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Exploring Project Success Factors in Housing

**A Survey-based Study on
Construction Projects in
Riyadh, Kingdom of Saudi
Arabia**

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1. Introduction

Housing is among the basic human needs that should be affordable to all. The concept of affordable housing originated in the 19th century in response to the problem of housing shortage, slums, and inadequate housing amenities. Housing affordability can lead to delivery of adequate housing, which improves human health, work efficiency, and overall socioeconomic development (Mubarak F. Alhajri 2022)

It also fosters social stability by reducing crimes, and creating jobs. (Mubarak F. Alhajri 2022)

The quality of housing reflects a person's identity, cultural values, aspirations and future expectations which impact the community, and in turn leads to national development. Thus, access to affordable housing will lead to the growth and development of individuals and the country. (Mubarak F. Alhajri 2022)

In KSA, rapid urbanization and population growth, inadequate affordable housing, and low rates of home ownership mean that the housing sector faces significant challenges, most especially in providing adequate affordable housing for middle and low-income households. And this issue, the government aims to transfer its role from direct housing provider to enabler in the Saudi Vision 2030, which led to establishing the Saudi National Housing Company to transform the housing sector through an enabling approach (Mubarak F. Alhajri 2022)

The enabling approach aims to achieve housing transformation through several incentives. The “Wafi” (on-map sale program) is a model public-private partnership (PPP) scheme between the Ministry of Municipalities, Rural Affairs and Housing (MOMRAH) and private developers to sell housing units at the design or construction stage. (Mubarak F. Alhajri 2022)

While the “Etmam” is a program that streamlined the process of obtaining licensing and approval for housing development by private developers, the White Land (Alarady albida) program applies fees to residential vacant land in order to inject more land into the housing market. (Mubarak F. Alhajri 2022)

There are also the ownership forms (Masaraat Altamalluk) program that matches the socioeconomic status of housing applicants and with appropriate housing solutions based on their financial capability and existing developmental housing program (Mubarak F. Alhajri 2022)

Adopting enabling approach can enhance the capacity of the private sector to provide housing for a large segment of low-income groups as well as middle- and higher-income groups (Mubarak F. Alhajri 2022)

The Saudi government is thus implementing an enabling approach based on the idea that works in developed countries such as the UK, the USA, Canada, and Australia (Mubarak F. Alhajri 2022)

However, the implementing the approach in KSA has been criticized in several studies. For example, it does not consider the affordability of low-income people that cannot afford housing in the existing market, and directly threatens the main objective of housing provision, which is poverty alleviation (Mubarak F. Alhajri 2022)

Another study concluded that housing provision through market mechanisms is likely to be inconsistent and may require seeming policy contradictions (Mubarak F. Alhajri 2022)

It has been five years since the launch of the enabling program, but no study investigated whether the initiatives are enhancing access to affordable housing in the country. Hence, this study aims to assess the extent to which this approach tackles the challenge of affordable housing in the country. According to Kavishe et al., different countries have experienced varied outcomes, with most of them experiencing failures in their partnerships with housing market actors. (Mubarak F. Alhajri 2022)

In the words of Hassan” many governments around the world have adopted the enabling approach; some with more success than others”. (Mubarak F. Alhajri 2022)

There is a dearth of studies on the role of the enabling approach in improving access to affordable housing in developing countries, as only a few countries have implemented this approach. In Kolkata, India, partnerships with market actors were challenged by a lack of access to finance, especially for low income people, which conflicted with the partnerships’ goal of delivering affordable housing to those in need In Lagos, Nigeria, Ibem found that the enabling approach provided affordable serviced plots and housing units for high-income groups but contributed slightly to the needs of low-income people. Conversely, the enabling approach is successful in Malaysia where the private sector’s performance in housing has been impressive in terms of the number of housing units completed (Mubarak F. Alhajri 2022).

The private sector accounts for over 90% of housing provision and a greater proportion of low-cost housing (Mubarak F. Alhajri 2022)

Thus, the successes and failures of the enabling approach is country specific.

Only a few studies have discussed housing within context of the new transformation of the Saudi Vision 2030 (Mubarak F. Alhajri 2022).

2. Research Problem

2.1 Population Growth in Riyadh

During the past three decades, Saudi Arabia has witnessed a rapid population growth which has a direct reflection on its cities, some of which have significant growth rates in excess of the national average. (Majed Ashwan 1990)

The population growth of the cities has not taken place at the same rate for several reasons, the differences in geographical location, the regional population distribution and differences in the volume of migration flow. (Majed Ashwan 1990)

In recent years planners and researchers have devoted insufficient attention to the subject of the population geography in Saudi Arabian cities since most of their studies have focused on the information available from the population census carried out in September 1974 and on a number of studies and research projects aimed to provide the essential statistical indicators needed for socioeconomic development plans. (Majed Ashwan 1990)

The prime purpose of this research is fourfold to undertake a geographic and demographic analysis of the population growth of Riyadh City to analyze the factors affecting it since 1962, especially migration and natural increase; to examine patterns and trends in that growth; and to examine the population structure of the city under such an unusually rapid growth. (Majed Ashwan 1990)

Considering the above-mentioned aim of this research, there are some other aims in studying the population growth of Riyadh City in Saudi Arabia, such as:

- a. To fill a gap in the literature. During the past fifteen years research has been carried out and several studies have been made in university Introduction 3 departments and in academic research centers such as The Committee of Riyadh Research and Saudi Geographical Society at the King Saud University, about various aspects of Riyadh City in particular and Saudi Arabian cities in general. But there are still some aspects that have not been analysed completely. For instance, most of the studies which analyze the population of Riyadh City (such as those of Al-Sheikh, 1981; Malik, 1973; Khraif, 1984; Al- Oteiby, 1988) are concerned with one aspect which is migration in Riyadh City. Other studies, such as the one by Al-Obeidy, 1985 deal with the incidence of infant mortality in Riyadh City. (Majed Ashwan 1990)
- b. To provide a clear picture about housing conditions and public services in Riyadh City. (Majed Ashwan 1990)

- c. To investigate the broad pattern of contemporary population distribution in Saudi Arabia in which the growth of Riyadh has taken place, and the major changes which have occurred in this pattern between 1930 and 1988; and to analyze those causative factors which have brought variation in distribution and density.
- d. To analyze the level and trends of fertility, mortality and migration in Riyadh City and compare them with Saudi Arabia as a whole, and the factors affecting the elements of population growth. (Majed Ashwan 1990)
- e. To analyze the population structure (age, sex, marital status, education and economic structure) of Saudi Arabia as a whole and Riyadh City in particular, and to find out to what extent these elements affect Riyadh City population growth (Majed Ashwan 1990)

2.2 Limited Affordable Housing in Riyadh

In KSA, in 2016 the Vision 2030, seeks to transform the housing sector to an enabling approach through which to work in partnership with market actors. (Mubarak F. Alhajri 2022)

According to the National Housing Strategy, “An efficient and effective housing sector based on partnership with the private sector contributes to the development of the kingdom enables all groups of society to obtain suitable housing for their needs and financial capabilities through a balanced and sustainable housing market based on knowledge and quality” [37, p.72]. (Mubarak F. Alhajri 2022)

In addition, the traditional mechanism of housing delivery in KSA, where the government worked as a direct provider and not as a market actor, does not guarantee affordable housing [38]. (Mubarak F. Alhajri 2022)

However, since the implementation of the Saudi Vision 2030 agenda, little or no attention has been given to measuring the success of the enabling approach to face the Saudi housing challenges. (Mubarak F. Alhajri 2022)

Even though the Saudi government has responded to the housing demand by implementing public housing programs in which houses are either owned or allocated by a public body, house prices have been rapidly increasing, which means that an increasing proportion of citizens are unable to own a home. (Mubarak F. Alhajri 2022)

There is a lack of the availability of suitable housing units for various socioeconomic segments of society in KSA [39]. (Mubarak F. Alhajri 2022)

Within the KSA housing market, affordability has been pushed beyond the reach of many new households [40]. (Mubarak F. Alhajri 2022)

The gap between the demand and the supply of housing in the kingdom has not been bridged. (Mubarak F. Alhajri 2022)

Since the development of the Real Estate Development Fund (REDF) in 1975, this fund has become the backbone of the country's housing development by providing total loans of SAR 269,852,662,615 (\$71,960,710,030.66) [41]. (Mubarak F. Alhajri 2022)

However, there has been a rapid increase in the number of applicants, and consequently, the waiting list has reached more than 15 years [6]. (Mubarak F. Alhajri 2022)

As a result, the gap between supply and demand has been escalating. Furthermore, the growth of the housing sector and the government fund in KSA have been allied and can be tracked with the five-year development plan [42]. (Mubarak F. Alhajri 2022)

Fig. 1 illustrates the gap between the supply and demand of housing in KSA from the implementation of the first development plan (1970–1974) to the ninth development plan (2010–2014).

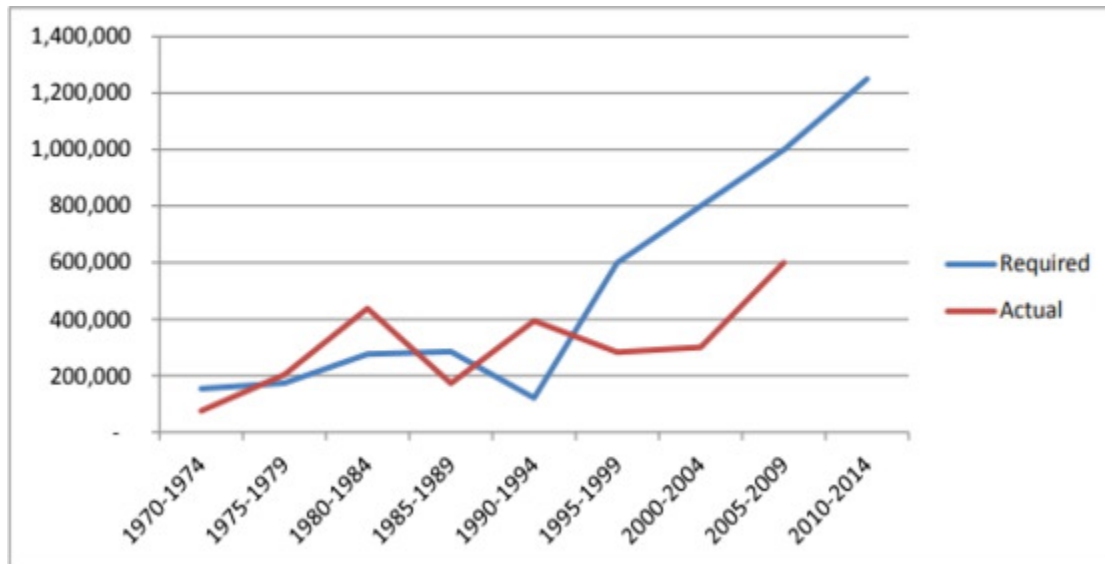


Fig. 1. Supply and Demand of Housing in KSA from 1970 to 2014 [6]. (Mubarak F. Alhajri 2022)

According to Aleid [43], in KSA there was a shortage in housing supply since the 1990s for two reasons: the first was falling oil prices in the mid-1980, which resulted in significant cutbacks in financing housing, and the second was the economic consequences of the Gulf War, which can be clearly identified in Fig. 1. (Mubarak F. Alhajri 2022)

Similarly, the more recent drop in oil prices in 2014 reduced market liquidity, and budget tightening, which affected the delivery of housing and other critical infrastructure. (Mubarak F. Alhajri 2022)

On the other hand, there is little private investment in the delivery of affordable housing in the country. (Mubarak F. Alhajri 2022)

The chain of funding for housing development in KSA is still very slow and unstable and the contribution of private investment is limited [44]. (Mubarak F. Alhajri 2022)

As a result, with the new Saudi Vision 2030, the government's commitment to shift to enabling approach and make the private sector participate in the delivery of the future demand for housing, as is evident in National Transformation Program 2020, which affirms the government's commitment to "providing housing units through public-private-partnerships" [45, p. 97]. (Mubarak F. Alhajri 2022)

Furthermore, in 2020 the demand for housing, according to the Saudi Housing National strategy for the thirteen regions of the kingdom, is 1.15 million units [37]. (Mubarak F. Alhajri 2022)

The population growth rate of 1.6% annually and the current high urbanization rate (84%) [5], can be considered as significant challenges that contribute to housing issue [22], [6]. (Mubarak F. Alhajri 2022)

In addition, due to the population's rate of growth, MOMRAH needs to build a massive number of dwellings to respond to the increased demand [22]. (Mubarak F. Alhajri 2022)

Furthermore, one of the major challenges for the housing sector in KSA is the rapid increase in the foreign labour force, which is now about one-third of the population [46]. (Mubarak F. Alhajri 2022)

Other challenges that strain the gap between demand and supply in KSA include the increasing number of households: KSA has a moderately young demographic (over 60% of its population are under the age of 30 years), where more young people are getting married and seeking to leave their parents' homes [4], [47]. (Mubarak F. Alhajri 2022)

This leads to the formation of many new households, which will consequently create a huge demand for housing [38]. (Mubarak F. Alhajri 2022)

Beyond the demographic character of KSA, social and cultural preferences have contributed to the country's housing challenges. Due to the traditional preference for villa-style homes, Saudi households are reluctant to live in some types of housing such as apartments, which are smaller

and cheaper, due to shared entrances and joint spaces, which are considered disadvantageous [48]. (Mubarak F. Alhajri 2022)

Furthermore, the most significant issues appear to be the high cost and shortage of housing units and the fact that available housing units are not compatible with the socioeconomic characteristics of Saudi families [39]. (Mubarak F. Alhajri 2022)

The rapid increase in house prices has meant that about 53% of citizen unable to afford to own a home in 2018 [9]. For example, a 4-bedroom villa with average size of 410 square meter in Riyadh, cost about by SAR 4,500,000 (\$1,200,000). (Mubarak F. Alhajri 2022)

In comparison with average monthly income of the Saudi citizen SAR 12,500 (\$3,333) [4], this equals 30 years of saving of the whole salary to purchase this villa not to mention the other living expenses. However, only 30% spent on housing is considered affordable. (Mubarak F. Alhajri 2022)

The escalating house prices are aligned with the increasing price of land, which has become an investment channel for many households in KSA, as it is bought speculatively as an investment and kept empty in the hope of future price rises. Thus, large tracts of subdivided lands have witnessed very sparse development, but that has not stopped either the flow of investment or the escalation of land prices [49], [50]. (Mubarak F. Alhajri 2022)

Moreover, the absence of a comprehensive strategy for housing provision has contributed to the worsening of housing problem in KSA. According to Al-Mayouf et al. [51], the tasks of housing provision have been transferred through several authorities. Various government ministries and agencies have been cancelled or replaced by other agencies, that introduce different strategies. (Mubarak F. Alhajri 2022)

However, the government has recently introduced the Saudi Housing Strategy to develop the housing sector in the country. Therefore, the challenges of affordable housing in KSA can be recognized from four different perspectives: financial, socioeconomic, cultural, and political (Mubarak F. Alhajri 2022)

3. Research Significant

3.1 Rapid Urbanization

The significance of the research lies in developing a model that contributes to Riyadh's transformation into a smart and sustainable city, as successful implementation of the proposed model will contribute to economic growth, prosperity, global competitiveness, improving innovation rates, providing better and faster services, as well as transparency and creating great opportunities for various sectors. (Ajlan, & Al Abed 2023)

The current study is also significant because the proposed model will assist decision-makers in developing solid outputs that will lead a global revolution in the green economy, rebuilding, using renewable energy, developing new lifestyles, and benefiting from technological revolutions in critical sectors such as transportation and communications, all of which contribute to reducing harmful emissions into the environment. (Ajlan, & Al Abed 2023)

This improves things, and the proposed model's strategic planning includes developing advanced future visions for Riyadh that meet the needs of future citizens and provide advanced digital infrastructure. (Ajlan, & Al Abed 2023)

Furthermore, the study will provide a unique opportunity to assess and apply the large number of lessons learned from nearly three decades of dedicated research and planning on sustainable cities, development, and implementation, as well as nearly a decade of developing and applying advanced technologies in smart cities to improve sustainability (Ajlan, & Al Abed 2023)

3.2 Rapid Urbanization

Real estate developers also take the economic feasibility study into account to know and estimate the chances of success of the investment idea before starting its implementation. (Alqahtany, A., Alshihri, F. S., Alshammari 2023)

stressed that the stage of the economic feasibility study is one of the most important stages of the real estate development process because it shows the real estate developer whether the project is economically feasible and achieves the desired goals or not. Additionally, the good marketing of the project reflects positively on the financial flows and increases the financial capacity of the real estate developer to implement the project with fewer financing risks, as the financial flows

resulting from the buyers' payments contribute to reducing the interest resulting from borrowing to finance the project. (Alqahtany, A., Alshihri, F. S., Alshammari 2023)

However, there remain several obstacles that would increase the risk of financing in the off-plan sales program (Alqahtany, A., Alshihri, F. S., Alshammari 2023)

Al-Shaalan highlighted some of these obstacles, such as low prices of real estate products of all kinds; high annual interest rates; the high cost of building materials; economic stagnation; the bankruptcy of the real estate developer; and building and construction at a time of high prices. (Alqahtany, A., Alshihri, F. S., Alshammari 2023)

As mentioned previously, the experiences of several countries have shown that the off-plan sales program is one of the methods of owning real estate that has proven successful in international experiences (Alqahtany, A., Alshihri, F. S., Alshammari 2023)

Graham studied off-plan sales in Australia, where the study touched on the most prominent risks and challenges facing developers in off-plan sales projects, such as the drop in the prices of housing units after the contract signing stage and before delivery, the difficulty of knowing the final form and the quality level of the building materials used, and the buyers' failure to pay the payments on due dates, which disrupts the real estate developer's financing sources. (Alqahtany, A., Alshihri, F. S., Alshammari 2023)

The study also emphasized the importance of reading all the details of the contract with the contractor executing the project, reviewing previous projects implemented by the contractor, knowing the final form of the project, determining the general location of the units, public parks, and future projects adjacent to the project. (Alqahtany, A., Alshihri, F. S., Alshammari 2023)

Savage reviewed the off-plan sales program in the United Kingdom (UK), where the study touched on the advantages and disadvantages of this program and also addressed the reasons for buyers' obtaining real estate units at lower prices compared to the prices of ready units, while at the same time exploiting payments by the developer to finance the project and obtain higher profitability. (Alqahtany, A., Alshihri, F. S., Alshammari 2023)

The study recommended those who wish to purchase real estate units with the off-plan sales program review the real estate market conditions and analyze the influencing factors to make the purchase decision at the most appropriate time. (Alqahtany, A., Alshihri, F. S., Alshammari 2023)

Stucklin has prepared a study on the off-plan sales program in Spain, aimed at educating people who want to buy real estate units with the off-plan sales program and providing them with advice

so that they do not fall into high-risk or unsecured projects. (Alqahtany, A., Alshihri, F. S., Alshammari 2023)

Stucklin's study concluded with several recommendations, the most important of which are verifying the legality of the company developing the project, making sure that the developer owns the land on which the project will be built, and reviewing the projects completed by the developer. In the Middle East, Limuasa studied the reality of the off-plan sales program in Algeria, which suffered from high unit costs due to inflation occurring in the country or due to the neglect of the real estate developer and an increase in the cost of implementation, which was reflected in the failure of projects and completion rates. (Alqahtany, A., Alshihri, F. S., Alshammari 2023)

The study identified the parties involved in the sale contract and the obligations of each party, in addition to the necessary permits that the real estate developer must obtain, namely: building licenses, retail licenses, construction certificates, in addition to a certificate of conformity. (Alqahtany, A., Alshihri, F. S., Alshammari 2023)

The real estate developer, upon receipt of the payments deposited by the buyers in the account of the Real Estate Development Operations Guarantee Authority, must spend them on completing the project and submitting it according to the agreed time plan, where the guaranteed authority guarantees the financial amounts paid by the buyer, according to the completion percentages of the project. (Alqahtany, A., Alshihri, F. S., Alshammari 2023)

In his study, AlSaidi [36] touched on the seller's obligations in the off-plan sales contract in the United Arab Emirates (UAE), starting from obtaining the license until the building is ready to perform the purpose for which it was established, noting that the construction and its completion should be based on what was agreed upon and on time and specified period. AlSaidi pointed out the importance of defining the property descriptions in sufficient and clear terms, and the developer must mention in the property contract the specifications that the property will have, such as the area of the residential unit, the number of bedrooms, the dimensions and windows, the type of doors used, balconies and corridors, and other specifications that the developer is committed to handing over to the buyer. (Alqahtany, A., Alshihri, F. S., Alshammari 2023)

Given the large number of development projects and the multiplicity of developers who have experience and multiple development strategies, the UAE is considered one of the first countries to implement real estate projects under the off-plan sales system (Alqahtany, A., Alshihri, F. S., Alshammari 2023)

In Saudi Arabia, the off-plan sales program is considered one of the systems that stimulate the real estate developer to implement projects and complete them within their implementation in the agreed period and with high quality. It helps developers in the speed of their marketing, which contributes to motivating them to constantly develop their real estate products and their commitment to the highest quality standards to gain the trust of the buyers. Off-plan sales contracts force the real estate developer to abide by the requirements, which contributes to providing integrated and distinguished services and shortening many procedures, which is reflected in an increase in trust between the real estate developer and the buyer. It is believed that the developers should take advantage of the opportunity to obtain financing through the off-plan sales program in light of supporting this program and facilitating the procedures for obtaining the necessary licenses and permits, which aim in its entirety to reduce the gap between supply and demand for housing in the country. (Alqahtany, A., Alshihri, F. S., Alshammari 2023)

Based on a review of the literature on housing and an exploration of the local housing context in Saudi Arabia and Riyadh, in particular, through some preliminary interviews with practitioners in the housing market, the questionnaire in this study was mainly built around four key issues (Alqahtany, A., Alshihri, F. S., Alshammari 2023)

- a. Financial challenges affecting the off-plan sales program in Riyadh.
- b. Marketing challenges affecting the off-plan sales program in Riyadh.
- c. Proposed measures to overcome financial challenges.
- d. Proposed measures to overcome marketing challenges.

The questionnaire contained six main questions focused on these four key issues. (Alqahtany, A., Alshihri, F. S., Alshammari 2023)

These questions, as well as the characteristics of the experts participating in this study, were analyzed and discussed in depth during the following sections of this study. (Alqahtany, A., Alshihri, F. S., Alshammari 2023)

4. Research Questions

4.1 What are the primary drivers of housing demand in Riyadh?

The aim of the study to answer the main Research Questions

- a) How does the availability of affordable housing in Riyadh compare to the demand, and what factors contribute to housing affordability challenges in the city?
- b) What are the spatial patterns of housing development and urban expansion in Riyadh, and how do they impact access to amenities, transportation networks, and quality of life for residents?
- c) What are the key factors influencing housing tenure choices among Riyadh's population, and how do they affect residential mobility and community stability?
- d) What are the prevailing housing preferences and lifestyle choices of residents in Riyadh, and how do they shape housing design, neighborhood planning, and urban development initiatives?
- e) What are the environmental sustainability challenges associated with housing development in Riyadh, and what strategies can be implemented to promote green building practices and reduce carbon emissions?

5. Research objective

5.1 The Population Growth affect the primary drivers of housing demand in Riyadh

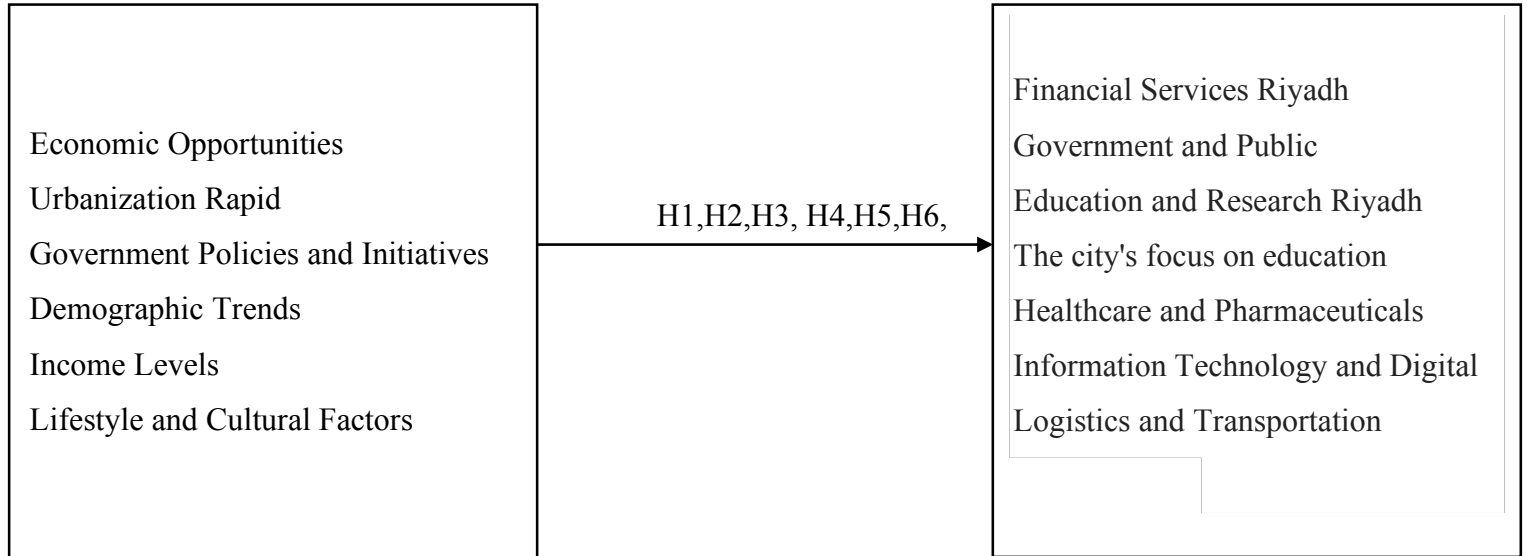
- a) **Economic Opportunities**
- b) **Urbanization** Rapid urbanization in Riyadh leads to increased demand for housing as rural populations migrate to the city in search of better livelihoods, educational opportunities, and access to services.
- c) **Government Policies and Initiatives** Government policies, such as initiatives to promote homeownership, provide housing subsidies, and stimulate real estate development, can influence housing demand in Riyadh.
- d) **Demographic Trends** Demographic factors such as household size
- e) **Income Levels** Socio-economic status and income levels play a significant role in shaping housing demand preferences and affordability.
- f) **Lifestyle and Cultural Factors** Lifestyle preferences, cultural norms, and social aspirations can impact housing demand patterns.

6. Research Hypotheses

6.1 Riyadh serves as the economic hub of Saudi Arabia

- a) Financial Services Riyadh is home to the headquarters of many banks, financial institutions, and investment firms
- b) Government and Public Sector As the capital city of Saudi Arabia, Riyadh hosts numerous government ministries, agencies, and public-sector organizations,
- c) Education and Research Riyadh hosts prestigious universities, research institutions, and educational organizations, offering opportunities in academia, research, teaching, and knowledge-based industries.
- d) The city's focus on education and innovation drives growth in sectors such as technology, healthcare, and knowledge economy.
- e) Healthcare and Pharmaceuticals Riyadh is a regional healthcare hub, with leading hospitals, medical centers, and pharmaceutical companies.
- f) Information Technology and Digital Services Riyadh is embracing digital transformation, leading to opportunities in information technology, telecommunications, e-commerce, and digital services.
- g) Tourism and Hospitality Riyadh is increasingly attracting tourists and business travelers, leading to opportunities in hospitality, tourism management, event planning, and cultural tourism.
- h) Logistics and Transportation Riyadh's strategic location and infrastructure networks make it a logistics and transportation hub

7. Research Model



Suggested research model: Source

8. Research Methodology

8.1 Research philosophy interpretivist

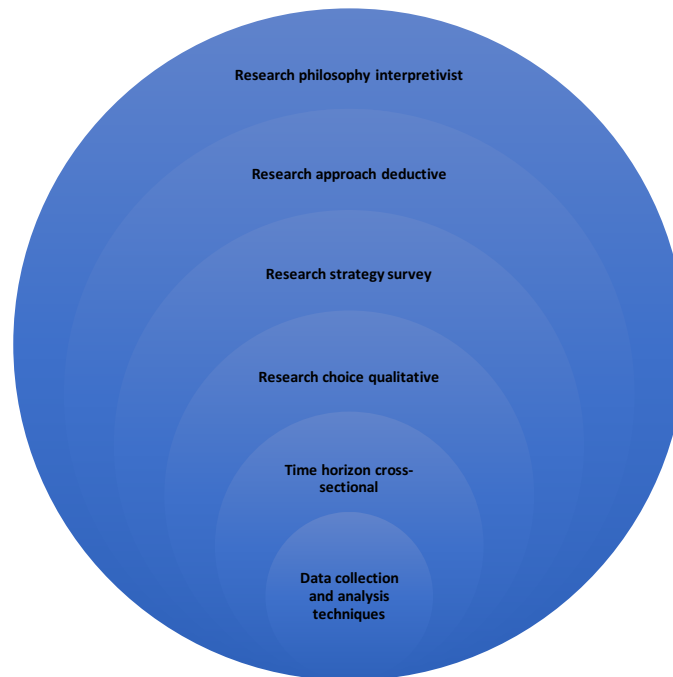
8.2 Research approach deductive

8.3 Research strategy survey

8.4 Research choice qualitative

8.5 Time horizon cross-sectional

8.6 Data collection and analysis techniques



9. Suggested Project Structure

Chapter 1: Introduction

Chapter 2: Literature Review

Chapter 3: Research Methodology

Chapter 4: Statistical Analysis

Chapter 5: Discussion and Conclusion



Chapter 1: Introduction

Chapter 2: Literature Review

Chapter 3: Research Methodology

Chapter 4: Statistical Analysis

Chapter 5: Discussion and Conclusion

2. The structure of literature review chapter

2.1. Introduction

In this section, provide an overview of the topic at hand, the importance of conducting a literature review, and the specific research variables that will be explored.

2.2. Research Variable 1 Population Growth

This paper presents a predictive analysis of the urban growth in Riyadh city for the years 2030 and 2050. (Walid Al-Shaar 2023)

The Multi-Layer Perceptron Markov Chain model is used to simulate the forecast based on spatio-temporal transitional aspects of previous urban growth and driving factors. (Walid Al-Shaar 2023)

The driving factors encompass the population density, the topographic elevation and slope, the distances from the road network, railways and waterways. The simulations reveal that a combination of two driving factors: the road network and railways have the highest effect size with an accuracy rate of 84.18% and a skill measure of 0.6837. (Walid Al-Shaar 2023)

The results show also that the urban growth in Riyadh city is primarily driven by economic and infrastructural development as well as public policy initiatives rather than population growth. (Walid Al-Shaar 2023)

The predicted urban expansions will potentially follow locations highly accessible to rail-lines, with expected growth in the northwestern and southeastern zones. (Walid Al-Shaar 2023)

Thus, the expected urban shape will potentially converge towards the Transit Oriented Developments. (Walid Al-Shaar 2023)

This study emphasizes the importance of understanding the significant driving factors of urban growth for sustainable and smart urban agglomerations. (Walid Al-Shaar 2023)

Further studies are needed to explore the effects of economic, technological, and energetical reforms in Saudi Arabia on the evolution of urban dynamics. (Walid Al-Shaar 2023)

2.3. Research Variable 2 Limited Affordable

since the implementation of the Saudi Vision 2030 agenda, little or no attention has been given to measuring the success of the enabling approach to face the Saudi housing challenges.

(Mubarak F. Alhajri 2022)

Even though the Saudi government has responded to the housing demand by implementing public housing programs in which houses are either owned or allocated by a public body, house prices have been rapidly increasing, which means that an increasing proportion of citizens are unable to own a home. (Mubarak F. Alhajri 2022)

There is a lack of the availability of suitable housing units for various socioeconomic segments of society in KSA . (Mubarak F. Alhajri 2022)

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Since the development of the Real Estate Development Fund (REDF) in 1975, this fund has become the backbone of the country's housing development by providing total loans of SAR 269,852,662,615 (\$71,960,710,030.66). (Mubarak F. Alhajri 2022)

However, there has been a rapid increase in the number of applicants, and consequently, the waiting list has reached more than 15 years. (Mubarak F. Alhajri 2022)

As a result, the gap between supply and demand has been escalating. Furthermore, the growth of the housing sector and the government fund in KSA have been allied and can be tracked with the five-year development plan . (Mubarak F. Alhajri 2022)

2.4. Relationship Between Research Variables

The relationship between limited housing and population growth in Riyadh is complex. Limited housing availability can lead to increased competition for housing, driving up prices and making it difficult for people to find affordable accommodation. This can, in turn, discourage people from moving to Riyadh or lead to overcrowding in existing housing. On the other hand, population growth itself can exacerbate the shortage of housing, as more people require places to live. Governments and urban planners often need to address this issue through policies that

encourage the construction of affordable housing and manage population growth through measures such as urban planning and infrastructure development.

2.5. Conclusion

The relationship between limited housing and population growth in Riyadh underscores the importance of proactive urban planning and policy intervention. As the population grows, the demand for housing increases, placing strain on existing housing stock and driving up prices. This can create challenges such as overcrowding and housing unaffordability. Addressing this issue requires a multifaceted approach that involves increasing housing supply, promoting affordable housing initiatives, and managing population growth through strategic urban development policies. Failure to effectively manage this relationship can lead to social and economic imbalances, underscoring the need for proactive measures to ensure sustainable growth and development in Riyadh.

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