Riyadh and the Eastern Region) during the period from 2004 to 2016.

**A. Makkah Region**

In 2004, residential apartments and traditional houses represented the majority of housing in the Makkah Region at 80%, with apartments representing nearly 50% of the total housing in the Region, followed by the traditional housing at 30.7% for the Region. While, villas were third with 11.2%. These three types of housing continued to be the most widespread, as shown in the results of 2016, when the proportion of residential apartments went up to 58.2%, while there was a decline in traditional houses, which fell to 21%. However, the villa ratio went up to 16.3%.

**B. Riyadh Region**

In general, the Riyadh Region differs from the Makkah Region, and according to the (CDSI, 2004), villas were the most widespread housing type, with a rate of 39.7%, followed by apartments at 24.7% and then 22.4% for a floor in a villa or in a traditional house. While, the traditional houses were fourth in terms of spread. In 2016, the proportion of villas rose to 47.5% of the total housing in the Region and the percentage of apartments also rose to 27.5%, as compared to a decline of inhabitants in a floor of a villa, which fell to 18%.

**C. Eastern Province**

The most widespread housing types in this Region, based on the 2004 results, were residential apartments with 36%, followed by villas with 34.7% and traditional housing in third place with 19%. In 2016, there was a rise in the proportion of apartments to 44% and the proportion of villas went up to 35.5%, with a decrease in traditional housing to 10%.
Table 56-8: Type of housing occupied by Saudis in the three major Regions (2004 to 2016)

<table>
<thead>
<tr>
<th>Years</th>
<th>Administrative Area</th>
<th>Housing Tenure</th>
<th>Other</th>
<th>Apartment</th>
<th>A Floor in a Traditional House</th>
<th>A Floor in a Villa</th>
<th>Villa</th>
<th>Traditional House</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>2004</td>
<td>Al-Riyadh</td>
<td></td>
<td>1,8</td>
<td>24,7</td>
<td>22,4</td>
<td>39,7</td>
<td>11,4</td>
<td>100,0</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Makkah Al-Mokarramah</td>
<td></td>
<td>1,7</td>
<td>49,6</td>
<td>6,9</td>
<td>11,2</td>
<td>30,7</td>
<td>100,0</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Eastern Region</td>
<td></td>
<td>1,3</td>
<td>36,1</td>
<td>9,1</td>
<td>34,7</td>
<td>18,8</td>
<td>100,0</td>
<td></td>
</tr>
<tr>
<td>2007</td>
<td>Al-Riyadh</td>
<td></td>
<td>1,7</td>
<td>24,8</td>
<td>0,4</td>
<td>20,8</td>
<td>40,9</td>
<td>11,4</td>
<td>100,0</td>
</tr>
<tr>
<td></td>
<td>Makkah Al-Mokarramah</td>
<td></td>
<td>1,7</td>
<td>49,4</td>
<td>0,4</td>
<td>6,2</td>
<td>11,3</td>
<td>31,0</td>
<td>100,0</td>
</tr>
<tr>
<td></td>
<td>Eastern Region</td>
<td></td>
<td>1,7</td>
<td>38,0</td>
<td>1,5</td>
<td>7,1</td>
<td>34,7</td>
<td>17,0</td>
<td>100,0</td>
</tr>
<tr>
<td>2010</td>
<td>Al-Riyadh</td>
<td></td>
<td>1,2</td>
<td>25,9</td>
<td>0,7</td>
<td>20,7</td>
<td>40,6</td>
<td>11,0</td>
<td>100,0</td>
</tr>
<tr>
<td></td>
<td>Makkah Al-Mokarramah</td>
<td></td>
<td>0,7</td>
<td>51,8</td>
<td>1,1</td>
<td>5,6</td>
<td>11,4</td>
<td>29,5</td>
<td>100,0</td>
</tr>
<tr>
<td></td>
<td>Eastern Region</td>
<td></td>
<td>0,8</td>
<td>37,4</td>
<td>1,3</td>
<td>7,4</td>
<td>35,0</td>
<td>18,0</td>
<td>100,0</td>
</tr>
<tr>
<td>2016</td>
<td>Al-Riyadh</td>
<td></td>
<td>0,1</td>
<td>27,5</td>
<td>0,6</td>
<td>17,9</td>
<td>47,5</td>
<td>6,6</td>
<td>100,0</td>
</tr>
<tr>
<td></td>
<td>Makkah Al-Mokarramah</td>
<td></td>
<td>0,0</td>
<td>58,2</td>
<td>1,2</td>
<td>3,5</td>
<td>16,3</td>
<td>20,9</td>
<td>100,0</td>
</tr>
<tr>
<td></td>
<td>Eastern Region</td>
<td></td>
<td>0,0</td>
<td>44,4</td>
<td>3,0</td>
<td>6,7</td>
<td>35,5</td>
<td>10,3</td>
<td>100,0</td>
</tr>
</tbody>
</table>

Source: CDSI reports 2004 to 2016

56.3.2.3 Housing tenure

With regard to housing tenure types, Table 56-9 shows that the highest percentage of Saudi occupied housing was owned by the same families, with a percentage of 42%, as compared to 37.35% of citizens being tenants in 1992. While, the demographic survey of 2007 results show that owned houses went up to 62 %, with a decrease in rented house rates to 32%. Finally, the results indicated for 2016 demonstrate a decline in the proportion of ownership to 49.8%, as compared to an increase in rented houses at 34.3%.
56.3.2.4 Dominant Building Materials

The results of the CDSI (2007) indicated that approximately 75% of Saudi family occupied buildings in all Region of Saudi had concrete used in their construction, followed by bricks at 21%, while stone or mud (or other materials) were used for the rest of the homes’ constructions.

Variations in the percentage of housing built with concrete in the various Regions of Saudi Arabia reached the highest rate in the northern border Region, with 93% of the total buildings in this Region using it. While, the lowest percentage was in the Hail Region, with 52% of all buildings. The proportion of concrete buildings raised to 85% of the total Saudi occupied buildings in all Region of the country in 2016.

56.4 Types of housing in Saudi Arabia

56.4.1 Introduction

As the nomadic life was the predominant nature of the urban population, the proportion of the urban population in towns and oases did not exceed 10%, at the beginning of the twentieth century, with some researchers suggesting that this percentage rose to 20% in 1902. While, population concentration in the Hijaz and Riyadh Region (Al-

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48 A fertile spot in a desert, where water is found.  
49 Hijaz is the old name for the Region of Makkah and Medina
Srayani, 1993). The Eastern Region has a group of fishing villages scattered on the Gulf Coast, in addition to farming villages in Al-Qatif and the Al-Ahsa oasis, where Al-Hofuf city and the city of Al-Mubarraz are located (AL-Qadi, 1981).

The cities were not a source of attraction for residents of the nearby areas in this period due the political instability and frequent strife, in addition to the limited and simple lives the inhabitants led. Moreover, others did not find their dependence on agriculture and livestock activities in the countryside and grazing in the desert appealing.

Most of the urban centers for human gatherings were a set of local markets in the middle of residential centers in order to ease the exchange of extra local production and help with achieving self-sufficiency due to the lack of transport means, such as paved roads linking cities and villages. Consequently, the transport means were limited to primitive methods, besides a few cars through the desert off-road, which made the communities in this period relatively separate from each other. This resulted in isolation in terms of trade relations and social links that did not exceed the limits of most communities (Al-Seif, 1997).

By the end of World War II, in 1945, especially after the rise of incomes due to Saudi’s oil, a new era in Saudi Arabia was born. There were various developments in terms of the political, the economic, the social and the urban areas, with investment coming into cities, such as Riyadh, Jeddah, Mecca and Medina. Therefore, these economies grew, as well as social and urban services being established.

The state hired foreign consulting companies for the construction work, which led to attraction of a population of internal villages, especially the Bedouin area to the major cities, such as Riyadh, Makkah, Medina, Jeddah. This resulted in an increase of the flat urban area, for example, with regard to the city of Jeddah, which had an urban area of 180 hectares and a population of no more than 25,000 people in 1945, yet this increased to 375 hectares in 1951. This represented an increase of more than 100%, as well as a growth in population to 46,000 people, which was a 95% increase also (Makhlouf, 1989). The number of housing units also significantly increased in Riyadh, which was a city of 5000 housing units in 1935, rising to 120,000 units in 1950 (Al-Htalani, 1996).

56.4.2 Historical development in housing

The traditional, interim, and contemporary stages play an important roles when it
comes to housing development. This is due to the characteristics of different Region with regard to climate, topography, and environment, as well as the abundance of different types of building materials available. As a result, different housing settlements and types of traditional houses have been created in every Region. Over the years, these traditional houses and settlements have improved constructional values, design ideas, and the technology used in the refinement of vernacular building methods and materials. These improvements have developed through experimentation and innovation from the experience of generations of builders.

While, several factors are thought to be important in the development of housing in Saudi Arabia. For instance, the beginning of the transformation started when modern building materials became abundant in the Kingdom. At first, prototypes were built using these new materials. However, in many ways, these prototypes resembled traditional houses. As building technologies continued to improve, and with the emergence of municipal systems, new types of modern houses have thus started to appear, which are totally different from traditional ones (Al-Naim, 1998). The differences will be discussed in the following sections.

56.4.2.1 The Traditional house

Is the traditional houses represent the architectural style that was wide-spread until the end of the forties, where each of the Region of Saudi Arabia (West - Central - East - South and North) had a unique residential pattern, which reflected upon the people, their traditions, and their living habits, which is also in harmony with the natural environment and climate prevailing in each Region. Consequently, there was the chance to use the available local building materials in each Region, and this also meant that behaviour of houses were built by locals (Al-Heriqi, 2005).

A. Traditional house in the Western Region

The western Region, or the Hijaz Region, lies on the Red Sea coast and includes a group of cities (Makkah, Jeddah, Medina, Taif and Yanbu, which is currently divided into the Makkah and Al Medina Region). The Region is recognised by its tall buildings as these cities were characterised by defensive walls, such as the city of Jeddah, due to its geographical location on the mountain slopes or in the valleys, like Makkah for example.

The Region’s buildings are sometimes up to five floors high and inhabited by several generations of the same family (or extended families). The land area ranges from 150 square meters to 350 square meters depending on the family size and their income.
The ground floors are normally for males' guests, while central floors are allocated to family members and females' guests. Married couples and children tend to be allocated a suite or separate rooms. The roof shields the inner courtyard and is used for home activities, in addition to being a sleeping area, when the weather is appropriate.

To ensure privacy, the surface is surrounded by a two-meter high wall and contains small holes to allow the passage of air. These houses are also characterised by woodwork for the windows, doors and balconies, which is known as Roshan\textsuperscript{50}, as illustrated in Figure 56-6.

\begin{figure}[h]
\centering
\includegraphics[width=\textwidth]{traditional_houses.png}
\caption{Traditional houses in the city of Makkah and Jeddah}
\end{figure}

Source: Hajj Research Centre

The buildings are made by using materials from the same city that was appropriate to the past climate, for example, in the city of Jeddah, coral stone was used to build the walls in a way which enables the weather-beaten stone to be changed when needed, without impacting upon the whole building.

Along with high multi-residential buildings, the housing with internal courtyards have appeared in the city of Medina. This type of housing, which is common in the Arab and

\textsuperscript{50} The Roshan function is to provide a good view for residents of the building beyond the front where they can sit and enjoy the outside surroundings while maintaining the privacy of their home. The cost of the Roshans was high due to the way it was made by using strong wood suitable for this function.
Islamic cities, has no more than two staircases in order to maintain the ratio of the courtyard in relation to three dimensions. All this is to achieve the intended function, either by providing shade or ventilation, or as a means of offering privacy so as to practice family activities freely and out of others’ sight Figure 56-7.

**Figure 56-7: Housing with an internal courtyard in Medina**

(Source: Al-hathloul, 1981)

There are some differences in the design of residential patterns of the previous elements, but they all achieve harmony and address the social and environmental requirements of residents. Moreover, they help provide privacy, which is one of the primary social demands of the Muslim community.

**B. Traditional house in the Central Region**

The continental climate, which is hot and dry in summers and cold in winter, has had an impact on the buildings of the central Region of the country. The buildings were built with clay due to the fact that the use of clay in this Region helped to overcome the rigours of the climate, in addition to the detached and low-rise buildings.
The buildings contain an inner courtyard and are used as a source of natural lighting and thermal regulation, as well as a space for the family to undertake activities in private. The ground floor rooms open directly onto the large yard with large terraces, while the upstairs has a corridor overlooking the courtyard in front of the rooms.

The buildings’ frontage are free from holes, except the entrance door and some narrow longitudinal, triangular holes in the upper floors, which often leaves the ground floor without openings for ventilation so as to ensure privacy. To achieve family privacy, a wall with no holes was built in front of the entrance in order to separate the men’s reception room from the rest of the house. The male guests’ reception is located on the first floor and can be directly accessed by stairs from the main entrance, and much like the western Region, the roofs are used to sleep at night in some seasons of the year and surrounded by a high wall to provide privacy, as in Figure 56-8.

**Figure 56-8: Traditional housing in the central Region**

![Figure 56-8: Traditional housing in the central Region](image)

Source: Masli, Shaker, and Al-mendila, to identify the urban style in Saudi Arabia, the central Region

**C. Traditional house in the Eastern Region**

The Eastern Region is located on the Eastern coast of Saudi Arabia, which is characterised by a marine and desert climate. Marine stones absorb wetness and
these were used to deal with this climate, in addition to wooden windows, which allow air to enter and maintain privacy.

The Region’s buildings are normally two floors high with internal courtyards, surrounded by a corridor that operates as a thermal regulator and a source of natural lighting. The courtyards also serve as a path to the rooms and offer further privacy. The buildings’ roofs are used to sleep on when there is appropriate weather.

Figure 56-9: Traditional housing in the Eastern Region

Source: Al-Naimi, 1989

D. Traditional house in the Southern Region

The southern Region is characterised by its high-mountain terrains, cold climate, heavy rains and floods, therefore the urban pattern of buildings in this Region differ from the rest of the Region. Normally, the buildings are high towers and have up to five floors high. They are culturally influenced by the state of Yemen due to its geographical closeness. Mud and stone were used in the buildings’ constructions and heavy rain towers were built diagonally on the inside, as well on the ground floors walls. These rain towers were built from hard rocks with a thickness of up to 70 cm, which become less thick in the upstairs mud walls. The upstairs areas are used for family and to receive women guests, while the central areas are allocated to men and the ground floors are used as warehouses for grain and animal pens.

Figure 56-10.
E. Traditional house in the Northern Region

The northern Region lies on the border with the state of Iraq and the Kingdom of Jordan and it is characterised by a desert nature. This area's buildings are similar to the buildings of the central Region as most of them are made from clay and have a few small windows and external walls. There are also internal courtyards, which overlook the rooms and help with privacy and lighting. Moreover, the roof is used to sleep on in appropriate weather, thus the walls are built up high for privacy purposes, much like their counterparts in other Region Figure 56-11.

Source: Al-Bis, and Siraj, 1991
56.4.2.2 The emergence of public housing and Slums

Due to huge migration to big cities, unplanned residential neighbourhoods surrounding the central area of major cities started to appear, in addition to the traditional houses. That was due to the limited land within the walls of the cities, as well as the desire to be near a workplace, especially those related with the petroleum industry. This type of housing is often made from simple building materials, such as wood and tinplate. They have been built in steps as initially, only one or two rooms with a W/C and a kitchen are built. While, the number of rooms tends to increase with the passage of time, based on the residents’ financial situation. These houses’ inhabitants are predominantly workers and young staff due to their low financial income Figure 56-12.

Figure 56-12: Temporary housing and slums

With the improvement of income, these residences have evolved and blocks of cement have been used for some of their construction. These buildings are built in stages, with one or two staircases being present in their final form as a detached building with neighbours. Most of these dwellings have an internal courtyard that is used for lighting and private activities. Behaviour of these buildings are inhabited by extended families.

However, these building are sometimes an investment opportunity, whereby part of it is isolated and a separate entrance provided. These are then offered for rent, normally by modifying some of the rooms overlooking the street or commercial shops below, as shown in Figure 56-13.
56.4.3 The contemporary period

At the end of the forties and early fifties, as previously discussed, there were great improvements observed in the economic conditions of Saudi Arabia, which led to assistance being provided by foreign construction companies and labour. In addition, the development of transportation means and modern housing in the form of blocks of flats started to appear on the sides of roads, alongside villas in the modern planned residential neighbourhoods. Despite differences in the nature and climate of the various Regions in Saudi Arabia, these housing types began to spread to all Region of the country and have become the dominant urban pattern in recent times.

56.4.3.1 Detached house and residential building

The emergence of the villas began at the end of the forties, when the Saudi Aramco Company carried out residential projects named ‘the cities of workers’ in order to provide owned-housing for its employees. This project initiated the building of separate houses, known as the residential villa, which was made of reinforced concrete and built on land included within the urban scheme.

In 1953, there was also the Millaz project, which was the first large housing project in Saudi Arabia. It covered an area of around 500 hectares 5.4 km north of the city of

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Riyadh. This project included the construction of 745 detached houses and three apartment blocks. The project was designed and implemented by ministry employees who had been transferred from Makkah to Riyadh. Due to a lack of Saudi engineers and construction companies, and compounded by traditional workers' lack of experience with projects of this size, non-Saudis were needed to complete this project. The project included new housing prototypes that facilitated planning a network of roads and associated housing units.

It can be argued that Aramco laid the first bricks of a modern housing project, which was confirmed and spearheaded by the Malaz project, due to the fact that the project was set up by the state government for the employees transferred from the Hijaz Region. According to (Al-Htalani, 1996) these projects, especially the Malaz project, reflected the viewpoint of the government with regard to what the future urban situation should be in Riyadh (the capital of the state). Moreover, from the government's point of view, it was believed that what works for the capital must be valid and appropriate for the rest of the cities. This is especially the case since this project was intended for the state employees, who represented the general public and had a prominent place among the Saudi society.

The Saudi Media contributed to the indirect psychological effect on the citizens' perspectives on their imagined future homes and their dreams of settling in them through what was written in the local newspapers regarding the Malaz residential staff project. Moreover, the American-Arab Company for Oil Aramco magazine also featured information about the Malaz residential project for government employees. The traveling fairs that were undertaken by the company across Saudi Arabia to demonstrate the achievements and projects taking place, including the housing provided by the company to its Saudis' employees, is also claimed to have had a psychological influence. (Faden, 1983) highlighted this psychological impact during his visit to the exhibitions held by a company in the city of Jeddah see Figure 56-14.

52 Oil Convoy
The increase in population was also among the factors that contributed to the spread of these housing styles, alongside the increased migration to the cities and places of work, which in turn, led to an increased demand for housing. Therefore, a quick alternative housing solution had to be found, particularly due to the fact that the traditional construction methods were considered slow. Arab engineers were involved in solving this housing shortage and the solution tended to be multiple-floor concrete buildings (residential buildings).

However, the evolution in the use of modern building materials and techniques in 1959, as well as the setup of local factories of ironworks, cement and construction materials, have progressively contributed to the dispensation of more traditional housing (Al-Otaibi, 2004).

According to (Al-Hathloul, 1981), some of the regulations and building codes also affected the spread of these types of housing, for example, the setback Act53, which was passed in 1962 and is still active up to the present time. Some of this act’s amendments determined the constructing of buildings, stating that they need to be in the middle of land, which supports the spread of villas and the residential buildings.

These two types of housing have witnessed scientific developments in terms of interior design, distribution of the rooms and diversity in space. While, new uses for the interior rooms have emerged, such as a domestic worker room, a drivers’ rooms and even salons and dining rooms. On the other hand, a great diversity in the outer housing

53 The legal setback is the part of land where construction is not legally allowed, especially between the construction line and the piece of constructing land that borders on all sides.
designs has been inspired by different cultures due to Saudi Arabia’s great economic openness in recent decades, in addition to the increase of balconies. Private gardens and swimming pools are also now common in some houses.

56.4.3.2 Semi-detached house

Contemporary houses have continued to reflect the continuous, radical, and rapid economic and social changes that have occurred in all Region of the Kingdom. The Kingdom has witnessed the emergence of new constructional prototypes, such as modern detached houses, as well as duplexes (semi-detached), many blocks of flats and luxury houses (Bahammam, 2002). In addition, see Appendix B2 for examples of villa, duplex and residential building designs at the present time.

56.5 The contribution of governmental agencies and the private sector in the provision of housing

56.5.1 Introduction

Countries work to provide a good housing service to their citizens due to the significant social, economic and political dimensions of housing. It is a right for every family to have a home as the sense of citizenship cannot be true without the availability of comfortable and safe housing that achieves stability and tranquility for the citizen and his family (Al-Feel, 1998).

The government of Saudi Arabia has had an increasing interest in the urban, social and economic development of its cities, especially in recent decades, partly due to a period of economic prosperity, which occurred due to the presence of higher oil revenues. Therefore, Saudi Arabia has adopted new comprehensive policies and planning strategies, which aimed to raise the number of constructions in the major cities so as to provide adequate housing units and to facilitate citizens’ ownership.

A group of governmental agencies have contributed over the past three decades to the formulation of current housing programmes. For example, the Ministry of Public Works and Housing has implemented several public housing projects, and a number of governmental agencies have also contributed in providing adequate housing units for their employees (Bahammam, 2002).
56.5.2 Five-Year Plans

All of the government’s five-year plans, covering the years from 1970 to 2015 and the National Transformation Program 2020, have paid great attention to the housing sector; since access to adequate housing is considered a fundamental right, guaranteed by the government.

56.5.2.1 Development Plans (The Five-Year Plans 1970 to 2015)

Due to the high economic growth rate, increased employment and income opportunities, and the rapid acceleration of population growth rates means that housing demand has increased and a supply–demand gap has also emerged. The discrepancy between targeted and actual housing units, shown in Table 4-10, clearly illustrates this supply–demand gap. Successive development plans failed to meet their target number of housing units. With the exception of the 2nd, 3rd and 5th development plans, actual housing units were between 37-60% below that of the target total.

Table 56-10: Targeted housing units under the nine 5-year development plans (1970-2015)
56.5.2.2 National Transformation Program 2020

This programme is considered to be the first step in achieving the Saudi vision of 2030 and puts forward objectives and strategies until the year 2020. The Ministry of Housing has set out three strategic targets, all of which aim to enable citizens to have access to adequate housing.

The first objective: The ministry aims to improve the performance of the real estate sector and raise its contribution to the gross domestic product through using several indicators to achieve this objective by 2020:

- To rise the contribution rate of the real estate sector in the gross domestic product (GDP) from 5% to 10%.
- To increase the annual growth rate of the real estate sector from 4% to 7%.
- To decrease the average time required to approve and issue special project residential real estate development licenses from 730 days to 60 days.

The second objective: This deals with stimulating the real estate supply and raising productivity to provide suitable prices and quality residences. The indicators to achieve this objective by 2020 are:

- To reduce the housing unit cost multiples of gross individual annual incomes from 10 to 5.
- To increase the percentage of residential units developed by approved real estate developers from 10% to 30%.

The third objective: To enable citizens to obtain housing finance appropriately, and indicators to achieve this objective by 2020 include:

- To raise the proportion of Saudi ownership of homes from 47% to 52%.
- To reduce the average waiting period for getting housing financing from 15 years to 5 years.
- To raise the mortgage rate from a local non-oil GDP from 8% to 15%.

It can be noted that, according to the plans and aims described, that the government support and attention is intended to be continuous so as to enable citizens to access adequate housing.
56.5.3 Housing support programs

The Government of Saudi Arabia have carried out a number of governmental programmes and projects that have had a significant impact in terms of providing housing in the past few decades, beginning with the land grant programme, and then the Real Estate Development Fund (REDF) programme and housing projects, which will be reviewed in due course.

56.5.3.1 Land grant program

In Saudi Arabia, the land market can be segmented into public land and private land. The government can distribute public land through land grants and, under very special conditions, through direct sale to the private sector. If public land is sold to the private sector, private land market rules, such as those governing buying and selling.

A. Basic features of the land grant program

In Saudi Arabia, all land not privately owned, belongs to the government. In general, public land is distributed through land grants following the undertaking of the land development procedure. In the late 1960s, the government began to give land to eligible Saudi citizens for free. The Ministry of Interior granted municipalities development rights for undeveloped land within their jurisdictions, authorising municipalities to subdivide and sell lots of land to citizens for established nominal prices. Municipalities were instructed to allocate land plots of 400m² to limited income citizens without charge. However, the government was able to distribute most public urban land free of charge due to higher oil revenues. The minimum lot size for all new land grants was increased to 625m² under the authority of resolution No. 153, passed by the Council of Ministers in 1987. This increased the number of potential recipients and contributed to the already low residential density, which was less than 50 persons per hectare.

For a limited period of time, from 2007 to 2008, the MOMRA generated 107,774 public lots for distribution in 545 approved land subdivisions (Ministry of Municipal and Rural Affairs, 2009). The government distributes public land for four main purposes. Figure 56-15 illustrates the land distribution mechanism.
Citizens over 18 years old, who have not previously received a grant, can apply for a land grant. The lots are usually around 625m². Eligible Saudi nationals must apply at a municipality and applications are processed on a first-come-first-served basis. In some cities, the waiting period for the application to be processed can be as long as 30 years. These type of land grants, sometimes referred to as the direct land grant process, constitutes 68% of all grants. The lots are typically located on lower-priced land at the edges of the city. Currently, as most cities have expanded, governmental land available for distribution is often far away from city centers. Moreover, this type of land grant no longer exists as it was discontinued by the Council of Ministers in January 2010.

Land grants by Royal Decree are mostly larger plots, around 900m² and above, amounting to approximately 32% of all granted land. The granting of big parcels has almost completely stopped; for instance, MOMRA no longer has land suitable for this purpose. For example, in Jeddah, both land grant processes; that is by Royal Decree.

Information given by Mr. Mohamad Al Hammad, MOMRA, director of MINHA Department, during a real estate conference in 2010 in Riyadh.
or by application, have been frozen since 2005. At that time, there were 200,000 outstanding applications. The same situation prevails in Riyadh, Eastern Province and Makah Province.

C. Current land grant programs challenge

Since it began in the 1970s, the land grant programme has contributed to the success of housing provision in the Kingdom. However, presently, the land grant programme is facing acute challenges, such as a huge backlog of unprocessed land grants, which has resulted in waiting periods of up to 30 years and a good number of potentially fraudulent applications. New land grants are mostly in remote locations far away from city centers; many people who are not financially able to build a home receive land; and finally, there is some land speculation associated with the grants. In 2010, the GHA housing sample survey revealed that less than 5% of the land grants had been used directly by their beneficiaries to build their own homes. In view of these problems, the Council of Ministers established a moratorium on land grants on January 4, 2010, and took steps to begin to reform the land grant programmes.

56.5.3.2 The Real Estate Development Fund (REDF)

Founded in 1974, the REDF is a government agency, supervised by the Ministry of Finance. The agency’s objective is to support the development of real-estate projects through personal or investment loans to individuals and commercial real estate developers. REDF provides services to all Regions from 25 branch offices spread throughout the Kingdom.\[55\]

The establishment of the REDF, with an initial capitalisation of SR250 million (nearly 66.7 million U.S dollars) to provide long-term interest free loans, which has changed the structure of the housing market in the Kingdom. Loans for private houses constitute the largest proportion of the loans granted by the fund. These loans constitute more than 99% of the total number of loans, and their value constitutes 95.6% of the total amount of financing provided by the fund (Ministry of Public Works and Housing, 1998).

As well as ensuring that the urban infrastructure is provided and managed in a way that meets the objectives of economic efficiency, social justice, and environmental sustainability, a key role for the government of the housing sector is to increase public awareness of the wide range of housing types available through public education and

incentives to the private sector. However, while it is easy to predict that, at current growth rates, overall demand could outstrip supply and result in a housing deficit in the future, it is difficult to predict the demand structure between the varying types of dwelling units.

Generally, the provision of decent housing to Saudi citizens has been a national objective since the early 1970s, hence, the establishment of the REDF, although the private sector has also participated by developing private housing (Al-Rahman, 1994). An important future concern will be regional inequality in the provision of housing finance. Since a significant number of the new housing units constructed are REDF financed, geographic inequality in the provision of REDF loans could lead to a significant regional imbalance in housing adequacy within the country. The strategy to meet the housing needs of the future should, therefore, be governed by a balanced trade-off between economic efficiency and social justice in the allocation of housing finance. In addition to REDF loans, banks and private firms have great potential for funding private housing. This is likely to result in the redirection of government financial resources to other forms of investment, such as historic area preservation and urban area renewal (Al-Rahman, 1994).

Government housing subsidies can have unintended consequences. For example, housing subsidies lead to an increase in housing and land consumption; an upward shift in demand for higher quality units; a decline in demand for lower quality housing units in the inner city, which eventually leads to the acceleration of the abandonment rate of these units and the further decline of the inner city (Telmesani, 1997). Furthermore, a reduction in subsidies can have a significant impact on the housing market. As shown in Figure 56-16, in the mid-1980s, REDF funding dropped from more than SR600 million (nearly 160 million U.S dollars) to SR200 million (nearly 53.4 million U.S dollars) due to a drop-in oil prices. Funding was cut back again at the beginning of the 1990s due to the Gulf War. While, Saudi Arabia experienced an economic recession from 1985 to 1990. During this period, Saudi cities experienced high vacancy rates in newly built housing units, an increasing demand for affordable housing and stagnation in the housing supply market. (Al-Hathloul and Edadan, 1992) attribute this, in part, to the reduction in REDF loans.
Despite a necessary reduction of loans during recessionary periods, overall, the performance of the REDF in financing the private sector housing market has been exemplary. However, a review of REDF loan criteria suggests that the impact on regional housing needs could have been more equitable if loan allocation had been made on the basis of the real housing needs of the Region. One of the main objectives of the REDF is to increase the private housing stock across all Region of the country.

The loan criteria followed by the REDF does not target any particular social group or Region. The only requirement is that the loan beneficiary should be a Saudi citizen of at least 21 years old who has not previously received an REDF loan. In short, the REDF practices a first-come-first-served policy. The only spatial differentiation implied in the policy is that the amount of loan per application is gauged to the size of the settlement in which the home is to be built. In larger cities, the maximum loan is about SR 300,000 (nearly 80,000 USD); for town dwellers, it is SR 250,000 (nearly 66,700 USD) and for persons from smaller settlements, the maximum is about SR 200,000 (nearly 53,400 USD). The following implications can be deduced from the present REDF loan policy:

- The largest share of loan applications would originate from the highly urbanised and developed Region, i.e., at the regional level, housing needs and loan allocation are not related.
- Rather than an economic efficiency or regional equity based allocation...
strategy, the larger share of the approved loans would have gone to higher cost developed Region. Therefore, the share of the total housing funding available for the rest of the country would be reduced.

At the end of 2010, the government of Saudi Arabia made a number of decisions, including the elimination of the requirement to own land when applying for a loan from REDF. Additionally, the REDF loan amount was standardised; it is now SR 300,000 regardless of Region\(^{56}\). In the middle of 2011, the loan amount was increased to SR 500,000 (nearly 133,400 USD)\(^{57}\).

56.5.3.3 Housing Projects Programs

New standards were set for houses, apartments and housing schemes offered by governmental agencies after the establishment of the Ministry of Public Works and Housing in 1975. The area of land, which was allocated for a residential villa in government projects, has been increased from 225 square meters to 400 square meters. Whilst, more attention has been paid to facilities, such as roads, electricity, drinking water and the system of sewage disposal, with a number of buildings of public services also being provided. According to (Bahammam, 2002), there were two major housing project types provided by the Ministry of public works, which, until the end of 1994, were defined as urgent and ordinary housing projects.

A. Urgent housing projects

The ministry carried out three projects for housing in the major cities (Riyadh - Jeddah - Dammam) and the total number of the housing units completed was 4752, all of which were residential apartments. The apartment space ranges from 226 square meters to 236 square meters and behaviour of apartments comprise of 3 bedrooms, a guests’ salon, a dining room, a lounge and three bathrooms. See Figure B3 in the Appendix, which illustrates a model for a horizontal plan of one of the apartments in the urgent housing projects. These projects are made up of a set of residential towers that reach 18 floors high. Figure B4 in the Appendix shows the form of these residential towers.

All residential projects include mosques, schools, playgrounds and all facilities were designed to accommodate at least 27,000 people, where the average number of family members in that period was estimated to be 5.85 per person.

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B. The ordinary housing projects

The ministry of work has carried out several housing projects in eight cities i.e. the Riyadh ‘two projects’ - Makkah - Medina -Jeddah – Al-khobar - Buraydah - Al Ahsa – Al-Qatif. The projects consist of villas and residential buildings, with medium and low elevations, in addition to some of the developed ready-to-build lands, where areas have been developed in the form of residential Region and have full services and parks.

The Real Estate Development has been assigned to deliver all these units, therefore 21,211 residential units and 3793 full-facility lands were handed over by the end of 1999. In addition to these types of projects, a number of institutions and governmental agencies, such as the Ministry of Defense, the Ministry of the Interior and universities have provided housing for some of their employees, as the number of executed units until 1994 was over 221,000, distributed among different Region of the country (Bahammam, 2002).

56.5.3.4 The government’s initiatives in recent years

If we look to the last decade, starting from 2005 until now, we'll find a number of important decisions about the housing sector and houses.

The year 2005: during this year, a decision was issued by the Saudi government to stop real-estate shareholdings, after the increase in the number of insolvency cases of shareholdings, with losses reaching around 11 million S.R. (4 million USD)\(^{58}\). This stoppage was not final, but aimed at regulating this sort of shareholding and setting laws that maintain the shareholders’ rights. Then, in September of the same year, an approval was issued by the Cabinet of Ministers regarding the regulations related to introducing the real-estate shareholdings\(^{59}\).

The most significant of these regulations are:

Firstly: Until the procedures and conditions relating to these regulations are met, people are not allowed to introduce any real-estate shareholding of any type, or collect funds for it, publish information about them or approve them.

Secondly: It is conditional to obtain the approval from the Ministry of Trade & Industry – primarily – of the real-estate shareholding, after satisfying a number of conditions. You

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\(^{59}\) Cabinet of Ministers’ Decision No. (202), dated 22/8/1426H.
can see the conditions on the official website of the Ministry of Trade & Industry.\(^6\)

The year 2007: This year witnessed several decisions, involving various authorities. At the beginning of this year, the Shura Council decided to support the Ministry of Economy financially so as to accomplish a general housing strategy.

The decision was the most important in the midst of the year, specifically May, as the Cabinet of Ministers approved the establishment of an independent authority for housing.

The Real-Estate Development Fund has a share in the same year, as the fund capital raised 9 million S.R., equal to 2.4 million USD. In addition, this year witnessed the stoppage of real-estate shareholdings and replaced it with real-estate investment funds.

The year 2009: In March of this year, the Cabinet of Ministers approved regulations related to selling on the map of housing, commercial premises, offices, as well as services or industrial units.

The year 2010: In February, Dr. Shuwaish Al-Duwayhi\(^6\) declared that the new strategy for housing covered all housing sectors and new projects were to shelter 63,000 people in 28 locations.

The year 2011: This year is considered the most important year in the last decade, as a number of royal decisions were issued so as to enable citizens to own a house.

In February 2011: The housing budget was supported by 15 million S.R., besides supporting the capital of the Real-Estate Development Fund, with an additional 40 million S.R. Moreover, dead people were exempt from installments with no conditions.

This support did not end here, and in March, some historical decisions with regard to housing and the house sector were issued.

Firstly, The Housing Authority was supported by an injection of 250 million SR., equaling 133.3 million USD, in order to build 500,000 housing units, besides raising the maximum limit for Real-Estate Development Fund loans to 500,000 SR.

Directions were issued to the various Region’ princes to hold meetings with Ministers of Municipal & Rural Affairs, Justice, Finance, Economy & Planning and the Housing Authority\(^6\) Head in order to identify land for the housing projects in all Region of the

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\(^6\) The President of Housing authority 2006 -2010

\(^6\) Currently the Ministry of Housing
KSA. Moreover, this was to facilitate benefiting from them, as well as limiting the places whereby there were no governmental lands available.

At the end of March 2011, a Royal Decree was issued to establish the Ministry of Housing and Dr. Shuwaish Al-Duwait was appointed as its minister. The new ministry was to undertake all tasks related to housing and was made responsible for forming a new council to manage the Real-Estate Development Fund.

The year 2012: In the middle of this year (July), the Cabinet of Ministers, presided by King Abdullah, approved laws relating to real-estate mortgaging and financing, as well as the financing of renting and monitoring of financing companies.

The year 2013: In this year, some important decisions were made in order to support the Ministry of Housing.

In April:

1. Stopping grants being given out by municipalities and transferring the land to the Ministry of Housing.

2. Transferring the approved schemes from the Municipal & Rural Affairs Ministry to the Ministry of Housing so as to enable the ministry to have control the infrastructure and distribute them.

3. The Ministry of Finance approved funds for the execution of infrastructure for the land of the Ministry of Housing.

4. All authorities were given to the Ministry of Housing for them to approve various schemes and projects.

5. Directions were given for all concerned authorities in order to provide the Ministry of Housing with the data required for executing a project of maturity mechanism of housing.

6. Citizens were given developed lands and loans for building on, as per the maturity mechanism.

In December of the same year, the Minister of Housing declared that it was very close to launching a project of maturity mechanism and the “Ejar” project.

The year 2015: The Reign of King Salman Bin Abdulaziz begins. At the start of this year, an amount of 20 million S.R. was approved by the King in order to provide electricity and water services for grants drawings.

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63 The Housing Ministry launched the program with the aim of regulating the property rental sector as well as to streamline the contractual relationship between landlords and tenants. [Online web site ] Accessed September, 2016: https://www.ejar.gov.sa/web/ejar/home
In March, the Saudi Cabinet of Ministers approved imposing charges on undeveloped urban land, so called “the White Lands”. This decision was called for by many who were concerned within the housing sector.

Hence, it can be observed that the housing issue has been given great consideration by the Saudi government, and this has been represented in the decisions made in the last decade in an attempt to tackle this issue see Figure 56-17. In addition, it has encouraged researchers and scientific researchers in universities to find solutions so as to enable citizens to own an affordable house. The decisions discussed were of great importance, however, it should not be forgotten that there are some other decisions that have not been mentioned here.

Figure 56-17: The important decisions made about the housing sector

Source: Collected by author

White Land and Vacant land: a common term in Saudi Arabia, used to describe the undeveloped land within cities
56.5.4 Private housing projects

The self-funded constructed housing units were made up of around 154,374 housing units until the year 1990\(^{65}\). The reports from the Ministry for Planning in relation to the seventh development plan\(^{66}\) show that the private sector played a significant role in providing housing units. As the sector, has carried out about 92% of the total cumulative housing units number, which was implemented in Saudi Arabia until the end of 1999. Behaviour of these housing units 80% were funded by the families’ own resources. While, the Real-Estate Development Fund, which gives interest-free soft loans to citizens, funded around 20%, and the public sector has provided and financed 8% of the total housing through public housing projects carried out by some governmental agencies for their employees.

Most of the housing policies have emphasised the role of the private sector in meeting the growing demand for housing in the future, where the Seventh Development Plan indicated that the private sector provided the required housing for the period between 2000 - 2005, which was estimated to be 800,000 housing units. However, there was a noticeable decline in the proportion of Saudi labourers in the construction sector, estimated to be less than 10% during the Eighth Development Plan\(^{67}\).

56.6 An overview of Saudi Arabian real estate market

The collection of information in this section was based on the study of past research issued by the Saudi Arabia finance sector, such as data relating to the Real Estate Development Fund and reports issued by the official bank for the period between 2010 and 2011.

The housing market in Saudi Arabia is characterised by a shortage of supply, coupled with increasing demand, which makes homeownership unaffordable for many. New units are urgently needed to provide middle and low-income citizens with homes. The government is working diligently to try to ease these supply constraints. Nevertheless, rising house prices in comparison to income makes ownership an unreachable goal for many public and private sector employees, particularly those just starting their careers. Land prices are also a challenge. In the last ten years, the price of residential lots has risen sharply, with some assessments indicating that land accounts for more than half

\(^{66}\) Seventh development plan - 2005/2009
\(^{67}\) Eighth Development Plan - 2005/2009
Public and private developers will need to build about 275,000 units a year through 2015 to meet the demands of population growth. Put another way, this is a total of 1.65 million houses over six years.

56.6.1 Ownership and home loans

Like many countries in the Middle East, Saudi citizens have traditionally used personal capital and family savings to purchase homes. Banks offer home loans, but only on a limited basis, and some companies in both the private and public sectors have in-house financing schemes to help employees buy homes. However, these options are usually reserved for wealthier Saudis and are often not available to mid and low-income households. However, Saudis of lesser means can apply to REDF for home loans. REDF loans dominate the Saudi housing market, accounting for 81% of total home financing Figure 56-18.

Figure 56-18: REDF dominates Saudi home finance

In recent years, REDF’s mandate has expanded rapidly. Home lending doubled between 2005 and 2009. This period was characterised by historically high inflation rates and mounting pressure on the government to increase financial assistance for citizens. It is interesting to note that the loans granted by REDF in 2009 alone were equal to the total value of loans made between 2000 and 2004 Figure 56-19.
The huge upsurge in lending coincided with two events. Between 2003 and mid-2008, there was a rapid jump in oil prices that dramatically increased the government’s revenues and its reserve of foreign assets, which offered the capacity to fund social programmes. Simultaneously, there was a huge rise in house prices, which caused rents to increase by 4.5% in 2007 and to close to 24% by mid-2008 Figure 56-20.

Figure 56-20: Saudi rents still high, forecasting supply constraints

Source: SAMA, Real Estate Development Fund (REDF)
With rising inflation, caused to a great extent by housing costs, means that REDF has been under increasing pressure. The waiting period to get REDF loans approved has risen to up to 15 years. According to the Ministry of Economy and Planning, the long waiting period has been caused by the agency’s inability to collect outstanding loans.

The median price of a large apartment in 12 Saudi districts in Riyadh, Jeddah, Khobar, Dammam, and Dhahran was SR 485,833; for small villa, was SR1.06 million in 2010 (Sfakianakis, 2011). While, the maximum loan amount from REDF is SR500,000, which is sufficient to subsidise the purchase of an apartment but not a detached house.

The median price for a small-detached house in Riyadh increased by 19% in the second half of 2010 to SR1.23 million. In Jeddah, a comparable house cost SR1.54 million. In the Eastern Province, median prices for small villas were SR768,000. To a large extent, the increases in prices reflect a cultural preference for larger homes, something that has not gone unnoticed by developers. However, ministry data shows that in 2004, 12-15% of houses were unoccupied, which is up to four times higher than normal. Whilst, the percentage of unoccupied homes has likely remained at a similar level due to purchasing power constraints (Banque Saudi Fransi, 2011).

56.6.2 Housing supply and demand

Given current high and rising prices and the predicted increase in demand, urgent steps are needed to address housing supply shortages. The ninth five-year plan (2010-2014) estimated demand to be 250,000 units per year 1.25 million in total. Anticipating a population growth of an average of 2.23% through 2014, the government projects an additional 750,000 households are needed. According to the plan, 200,000 housing units would be required to cater to the non-Saudi population. The plan also calls for 110,000 units to be built in reserve to ease rental inflation. Furthermore, 140,000 new units are needed to replace existing units and dilapidated housing units. Most Saudi homes do not survive more than 30 years, which has limited the growth of an active secondary market. Banks generally refuse to finance the acquisition of units more than 10 or 15 years old. This restriction could be lifted if the quality of construction improved Figure 56-21.
According to government estimates, the greatest demand for housing is in Makkah province, which includes Jeddah city, at 370,000 units, followed by the capital Riyadh at 325,000 units for the period covered by the ninth development plan. Moreover, the Makkah and Riyadh Region, along with the Eastern Region and Al Madinah, account for three-quarters of new demand. The concentration of demand in Jeddah is not surprising; occupancy rates in the city surpass 95%. According to independent estimates, the demand for replacement units is also higher in all Region Figure 56-22.
The government foresees adding one million units to the market by 2014, which is 20%, or 250,000 units, short of the demand estimate. Compared to the previous five years, a massive 66% increase in the pace of construction would be required to produce 200,000 new units per year. In comparison, during the Eighth Development Plan (2005-2009), 120,000 new units were added annually and this was double the number added in each of the previous two five-year plans. Thus, it is evident that construction targets have not been, and are unlikely to be, achieved.

Even if Saudi Arabia achieves the one-million-unit target, according to (Banque Saudi Fransi, 2011) there would still be an estimated housing shortfall of 375,000 units. A looming demographic bulge, represented by the high percentage of young people, therefore has the potential to ignite demand in coming years, particularly in urban centers. The biggest deficits will be in Riyadh and Jeddah Figure 56-23.

**Figure 56-23: By 2014, the housing market is still likely to face a deficit of 375,000 units**

![Housing Market Deficit by Region](image)

**Source:** Banque Saudi Fransi forecasts, 2011

56.6.3 The role of the private sector in the provision of new housing units

Meeting building targets will be critical if property prices are to be controlled in the coming years, and the private sector is expected to bear most of this burden. According to the ninth plan, private sector firms would build behaviour of new homes, including 61% of new homes in Riyadh and 62% in the Makkah Region Figure 56-24. The Kingdom foresees:

- The Public Housing Authority building 66,000 housing units.
- REDF financing construction of 109,000 housing units by providing 90,000 loans.
- Government agencies building 50,000 units for their employees.
- The private sector funding and constructing 775,000 residential units.
Some 266 million sq. m of land dedicated to housing projects.

Figure 56-24: The private sector to build over 60% of new homes

Source: Ninth Development Plan, Ministry of Economy and Planning

56.6.4 Saudi Banks and real estate

Building and construction loans accounted for only 6.7% of total credit extended by Saudi banks, the lowest ratio in the Gulf Region. In the UAE, Kuwait and Bahrain, real estate and construction loans constitute about one-third of total credit. Similarly, Saudi mortgage lending was undersized at 6.8% mortgage debt to GDP in 2009. In the UAE, mortgage debt to GDP was 15.5%, whereas in Malaysia and many European countries, it is approximately 30%. In the United States and the United Kingdom, it is even higher, at 81.4% and 87.6%, respectively Figure 56-25.

Figure 56-25: Saudi mortgage loan penetration exhibits vast potential

Source: European Mortgage Federation Hypostat; SAMA
56.6.5 Residential Land prices

With the exception of a modest reprieve in 2009 during the economic downturn, land prices have risen exponentially over the past 10 years. The median price per square meter of land in Jeddah rose by 9.8% in the second half of 2010 as compared to 2009. In the Eastern Province, prices rose by approximately 6% and by 3% in Riyadh (Banque Saudi Fransi, Housing Survey, 2010) Figure 56-26.

Figure 56-26: Residential lot prices, 2008-2010

Source: Banque Saudi Fransi H2, 2010 Real Estate Survey

56.7 Summary

Saudi Arabia has witnessed major demographic changes over the last few decades that have been affecting the demand for houses. One of these changes is the increasing population, where this number has jumped 350 times over four decades. The recent published reports stated that the number of residents in Saudi Arabia was more than 31 million in 2016 (CDSI, 2016). Higher migration to cities has also been observed, where the number of residents in cities reached up to 84% of the total population in 2010 and is expected to climb to around 88% of the total population in 2025.

Saudi Arabia has also witnessed an increase in the proportion of the population who are less than 30 years of age, where a recent census showed that they represent 60% of the total Saudi citizens.

The highest populations are in three Region; Makkah, Riyadh and the Eastern Region, respectively. They represent 63.2% of the total populations of all
Regions. This is due to there being more jobs available and businesses created in these areas. In addition, available services in these Regions make them more attractive to residents.

The Saudi government has paid attention to the housing sector when they have attempted to make houses available and help more people own their properties through different housing strategies and plans, including land grants programme, the Real Estate Development Fund (REDF) and governmental housing projects carried out by official authorities. These actions supported the flourishing of this sector at the beginning. However, the rapid increase in the population, alongside economic changes and a higher demand on houses, have brought about new issues for these programmes in terms of realising their goals.

Types of houses have also witnessed major changes. In the beginning, traditional houses that depended mainly on the area surrounding them were prevalent until villas and apartments began to appear in the late forties. They now constitute more than 70% of all houses in Saudi Arabia, especially in the main Region. It should also be noted that most of the houses, up to the end of 1999, were mainly self-funded. While, the REDF were second in terms of financing through providing interest-free loans to Saudi citizens.

The housing sector of Saudi Arabia faces a challenging time. One of the main issues is the higher demand for houses with less supply of houses, specifically in terms of matching the needs and capabilities of residents. In addition, the rate of homeownership is low, especially in the main areas and cities.
CHAPTER FIVE

DATA COLLECTION AND ANALYSIS OF THE ELECTRONIC QUESTIONNAIRES SURVEY (IN THREE MAJOR REGION)
CHAPTER FIVE: DATA COLLECTION AND ANALYSIS OF THE ELECTRONIC QUESTIONNAIRES

70.1 Introduction

In this chapter, an analytical overview of the results of the study questionnaire will be conducted. Results will be displayed in percentage graphs and data reliability test will be undertaken for the section of the questionnaire related to the opinions of the residents and their evaluations. A data consistency test was used, employing Cronbach Alpha’s coefficient to investigate the validity and consistency of the data with regard to the opinions and evaluations presented.

70.2 Preliminary results of the questionnaire

The questionnaire was widely distributed among numerous cities in Saudi Arabia; according to the number of participants and their geographic distribution. There were more than 1,000 completed questionnaires received from more than 70 cities and towns in the Kingdom of Saudi Arabia, as is illustrated in the following Figure 70-1.

Figure 70-1: Preliminary results
As can be seen from the following analysis Figure 70-2, the Twitter social networking site had the largest percentage of participations, with approximately 62% of the total responses being attributed to it, followed by WhatsApp and Facebook, respectively. These three programs constitute approximately 85% of the total percentage of completed questionnaires.

Figure 70-2: Social networking

Source: Survey results

70.2.1 Demographic characteristics of all respondents

More than 75% of respondents were men and this may be attributed to the fact that the provision of housing tends to be the responsibility of men rather than women, especially in the Gulf States, therefore it is likely they would form a higher proportion of the response base.

Most of the participants were from Saudi Arabia as the questionnaire was mainly directed at them, however; this did not prevent the participation of other nationalities living in Saudi Arabia, at a rate of 3%.

The respondents were of all ages, ranging from 18 years to over 60 years of age. While, the 18 - 35 year group made up 75% of the respondents, and this may be due to the fact that 60% of Saudis fall into this category. In addition, the age group between 18-40 years constituted 85% of the total respondents. These age groups are the
groups that represent the largest demographics who will apply for housing in the future, as can be observed in the following Figure 70-3.

**Figure 70-3: Demographic characteristics of all respondents**

Source: Survey results

For analytical purposes, the data analysis was divided into four main sections. The first section dealt with the demographic and economic characteristics of the sample, the second focused on the characteristics of the current housing, the third was related to the analysis of the characteristics of future housing, while the last section discussed the opinions of the respondents in relation to the housing issue.

The data analysis was limited to three main Regions, with the highest Saudi populations, thus Riyadh, Makkah and the Eastern Region (CDSI, 2010), as shown in Table 70-1.
Table 70-1: Distribution of Saudi citizens in main Region

<table>
<thead>
<tr>
<th>Administrative Region:</th>
<th>Saudis</th>
<th>Occupied Dwellings</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Male</td>
<td>Female</td>
</tr>
<tr>
<td>Riyadh</td>
<td>2220727</td>
<td>2076018</td>
</tr>
<tr>
<td>Makkah</td>
<td>2085813</td>
<td>2030252</td>
</tr>
<tr>
<td>Eastern Region</td>
<td>1498898</td>
<td>1392217</td>
</tr>
<tr>
<td>Total in 3 Region</td>
<td>5805438</td>
<td>5498487</td>
</tr>
<tr>
<td>Total in Saudi Arabia</td>
<td>9527173</td>
<td>9180403</td>
</tr>
<tr>
<td>% of the 3 Region from the Total in KSA</td>
<td>61</td>
<td>60</td>
</tr>
</tbody>
</table>

According to Preliminary Results of the General Population and Housing Census 2010

Source: CDSI, 2010

These Regions were selected as they represent 60% of the total Saudi population in Saudi Arabia out of the thirteen Regions. In addition, these Region are expected to be more populated in the future as a result of the expected increased in population in the urban areas of the country (from 77.3% in 1992 to 88% in 2020), which will therefore create a much higher demand for housing in these Region than other populated Region of the country.

When data collection was completed, respondents who were residents of Region other than the ones outlined above or were provided by immigrant were excluded. This made the total number of respondents 746 of Saudi citizens in the three specified Region. With the assistance provided by the website, surveysystem.com, a coefficient of error was calculated by comparing the number of respondents to the Saudi population in these three Region. Figure 70-4 shows that confidence interval was 3.59 with a confidence level of 95%.
70.3 Results of the main analysis

70.3.1 First Section: Demographic and economic characteristics of the sample

70.3.1.1 Analysis of demographic characteristics

Males represented 78% of the respondents. The researcher believes that this high number of responses from the male population can be explained by the fact that males tend to be responsible for the provision of houses in the Arabian Gulf countries. In addition, some statistics related to Saudis' use of the Internet and social media suggest that Saudi males are prolific users of social media, which in this case, was widely used to distribute the questionnaire, thus less Saudi females were reached. Figure 70-5 shows that most respondents came from the 26-35 age group, representing 53%, after which 18-25 year olds represented 22%, followed by the age 36-50 age group, representing 20%, and finally, the 50+ age group represented 5%. The highest number of respondents came from the age group below 36 years at 75%, which was positive for the study’s purpose since this age bracket are likely to be the ones who are more engaged in the search for future housing. Thus, establishing their opinions and interests will enable planners and developers to have a better vision for their future plans in relation to housing.

64% of the respondents were married, while 33% were single, and the remaining were divorced or widowed at 3%.

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68 [Online web site ] Accessed September, 2016: http://alhayat.com/Articles/1157060 via @alhayat_ksa
The educational backgrounds of the respondents were high, where 56% of them were attending university or were holders of university degrees. These results match the findings of (Alwan, 2007), in which he identified that 47% of fathers were university graduates, 22% had postgraduate or PhD degrees, and 2% of them were holders of high school and diploma degrees.

One quarter of the sample 25% were working in the educational sector, followed by 14% who were working in the administrative and governmental sectors. While 11% of respondents were working in the architecture, construction and health sectors. Moreover, the industrial and mining sectors, the communication and information sectors, and the financial sector constituted 7% of respondents. Finally, respondents from different backgrounds, including legal, transport, religious studies, etc. represented 10% of the sample see Figure 70-6.
Figure 70-6: Educational background and field of work/study.

<table>
<thead>
<tr>
<th>Educational background</th>
<th>Field of work/study</th>
</tr>
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<tbody>
<tr>
<td>Postgraduate 22%</td>
<td>Other 10%</td>
</tr>
<tr>
<td>Diploma or less 23%</td>
<td>Industrial &amp; mining sector 7%</td>
</tr>
<tr>
<td>University 55%</td>
<td>Communications and Information Technology 7%</td>
</tr>
<tr>
<td></td>
<td>Military sector 8%</td>
</tr>
<tr>
<td></td>
<td>Medical sector 11%</td>
</tr>
<tr>
<td></td>
<td>Education sector 25%</td>
</tr>
<tr>
<td></td>
<td>Architecture &amp; Construction sector 11%</td>
</tr>
<tr>
<td></td>
<td>Administrative &amp; Government Sector 14%</td>
</tr>
<tr>
<td></td>
<td>Economic and financial sector 7%</td>
</tr>
</tbody>
</table>

Source: Survey results

Figure 70-7 demonstrates that 44% of the respondents are publicly employed, 24% are employed by the private sector, and 2% are working in trade and self-employment. Finally, 29% of the respondents are students, housewives, unemployed and retirees.

This distribution matches the current situation in Saudi Arabia since a study carried out by the Saudi Ministry of Civil Service 201469 showed that 66% of the Saudi people are working for the government, as compared to 25% who are employed by the private sector. For the years of experience, the highest percentage were for people with one to ten years of experience, representing 51% of the sample. This high percentage is contributed to the higher number of respondents within the younger age groups.

As the results in Figure 70-8 illustrate, the number of family members who are sharing the same house is as follows: the highest percentage 36% relates to families of 3 to 4 members, 25% for families of 5-6 members, and 23% for families with more than 6 members. The lowest percentage is for families of two people and single people with 16%.

Whilst, 41% of the respondents were born in the Makkah Region, 25% in the Riyadh Region, and 7% in the Eastern Region, with the remaining percentage of 27% constituting of those who were born in other Region of Saudi Arabia or abroad and moved, for various reasons, to live in the specified Region at a later date.
The highest number of responses came from the residents of Makkah 52%, then Riyadh with 36%, and finally the Eastern Region with 12%. It was demonstrated that residents tend to feel satisfied with the city they live in as 88% of them said would not change their cities and move elsewhere. Figure 70-9 illustrates respondent’s current Region and their possibility of moving out of their current city.
70.3.1.2 Analysis of the economic characteristics

Analysis results of respondents' monthly income, as shown in Figure 70-10, indicate that the highest percentage 23% of respondents receive a monthly salary that ranges from 5,000 to 10,000 SR; 21% have a monthly salary of 10,000 to 15,000 SR, 14% of 15,000 to 20,000 SR, and 11% receive less than 5,000 SR, while 10% receive more than 20,000 SR. The remaining 22% were those receiving a “Hafiz70 ” programme allowance, were university students or scholarship students.

The figure also shows that 32% of the respondents have another income, which is the income of their wife, property or project income. The highest percentage 59% was for income of Less than 5,000 SR, 23% for other income ranging from 5,000 to 15,000 SR and finally, 17% for those who receive additional income of more than 15,000 SR.

Figure 70-10: Monthly and additional income

Source: Survey results

70 Hafiz “incentive” is a governmental programme started in the reign of King Abdullah. It pays a monthly allowance of 2000 SAR for one year. For more information, please visit the programme website: http://www.smartlink.com.sa/hrdf/About.html/. Accessed November, 2016:
Almost half of the respondents 47% have bank loans. Figure 70-11 shows that 44% of the respondents reimburse a monthly deduction for these loans, which ranges from 20 to 30% of their monthly income, 25% for those who reimburse 30% – 40%, 21% for monthly deductions of less than 20% of their income. Finally, 12% for those who reimburse a monthly deduction of 40% of their monthly income.

Figure 70-11: Loans and deductions of monthly income

As shown in Figure 70-12, the most frequent reason for obtaining a loan among the respondents was in order to buy a car, then to help in getting married and finally, to support their family. Loans for buying a house were the least frequent reason, which was cited by less than 5% of the sample.
Figure 70-13 shows that respondents applied to different house financing programmes. The highest number relates to applications made to the Real Estate Development Fund (REDF) with 53%. While, 46% applied to the land grants programme and 10% applied for real estate facilities provided by banks and financing corporations. This low percentage is related to the application conditions. Governmental programmes, such as REDF have conditions that differ from those applied by the banks. For the banks, conditions are hard to meet, especially by people with low to intermediate levels of income. In addition, governmental financing facilities are preferred over private financing facilities due to them being interest free.
On the other hand, 40% of the respondents have a domestic worker, drivers, or both. This is highly common, especially with older families. While, 13% of the respondents stated that they have more than one house. The reasons for owning additional properties differ but the most frequent one cited was that they are acquired it for investment purposes.

Diversified responses, as well as the social, economic, and cultural characteristics of the sample meant that achieving most of the relevant objectives of the study was best accomplished through using electronic questionnaires and publishing/promoting it via the Internet and social media applications/pages. In comparison to more traditional methods, this means of communication allowed the researcher to reach a large and diversified sample in a short period of time.

**70.3.2 The second section: characteristics of current houses**

**70.3.2.1 Type of houses and tenure**
This section of the questionnaire began by asking about respondents’ current housing units, as shown in Figure 70-14. 48% of the respondents are living in apartments – most of them in medium-size apartments of 100 – 200 square meters, followed by small apartments of less than 100 square meters, followed by 28% of respondents who live in villas – most of them medium-sized and built on plots of land of around 400-700
square meters. While, bigger villas built on land of 700 – 1200 square meters came next, and lastly, small villas built on land of less than 400 square meters.

Of the total respondents, 8% live on one floor or part of a residential villa, followed by duplex villas with 6%. The remaining proportion live in public housing, palaces, and other types of housing.

**Figure 70-14: Type, area and tenure of current house**

The above figure shows that most of the respondents 75% have housing areas of less than 400 square meters. This percentage is high due to the larger proportion of respondents who live in apartments and small villas.

The analysis of comparison indicates that the type of the housing is affected by the number of family members and income. The more the family members, or the higher the income, the higher the percentage who live in villas. While, the lower the family
members, or the lower the income, the higher the percentage who live in an apartment. More respondents live in villas who are in the age group of 18 to 25 years. The reason for this is that most of this age group are living with their families. As compared to respondents’ as per the Region and type of house, it was shown that apartments are most prevalent in the Makkah Region, while more respondents in the Riyadh and Eastern Region live in villas. See Figure C1 in the Appendix.

For the tenure type, the above figure shows that the highest percentage 46% live in houses owned by a family member (father, husband or wife), 40% live in rented houses, 10% do not own a house and 3% live in employer provided houses.

This decreased percentage of house ownership of the sample is contributed largely to the age groups of the respondents as 75% of them were under 35 years of age. Analysis shows that the number of family members, age and income all impact upon the percentage of property owners. See Figure C2 in the Appendix.

70.3.2.2 Number of rooms in current houses

Results also indicate that one third of the houses accommodate three to four rooms, whose occupants have an income between 5000 to 15,000 SAR per month, then, and very close to this, is the percentage of those the five to six rooms, and finally 23% of respondents have more than six rooms. Houses of one to two rooms were the lowest, constituting 14% of the sample. Analysis also shows that size of the family affects the number of rooms. The more family members there are, the higher the number of houses with more than 6 rooms.

For the number of house bathrooms, the highest percentage was 55% who had two to three bathrooms and the lowest was 12% for those with one bathroom, as shown in Table 5-2.
Table 70-2: Number of rooms and bathrooms in current houses

<table>
<thead>
<tr>
<th>Number of Rooms</th>
<th>% of respondents</th>
</tr>
</thead>
<tbody>
<tr>
<td>2 Or less</td>
<td>14</td>
</tr>
<tr>
<td>From 3 to 4 room</td>
<td>33</td>
</tr>
<tr>
<td>From 5 to 6 room</td>
<td>30</td>
</tr>
<tr>
<td>More than 6 room</td>
<td>23</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Number of Bathrooms</th>
<th>% of respondents</th>
</tr>
</thead>
<tbody>
<tr>
<td>One bathroom</td>
<td>12</td>
</tr>
<tr>
<td>From 2 to 3 Bathroom</td>
<td>55</td>
</tr>
<tr>
<td>From 4 to 5 Bathroom</td>
<td>18</td>
</tr>
<tr>
<td>More than 5 bathroom</td>
<td>15</td>
</tr>
</tbody>
</table>

Source: Survey results

Results of comparisons between the number of rooms and the age of respondents show that more respondents live in houses of more than six rooms in the age group of 18 to 25 years and those above 50. More respondents who had less than six rooms were in the age group of 25 to 50 years. Comparing the number of rooms in the three Regions, this shows that houses of more than six rooms tended to be for respondents from Riyadh and the Eastern Region, as compared to the Makkah Region. See Figure C3 in Appendix.

70.3.2.3 Satisfaction of residents of current houses

At the beginning, a reliability test was conducted using Cronbach Alpha’s coefficient. Table 70-3 shows a higher Cronbach Alpha’s coefficient (0.854). This mean that data is consistent and valid. The figure also shows that 46% of the respondents expressed their satisfaction with their neighbourhood and also with their house furniture, while 20% were not satisfied with their neighbourhood and the current furniture. The remaining one-third of responses were fair. It also shows that 38% of them were satisfied with the number of rooms in their house, and many also with the area and dimensions of the current house. One third were unsatisfied and considered their houses to be of too small a size. The remaining one third were fair responses. In terms
of being satisfied with the house quality, 34% indicated they were satisfied, which represents the lowest satisfaction percentage for all of the points. The remaining two thirds were divided into fair or unsatisfied responses.

Table 70-3: Satisfaction of respondents in terms of current houses

<table>
<thead>
<tr>
<th>Source: Survey results</th>
</tr>
</thead>
</table>

Generally, only 12% of respondents were fully satisfied with their accommodations and stated they would not change them, while 32% expressed their intention to move but were not able, 55% indicated they would change them – with most of this group wishing to change within a maximum of five years for many reasons that can be divided into three groups. For this question, 88% of respondents answered, as shown in Figure 70-15. The first group, with a 40% to 50% frequency cited reasons of, respectively, looking for a house to have a family and privacy, the need for a bigger house, more rooms or to move from a rented to an owned house. Whilst, the second group (10% to 25%), cited reasons of, respectively, a low quality of their current house, poor neighbourhood services, and high rents of their current house. The third and final group, with less than 10%, indicated reasons such as looking for a house nearer the, higher house maintenance costs, changing workplaces, and finally, the house being bigger than they actually need.
70.3.2.4 Characteristics of owners and tenants
This part focuses on the identification of some characteristics of the respondents. It is divided into two parts; the first one is related to respondents who own their houses. Questions in this section related to house price, whether their house was a new or an old house when bought, how they managed to afford the financing, were there any obstacles when looking for the house and levels of satisfaction with the current house. The second part related to respondents who were renting their houses. Questions focused on rents and how they had changed, how they felt it matched their financial capabilities, how rent was paid and their preferred way to pay, how difficult it is to find a house, how to find a house, whether the respondent was the first tenant of the house and some characteristics of the current houses.

A. Owners
Respondents to this section represented 10% of the sample. Results were as follows:

Generally, it is preferred to buy new houses, as only 12% of the respondents had bought previously occupied houses. Most of the respondents' houses were not
furnished, with no kitchens in place or a/c units installed. Figure 70-16 shows that prices of 44% of the houses ranged between 1 million SR to 2 million SR. Most of these houses were villas of less than 400 square meters and duplexes. Then, 23% were houses valued below 1 million SR – mostly apartments, and 23% of the houses were valued higher than 2 million SR (mostly villas of various areas and duplexes). Analysis of house financing resources shows that 65% of these houses were self-funded through respondents’ savings and family financial assistance. The remaining 35% were bank funded. Financing costs constituted 20% to 40% of the monthly income of half of the respondents. The remaining respondents are divided into those whose monthly installment costs were more than 40% of their income and others whose monthly installment costs were less than 20%.

**Figure 70-16: Owners’ house prices and financing**

![Chart showing house prices and financing](chart.png)

**Source: Survey results**

Figure 70-17 shows that 46% of the houses were constructed under the immediate supervision by their owners. The remaining houses were found and bought through property owners or contractors directly, representing 25%, while real estate agencies...
provided 18% and real estate developers provided 7%. The author found that this decrease in the share of houses provided by real estate developers is due to their higher prices and shortage of supply of proper offers for people with low and middle incomes. However, 32% of respondents had some significant to serious issues with their current houses. Difficulties met by those who bought their houses included the higher prices of the available houses, poor quality of many of those that they obtained, and designs that did not meet their expectations. Yet, 21% of respondents did not find it difficult to find their current houses, all of which they had supervised the construction of themselves.

**Figure 70-17: Owners finding a house and difficulty**

<table>
<thead>
<tr>
<th>Owners finding</th>
<th>House and difficulty</th>
</tr>
</thead>
<tbody>
<tr>
<td>Other</td>
<td>No</td>
</tr>
<tr>
<td>Built by itself</td>
<td>Some of</td>
</tr>
<tr>
<td>By real estate development company</td>
<td>Yes</td>
</tr>
<tr>
<td>By real estate office</td>
<td></td>
</tr>
<tr>
<td>By Owner or family</td>
<td></td>
</tr>
</tbody>
</table>

% of respondents

In addition, just under half of the sample 47% expressed their satisfaction with their houses and that they had no intention of changing. This percentage is higher among those who supervised the design and construction of their houses so as to meet their own expectations.

On the other hand, 43% expressed their dissatisfaction with their houses and that they intend to sell them and change in the future in order to move and live in new ones. The highest percentage of this group were owners of apartments. There were also 10% of
them who were dissatisfied but were unable to change for many reasons, including that a bank or a financing party owns the house.

B. Tenants
For this part, 41% of the sample responded – this is the percentage of tenants in the sample. Results were as follows:

B.1 Rents and finding the current house
The results conducted for the current rents and possible increase of rents witnessed by respondents during their rental times, as shown in Figure 70-18 indicated that 46% of the sample have average rents of 36,000 to 48,000 SR per annum. Thus, the average rent for this group is 3500 SR per month, which is more than one third of the respondents’ monthly income. This high percentage of rent tends to lead to cuts in other costs. Moreover, this makes saving for a future house a difficult task. Then, 42% have rents below 24,000 SR per annum, while 5% have rents of more than 38,000 SR per annum.

An increase of yearly rent was faced by 40% of the sample. More than half of them 56% faced a 20% increase, 36% faced a 20% – 40% increase, while 8% of the sample faced more than a 40% increase.

Figure 70-18: Rent and rental changes

Source: Survey results
The poll of opinions conducted on how far current rentals fit with their financial situations

Figure 70-19 shows that more than half of the sample found rentals to be high in comparison to their incomes; 32% found it somewhat high, and only 10% were satisfied with their rental costs.

**Figure 70-19: Respondents’ opinions of rents**

<table>
<thead>
<tr>
<th>Current rentals fit with their financial situations</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 = Yes 58%</td>
</tr>
<tr>
<td>2 = Some of 32%</td>
</tr>
<tr>
<td>3 = No 10%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Payment methods of current rent and preferred ones</th>
</tr>
</thead>
<tbody>
<tr>
<td>% of respondents</td>
</tr>
<tr>
<td>Monthly: 67%</td>
</tr>
<tr>
<td>Yearly: 14%</td>
</tr>
<tr>
<td>2-year: 4%</td>
</tr>
<tr>
<td>3-year: 4%</td>
</tr>
<tr>
<td>4-year: 11%</td>
</tr>
</tbody>
</table>

**Source: Survey results**

For payment methods of current rent and preferred ones, the above figure shows that the highest percentage 67% pay it in two installments, and 14% on a monthly basis. The percentage is lower for those who pay annual rent in one payment, four payments and finally, three payments per year. Comparing these results with the preferred payment method shows that monthly payment is preferred by 45%, followed by 35% of those who prefer to pay it in two installments.

Figure 70-20 shows that 37% of respondents are the first to occupy their current houses, while a higher percentage occupy houses that have been previously occupied.
A high percentage of them found it very difficult to find a house as more than half of them (53%) visited more than 10 houses before they made their choice.

While, direct contact with individual investors and developers was the case for 51% of the sample, with 46% finding their houses through real estate agencies available in many neighbourhoods. The remaining percentage is shared among different choices, including classifieds in newspapers and social media.

**Figure 70-20: Respondents’ opinions of rents**

B.2 Satisfaction of current house
These questions concerned respondents’ satisfaction with their current house, where 45% of them are satisfied with their rented house and would make no changes to it, while 41% just repainted it, and only 16% introduced major changes, including bathrooms, floorings and complete house redesign. Most of the rented houses (58%) have no installed kitchen and three quarters of the houses have no a/c units installed, as tenants had to install them.

Figure 70-21 shows the number of houses that were previously rented by tenants and the overall satisfaction percentage with their houses over the past year. Of the respondents, 48% said that they had moved to two to four houses, 44% said that their
current house was their first one (this percentage is higher among younger age groups), and the remaining percentage constitutes those who had moved to more than five houses. Generally, behaviour 85% selected satisfaction percentage ranging from fair 56% to satisfied 29%.

Figure 70-21: Satisfaction with current house

Source: Survey results

70.3.3 The third section: characteristics and preferences for future houses

Figure 70-22 shows that most of respondents would prefer to own their own houses in the future, even if houses are available for rent for prices that are reasonable in terms of their financial situations. This percentage is 98%. This indicates that the prevailing culture within the community is possession of a house. More than half of the respondents 60% expect that they will be able to own their houses by the time ten years has passed, 25% expect to be able to afford a house within 5 to 10 years, and the lowest percentage 15% expect to own their houses within the next five years – most of these being from older age groups.
70.3.3.1 Preferences of respondents of the future houses

In relation to respondent’s aspiration for their future houses, Table 70-4 shows that living in a villa is the first preference for most of the respondents as this was selected by 88%, while 50% selected duplexes as a second preference, and part of a villa came third, while apartments came fourth for respondents.
Of the respondents, 44% would not prefer to buy their own houses in the future, for many reasons, as shown in Figure 70-23.

The most frequent reasons for this more than 60% were the high prices of the advertised houses and next, poor quality with 30% claiming this was for not meeting their needs, and the third reason, 19% was they prefer to be “different”.

On the other hand, those who prefer to buy their house preferred to deal with architectural and consulting offices, and then to look for a house through their family and friends, followed by real estate agencies and development and finally, through the banks.

<table>
<thead>
<tr>
<th>Preferred type of future house</th>
<th>First</th>
<th>Second</th>
<th>Third</th>
<th>Last</th>
</tr>
</thead>
<tbody>
<tr>
<td>Villa</td>
<td>88</td>
<td>6</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>Part of Villa-Villa Roof</td>
<td>4</td>
<td>39</td>
<td>43</td>
<td>14</td>
</tr>
<tr>
<td>Duplex</td>
<td>4</td>
<td>50</td>
<td>42</td>
<td>4</td>
</tr>
<tr>
<td>Apartment</td>
<td>5</td>
<td>4</td>
<td>11</td>
<td>80</td>
</tr>
</tbody>
</table>

Source: Survey results
In terms of the most relevant reasons that affect the purchase of a house, Figure 70-24 shows that the location of the house is the most important factor as it is selected by 40% of the respondents. In second place came construction quality with 22%. Price came third with 18%. Area of the house and number of rooms came fourth 16%, and finally, after-sale service came last as the least affecting factor. Analysis of these factors shows that, with gender taken into consideration, price came second for males but fourth for females. Prices are also affected by the Region, for instance, price came second in the Makkah Region, while it came third in the Riyadh Region. On the other hand, less attention is paid to price if accompanied by a higher income see figure C4 in the Appendix.

Whilst, results show that half of the respondents prefer that financing for their houses in the future be provided by the REDF, bank financing and savings. The remaining
selections were varied, with a frequency of less than 20%. They were, respectively, buying a house through rent that ended in possession, financing through house financing corporations, financial assistance from family or relatives, installments paid directly to the owner, selling out properties or assistance provided by employers, as shown in Figure 70-24.

Figure 70-24: Factors affecting purchases and preferred financing methods

<table>
<thead>
<tr>
<th>Factors affecting purchases</th>
<th>Preferred financing methods</th>
</tr>
</thead>
<tbody>
<tr>
<td>After-sales service</td>
<td>Other</td>
</tr>
<tr>
<td>Quality of construction</td>
<td>Help from work</td>
</tr>
<tr>
<td>Housing space and number of rooms</td>
<td>Government funding (such as the REDF)</td>
</tr>
<tr>
<td>The Location</td>
<td>Rented with system ended with ownership of banks or</td>
</tr>
<tr>
<td>The price</td>
<td>By installments directly from the owner</td>
</tr>
<tr>
<td></td>
<td>Financing of real estate finance companies</td>
</tr>
<tr>
<td></td>
<td>Bank financing</td>
</tr>
<tr>
<td></td>
<td>Help from family or friends</td>
</tr>
<tr>
<td></td>
<td>Selling properties</td>
</tr>
<tr>
<td></td>
<td>Personal savings</td>
</tr>
</tbody>
</table>

% of respondents

Source: Survey results

For the purchase of apartments offered for sale in the cities, one quarter 25% of the respondents expressed that they were more convinced by the idea of buying an apartment, while 75% refused the idea. Refusal reasons are varied, as shown in Figure 70-25.
Frequent reasons for refusing to buy apartments, representing more than 50% of the sample were the higher prices of apartments located in the main cities, apartment ownership laws not being clear enough, privacy is not as desired in this type of house, and finally, poor construction quality. Then, other reasons given (suggested by 30% to less than 50%) included after-sale services, no desire to share the same building with strangers, and finally, designs not meeting their expectations.

Analysis indicates that the level of not being convinced with the idea of buying an apartment is higher among the age groups of those less than 35 years, those with families of more members, married people and people of a higher income. This level of not being convinced in terms of buying an apartment is higher in the Riyadh Region than in the Makkah and the Eastern Region. See figure C5 in Appendix.
70.3.3.2 Rooms and preferred facilities of the future house

As can be observed from Figure 70-26, 63% of the respondents aspire to have five or more rooms, while the remaining percentage is attributed to those who prefer to have less than five rooms. For the bathrooms, 50% of the respondents would prefer to have three to four bathrooms, 19% would prefer to have five to six bathrooms. The author noticed that there is an over demand for rooms and bathrooms and that this does not correlated to income or number of family members but merely for the desire of have a bigger house.

Figure 70-26: Preferred number of rooms and bathrooms of future houses

![Bar chart showing preferred number of rooms and bathrooms](chart.png)

Source: Survey results

Figure 70-27 shows a selection of preferences for future houses. More than half of the respondents 54% would prefer to fully furnish their houses, 22% would prefer to have houses with a/c units and a kitchen installed, and 10% would prefer to have fully furnished houses. For the kitchen design, 38% would prefer to have a closed kitchen design – the most common kitchen design of the current houses, 38% would prefer to
have two kitchens; one open and the other a closed designed. The open design one would ideally be lightly used, while the other would be for main use. Most of the respondents would prefer to have a yard inside, 57% of them to have an outdoor yard, which is common in most of the modern houses. Most of the respondents 77% would prefer to have a multistory building. The same percentage applies to the respondents who would prefer to have one female and one male sitting room (or salon).

**Figure 70-27: Selection of preferences for future houses**

More than half of the respondents agreed that it is important to have a yard in the house in the future. In addition, there should be car parking. A storage room and a washing room came second with 40-50%. Then came salon for males and females, domestic workers and drivers’ rooms. The last preference (23% to 39%) was for the

**Source: Survey results**
availability of a male sitting room -Diwaniya\textsuperscript{71}- outside the house, a swimming pool and balcony, as shown in Figure 70-28.

**Figure 70-28: Important spaces and usage in future houses**

![Bar chart showing important spaces and usage in future houses](chart.png)

<table>
<thead>
<tr>
<th>Space</th>
<th>% of respondents</th>
</tr>
</thead>
<tbody>
<tr>
<td>Other</td>
<td>3</td>
</tr>
<tr>
<td>Private car parking</td>
<td>59</td>
</tr>
<tr>
<td>Yard or garden</td>
<td>71</td>
</tr>
<tr>
<td>Balcony</td>
<td>24</td>
</tr>
<tr>
<td>Store</td>
<td>49</td>
</tr>
<tr>
<td>Driver Room</td>
<td>41</td>
</tr>
<tr>
<td>Laundry Room</td>
<td>49</td>
</tr>
<tr>
<td>A special section for</td>
<td>41</td>
</tr>
<tr>
<td>A special section for men</td>
<td>48</td>
</tr>
<tr>
<td>Domestic worker Room</td>
<td>47</td>
</tr>
<tr>
<td>Diwaniya</td>
<td>39</td>
</tr>
<tr>
<td>Swimming pool</td>
<td>31</td>
</tr>
</tbody>
</table>

Source: Survey results

The author noted that balconies are not preferred for privacy and due to the warm weather of Saudi Arabia.

**70.3.4 Section four: respondents' opinions and evaluations of the housing issues**

In this section, questions related to the opinions and evaluations of the respondents relating to the housing issues in Saudi Arabia, based on their own perceptions and general information on the subject, are analysed.

\textsuperscript{71} Diwaniya outside the house: a room that is usually constructed in the outdoor yard of the house and used by men for more privacy from the house.
70.3.4.1 Difficulty of affording a house and obtaining house financing

Most of the respondents agreed that owning houses and obtaining proper financing is one of the most important issues they are concerned about. Table 70-5 shows that 94% of the respondents believe that owning a house has become more difficult. Analysis indicates that the higher the number of family members, the more difficult it is to afford a house. This is due to increased need from big families and higher house prices.

While, percentages varied among respondents in terms of how difficult they found it to obtain house financing as 75% agreed that it is difficult, with only a slight increase for those who see it as very difficult.

Table 70-5: Respondents’ evaluation of the difficulty of ownership and financing

<table>
<thead>
<tr>
<th></th>
<th>Easy</th>
<th>Medium</th>
<th>Difficult</th>
<th>Very difficult</th>
</tr>
</thead>
<tbody>
<tr>
<td>Difficult to own housing</td>
<td>0</td>
<td>6</td>
<td>29</td>
<td>65</td>
</tr>
<tr>
<td>Difficult to obtain house financing</td>
<td>3</td>
<td>22</td>
<td>35</td>
<td>40</td>
</tr>
</tbody>
</table>

Source: Survey results

70.3.4.2 Respondents’ opinions of how difficult ownership is

The reliability test using Cronbach’s Alpha, as shown in Table 70-6, is high (equal to 0.756), which means that there is high consistency and validity of data.
It also shows that most of the respondents 80% agreed that the main reason for considering the ownership in Saudi Arabia as a difficult matter is the higher price of residential land and houses.

45% to 50% agreed that one of the most important reasons is the poor planning of the housing sector and improper organisation of the offered housing programmes that do not cater all types of home seekers. In addition, house-financing programmes that are suitable for low-income groups are limited and weak. The strong relationship that the lack of affordable housing options was observed by 33% of respondents. Finally, 22% agreed that municipal conditions significantly contribute to the issue since obtaining municipal permission, in some cases, is a difficult task.

Table 70-6: Respondents’ opinions and evaluations about difficulties of ownership

<table>
<thead>
<tr>
<th>Source: Survey results</th>
</tr>
</thead>
</table>

70.3.4.3 Respondents’ opinions of how to afford a house in the future

When the reliability test was conducted using Cronbach’s Alpha, Table 70-7 it was shown to be high (equal to 837.), meaning high reliability and data validity. The figure
also shows different ways of affording houses in the future and how respondents evaluate them. Behaviour of respondents 71% prefer that authorities in charge pass laws and regulations so as to set appropriate prices for land and houses. The second selected choice was to levy duties to vacant land72, with 66% of the respondents believing this decision would cause land prices to drop. More than half of the respondents suggest that new residential cities being built is one of the most obvious solutions. In addition, they feel more attention should be given to villages and their development by the private sector in order to make them more attractive for residency.

A more active relation between the ministry of housing and the private sector is one of the solutions strongly agreed with by 48% of the respondents, followed by a close percentage supporting the choice of handing over residential land to real estate developers for construction and sale at suitable prices.

Of the respondents, 33% see it as important to have a relationship between the banks and the city council for the creation of housing projects that match for all income levels. They agreed, with close percentages, that it is also important to revisit some conditions of the municipality including heights, setbacks and permissions issued by them.

The choice of making residential land small was mostly rejected by almost half of the respondents, mainly due to the prevailing culture of having big houses.

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72 Vacant lands are lands that are developed but have not been built upon.
Table 70-7: Respondents’ opinions and evaluations of some housing solutions

<table>
<thead>
<tr>
<th>Source: Survey results</th>
</tr>
</thead>
</table>

70.3.4.4 Respondents’ opinions of housing providers

The reliability test using Cronbach’s Alpha, as in Table 70-8, shows that the Cronbach’s Alpha is high (equals to 0.729), which means there is data consistency and validity.

The same figure shows that most of the respondents Approximately 80% hold the ministry of housing and related governmental authorities of the housing sector largely responsible for the current situation within the housing sector, while 55% of them also held the private sector responsible, including developers and real estate companies. In third place came the financing sector, including the home financing corporations and the banks with 47%. Finally, 45% of the respondents agreed that there a strong relation
should exist between individual investors, contractors and the current conditions of the housing market.

Table 70-8: Respondents’ opinion of house providers

<table>
<thead>
<tr>
<th>Source: Survey results</th>
</tr>
</thead>
</table>

Finally, 73% of the respondents expressed their dissatisfaction with the performance of the ministry of housing and their contributions to the provision of proper houses. Whilst 80% agreed that regional municipal councils have not achieved or met their expectations.

70.4 Summary

In this chapter, there has been an overview of the analyses and results of the questionnaire conducted on the Saudi resident’s preferences and aspirations in the main Region of Saudi Arabia, also considering their opinions of current and future houses and the housing market.

Results showed that it is, for most of the sample, difficult to find proper houses. Only one third of the respondents see their current houses as proper and fit for their needs.
There is also a clear preference for detached housing, including villas and duplexes. In addition, the location of the house is one of the most affecting factors in its selection. Most of the respondents who occupy apartments consider them to be temporary housing. This type of housing is clearly not preferred. Most of the respondents believe that the higher price of land and houses, in general, is the main reason for not being able to possess a proper home.
CHAPTER SIX

DATA COLLECTION AND ANALYSIS OF THE INTERVIEW (IN JEDDAH CITY)
CHAPTER SIX: DATA COLLECTION AND ANALYSIS OF THE INTERVIEW

84.1 Introduction

The collection of data in this part of study relates to residents’ needs and desires in the city of Jeddah, which is located in the western Region (the Makkah Region) of Saudi Arabia as a micro case study. This gathering of data was achieved via the method of personal interviews with residents and specialists in the field of housing. The collection was conducted in this manner in order to gain a clearer understanding of the needs and aspirations of participants through direct communication with them. The analysis will be explained in two parts; the first part relates to the interviews with the residents and the second part with experts from the Saudi housing market.

84.2 The first Part: personal interviews with residents

Interviews questions were divided into four sections.

The first section: The demographic and economic characteristics of the participants i.e. age, sex, marital status, monthly income, expenses and funding.

The second section: This section includes the characteristics of the current housing of respondents and consists of information on the current residence, type and level of satisfaction. Questions were divided into two parts; the first based on the type of occupancy (ownership/ rent/ residence with family) and the second section was a shared section for all respondents.

The third section: This section involves the analysis of housing characteristics in relation to future homes and the desire to move. In addition, the acquisition, aspirations, desires and their future needs.

The fourth section: The fourth section explores the opinions and evaluations of respondents on the issue of housing and some of the policies put forward to facilitate the provision of housing.
84.2.1 The first section: demographic and economic characteristics

84.2.1.1 Demographic characteristics analysis

The responses came from both males and females, with a higher proportion of male respondents at 68%. This may be due more males being reached via social media platforms and their interest in the subject of the interview.

Age groups were divided into three major percentage categories of respondents. The age group were 31 to 40 years, who exhibited the greatest demand for housing in the current period, the second age group was for those who were older than 40-years-old. The third category was from 20 to 30 years, as shown in Figure 84-1.

With regard to the careers of respondents, behaviour of them were government workers 60%, 30% were employees in the private sector, 10% were retired, freelance or unemployed. Concerning their marital status, 93% of the respondents were married, and all had college or graduate degrees. The education level may have contributed to the interviews being completed easily and finally, 60% of them were born in the city of Jeddah.

Figure 84-1: Age and profession of respondents

Source: Survey results

There was diversity in the respondents with regard to the number of family members, with the largest percentage being 3 to 4 members families at 52%, followed by 5 to 6 members families 28%, then 2 members families 12%, and finally, 8% had more than 6
family members, as shown in Table 84-1. 38% of respondents were living with extended families, while there was an equal percentage of extended family living in one building or in separate sections of the same building.

### Table 84-1: Number of family members

<table>
<thead>
<tr>
<th>Number of family members</th>
<th>% of respondents</th>
</tr>
</thead>
<tbody>
<tr>
<td>2 or less</td>
<td>12.5</td>
</tr>
<tr>
<td>From 3 to 4</td>
<td>52.5</td>
</tr>
<tr>
<td>From 5 to 6</td>
<td>27.5</td>
</tr>
<tr>
<td>More than 6</td>
<td>7.5</td>
</tr>
</tbody>
</table>

Source: Survey results

**A. Moving out of Jeddah**

The respondents were asked if they are planning to move from Jeddah to another city and the answers were as follows: 63% of the respondents had no desire to relocate from Jeddah, 80% of them agreed that the reason to stay was to be near to their family and friends and lastly, the reasons cited were their love of the city, its facilities, and due to it being their place of work, as well as for family stability.

The rest were divided between those who have the ability to move 27%, and finally, 10% who intend to move in the future, as shown in Figure 84-2.
67% of the respondents who either have a desire to move out of Jeddah or do not mind moving agreed that the main reason was the high prices of the property, whether it be for land or houses. Moreover, they highlighted the difficulty of ownership in general in Jeddah, followed by those who preferred to be near the Two Holy Mosques of Makkah and Medina. In addition, it was important for them to be near family or their wife’s family, which would make it difficult to live in another city or to change their workplace.

Having compared the results, it was found that the inclination to move is higher in males than in females and an equal proportion of males and females rejected the idea of moving. as well as behaviour of those who have the ability to move from the age group of (30 to 40 years) and those with families that made up (from 3 to 4 members). Moreover, when comparing place of birth of those wishing to relocate, it was found that the number is almost equal between those who were born in the city of Jeddah and those who were not.

Additionally, it was found that 64% of respondents who rejected to the idea of moving were born in Jeddah and the vast proportion of them were constituted of families of more than 3 people. It was also observed that the idea of moving out of the city becomes harder when the number of family members is higher.
84.2.1.2 Economic characteristics analysis

A. Monthly income and expenses

With regard to the monthly income of the respondents, Table 84-2 shows that 40% of the respondents have a monthly income of 10,000 SR to 15,000 SR, followed by those whose income is between 5000 SR to 10,000 SR at 27.5% and 15,000 SR to 20,000 SR at 22.5% and 5% who earned less than 5,000 SR and more than 20,000 SR.

Table 84-2: Monthly income

<table>
<thead>
<tr>
<th>Monthly income in SR</th>
<th>% of respondents</th>
</tr>
</thead>
<tbody>
<tr>
<td>From 3501 to 5000 SR/month</td>
<td>5</td>
</tr>
<tr>
<td>From 5001 to 10K SR/month</td>
<td>27.5</td>
</tr>
<tr>
<td>From 10001 to 15K SR/month</td>
<td>40</td>
</tr>
<tr>
<td>From 15001 to 20K SR/month</td>
<td>22.5</td>
</tr>
<tr>
<td>More than 20K SR/month</td>
<td>5</td>
</tr>
</tbody>
</table>

Source: Survey results

In addition to this, 60% of the respondents are paying monthly payments for personal loans, whether this be to banks, work or due to help from parents. The respondents’ answers differed in terms of the ratio of their loan installment against their monthly income. For instance, 21% of them had installments that were less than 20% of their monthly income, while the highest percentage of respondents 37.5% had monthly installments between 20% and 30%, 25% of them paid out between 30% and 40%, and finally, 18% had installments that were more than 40% of their income.

These loans were attributed to several reasons; the highest percentage being to buy a car 54%, followed by loans which were intended to help parents, loans to pay the costs of marriage and then there were several other reasons i.e. for investment or house
refurbishment, paying off debt, travel, and 20% of these loans were to buy a house or to purchase a residential land.

About half of the respondents had other additional monthly expenses, such as private household costs and employment. 40% of the respondents are paying for private school for their children. These costs are in addition to utility bills, such as telephone, electricity and water.

B. Participation in the housing and finance housing programmes

68% of the respondents were registered in the 2014 Ministry of Housing programmes. The preference for a programme of land and loan73 was rated by 67%, followed by the preference of the loan programme for the purchase or construction of a house at 22%, which is an extension of the loan of REDF, and finally, 11% had a preference to own a house from the Ministry of Housing projects.

On the other hand, 25% of the respondents had applied to get a housing loan from banks but half of them had been rejected.

The respondents who had not applied for residential financing were asked for the reasons behind their decision. 40% of respondents said they preferred to wait for the Ministry of Housing loan since it is an interest-free. While, 25% of the respondents stated that they lacked the ability to obtain adequate financing for their preferred housing and the length of the repayment period, 17% indicated that they were not able to meet the residential funding conditions, and 18% agreed that they didn’t like dealing with banks.

84.2.2 The second section: current-housing characteristics

84.2.2.1 Type and tenure of housing

It can be observed in Figure 84-3 that the highest proportion of respondents live in rented houses at 55%, 15% own their homes and the rest live in a house owned by a family member (for example, the house is owned by the father, husband or wife). The respondents were asked about the type of current housing they have and the answers were as follows: the residential apartments with various spaces represented the highest portion 67%, followed by a villa in a residential building (Villa Roof) or part of the villa 15%, separate villas 13% and finally, duplexed 5%, as shown in the figure. While, 80% of owners were males.

73 One of the programs of the Ministry of Housing where it provides a grant of land in addition to a loan for construction
The respondents were asked about the house's current information and how satisfied they were with it. Answers were divided into two parts; the first answers were based on the type of tenancy and the other part was more general.

**A. Analysis of owners’ data**

Prices of houses varied from half a million SR to more than 3 million SR, according to housing type, whether it was a villa, apartment or duplex. For the manner in which they achieved homeownership, personal savings were first, followed by financing by banks and the Development Fund, while lastly; there are some companies that offer facilities to their employees to help them buy a house, and finally, inheritance.

According to respondents' who were funded by banks, the monthly deduction was between 40% and 60% of their total monthly income.

For buying or building a house, half of respondents had built their homes and the other half had bought them. Financial capacity was the key factor in the selection of the current housing more than a choice base.
B. Analysis of tenants’ data

There was variation in rents since 59% of the tenants were paying less than 30,000 SR per annum, while there were also rents of up to more than 60,000 SR per annum.

On the other hand, about 80% of the respondents were living in the same house as three years previously. Regarding rent rises during the period of residence, 55% of respondents said their rent had risen more than 60% as compared with their initial rent.

Concerning the method of payment, 50% of the respondents stated they pay rent every six months, followed by 22% who pay rent in four payments during the year and finally, 18% of the respondents pay monthly.

Regarding the preferred method of payment for rent, 50% of the respondents said they prefer a monthly payment, as shown in Table 6-3. However, this method is not approved by many landlords.

Table 84-3: The current and favourite method payoff paying rent

<table>
<thead>
<tr>
<th>Type of current method payoff paying rent</th>
<th>Type of preferred method payoff paying rent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Monthly</td>
<td>Monthly</td>
</tr>
<tr>
<td>18</td>
<td>14</td>
</tr>
<tr>
<td>50</td>
<td>50</td>
</tr>
<tr>
<td>9</td>
<td>9</td>
</tr>
<tr>
<td>23</td>
<td>14</td>
</tr>
<tr>
<td>2 * year</td>
<td>3 * year</td>
</tr>
<tr>
<td>18</td>
<td>9</td>
</tr>
<tr>
<td>23</td>
<td>14</td>
</tr>
<tr>
<td>3 * year</td>
<td>4 * year</td>
</tr>
<tr>
<td>14</td>
<td>14</td>
</tr>
<tr>
<td>Yearly</td>
<td>Yearly</td>
</tr>
<tr>
<td>23</td>
<td>14</td>
</tr>
</tbody>
</table>

Source: Survey results
Approximately 64% of the tenants have made changes in the house, whereby 43% of them have made significant changes or improvements and modifications, in addition to 57% who have only done painting.

With respect to the tenant’s desire to own their current apartment, 59% were interested in the idea of renting with the possibility of purchase as a part of the contract, i.e. the tenant can buy the apartment at a later date when the price of the house is evaluated and the previous rent account is deducted from the total price of the rented house.

On the other hand, the main factor influence of renting the current residence was either the respondents’ need or their financial capability, or both.

C. Analysis of data for those who live with their families

83% of the respondents said they live in a separate section of the house, some of these in apartments within a residential building owned by a family member. While, 33% only share the kitchen, salons or bathrooms with their large families.

D. Analysis of the general part

The respondents’ inhabited areas were varied, as can be observed in Table 84-4 as there are respondents from all areas of the city of Jeddah, with a high percentage of both the north, the center and south, respectively.

Table 84-4: Current housing area

<table>
<thead>
<tr>
<th>Current housing area</th>
<th>% of respondents</th>
</tr>
</thead>
<tbody>
<tr>
<td>North</td>
<td>30</td>
</tr>
<tr>
<td>South</td>
<td>17.5</td>
</tr>
<tr>
<td>East</td>
<td>10</td>
</tr>
<tr>
<td>West</td>
<td>12.5</td>
</tr>
<tr>
<td>Center</td>
<td>25</td>
</tr>
<tr>
<td>Outskirts</td>
<td>5</td>
</tr>
</tbody>
</table>

Source: Survey results
E. Current housing characteristics

As shown in Figure 84-4, the number of rooms in the house also illustrated the diversity of the respondents as 47% stated that their homes were constituted of between 4 to 6 rooms. In addition, a salon and a kitchen, followed by those with three or less rooms at 33%, and finally, 20% for those with more than 6 rooms. On the other hand, with regard to bathrooms, 45% stated that they have two bathrooms or less, followed by 40% with 3 to 4 bathrooms and 15% have more than four bathrooms in their houses.

Figure 84-4: Number of rooms and bathroom in current housing

More than half of respondents agreed that their homes have a bedroom with a private bathroom + living room + salon for men and another for women, in addition to other bedrooms and bathrooms. Whilst, 20% said that they have a dining room, car parking, laundry, a store, an office, private rooms for drivers and household labourers. A lower rate of respondents also have swimming pools and a front yard.

The respondents were also asked about the guest salons and their use. 65% of the respondents have a salon to receive male guests, and 48% of the respondents have a salon to receive female guests.
With regard to the effective use of these rooms, 63% of those who have a salon for women reported that they use it once a month or less, and for men, on average, the salon is used once per month or less by 58% of respondents.

The respondents were asked about unused rooms, with 33% of them answering that they have unused rooms and the reasons was that they do not need to use them at present or sometimes, due to financial hardship i.e. their inability to furnish it. Some said that the salons are one of the unused and closed rooms.

The respondents were also asked about the way in which they acquired their current houses, with 73% of the respondents explaining they obtained their home through personal research and contacting the owner directly via phone numbers on the plates placed on housing (for sale or rent signs), or through their family and friends. On the other hand, 60% of the respondents stated that they or their families were the first residents in their current housing.

When they were asked about their search experience of the current housing, 60% mentioned experiencing difficulties in finding their current homes, with some citing unsuitable design, small size and incompatibility with their desires/needs, as well as high prices and poor quality of construction. Approximately half of the respondents 52% indicated that they have not changed their residence more than once.

F. Satisfaction with the current housing

As shown in Table 84-5, 53% of the respondents were satisfied with neighbourhood they live in, while 20% expressed their dissatisfaction. Respondents were also asked about available services in their housing area. Behaviour of respondents 95% were satisfied with the availability of mosques in their neighbourhoods, while 83% appreciated the existence of public services, food stores, boutiques, maintenance and petrol stations in their neighbourhoods, or near their home. Only 55% mentioned the availability of schools near their homes as a positive.

It was noted that the level of satisfaction with the size and number of rooms was higher for those who own their homes rather than for tenants.

Whilst, 35% of the respondents were satisfied with their housing space and construction quality, with 27% also expressing their satisfaction with the number of rooms in their house.
Table 84-5: Level of satisfaction with the current housing

<table>
<thead>
<tr>
<th></th>
<th>Neighborhoods</th>
<th>Housing space</th>
<th>Construction quality</th>
<th>Number of rooms</th>
</tr>
</thead>
<tbody>
<tr>
<td>1= Not satisfied</td>
<td>20</td>
<td>25</td>
<td>25</td>
<td>35</td>
</tr>
<tr>
<td>2= Average satisfaction</td>
<td>28</td>
<td>40</td>
<td>37.5</td>
<td>37.5</td>
</tr>
<tr>
<td>3= Satisfied</td>
<td>53</td>
<td>35</td>
<td>37.5</td>
<td>27.5</td>
</tr>
</tbody>
</table>

Source: Survey results

Respondents were asked about the reasons that had influenced their choice of current housing area, and according to their answers, three main factors can be identified i.e. being near to parents 48%, followed by the proximity to their workplace 43%, and finally, their child’s school 27%.

84.2.3 The third section: future housing

This section began with respondents' views on their current houses appropriateness in terms of the future, with 53% of them expressing their dissatisfaction regarding the suitableness of their houses for them in future. While, 12% of them considered their current homes suitable for them in future, with the remaining proportion tending to be neutral. On the other hand, 77% of the respondents said that they would change their
residence in future, and this group was asked an extra number of questions about their potential future house, as shown in Figure 84-5.

Figure 84-5: Appropriateness of housing for the future and change of their current house (respondents’ views)

68% of the respondents said that they will not move from their current accommodation until they can buy a house, and the rest indicated that they will move to a new house. 49% of the respondents said they would change their current residence within 3 years, in addition to that, 45 % stated they will seek out a new residence within 5 years.

With regard to the way they will need to adapt in order to provide funds for their future residence, 44% of the respondents stated that the first option would be through the Ministry of Housing plans, followed by private banks and housing finance programmes. Moreover, not more than 25% of the respondents said they would use personal savings and financial aid from parents. It was noted that economic changes have had an impact on ownership potential as in the past, it depended largely on savings and parents’ aid, in addition to government programmes, which are still currently ranked first.
84.2.3.1 Change in the current housing and the preferred Region to move to

Reasons were divided into three groups. As shown in Figure 84-6, the reason that was agreed upon by 50% of the respondents was the expansion of housing and their need for more space, while around 40% stated that one of the reasons was their search for family stability and starting a new family, especially for those who live with their large families and singles, in addition to stopping paying rent by owning homes instead.

The following reasons were in second place; 20% of the respondents said that the reason for moving was also due to the poor construction quality, high maintenance costs and the rise of problems with their house. Furthermore, 5% - 10% of respondents mentioned other various reasons, such as independence (this reason was mainly for the singles and those who live in a large family house), changing workplace, the low quality of services in the district and lastly, moving to better neighbourhoods.

**Figure 84-6: Changing the current housing and reasons**

![Chart showing reasons for changing housing]

Source: Survey results
For the preferred area of housing in the city of Jeddah, as shown in Figure 84-7, it was found that the north of the city was the first choice of respondents as it was selected by 55% of them, followed by 28% of respondents who preferred residences in new areas, far north of the city of Jeddah. The selection of the city center and the west were equal with a percentage of 21%, and residence in the south and east were the lowest as 17% and 7%, respectively.

Figure 84-7: Favourite areas for residence in the city of Jeddah

Regarding factors that influence the choice of the area of residence, the respondents said that availability of services, hygiene and ease of movement in the Region were of the most importance, and were mentioned by half of respondents, followed by moving away from the hustle and bustle, alongside proximity to work and family 40%. Finally around 20% highlighted the significance of the reasonability of housing or land prices.

As shown in Figure 84-8, 24% of the respondents preferred to deal directly with the owner when searching for housing, followed by 20% who preferred to deal with the Ministry of Housing programmes, while 17% of them believed that it is better to buy the land and then choose the design with engineering offices and then search for a
contractor to build the house. Lastly, the remaining proportion preferred real estate offices, development companies and banks.

The most important factors that influenced the respondents' decision when buying housing units were, in order, as follows:

Location, services, housing space and number of rooms, followed by the quality of construction and design, then the price and finally, after-sales service.

**Figure 84-8: Favourite provider and factors affecting the purchase of housing**

![Bar chart showing favourite providers and factors affecting the purchase of housing](source)

Source: Survey results

84.2.3.2 Aspirations for future housing

Figure 84-9 illustrates that 94% of the respondents would prefer five-rooms in their future house, 45% of them would prefer 3 to 4 bathrooms, while 44% would prefer to have between 5 to 6 bathrooms in their future house.
Figure 84-9: Number of rooms in their future house.

Source: Survey results

There was also a question concerning house space and their use in the future house. After an analysis of a variety of designs of various houses in the city of Jeddah in terms of the distribution of rooms and their uses, a list with a number of rooms and their use was set up. The respondents were then asked to evaluate using 3 levels (important, less important, unimportant) in terms of their future house, with the possibility of adding choices that were not asked about, as seen in Table 84-6.
All the respondents agreed on the need and importance of having a bedroom with a private bathroom, however 75% of the respondents indicated that most of available houses do not have this, followed by 96% who highlighted the importance of having a spacious living room, i.e. large enough to have all family members in, as well the availability of a car parking, whether it was an apartment or villa.

Between 65% - 85% of the respondents highlighted the importance of having a guests’ bathroom in addition to a servant room and a laundry room (these accessories have started to emerge in new housing by allocating a special space for washing, drying and ironing clothes), and finally, the importance of having a garden or external space.

Half of the respondents agreed on the significance of the availability of a dining room, an office, a men’s salon, another for females and a room for a driver (it should be noted that there was interest in a larger room for a servant as a driver room is usually an outdoor room within the apartment building or a nearby residence).
The respondents were asked about the availability of a shared salon for both ladies and men, with only 35% agreeing with this suggestion. Other options, i.e. the availability of swimming pools, balcony, or a dining room for guests or guest bedroom, were selected by less than 25% of respondents.

84.2.3.3 Favourite types of future housing and needs

The respondents were asked to arrange the main residence types in terms of their preference. Villas were the first choice for 80% of them, followed by duplexes, and finally, apartments were the least preferred option, as shown in Table 84-7 below.

<table>
<thead>
<tr>
<th>Preference for future housing types</th>
<th>Villa</th>
<th>Duplex</th>
<th>Apartment</th>
</tr>
</thead>
<tbody>
<tr>
<td>First</td>
<td>80</td>
<td>13</td>
<td>8</td>
</tr>
<tr>
<td>Second</td>
<td>13</td>
<td>75</td>
<td>10</td>
</tr>
<tr>
<td>Third</td>
<td>8</td>
<td>13</td>
<td>83</td>
</tr>
</tbody>
</table>

Source: Survey results

The respondents were asked if they would prefer to live with their children in the future after they got marriage and 60% of them agreed.

The respondents were asked if they would prefer a furnished house; 48% would prefer to buy unfurnished house, 30% would prefer to have a ready-to-use kitchen, air conditioning, and the rest of respondents would prefer a kitchen, air conditioning or a fully furnished residence, as shown in Figure 84-10.
As shown in Table 84-8, behaviour of the respondents 90% would prefer to have a future house which is able to be expanded in the future. Between 70% - 80% would prefer the availability of a special guest entrance, in addition to the gent’s salon and another for ladies. Approximately 60% of the respondents would prefer a multiple-floor house, as well as an internal yard as in the old houses to provide privacy and to benefit from it in terms of the lighting inside the house. Finally, approximately 50% would prefer an open kitchen (in the American style).

Table 84-8: Preferences for future housing properties
As for housing in residential complexes, preference and a lack of preference were almost equal for those who would prefer accommodation to live in residential complexes. Some of the respondents would this type of accommodation due to the fact that in the cities, this type of housing is considered secure and safe.

84.2.3.4 Factors and services that must be provided in their future housing area

Table 84-9 illustrates the agreement of 60% -70% of the respondents with the importance of the availability of a mosque, public services and shops and schools for their children in their future accommodation area, followed by the significance of accommodation near their parents 40% - 50%. Having either a garden or a hospital nearby was less important to most, with only 25% selecting these options.

Table 84-9: Features and services that need to be provided in the future housing area

<table>
<thead>
<tr>
<th>Features and services that need to be provided in the future housing area</th>
<th>% of respondents</th>
</tr>
</thead>
<tbody>
<tr>
<td>Family</td>
<td>Mosque</td>
</tr>
<tr>
<td>Not important</td>
<td>17</td>
</tr>
<tr>
<td>Average importance</td>
<td>34</td>
</tr>
<tr>
<td>Important</td>
<td>48</td>
</tr>
</tbody>
</table>

Source: Survey results

The respondents were asked to define short distances and the answers were varied as 50% of the respondents considered 10 to 15 minutes on foot a short distance, whereas 47% stated it must be less than 10 minutes on foot, while 60% of them agreed that a near distance by car should be 15 minutes, as shown in Figure 84-11.
84.2.3.5 Housing in the suburbs

In this section, the respondents were asked about their point of view, desires to relocate and housing in new projects, which are located on the borders of the city of Jeddah, similar to the idea of suburban housing. Initially, they were asked about their views on buying housing in such projects in the future, with 37% of the respondents showing disapproval and dissatisfaction with housing in these projects. According to about 80% of them, their dissatisfaction stemmed from the distance of these projects from the city center and workplaces, as well as a lack of public transportation. Moreover, 40% - 60% of respondents would prefer not to be too far away from their parents, especially for those who work and have children, as they depend on their parents to take care of the children.

The following section was completed by just 75% of the respondents as some of them rejected the option to complete this part.

A. Respondents’ opinions about appropriate prices and attractions

The respondents were asked about an affordable price for them to buy villas on land with an area of between 300 and 400 square meters, and the results are shown in Figure 84-12. 57% of the respondents believed that the price should not exceed a
maximum of one million SR, while 30% of them believed that a good price was between 1 million to 1.25 million SR, and the rest reported that the price would be reasonable if between 1.25 million to 1.75 million SR.

The respondents were asked the same question in relation to an apartment with an area of 200 square meters, with 53% of the respondents agreeing that a reasonable price was between 300,000 - 400,000 SR, 30% agreeing that a good price is between 400,000 – 500,000 SR, and the rest believing it could be between 500,000- 800,000 SR). This was contextualized by saying the apartment would be in an excellent area and have comprehensive services available.

**Figure 84-12: Respondents’ opinions of reasonable price for housing in the suburbs**

Whilst, 70% would prefer that the accommodation has a modern design, and the rest were split between a preference for an Andalusian architectural style and traditional architecture.

**Source: Survey results**
In terms of the main attraction of residential suburbs or residential projects outside of the city from the perspective of the respondents, a range of services were suggested to the respondents in order for them to identify the services that must be provided, as shown in Figure 84-13 of the data analysis. It was determined that the most important services and the most frequently identified by 70% of the respondents was the availability of a mini shopping center and mosque, followed by between 55% - 65% who suggested a clinic and/or first aid emergency center, as well as the availability of a children’s playground. Around 45% highlighted the importance of the availability of a children’s nursery, a health club, and finally, some of the respondents emphasised the need to provide security and safety services in the area.

**Figure 84-13: Respondents’ opinions of the important attractions in the suburbs**

![Bar chart showing the percentage of respondents for each attraction](image)

Source: Survey results

**84.2.4 The fourth section: respondents’ opinions and evaluations of the housing issues**

In this section, the results of the respondents’ discussion about their views and their assessment of the issue of housing in Saudi Arabia from their personal perspective and their public knowledge on the subject were analysed.
Firstly, the respondents were asked if there were suitable housing rents and whether it was possible to spend the rest of their life in a rental house. Only one person was interested in this concept, therefore, it was clear the importance of home ownership is widespread in the Saudi culture.

The respondents were asked about their views surrounding the issue of housing in Saudi Arabia, with 70% of the respondents reporting that homeownership has become very difficult, and as shown in Figure 84-14, all respondents agreed the main reason for this is due to the dramatic rise in land prices. Nearly 80% agreed that there is a weakness in the provision of affordable housing, while 68% consider this weakness is partially attributable to housing finance programmes’ failure.40% of respondents stated that the current spaces for residential land needs to be reviewed, and less than a quarter 25% of respondents believed that municipal requirements have influenced the current situation.

**Figure 84-14: Respondents’ opinions of reasons for the difficulties of ownership**

![Graph showing respondents' opinions of reasons for the difficulties of ownership](image)

Source: Survey results

A range of solutions have been introduced to help resolve the issue of housing, whether these have been in studies and research, in the news, or in newspapers. To determine the views and evaluations of respondents in terms of these solutions, their answers are shown in Figure 84-15.
Around 85% agreed on the importance of imposing systems to help to lower land prices and to activate cooperation between the Ministry of Housing and the private sector so as to make workable distinct housing programmes, while 70% of the respondents considered the decision of imposing fees for vacant land and starting construction in the residential suburbs around cities as being some of the important solutions.

60% of the respondents highlighted that a greater role in the projects and programmes of housing should be given to the banks. In addition, they showed some support for the idea of delivering residential land to real estate developers in order to build according to the guidelines laid down by the ministry, and for the private sector to support villages. On the other hand, 40% of them rejected the idea of reducing the size of land and the main reason for this rejection was due to the culture of housing being large and spacious.

Figure 84-15: Respondents’ evaluations of some housing solutions

![Respondents' evaluations of some housing solutions](source: Survey results)
84.2.4.1 Respondents’ opinions about the new programmes of the Ministry of Housing

The respondents were asked about preferences with regard to the new Ministry of Housing products (a product of land and a housing loan and finally, the housing units), which were opened up for registration in 2014. They were also asked to evaluate the programme from 1 to 3, where 1 was bad and 3 was excellent.

95% of the respondents evaluated the housing loan product as excellent and average, meaning it represents one of the main options for them.

Moreover, the land and loan product had the highest rate of satisfaction, i.e. the idea of the product (which provides developed land ready for building and a loan) had the approval of 63% of the respondents and the rejection of only 18%, which is due to their fear of the granted land site not being suitable for them. Finally, a product housing unit was the least favored for several reasons, including a fear of a lack of appropriate units for them, as shown in Figure 84-16.

Figure 84-16: Respondents’ valuation of the programmes of the Ministry of Housing 2014

![Bar chart showing respondents' valuation of the programmes of the Ministry of Housing 2014.](chart.png)
On the other hand, 75% of the respondents blame the Ministry of Housing as being one of the primary causes of the housing problem and the rest blame individual investors and landowners, followed by the bank sector (as finance providers), respectively.

### 84.2.4.2 Respondents’ opinions about buying or constructing a house

Table 84-10 shows that 15% of the respondents would prefer to design their homes and follow-up their build on their own if the circumstances allowed, in addition to that, there was dissatisfaction when they were asked about the purchase of houses that are currently on the market. This dissatisfaction was due to several reasons, with the most important and most frequently mentioned by 40% - 44% of respondents being the lack of quality of housing construction, as well as the dramatic rise in house prices, followed by around 34% of those who stated that the design of current housing supply does not suit the different needs of respondents. Finally, 12% would prefer to build their homes and for its design to be different.

<table>
<thead>
<tr>
<th>Opinions on the purchase of housing</th>
<th>% of respondents</th>
</tr>
</thead>
<tbody>
<tr>
<td>Prefer purchase of housing</td>
<td>15</td>
</tr>
<tr>
<td>Rise in house prices</td>
<td>42</td>
</tr>
<tr>
<td>Lack of quality of housing construction</td>
<td>44</td>
</tr>
<tr>
<td>design of current housing supply does not suit the different needs</td>
<td>34</td>
</tr>
<tr>
<td>Prefer to build homes and for its design to be different</td>
<td>12</td>
</tr>
</tbody>
</table>

Source: Survey results

### 84.2.4.3 Respondents' opinions about ownership of apartments

The respondents were asked about the idea of apartment ownership. 78% of them said they would not prefer to own apartments, as they would prefer to wait and save the largest amount of money they could in order to buy villas. In fact, they would prefer not
to buy an apartment even if they have enough money to buy a suitable apartment for themselves. The low percentage of those wishing to own apartments may be due to several reasons, as shown in Table 84-11.

The highest percentage of respondents 84% expressed that the small size of an apartment is one of the main reasons for rejecting the idea of apartment ownership, and around 71% also said that apartments do not provide them with the privacy they would like. In addition to that, 68% stated that apartments tend to be poorly constructed and there is also a lack of a clear judicial system so as to protect apartment owners’ rights if problems occur.

Between 50% - 60% of the respondents believed the prices were exaggerated for apartments offered for sale, as well as them having poor design and a poor distribution of rooms.

Finally, around 45% said they would prefer not to have apartments for social reasons since they do not wish to reside in one building with people they do not know. They also stated there is no after-sales services in most of the projects, and lastly, some of the respondents 16% highlighted that the price of some apartment are similar to that of villas.

Table 84-11: Respondents’ opinions on the purchase of apartments

<table>
<thead>
<tr>
<th>Opinions on the purchase of housing</th>
<th>% of respondents</th>
</tr>
</thead>
<tbody>
<tr>
<td>Poorly constructed</td>
<td>68</td>
</tr>
<tr>
<td>Rise in apartment prices</td>
<td>58</td>
</tr>
<tr>
<td>Apartments do not provide them with the privacy</td>
<td>71</td>
</tr>
<tr>
<td>Poor design</td>
<td>48</td>
</tr>
<tr>
<td>No after-sales services</td>
<td>52</td>
</tr>
<tr>
<td>To not wish to reside in one building with people they do not know</td>
<td>48</td>
</tr>
<tr>
<td>Small size</td>
<td>94</td>
</tr>
<tr>
<td>Lack of a clear judicial system</td>
<td>68</td>
</tr>
</tbody>
</table>

Source: Survey results
84.3 Section II personal interviews with those working in the housing sector

84.3.1 Interview sample

A random group of engineering and consulting offices in the city of Jeddah were contacted and asked for an appointment in order to conduct personal interviews in the period between August to September 2015. Five specialists from the housing sector, such as developers, architects and real estate agents, replied and agreed to participate in interviews.

The main objective of the interviews was to seek the opinions of specialists on the aspirations of people, according to their experience in the field and their direct dealings with house seekers, in addition to increasing the knowledge of the researcher regarding the current situation in the housing market.

84.3.2 Analysis of the interviews

84.3.2.1 The first interview

The first interview was with a department manager in a real estate development company, who has 9 years’ experience and specialises in land development for large residential projects.

The target groups of the company were new families, consisting of two-six persons, with a monthly income of 15,000 SR to 22,000 SR. The price of the units was 1.2 million to 2 million SR.

Initially, there was a discussion concerning the latest residential projects that were being carried out in the city of Jeddah i.e. the Masharaf project, which sits on a land area of around one million square meters north of the city of Jeddah, as well as several types of villas available that differ in size and layout. The project provides several sizes and areas of housing, ranging from duplexes with a construction area of 280 square meters, followed by villas of four categories, ranging between 320 square meters to 400 square meters.

It was stated that the biggest demand was for large units. The family size was not a major determinant in the units that have already been sold, but the financial viability, as
some families of six members have purchased units of medium size (345 square meters and 380 square meters), whereas two or three members’ families have bought the larger units. The attached duplexes have faced difficulties in terms of marketing. The reason for this is due to their smaller size from buyers’ perspectives and a preference for separate units, which they feel offer more privacy.

The interviewee was asked if the company had problems with customers but he said that the company had not faced objections with regard to the designs and finishes from customers who want to buy housing, especially as a special system of modifications and additional choices was provided.

**Trends and future projects**

It has been said that there is a tendency for the design of new housing solutions in the Saudi housing market.

The first type in this group entails units called a Quarto. This kind is not a villa or an apartment in the traditional sense as this type of housing shares common features of the two.

Here are the main characteristics of this type of unit:

- The building is located on a total area, starting from 780 square meters, and each building contains four housing units with separate entrances for all units from a main street.
- Two units on the ground floor have exclusive use of an external garden in front of the unit.
- Two units on the first floor have exclusive use of a terrace on the upper unit.

All housing units also feature:

- A private driver room.
- A private car parking space inside the unit boundaries.
- A separate water tank.
- A separate sewage tank.

A survey was carried out through Twitter by the company, as shown in Figure 84-17, regarding the extent of accepting this idea in Saudi Arabia. 89 530 people took part in the survey and there was a preference for this type of housing by 27% of them.
The other type of housing is multi-generation housing, which is divisible into 3 sections. This housing type allows for more than one family to live there in the future, with the main goal being to encourage extended families to return, whereby more than one generation can share the same building. Moreover, it is possible that the family share can help provide the amount of money required for the housing, which will contribute to reducing the land required and the future demand for housing, alongside strengthening family ties.

The interviewee stressed that the most important factors that make residential projects acceptable to the buyers are the availability of the services, gardens and good price.

Concerning the difficulties faced by the housing market from a specialist's point of view, the interviewee explained that there is lack of information about the housing market, which has led to a decline in housing studies that help with understanding the reality of the market and proper planning.

He also mentioned some of the reasons for the current housing problems, where he sees that there has been a decrease in the awareness of researchers for the actual housing needs of residents in terms of space, in addition to the highly priced land and housing, which has resulted in a decline of effective housing units.
84.3.2.2 The second interview

This was conducted with an architect, who works in a design engineering office and has 10 years’ experience in the design and supervision of housing projects.

Current state of residential projects

With regard to currently offered housing and buyers' acceptance, the interviewee stated that, of late, there is a great desire by some customers to divide the building into residential units and the other part of the house is used for investment through renting it out, which in future can be given to children.

Regarding the preference of villas as a first choice for housing seekers, he stated that the most important feature of the villas that makes them the first choice for customers is that they are separate and isolated from neighbours, which offers privacy.

Overall, the housing unit (villa) is divided into three main sections:

- Sleeping and living: this mostly includes the bedrooms, living room and dining room.
- Services: They are either internal, which includes a bathroom, kitchen and corridors. In addition these, there are domestic worker rooms and stores, if any, or external areas, including the courtyard, car parking and a room for the driver and the house guard.
- Guests: This mostly includes a private guests’ entrance and a guest’s salons, either separate for men women, or in some cases, there is a large salon for gendered guests, as well as a dining room, and a private guests’ bathroom.

Further, the interviewee mentioned some of the reasons for the current housing problems. In his view, the housing problems are linked with the higher price of land, which contributes significantly to the difficulty in obtaining adequate housing. In addition, he cites the attention of house seekers, who tend to search for large and spacious residences, which may exceed their actual needs. Moreover, the rise in spending on decoration, which is also influenced by customs and traditions, such as the large number of salons for guests that are not always used.

84.3.2.3 The third interview

This was conducted with an architect in a design engineering office, who has 10 years’ experience in the design and supervision of housing projects.
Current status of housing projects

The interviewee stated that one of the biggest problems they face is lack of an information network to help them to understand the needs of residents and provide knowledge of the current housing market situation.

Currently, the projects they deal with that are of great demand are duplexes, followed by villas and then finally, residential buildings.

Regarding types and sizes of existing housing units, accommodations are divided based on their type and land, and for apartments, the division is based on the number of rooms as follows:

- Palace: A land area of 3000 square meters or more.
- Large villa: A land area of 1000 to less than 3000 square meters.
- Ordinary villa: A land area of 400 to less than 1,000 square meters.
- Duplex: A land area from 200 to 400 square meters, whether it is detached or semi-detached.
- Small apartments: Less than 4 rooms.
- Medium apartments: 4 to 6 rooms
- Large apartments: More than 6 rooms.

The interviewee observed that there is a return of extended families due to low economic conditions in the last period and rising land prices. One of housing types that they are being requested to design is a building that looks much like a villa, but is split interiorly into an apartment system, for example, to serve as accommodation for a father and his married sons. Furthermore, he reported that the biggest problems that house seekers face is that many of the houses offered for sale are with low construction quality, as some of their customers have asked them to refurbish their new homes, which they have recently purchased but not settled into yet. In addition to the rise in most of the residential type of housing prices, as an example, it was found that the apartments that are supposed to be of suitable prices have risen dramatically in recent times. For example, the price for an apartment with 3 rooms went up to 600,000, SR which is a high amount for this type of housing.

Regarding the reasons for the current housing problems, the interviewee suggested that it is essential to raise the awareness of house seekers in order to take advantage of all types of spaces and buy the right home for their needs, wherein the difficulty lies in the meeting of the client's wishes, cost and space.
84.3.2.4 The fourth interview

This was undertaken with an architect, who is also a director of a specialised branch office and has 10 years’ experience. He specialises in the field of design and supervision of housing projects.

Current status of housing projects

The interviewee said that residential building is considered as one of the most desired housing type for many families of middle and high-income earners since it is considered a means of investment. The owner often lives in the building and rents out the rest of apartments or shares them with his family. In addition to that, multi-story residential buildings have emerged of late (referred to as investment buildings), which contain small-sized apartments and are targeted at foreigners and small Saudi families, despite the fact that the owners feel these spaces are not suitable enough for themselves. Regarding seeking residence in an apartment, he recalled that, whether it was on a rental or ownership basis, this type of housing tends to be considered temporary accommodation for a large segment of the population.

Besides that, after the year 2000, some families have returned to searching for indivisible housing or extended housing, in order for them to be the residence of their father, their children and other members of their families.

Regarding new residential projects in the future, the interviewee said that there is a new direction for the work of the projects within the outskirts of the city of Jeddah due to the lower land prices in these areas as compared to the city center.

Concerning the reasons for the current housing problems, the specialist stated that the problem of housing is due to a lack of legislation and funding, in addition to the following points:

A lack of scientific studies, and difficulty in obtaining information about housing.

There are many foreign companies and offices, which have no local knowledge of the Saudi housing sector.

There is a weakness in the awareness programmes, which advises the selection of suitable housing types, based on actual need.
84.3.2.5 The fifth interview

This was with an architect, who was also an owner of one of the specialised offices in the field of design and supervision, who has 32 years’ experience.

Initially, he was asked about the types and sizes of existing housing based on the types of units and areas.

The interviewee explained that apartments are divided into:

- Large apartments: From 150 to 250 square meters.
- Medium apartments: From 100 to less than 150 square meters.
- Small apartments: From 70 meters to less than 100 square meters.

In addition, the interviewee believes that ownership of the apartments leads to difficulties, as the non-activation of the landlord union and attention to building quality buildings means that many of those who live in apartments only stay for a temporary period, after which they search for new homes.

While, villas can be divided into:

- Small villas: From 200 to less than 400 square meters.
- Medium villas: From 400 to less than 600 square meters.
- Large villas: From 600 to less than 900 square meters.
- Palaces: More than 900 square meters.
- Duplexes: With a space ranging from 200 to less than 500 square meters.
  - Detached Duplexes.
  - Semi-detached Duplexes.

He added that the semi-detached duplexes are cheaper but less in demand in comparison to the detached duplexes. The main reason is due to the seeking of privacy by the customer. The interviewer stated more about the preferred types of accommodation for many house seekers, who often like to design their homes based on their desires. He added that there is a tendency to buy the offered houses for sale at the start of the funding programmes, but unfortunately, customers have been dissatisfied with the quality of the offered housing in recent times.

In addition to that, there has been a return demand of extending accommodation in the last period of time, which is primarily due to the economic conditions and the rise in real estate prices. This often leads to the head of the family looking for a split or extended
accommodation in order to benefit his children after their marriage, who may need a place to live with their wives and children. This is similar to the past where children would get married and live with their parents in rooms in the same house. The current situation slightly differs as some children live with the father, but in separate sections of the accommodation.

The interviewee added that there is greater demand for residential units now over duplexes, followed by small-sized apartments, which are often for temporary use. He also said that the purchase of apartments tends to be predominantly based on need rather than desire. This unwillingness from home seekers is due to several reasons, including the division and distribution of the rooms in the apartments, which do not fit their needs for housing, in addition to the fact that there has been a significant rise in prices for apartments, which are sometimes more expensive than small villas.

The interviewee stated that the availability of a maid room, a laundry room, a driver room, and private car parking has become important for home seekers. Whereas, there is low interest in the availability of a swimming pool or an outside yard.

Concerning the popularity of residential projects away from the city center, he said that these projects saw a rise in demand at the beginning and then experienced some decline for several reasons, i.e. the poor service, lack of public transport and difficulties in obtaining suitable financing to buy them.

The interviewee believes the difficulties in obtaining adequate housing can be attributed to several reasons, including the current high prices, as well as the lack of awareness among house seekers about their actual housing needs by looking for extra luxury and large spaces with low incomes, which has led to difficulties in owning accommodation.

84.4 Summary

In this chapter, personal interviews with residents and specialists have been reviewed in two parts: the first section, which was devoted to interviews with residents. The results of the analysis showed that behaviour of the respondents face difficulties in obtaining adequate housing and also difficulties in obtaining financing. Many of the current housing does not fit the study respondents’ future aims, where there is a lack of desire to own residential apartments, which are unfortunately the most common type of housing at the present time in the housing market. In addition, behaviour of offered
residential units do not match the residents’ economic situation. A great preference to live in separate residences, such as villas, as well as the search for large and spacious homes, regardless of their actual needs, was also noted.

The analysis of the second section with experts’ personal interviews highlighted that behaviour of experts agree that there is a lack of awareness among home seekers regarding their actual housing needs, since they tend to look for luxury and extra-large spaces with low incomes, which has contributed to difficulties in terms of home ownership. The experts added there might be knowledge of the number of rooms and the services needed in the housing, nevertheless this knowledge is hugely subject to personal desires more than their actual requirement.

In addition to the purchasing ability control dramatically the choice of housing more than the number of family members. The experts also agreed that building a house remains the first choice for many residents for their independent accommodation for several reasons; yet, most importantly to ensure construction quality and in order to build the house they truly want. They also agreed on the importance of housing related studies, which may contribute to providing innovative solutions based on the needs and desires of the customer.
CHAPTER SEVEN

CONCLUSION
CHAPTER SEVEN: CONCLUSION

98.1 Introduction

This chapter summarises the most important analysis of the research and focuses on answering the research questions. This chapter also deals with proposed recommendations, which were reached by the researcher through assessing the results of the study. Moreover, the contributions of the research, the difficulties faced by the researcher and suggestions for future studies are also outlined.

98.2 Research finding

The research was divided into two phases, where the aim of the first phase was to study the changes in the housing market in Saudi Arabia, with a focus on the main Region (Makkah, Riyadh and the Eastern Region), through a review of some of the selected studies and research on the subject of study. The study focused on the demographic changes, the contribution of the government in providing housing and changes in the types of housing, as well as an overview of the size of the supply and demand for housing and real estate. The significance of this stage was that it was useful for the researcher to visualise and gain a better understanding of the current situation in the housing market in order to assist the design of the research tools for the practical approach employed.

The importance and advantages of the second phase relied on the issues referred to in phase one, which was aimed at obtaining the residents' opinions about the current housing and their future aspirations. Furthermore, it explored the opinions of the population regarding the state of the housing market in the major Region of Saudi Arabia and through collecting information via a questionnaire distributed electronically, in addition to carrying out face-to-face interviews with residents and specialists in Jeddah as a micro case study. It is believed that the results may contribute to providing information for specialists and those interested in offering housing in Saudi Arabia, based on the needs and aspirations of the actual population, as there are limited studies that have dealt with this issue.

The most important results will be summarised in the sections that follow.
98.2.1 Changes and the influencing factors in the housing market in Saudi Arabia

98.2.1.1 Demographic changes
Saudi Arabia has experienced major demographic changes over the past decades, which have contributed to the demand for housing in the country. Among these changes are:

- The growing population, where the population has doubled approximately 350-fold in four decades.
- The increase in the number of the small families rather than extended families.
- The high percentage of Saudis below the age of 30, which total nearly 60% of the total number of Saudi citizens.
- The high proportion of immigrants, which constituted 37% of the total population in 2016.
- The dominance of three Regions, which are Makkah, Riyadh and the Eastern Region, respectively, offering 63.2% of the total housing in all Region. This is mainly due to the availability of jobs and businesses in these Regions, as well as the accessibility to services, making it more attractive for housing.

98.2.1.2 Change of number and types of housing
The previous related studies have shown changes, stages of housing and the historical evolution of the housing market in Saudi Arabia, beginning with traditional houses through a transition period to the current stage. As mentioned in chapter four and according to the previous studies, there are several factors which have contributed to the evolution of the housing market in Saudi Arabia, especially in the major Region and cities, where there has been a big increase in the number of houses and a rise in the ownership rates among the Saudi population. The rate of ownership is up to 62%. These factors include:

- The economic changes and rising oil incomes of Saudi Arabia.
- Great development in the construction and transportation technologies.
- The hiring of migrant workers, as well as the foreign companies, to undertake the construction work.
The government support for the housing sector through strategies, plans and programmes, such as REDF, the land grants programme and the government housing projects.

On the other hand, these changes, in addition to the demographic changes, have also contributed to changes in the urban environment and the types of housing and the population housing culture. In addition, the types of housing have witnessed a significant change as the traditional housing, which relied heavily on the surrounding environment and was the dominant type of housing has now declined since the emergence of villas and residential buildings at the end of the forties. Villas have recently became the widest spread, constituting more than 70% of the most common types of housing in the country, especially in the main Region.

The housing sector in Saudi Arabia is facing a difficult period, and some of these difficulties include:

- The high land prices, which have significantly contributed to the rise in house prices in general.
- The high demand for housing due to the aforementioned demographic and economic changes.
- The high cost of the construction of buildings and building materials.
- The low ownership rates, especially in the major cities, as well as the lack of affordable housing for families with low and middle-incomes.
- Low government funding support for the residential sector due to the current economic conditions.
- Lack of different financing programmes, which could serve all income groups.

The poor participation of the private sector in housing.

98.2.2 Results of the questionnaire analysis

In this section, the most important findings of the electronic questionnaire are summarised

98.2.2.1 Demographic and economic characteristics

Housing and its expenses in behaviour of families is mainly afforded by the father, husband, or the oldest brother. It is generally a responsibility borne by males. However, the wife might share expenses with her husband, or even seek with a spouse a joint housing loan if she is able to. Price is a second priority for males when
searching for housing as compared to being fourth in terms of priority for females. In some cases, the female bears full responsibility such as a widow.

The analysis showed a decrease in saving ability since a large percentage of individuals have personal loans that removes a significant part of their income. In turn, this impacts the housing market, where it will become more difficult to provide funds to help them to own a house in future.

The results show that 65% of the respondents’ houses were either self-funded or purchased with assistance from parents and relatives, and the rest 35% were bought with the help of bank financing. This was mainly due to the weakness of housing finance programmes and their unsuitability for a large segment of the population.

On the other hand, a large number of families 40% have domestic workers and drivers, which also affects their financial income. In addition, it requires the availability of spaces allocated to them within their housing. It was noted that the bigger the house is, the more domestic workers are needed, which raises the costs of housing in terms of providing separate spaces and salaries.

98.2.2.2 Characteristics of the current housing

The results show that the type of housing is affected by several factors, particularly income and the number of family members. As income and the number of family members increases, the percentage of those living in a detached house, such as a villa or duplex, also increases. On the contrary, the percentage of those living in apartments decreases in line with income and less family members.

On the other hand, the previous factors also affect ownership, as they increase the probability of ownership among the population in the three Region when they see a rise.

Behaviour of the houses contain three rooms or more, in addition to two bathrooms or more. Riyadh and the Eastern Region are characterised by large houses and a larger number of rooms as compared to the Makkah Region. This variance is due to the high percentage of apartments in comparison to villas in the Makkah Region.

The percentage of satisfaction with the current housing is generally low among the population, where only 20% of people are satisfied with their housing and are not planning to change. This 20% is mostly made up of owners and those who supervised the construction of their dwellings. The high demand for housing is obvious, as more than half of the respondents say they will search for housing during the next five-year
period. The following are the most important factors given for moving from current housing, which is divided into groups, based on the most influential ones.

- The first group includes reasons related to demographic characteristics, such as marriage, the formation of a new family and independence, as well as the search for larger housing and the need to expand as a result of increasing the number of family members and also the search for ownership.
- The second group includes the low quality of housing construction, low level of services in the current area, high rents or high maintenance costs.
- The third group includes reasons such as seeking housing near family, changing workplaces, the need for a smaller house especially for the elderly and those living in owned houses and some types of villas, where after the marriage of sons, they move to new housing as the current housing becomes more than they actually need.

A. Characteristics of Owners
The difficulty in finding homes for owners was attributed to the following factors:

- The high prices for offered housing.
- The low quality of construction.
- The improper design and distribution of rooms.

On the other hand, a large proportion of the owners of the apartments considered them to be temporary residences and intended to search for independent housing in the future, showing a lack of acceptance for this type of housing as an option to own.

B. Characteristics of tenants
Among the problems faced by tenants were:

- The rise in rents as compared to income, where the results showed that current rents of half of the study sample were taking about 30% of their monthly income, which is high. Moreover, if these rents continue to increase in the coming years as a result of inflation, it will cause many problems for the population and the housing crisis will be even worse.
- Behaviour of tenants pay annual rent in two installments, however this method of payment is not preferred by half of them as it causes some financial problems. They prefer to have a monthly payment, which helps them to arrange their financial affairs better.
- Behaviour of the rented houses do not have a ready-to-use kitchen or air conditioners, which adds an additional high cost for the tenant.
Behaviour of tenants do not make large changes to their housing because they are considered temporary housing for them. Nevertheless, about 16% have made major changes, such as changing toilets or floors, as well as changing the distribution of rooms in the house.

The personal search for houses for rent and the use of real estate offices in selected areas is a dominant feature for behaviour of tenants.

98.2.2.3 Characteristics and preferences about the future house

The study results show that the culture of ownership is the predominant culture in the country. Despite the low percentage of owners, owning a home is one of the main aims that the Saudis and their families have, especially for a sense of stability and safety.

The degree of importance in terms of the factors influencing housing choice are varied, based on the buyer’s income and gender. The location appears to be the most important factor, followed by the house price, which is more important for males, rather than females.

On the other hand, the importance of the price decreases as the income increases. Another important factor is the quality of the housing construction, space and design. Finally, the availability of after-sales services is the least influential factor, indicating a low awareness by the respondents of the resident’s rights.

Detached houses, such as villas and duplexes, are the most preferred options for ownership. This preference increases as the income and the number of family members rises. The preference for villas is higher in the Riyadh Region in comparison to Makkah and the Eastern Region.

The apartments have no great acceptance to be owned by behaviour in all Region, where 75% reject the idea of owning apartments due to several factors that will be divided into two groups in terms of importance:

- The first group includes the high prices of apartments, where in some areas the prices are the same value as that of a small villa. Lack of clarity on the laws of ownership in terms of apartments and the idea of not owning land alongside detached houses, reducing the sense of economic security, the fact that they do not provide the required privacy, in addition to the low quality of construction in many of residential buildings, especially the investment buildings.
The second group comprises the absence of after-sales services, a lack of desire to live with strangers, in addition to the lack of suitable apartments in terms of design and the distribution of services for their needs.

The results indicated that the preference is for houses with five or more rooms and three toilets or more. These desires are not related to the current economic or social situation, but rather to the search for large and spacious housing based on their future prospects for their economic and social conditions.

In general, behaviour of the residents prefer to furnish their own accommodation, as they do not have a preference to buy furnished accommodations. One third of them prefer to have air conditioners or a ready-to-use kitchen, or both. The results also showed a preference for closed kitchens rather than open kitchens, which have started to appear in the last decade.

In fact, the preferences and services that the residents prefers in future housing are different and will be presented below, based on importance, from most important to least important:

- There is a huge preference and interest in having a courtyard in the house, where the courtyard represents a family outlet in light of the few open spaces in the neighbourhoods. Although behaviour of the existing detached houses have an external courtyard, the results show that there is a preference (40%) for internal courtyards due to their privacy aspect, in addition to the availability of a private car park since behaviour of families have at least one car.
- The availability of a store and a laundry room, as well as a salon for men and women, a room for domestic workers and a room for drivers but all of these were given less importance.
- The availability of an assembly room for men outside the house (Diwaniyah), which is a room often located in the outer courtyard and used by men for their gatherings so as not to affect the privacy of the house. Moreover, the availability of a swimming pool and finally, the availability of balconies were cited as the least important services in terms of houses. Although many of the existing houses have balconies, the clear non-preference for balconies is likely due to the need for privacy, as well as the hot climate of the country most of the year.
98.2.2.4 Views of the residents on the housing crisis

Behaviour agreed that the ownership of housing has become more expensive than their financial capacity allows for, especially with the difficulty of obtaining adequate funding. This is due to several factors, the most important of which is the huge rise in land prices and housing in general, followed by the impact of weak funding programmes, and the lack of supply of housing that meets their needs.

Behaviour of the population agreed with the recent government decisions on housing, with results showing that more than 65% support the imposition of fees on the vacant lands, as well as their demands to impose laws and regulations that limit land and housing prices. On the other hand, the influence of the culture of ownership and living in large housing units resulted in a strong rejection by half of the participants to reduce the size of the existing land offered as a solution. The results also show that behaviour of the population hold the Housing Ministry responsible for the current housing crisis, followed by the private sector and finally, the financial sector. The reason that respondents mainly blame the government is their preference for non-profit government programmes that have experienced a significant decline in recent decades in comparison to the banks’ high interest rate funded programmes.

98.2.3 Opinions of Saudi residents and specialists in Jeddah, Saudi Arabia about current housing and future aspirations (results of interview analysis)

In this section, the most important results of the face-to-face interviews with the residents and specialists regarding their views and desires about housing will be summarised in two parts: the first one involves the results of the population interviews and the second includes the most important results of the interviews with specialists.

98.2.3.1 Residents interview

- Behaviour of the respondents were married males, which constituted about one-third of the sample. Government jobs accounted for 60% of the total jobs of respondents. In addition, all the respondents were at the university level or above, and finally, the respondents’ age group was between 20 and 40 years.

74 Vacant land: is an unused land developed within an urban area, which was a decision approved by the government in 2015.
The proportion of personal loans was 60%, with a large percentage of these loans obtained in order to buy cars and pay for marriage expenses. No more than 20% obtained loans for the purpose of buying housing or land, indicating a decline in the culture of savings, which was often how former housing was financed.

The results showed an interest in applications for government housing programmes, where two-thirds of the study participants had submitted applications for the special programmes of the Ministry of Housing, as compared to only one quarter who had submitted a request for bank and private company financing, indicating the inadequacy of special funding requirements of banks for behaviour.

98.2.3.2 Characteristics of the Current Housing

- The majority of owned houses were self-financed through personal savings and parental assistance; therefore, financial capacity was the main factor affecting housing more than the actual need.
- A high ratio of the monthly deductions for those who owned their homes through housing finance was noted, ranging from 40% to 60% of their monthly income.
- The results indicated that 55% of the residences were rented and most of them were apartments. On the other hand, results show that nearly two-thirds have made changes in their housing, which were divided between large changes and minor changes, indicating that the present supply is not suitable for a large number of people, especially in terms of decoration and finishing, as well as the quality of construction. However, the results show approximately 60% were generally satisfied with their housing.
- One-third of the interviewees had unused rooms in the house due to the fact that they were mostly not needed for the time being or because of economic reasons i.e. the cost of the furniture. In spite of the great interest in reception rooms for guests and their furniture, the results show that more than half of the reception rooms are not being used more than once a month.

There is a high level of satisfaction with the availability and accessibility of mosques in the neighbourhoods of Jeddah and public services, but this satisfaction proportion decreases regarding the availability of suitable schools for children near them. The results indicate that one of the most important factors influencing the selection of the
residence area includes proximity to the family and work, and to a lesser extent, the children's schools.

98.2.3.3 Characteristics and preferences about the future house

- More than two-thirds of interviewees reported that they would change their homes, indicating the large demand expected in the future housing market, whether rented or owned.
- The results also show that the majority of demand, especially for home ownership, is moving north of Jeddah and the new areas on the northern border of Jeddah, followed by the west and central city. The preference rates for housing in the south and east of Jeddah are lower, due to the schematic problems that have emerged recently.
- The interviews results in Jeddah and the questionnaires of the main Region are very similar. These include the preferred type of accommodation, the number of rooms and the factors that affect the purchase of a residential unit. The prevailing trend is detached homes, such as villas, duplexes with five or more rooms, plus three or more bathrooms.

The results also indicate that there is a lack of preference for the purchase of housing, but rather to undertake the construction and supervision of houses by themselves.

The reasons for dissatisfaction of the current supply was in order, as follows:

- Lack of reliability in the quality of housing construction.
- High housing prices.
- Lack of suitable design for housing currently offered to different segments of society.

As for the preferences and the importance of spaces in the future home, they will be reviewed in groups, according to importance, as follows:

- Main bedroom with private bathroom, a spacious living room, a guest entrance, a salon for men and another for women, and private parking.
- A private bathroom for guests, maid's room, laundry room, yard or garden.
- Family dining room, office, driver room.

In general, preference is also shown for multi-floors buildings, indicating the obvious preference for a detached house, and a return to an inner courtyard, much like with traditional housing, for greater use in terms of natural lighting, as well as added privacy. The agreement of the respondents was divided between open and closed kitchens. There was little interest in the availability of a swimming pool, balcony or a guest dining room.
On the other hand, there was an interest and desire expressed for the return of their extended families, where more than half of the respondents said that they wish to live with their children in the future. The majority of participants also wish for their future residence to be able to be expanded.

Although apartments are the most common type of housing in the city of Jeddah, the majority would prefer to wait in rented housing to save more money and buy a residential villa. The majority did not express a preference to buy a residential apartment, even if they had enough money to buy it due to the following reasons:

- The small area of apartments as they do not provide privacy. In addition, the poor quality of construction and finishing in the residential buildings projects, as well as the absence of a clear judicial system to protect the rights of owners in cases of disputes and other problems.
- The high prices of apartments, in addition to bad design, distribution of rooms and also for some personal reasons, such as lack of a preference to live with strangers and finally, the absence of after-sales services in most projects.

98.2.3.4 Residence in the suburbs

The highest percentage of interviewees said that the price of villas with an area between 300 and 400 square meters should not exceed 1 million S.R., while the highest proportion of the respondents agreed that the price of an apartment with an estimated area of 200 square metres should be between 300,000 – 400,000 S.R., with emphasis on the availability of full services on the site. While, the majority preferred that the design of buildings be modern.

The study results indicate that the most important attractions for residential suburbs or residential projects outside the city are as follows:

- The availability of a mosque and a mini-commercial center.
- The availability of a clinic for first-aid and the availability of playgrounds for children.
- The availability of a children's nursery, health club and safety and security services.

On the other hand, about one-third of the respondents refused to live in the suburbs. The reasons given were the distance from the center of the city, the lack of a public transport network, being far away from their work areas, and finally, being away from their large family, who take care of their children during their working hours.
98.2.3.5 Opinions of the residents on the housing crisis

Like the results shown for the previous section of the questionnaire, the results of the interviews confirmed that the majority agreed that the ownership of housing was above their financial capability, especially with the difficulty of obtaining suitable financing. The main reason given was the high prices. There was a slight difference in the order of other factors, with the second one being a lack of suitable residence units, and finally, the weakness of funding programmes. Approximately 40% of them believe that the current land areas need to be reviewed. The results of the interviews in Jeddah were consistent with the results of the questionnaire.

98.2.4 Interviews of specialists

This section refers to the most important results of the interviews with developers, architects and experts in the field of interior design, where the results show the agreement of the majority of specialists on the following points:

- Lack of awareness among house seekers regarding their actual housing needs, the search for luxury, large spaces, expensive decorations. Besides, the impact of customs and traditions, such as many (and rarely used) guest lounges for those on low incomes, which contributes to difficulties in owning houses. Residents have desires regarding the number of rooms and services they should have in the house; however, these desires are not realistic or based on their actual need.
- Purchasing ability controls the choice of housing more than the size and needs of the family.
- Building the house themselves is the first choice for many for several reasons; most importantly to ensure the construction quality, due to the recent low quality housing being provided. In addition, this means they are able to build the house according to their own wishes and needs.
- Although attempts are being made to provide new housing types to reduce the increasing demand for housing, they are currently insufficient.
- The results also indicate the agreement of experts with the results of the questionnaire and interviews with the population about the preference of residents for detached housing, where this type represents one of the most important needs of many Saudis i.e. the search for privacy. The results also indicate that there has been a huge demand for small villas and separate duplexes as compared to common villas in the last decade, due to high land
prices, which have affected the prices of villas. While, specialists agree that apartments are considered temporary housing for the majority, even if they own it.

- There are many foreign companies and offices that do not have enough experience in the Saudi housing sector.
- With respect to the general difficulties faced by the private sector in the housing market in Saudi Arabia, the following can be concluded:
- The rise in land prices has mainly affected the rise in house prices in general, which has contributed to the lack of supply suitable for middle and low-income earners. It has also forced large real estate companies to search for residential land outside the main cities.
- Legislation and housing finance programmes do not help the private sector to contribute effectively to providing affordable housing.
- A lack of published official information on the housing sector.
- The common big and detached housing culture among the Saudi population.

98.3 Research contributions

This study is an extension of the previous studies on housing and contributes to enriching, expanding and updating research in the field of housing and housing needs in Arab societies in general, as well as the Gulf countries in particular.

Through this study, researchers and other interested people are able to gain a clearer understanding of the reality and the changes in terms of the housing market in Saudi Arabia, which is one of the largest countries in the Gulf Region. Moreover, there is exploration of the most influential factors relating to the demand for housing, which were collected by reviewing previous studies and analysis of official reports, such as the housing sector's economics and government support, the historical development of housing in Saudi Arabia, as well as the most important challenges facing the housing sector in Saudi Arabia at the present time.

In particular, researchers and other interested parties can understand the prevailing housing culture in the Saudi Arabia, alongside the needs and views of the population in the main areas and Jeddah as a case study relating to their current housing, desires and future preferences.
In addition, this research provides information to the government, the private sector, researchers, and workers in the housing sector in the country, through the methodology and the results of the analysis of the raw data collected by the researcher through questionnaires and face-to-face interviews in the study area.

This information and data can be used as a reference by other researchers, not only in the area of housing regulation, but also in the areas of urban planning and population geography.

On a personal level, the researcher benefited from the methodology used in the study as he was able to increase his knowledge significantly in terms of how to prepare and design questionnaires and deal with electronic programmes, in addition to undertaking training in the use of statistical programs for data analysis, such as Microsoft Excel and the program of statistical analysis and SPSS and understanding of its outputs. Moreover, the researcher gained experience in carrying out interviews and dealing directly with people.

98.4 Recommendations

In this section, a number of proposals will be reviewed to address the shortage of suitable housing supply in the main areas of Saudi Arabia and the city of Jeddah, used as a case study.

- Ownership of housing for many people in the main areas of many parts of the country has become increasingly difficult and has become beyond the reach of many members of society. The percentage is high among low and middle-income earners, consequently it is necessary to provide new options, alternatives and new types of housing to suit the current population. It is worth noting that the current prices of housing are too high as compared to income, therefore the housing crisis will continue to worsen. The authorities must deal with this price increase strictly by imposing legislation that will contribute to reducing these increases and provide appropriate financing programmes that are suitable for the economic situation of different income groups.

- Although the apartments are the most widespread housing type in the country, this type is not the most preferred kind by the population as it is considered by the majority to be a temporary form of residence. Therefore, attention should be given to addressing the problems residents have with apartments, which will contribute to greater ownership with less space in comparison to other types of
housing, as it depends on the vertical construction. Finally, it should be noted that there is a greater tendency for young people to accept this type of housing as compared to older people.

- Providing open spaces and sports activities, such as sports clubs in the neighbourhood, as well as rooms for drivers in the residential building, increases the acceptance of the ownership of apartments and may dispense with some needs, such as a courtyard, which is normally provided in detached houses.

- This study recommends easing the pressure on the major cities by paying more attention to small cities and villages and making them more attractive by providing different economic opportunities, instead of expanding and building new cities at a higher cost.

- Since the needs in terms of residential areas among large and small families differ, the current areas of residential land should be reviewed to allow construction on smaller lands size, which would contribute to a decrease in prices.

- Encouraging extended families through future housing policies, which contributes to reducing the demand for housing, as well as the social benefits.

- Encouraging construction in stages, where the owner can build their house, taking their financial capacity and their actual need into account at the present time, with the possibility of future expansion. This will contribute to saving wasted space, in addition to reducing the cost of ownership and maintenance.

- To spread cultural and cognitive awareness among members of society so as to remove some misconceptions in terms of construction, which are related to the cultural and social dimensions inherent in members of the community and stimulate the optimal exploitation of the available housing through:

  - Different media and the use of various social communication programs, which are widely accepted by the majority of the members of society, especially the youth.
  
  - The general school curriculum.

  - The dissatisfaction of the residents, as well as the experts, on the construction quality of many of current housing units should be taken into consideration. Therefore, the study recommends the need for intervention from legislators responsible for the housing market by searching for the means and applying planning and supervisory standards in order to raise the quality of construction and stop manipulation by some developers. For example, the study proposes establishing a body responsible for supervising the implementation and
issuance of certificates of quality housing conforming to certain standards and specifications, which will increase the supply of suitable housing and increase the safety of the population when buying houses.

- As reinforced concrete is the main building material in Saudi Arabia, the study recommends that new construction techniques should be introduced, especially with the great developments in building techniques in terms of low cost housing, which would contribute to increasing the supply of housing at faster competitive prices.

- The establishment of a database of housing studies that includes population, housing and economic information specific to the Saudi housing market, which would help those interested in research regarding the housing sector, such as: type of housing / type of tenancy (ownership – rental) / housing area / number of rooms and services available / housing price rates / family size.

### 98.5 Limitations of study and future studies

It is worth mentioning that a number of difficulties were encountered by the researcher during the study, which are summarised as follows:

- A lack of official information published on the housing sector, in addition to the difficulty of obtaining information from the official authorities, where a number of long procedures were required to obtain it.

- Arabic is the main language in Saudi Arabia, therefore a large number of important studies were in Arabic. In addition, the collection of information and interviews were carried out in Arabic, which required time to translate the information into English. In addition, the English language of the researcher is not as good as the natives, thus, accordingly, some weaknesses may be present.

- Since the researcher collected the information with a low personal budget, the Internet was used to distribute the questionnaire, resulting in some selectivity in the sample. On the other hand, one city was selected as a micro case study to carry out interviews, due to the difficulty of carrying out interviews in all cities, whereby a lot of time and high cost would be required.
On the other hand, the housing sector in Saudi Arabia has witnessed major changes in recent years, bringing up many areas and topics that need to be focused on in future housing studies. The following are possible and important areas for future studies:

- The study focused on Saudi citizens. It is worth mentioning the importance of studying the impact of the increase in the percentage of immigrants on the housing market as their needs differ from the needs of the local population, which raises the demand for specific types of housing. It was observed during the study that the percentage of housing directed at foreign residents, which are described as small investment apartments, is high. However, this type of housing does not tend to suit the Saudi citizens.

- Since the country is currently witnessing many new development projects (which are still under construction), such as railway projects and public transport, this opens the door to study how to benefit from the development of the urban environment and the development of the surrounding areas of these projects.

- The financing aspect of housing is one of the important areas, especially housing finance provided by the private sector and its impact on supply and demand.

- One of the suggested studies could study the impact of the vacant land fee decision on the real estate market and land prices. Moreover, the impact of new housing programmes implemented by the Ministry of Housing in terms of supply and demand and the provision of affordable housing in Saudi Arabia.

- It should be noted that, research on the population's satisfaction with their housing and future aspirations needs to be constantly updated. It should not only be limited to the suggestions and methodology used, but also to their implementation in different ways, based on the research problem and the researcher's objectives.
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APPENDIX
Appendix (A1): 1 The Questionnaire

Bismi’llah al-Rahman al-Rahim... Ni’ma

الاسكان وتملك المساكن في المملكة العربية السعودية (استبيان خاص لرسالة دكتوراه)

Source: https://docs.google.com/forms/d/e/1FAIpQLScPCkmWBZ7bw-lgbpe2dDk5BxeB_QIqO0Kz6llIeWvJb6dww/viewform?c=0&w=1
Haytham_questionnaire_about_Housing

Nationality
Mark only one oval.
- Saudi
- Other National

Gender
Mark only one oval.
- Male
- Female

Age
Mark only one oval.
- Less than 18 years old
- FROM 18 TO 25 years old
- FROM 26 TO 35 years old
- FROM 36 TO 50 years old
- MORE THAN 50

Level of education
Mark only one oval.
- Diploma or less
- University
- Postgraduate

What is your field of work or your studies *

The current situation *
Mark only one oval.
- Government employee, currently on scholarship
- Private sector employees, currently on scholarship
- Business and investments or Retired
- Other:

Years of work experience *
Mark only one oval.
- I don’t have
- 10 years or Less
- From 11 to 20 years
- More than 20 years
Marital Status *
Mark only one oval.

- Single
- Married
- Divorced or Widow

Number of family members *
(who live with you in the main dwelling, Saudi Arabia)
Mark only one oval.

- 1 Or 2
- 3 Or 4
- 5 Or 6
- More than 6

Place of Birth *
Mark only one oval.

- Makkah Region
- Riyadh Region
- Eastern Region
- Other: ____________________________

Current region *
Mark only one oval.

- Makkah Region
- Riyadh Region
- Eastern Region
- Other: ____________________________

Current city *
where you live now or mention them in the case were not exist in the options

Are you looking forward to complement your life in your current city *
Mark only one oval.

- Yes
- No, I will Moving to other city

Monthly income *
Mark only one oval.

- Less than 5K SR/month
- From 5001 to 10K SR/
- From 10001 to 15K SR/month
- From 15001 to 20K SR/month
- More than 20K SR/month
- Other: ____________________________
Extra monthly income *
Mark only one oval.

☐ I don’t have
☐ Less than 5K SR/month
☐ From 5001 to 15K SR/month
☐ More than 15K SR/month

Do you have a Current bank loan? *
Mark only one oval.

☐ Yes
☐ I had a loan
☐ No

The reasons for the loan *

Monthly installment *
Mark only one oval.

☐ Less than 20%
☐ From 20% to 30%
☐ From 31% to 40%
☐ From 41% to 50%
☐ More than 50%

Applied for REDF *
Mark only one oval.

☐ Yes
☐ No

Applied for Land Grant *
Mark only one oval.

☐ Yes
☐ No

Applied for a residential financing from a bank *
Mark only one oval.

☐ Yes - and it has been approved
☐ Yes - has been rejected
☐ Yes - While waiting for approval
☐ No

Why you dont applied for a residential financing from a bank *
Household employment *
Mark only one oval.
☐ Yes
☐ No

Characteristics of current houses

Type of house *
Mark only one oval.
☐ Small apartment (area less than 100 square meters)
☐ Medium apartment (area from 100 to 200 square meters)
☐ Big apartment (area more than 200 square meters)
☐ Villa (land area less than 400 square meters)
☐ Villa (land area from 700 to 1200 square meters)
☐ Big house (land area more than 1200 square meters)
☐ Floor in a villa or part of the villa
☐ Popular house
☐ Other:

How many rooms your house *

How many Bathrooms your house *

Do you consider that your current house temporary *
Mark only one oval.
☐ Yes
☐ No

Do you want change your house *
Mark only one oval.
☐ Yes, I would like to change it soon
☐ Yes, I would like to change, but in the future
☐ Yes, I would like to change it, but I can not
☐ No, I’m satisfied

Do you want change your house *
Mark only one oval.
☐ Yes, I would like to change it soon
☐ Yes, I would like to change, but in the future
☐ Yes, I would like to change it, but I can not
☐ No, I’m satisfied

Why / The Reasons *
When do you expect change your house *
Mark only one oval.

☐ Less than 3 year
☐ From 3 to 6 years
☐ From 6 to 9 years
☐ More than 10
☐ Other: ______________________________________________________

Satisfaction of residents of current houses *
Mark only one oval per row.

<table>
<thead>
<tr>
<th>Dissatisfied</th>
<th>Neutral</th>
<th>Satisfied</th>
</tr>
</thead>
<tbody>
<tr>
<td>Neighbourhood</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Size and area of house,</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Quality of house construction</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Number of rooms</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Furniture</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Tenure of Current house *
Mark only one oval.

☐ Own. After the last question in this section, skip to question 35
☐ Owned by the family, husband or wife, family, husband wife
☐ Rent
☐ By work
☐ Other: Owners

Do you have second house *
Mark only one oval.

☐ Yes. Skip to question 35
☐ No
☐ Other: ______________________________________________________

Owners

Price of house *
Mark only one oval.

☐ Less than 750k SR
☐ From 750001 to 1 Million SR
☐ From 1 Million to 1,5 Million SR
☐ From 1,5 Million to 2 Million SR
☐ From 2 Million to 3 Million SR
☐ More than 3 million SR

Residential finance *
Mark only one oval.

☐ I don’t have
☐ Less than 20 %
☐ From 20% to 40%
☐ From 41 % to 60 %
☐ Other: ______________________________________________________
How did you reached to your current house *

Mark only one oval.
- By Owner or family and friends
- By real estate office
- By real estate development company
- I built it myself
- Other:

Do you had difficulty experience of search your house *

Mark only one oval.
- Yes
- Some of
- No

Are you fully furnish your home? *

Mark only one oval.
- Yes
- Air conditioning only
- Only the kitchen

Do you want Change or sell the house *

Mark only one oval.
- Yes, I would like to change it or sell it, but in the future
- Yes, I would like to change it or sell it, but I can not
- No, I'm satisfied I do not want to change
- Other:

Are you the First owner *

Mark only one oval.
- Yes
- No
- Other:

Rent house

The Rent *

Mark only one oval.
- Less than 12000 SR/year
- From 12001 to 24000 SR/year
- From 24001 to 36000 SR/year
- From 36001 to 48000 SR/year
- More than 48000 SR/year
Are the rent has risen from the previous year *
Mark only one oval.
- No or am new
- Yes, Less than 20 %
- Yes, From 20 % to 40 %
- Yes, More than 40 %

The method of Rent payment *
Mark only one oval.
- Monthly
- 2 * year
- 3 * year
- 4 * year
- Yearly

Payments method you preferred *
Mark only one oval.
- Monthly
- 2 * year
- 3 * year
- 4 * year
- Yearly

% Rent of monthly income *
Mark only one oval.
- Less than 30 %
- From 30 % to 50 %
- More than 50%

Do you see the rent appropriately of your financial situation *
Mark only one oval.
- Yes
- Some of
- No

How did you find your house *
Mark only one oval.
- By Owner or family and friends
- By real estate office
- By real estate development company
- I built it myself
- Other: ______________________
Are you the first Tenant of the house *
Mark only one oval.
☐ Yes
☐ No

Did you make changes in house *
Mark only one oval.
☐ Yes
☐ Just change the paint
☐ No

Was there a Ready Kitchen in the house / Equipped kitchen *
Mark only one oval.
☐ Yes
☐ Yes, the kitchen was existing, but I change it
☐ No

Was there air-conditioning in the house *
Mark only one oval.
☐ Yes
☐ Yes, the air-conditioning was existing, but I change it
☐ No

Do you prefer the idea of rent with the possibility of ownership *
Mark only one oval.
☐ Yes
☐ No

Do you prefer the idea of rent with the possibility of ownership *
Mark only one oval.
☐ Yes
☐ No

Do you had difficulty experience of search your house? *
Mark only one oval.
☐ Yes
☐ Some of
☐ No

Previous housing *
Mark only one oval.
☐ Less than houses
☐ From 6 to 10 houses
☐ From 11 to 15 houses
☐ More than 15 houses
Previous housing *
Mark only one oval.

☐ Less than houses
☐ From 6 to 10 houses
☐ From 11 to 15 houses
☐ More than 15 houses

live with family

Do you live with them in
Mark only one oval.

☐ The same house
☐ Separate section

Housing at Last 10 years

How many houses you lived in last 10 years
Mark only one oval.

☐ just one house
☐ From 2 to 4
☐ From 5 to 6
☐ More than 7

Satisfaction of current house
Mark only one oval.

☐ Very bad
☐ Bad
☐ Average
☐ Satisfied

Future House

Do you prefer the own or rent *
Mark only one oval.

☐ Own
☐ Rent
☐ Other:
When do you expect to own the housing *
Mark only one oval.
- Less than 3 year
- From 3 to 6 years
- From 6 to 9 years
- More than 10
- Other:

Do you prefer to deal with *
Check all that apply.
- Architectural consultancy office
- Banks
- Big real estate development companies
- Family and friends
- Real estate offices in Neighbourhoods
- Ministry of Housing
- Construction and supervision by you
- Other:

Why / The Reasons *

What is the most important factor for the purchase of the unit *
Mark only one oval.
- Price
- Location
- Housing space and number of rooms
- Construction quality
- After-sales service
- Other:

Waiting to provide the largest amount to buy a villa *
Mark only one oval.
- Yes
- No

Preferences of the future houses

Do you prefer (Furnished house) *
Mark only one oval.
- Yes
- Only kitchen
- Only air conditioners
- Only air-conditioners, kitchen
- No
Do you prefer (Balcony or terrace) *
Mark only one oval.
☐ Yes
☐ Some of
☐ No, Better take advantage of the area inside the house

Do you prefer (Kitchen design) *
Mark only one oval.
☐ Closed kitchen
☐ Open kitchen
☐ Closed and open kitchen

Do you prefer (The house yard) *
Mark only one oval.
☐ Indoor
☐ Exterior
☐ I do not want

Do you prefer (living in a multi-storey) *
Mark only one oval.
☐ Yes
☐ No

Do you prefer (Have a salon for men and another for women) *
Mark only one oval.
☐ Yes
☐ No, One large Salon better than 2 salon

The type of future house which you looking for *
Mark only one oval per row.

<table>
<thead>
<tr>
<th></th>
<th>The first</th>
<th>The second</th>
<th>The third</th>
<th>The last</th>
</tr>
</thead>
<tbody>
<tr>
<td>Villa</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Part of Villa-Villa Roof</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Duplex</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Apartment</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

How do you buy your future house *
Mark only one oval.
☐ Personal savings
☐ Bank financing
☐ Government funding (such as the REDF)
☐ Help from family or friends
☐ Other: 

Why / The Reasons (Buying a house) *
Buying an apartment at a reasonable price *
Mark only one oval per row.

<table>
<thead>
<tr>
<th></th>
<th>Convinced</th>
<th>Average conviction</th>
<th>Not convinced</th>
<th>I do not want</th>
</tr>
</thead>
<tbody>
<tr>
<td>Buying an apartment</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Why / The Reasons *

Preferred number of rooms of the future houses *
Mark only one oval.

- [ ] 2 Or less
- [ ] From 3 to 4 rooms
- [ ] From 5 to 6 rooms
- [ ] From 7 to 8 rooms
- [ ] More than 8 rooms
- [ ] Other: __________________

Preferred number of bathrooms of the future houses *
Mark only one oval.

- [ ] 2 Or less
- [ ] From 3 to 4 bathrooms
- [ ] From 5 to 6 bathrooms
- [ ] From 7 to 8 bathrooms
- [ ] More than 7 bathrooms
- [ ] Other: __________________

What are additives you are looking for the future house *
Check all that apply.

- [ ] Salon for men
- [ ] Salon for women
- [ ] Store
- [ ] Private car parking
- [ ] Domestic worker Room
- [ ] Swimming pool
- [ ] Laundry Room
- [ ] Other: __________________
## Opinions and evaluations of the housing issues

### What is your evaluation of these a scale of 1 to 4 *
*Mark only one oval per row.*

<table>
<thead>
<tr>
<th></th>
<th>Very Difficult</th>
<th>Difficult</th>
<th>Medium</th>
<th>Easy</th>
</tr>
</thead>
<tbody>
<tr>
<td>Difficulty of affording a house</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Difficulty of obtaining a house financing</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### This reasoning And their relationship to the problems of housing from your point of view *  
a scale 1 to 4  
*Mark only one oval per row.*

<table>
<thead>
<tr>
<th>Reason</th>
<th>No relationship</th>
<th>Weak relationship</th>
<th>Medium relationship</th>
<th>Strong relationship</th>
</tr>
</thead>
<tbody>
<tr>
<td>Increases of Land price</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Rise of house prices in general</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lack offered of adequate housing</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Difficulty in obtaining adequate funding</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Municipal requirements</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Poor planning in the residential sector</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Evaluate the following agencies and mentioned their relationship to exacerbate the housing problem from your point of view *  
a scale 1 to 4  
*Mark only one oval per row.*

<table>
<thead>
<tr>
<th>Agency</th>
<th>No relationship</th>
<th>Weak relationship</th>
<th>Medium relationship</th>
<th>Strong relationship</th>
</tr>
</thead>
<tbody>
<tr>
<td>The public sector such as the Ministry of Housing</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>The private sector, for example real estate offices</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Financial sector such as banks</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Individual investors</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Row 5</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Row 6</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Row 7</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Row 8</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### From your point of view : What is your evaluation of these housing solutions *  
a scale 1 to 4  
*Mark only one oval per row.*

<table>
<thead>
<tr>
<th>Solution</th>
<th>Very Dissatisfied</th>
<th>Dissatisfied</th>
<th>Satisfied</th>
<th>Very Satisfied</th>
</tr>
</thead>
<tbody>
<tr>
<td>Delivery of grants to real estate developers</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Reducing the size of the land</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Change some of municipal requirements, such as rises</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Partnership between the banks and the Municipality of the region</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Partnership between the Ministry of Housing and the private sector</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Impose a fee on the Empty land</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>The construction of new residential cities</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>The imposition of laws limiting the rise in prices for either land or housing</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Support villages in the the Kingdom by the private sector</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

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Evaluate the performance of the ministry of housing and their contributions to the provision of proper houses *
Mark only one oval.

☐ Does not leading the expected
☐ Medium benefit
☐ Excellent and have a great benefit

How you received the questionnaire *
Mark only one oval.

☐ Twitter
☐ Work
☐ Other: ________________________________

If you want to mention something or to communicate .. Thank you very much for participating
________________________________________
________________________________________
________________________________________
Appendix (A2): information about the Questionnaire in local newspaper

Source: Makkah newspaper
Appendix (A3): The distribution of Jeddah population in residential neighborhoods: by nationality

Source: Google map
## Appendix (B)

Appendix (B1): the age structure of the population in Saudi Arabia

<table>
<thead>
<tr>
<th>Years</th>
<th>%</th>
<th>39 and less</th>
<th>40 – 59</th>
<th>60 and More</th>
</tr>
</thead>
<tbody>
<tr>
<td>1973</td>
<td>All Population</td>
<td>81,0</td>
<td>12,3</td>
<td>6,7</td>
</tr>
<tr>
<td>1992</td>
<td>All Population</td>
<td>49,2</td>
<td>47,5</td>
<td>3,3</td>
</tr>
<tr>
<td>2004</td>
<td>All Population</td>
<td>39,9</td>
<td>56,6</td>
<td>3,5</td>
</tr>
<tr>
<td>2007</td>
<td>All Population</td>
<td>32,5</td>
<td>64,7</td>
<td>2,8</td>
</tr>
<tr>
<td></td>
<td>All Population - Male</td>
<td>39,5</td>
<td>67,9</td>
<td>2,6</td>
</tr>
<tr>
<td></td>
<td>All Population - Female</td>
<td>36,1</td>
<td>60,8</td>
<td>3,1</td>
</tr>
<tr>
<td></td>
<td>Saudi Population- Male</td>
<td>37,2</td>
<td>59,3</td>
<td>3,5</td>
</tr>
<tr>
<td></td>
<td>Saudi Population - Female</td>
<td>32,5</td>
<td>64,7</td>
<td>2,8</td>
</tr>
<tr>
<td></td>
<td>Non Saudi Population</td>
<td>19,6</td>
<td>79,4</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Non Saudi Population- Male</td>
<td>14,5</td>
<td>84,6</td>
<td>0,9</td>
</tr>
<tr>
<td></td>
<td>Non Saudi Population- Female</td>
<td>3,1</td>
<td>67,7</td>
<td>1,3</td>
</tr>
<tr>
<td>2016</td>
<td>All Population</td>
<td>24,8</td>
<td>72</td>
<td>3,2</td>
</tr>
<tr>
<td></td>
<td>All Population - Male</td>
<td>22</td>
<td>75</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>All Population - Female</td>
<td>28,5</td>
<td>67,9</td>
<td>3,6</td>
</tr>
<tr>
<td></td>
<td>Saudi Population- Male</td>
<td>30,4</td>
<td>65,5</td>
<td>4,1</td>
</tr>
<tr>
<td></td>
<td>Saudi Population - Female</td>
<td>24,8</td>
<td>72</td>
<td>3,2</td>
</tr>
<tr>
<td></td>
<td>Non Saudi Population</td>
<td>15,2</td>
<td>83,2</td>
<td>1,6</td>
</tr>
<tr>
<td></td>
<td>Non Saudi Population- Male</td>
<td>11,4</td>
<td>87</td>
<td>1,6</td>
</tr>
<tr>
<td></td>
<td>Non Saudi Population- Female</td>
<td>23,5</td>
<td>74,9</td>
<td>1,6</td>
</tr>
</tbody>
</table>

Source: CDSI, (1973 to 2016)

B2.A: Examples of Villas

Source: madkar Al-Qahtani: How to build your home step by step, 2015
B2.B: Examples of Duplex

Semi-detached

Detached

Source: omhttps://www.pagearabic.c
B2.C: Examples of Residential buildings

Source: http://www.amana-properties.com/project
Appendix (B3): Plan of the apartments in the urgent housing projects in main city of Saudi Arabia

Source: Bahammam, 2002
Appendix (B4): Forms of residential towers in main city of Saudi Arabia

Source: Bahammam, 2002
Appendix (C): The Questionnaire - Analysis of comparisons - Type of house

Source: Survey results
Appendix (C2): The Questionnaire - Analysis of comparisons-
Homeownership

Source: Survey results
Appendix (C3): The Questionnaire - Analysis of comparisons- Number of room

Source: Survey results
Appendix (C4): The Questionnaire - Analysis of comparisons- Factors affecting the purchase of homes

Source: Survey results
Appendix (C5): The Questionnaire - Analysis of comparisons - Buying an apartment

Source: Survey results