

# Barriers to Enhance Access to Affordable Housing in West Bank, Palestine: Perspectives of the Developers

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Received	Reviewed	Revised	Published
16.04.2023	26.04.2023	23.01.2024	31.01.2024

<https://doi.org/10.61275/ISVSej-2024-11-01-09>

## Abstract

Affordable housing support from real estate developers is important for the growth of the housing sector anywhere in the world. Any absence of such support could give rise to hardships for low-income families. Understanding the level of awareness among such developers about the nature of affordable housing is thus crucial. In fact, a good understanding of the challenges that hinder their involvement in the production of affordable houses, and the policies required for enhancing their involvement are necessary for effective planning. They could support vulnerable low-income households and propel the provision of housing. This is indeed the case also in Palestine, where access to affordable housing is a pressing issue.

This study examines the perspectives of the developers involved in the production of affordable houses in West Bank, Palestine. It employed a variety of tools: a questionnaire, a phone survey, interviews, and email correspondence to ascertain their level of understanding of the issue. 62 real estate companies affiliated with the Palestinian Union of Developers in the West Bank provided information.

Findings reveal that 88.7% of the real estate companies have a good grasp of affordable housing concepts. Majority support the provision of affordable housing for the needy. However, 21% do not support any involvement in its production, citing limited government support. In fact, almost all the companies pointed out the difficulty in partnering with the government, weak infrastructure and high land prices as the major obstacles to their contribution to affordable housing projects. It reveals that they will be motivated if there are encouraging policies and regulations allowing an increase in the number of floors and building densities. Moreover, provision of government land and reductions of the minimum areas for the residential units will also motivate them.

This paper points out that there is a need for a swift response to the requirements and opinions of these real estate companies. This will improve the performance of the real estate sector fostering increased investment, making affordable housing available in Palestine.

**Keywords:** Affordable housing, Accessibility, Real estate, Palestinian developers, West Bank, Low-income families

## Introduction

The strategic plan of the Ministry of Public Works and Housing for 2017-2022 has highlighted the deficiency in affordable housing production, shedding light on the limited involvement of the private sector in producing this type of housing units (Ministry of Public Works and Housing, 2017). MAS Institute has revealed that the private sector does not contribute much the low-income population in housing projects. This is primarily attributed to the exorbitant costs associated with housing production. Several factors contribute to this situation, with the foremost being the incapacity of relevant institutions to furnish the essential infrastructure required for construction sites (MAS, 2015). Moreover, International Quartet Office in Palestine reveals a significant demand for affordable housing in the Palestinian territories. In fact, approximately 70 percent of the Palestinian households currently face challenges affording the average house prices, highlighting the urgent need for interventions to address this housing crisis. (Quartet office in Palestine, 2017). This revelation calls for a re-evaluation of the focus and a concerted push towards revitalizing efforts to enhance both the quality and quantity of affordable housing supply in Palestine.

Building upon the insights of the Ministry of Public Works and Housing and the MAS Institute, this paper identifies two key issues as follows.

1. A shortage in affordable housing and
2. Limited involvement of the private sector in producing such housing units.

In response to these issues, this study explores and addresses the underlying factors related to access to affordable housing from the perspective of real estate companies in West Bank. The study aims to uncover the motivations and hindrances influencing the support or reluctance of the real estate companies to participate in affordable housing production. Its objectives are:

1. To evaluate the level of awareness among Palestinian real estate companies, focusing specifically on their comprehension of affordable housing concepts.
2. To identify challenges faced by developers in participating and producing affordable housing units.
3. To ascertain potential policies that could incentivize the real estate developers to actively engage in affordable housing projects.
4. To provide actionable insights to enhance the quality and quantity of affordable housing supply in the region.

## Theoretical Framework

Housing is one of those basic social conditions that determine the quality of life and welfare of people and places. Where houses are located, how well they are designed and built, and how well they are weaved into the environmental, social, cultural and economic fabric of communities are factors that, in a very real way, influence the daily lives of people, their health, security and wellbeing, and which, given the long life of dwellings as physical structures, affect both the present and future generations. Housing is therefore central to sustainable development (UN-Habitat, 2012).

Housing is among the most 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 (Alhajri, 2022).

According to Chung et al. (2019) housing affordability is the ability people have, in securing liveable housing units in locations they desire to reside at prices, that they can manage to pay without feeling over-burdened. Wang and Li (2022) posit that it is defined as the ability of a family to purchase a house for their own living. As people's lifestyles evolve, the definition of housing affordability undergoes constant updates. Therefore, assessing housing affordability is a complex issue, and the Price-to-Income Ratio (PIR) stands out as the most commonly referenced and internationally recognized method.

Public-private partnerships (PPP) are a powerful method for developing affordable housing by leveraging the best of both the public and private sectors, wherein the government enlists a private-sector partner to deliver housing under agreed-upon conditions. PPPs are often used to develop affordable housing when government can contribute a critical asset such as land for development (Woetzel, et al, 2014). As Aliyu et al. (2017) say, private-sector housing is defined as any production which is not connected at all with the actions of the state, neither directly constructed by the state nor financially sponsored by the state, where production is not expected to have a social element.

In terms of social and material experiences of people in securing houses across the world, affordable housing has become an emerging social issue, which require the contributions of both the government and private sectors. Mahadevia, et al (2018) show that the trend of involving private sector in the affordable housing segment is observed globally. In fact, the private sector plays a major role in driving the growth of the construction industry in some parts of the world (World Bank, 2015).

### Review of Literature

Yiu (2023) point out that numerous research studies have been conducted on the adverse impacts of housing affordability on households and society at large especially on young people. Yiu (2013) sees that with the dramatic escalation in house prices much faster than household incomes in many countries in the past decades, housing affordability has become one of the major social problems globally.

Among many studies, Saiz, et al. (2010) investigate the relationship between land use regulations and housing prices. They explore how regulatory frameworks impact the cost of housing and, consequently, the ability of the private sector to contribute to affordable housing. Hsieh & Moretti (2019) highlight the role of land use regulations in exacerbating housing affordability challenges and limiting the private sector's ability to meet demand. Similarly, Morawakage et al. (2023) explore the role of governance in attracting investors and offers superior downside protection, indicating potential for responsible investments to boost affordable housing supply. Indeed, the role of the private sector in addressing affordable housing challenges is a complex and multifaceted issue.

Daud, et al. (2018) emphasize the potential of affordable technologies to reduce construction costs. Christine et al. (2021) comparing affordable housing policies in New York and London, point out the need to combine local and national measures, along with community initiatives, to address the ongoing challenges of providing sufficient affordable homes.

A range of studies have explored the relationship between affordable housing provision and the private sector too. For example, Benedict et al. (2022) emphasize the need for strong policy setting and regulation, efficient procurement processes, and ongoing government support to maximize the opportunities for private sector involvement. Berry et al. (2006) draw on the UK experience to identify key factors that have contributed to the successful leverage of private investment in affordable housing, providing potential lessons for Australia. Similarly, Barlow et al. (1994) examine the legal and economic constraints on planning policy for affordable housing provision in Britain, underscoring the need for careful consideration of these factors.

Interestingly, Witwer (2007) emphasizes that private builders and developers base their decisions on market dynamics and conduct a thorough risk-cost analysis. Saleh et al. (2022) agree with this through research in Malaysia, which show a decrease in profit margins and other constraints that has led to a reduced supply of affordable houses by the developers. In other words, Witwer's insight into decision-making aligns with the observed impact in Malaysia, where market conditions and ongoing risk-cost analyses influence the ability of the developers to provide affordable housing.

According to Jamalludin et al. (2016), the government requirements and regulatory factors significantly influence housing supply and act as impediments to the timely production of affordable housing from the private companies. Rahman et al. (2021) point out that the

factor of regulatory costs incurred by housing developers warrants attention because it impacts the overall development cost and generally reflects on the housing costs.

The critical reading of studies related to affordable housing indicates that they provide a comprehensive and clear perspective on the importance of the role of the private sector in affordable housing and highlight the increasing challenges to achieve this goal. However, expanding the discussion on the impact of this interaction between the public and private sectors on social justice and wealth distribution could be worthwhile, analyzing the balance between profitability and social impact. Literature concludes by highlighting the significance of affordable housing as a fundamental aspect of sustainable development, particularly in regions facing unique challenges like the West Bank.

Indeed, access to affordable housing is a fundamental cornerstone of sustainable development, socio-economic progress, and equitable living standards. In regions marked by unique challenges, such as the West Bank, where political complexities intersect with limited resources, the quest for viable solutions to enhance affordable housing becomes both paramount and intricate. This study delves into the strategies and insights offered by the real estate firms operating in the West Bank, shedding light on the multifaceted nature of the issue and its potential remedies.

### **Research Methodology**

As said, this study ascertains the strategies and insights offered by the real estate firms operating in the West Bank in providing affordable housing in the Palestinian context. The study employed 64 companies of the real estate sector affiliated with the Palestinian Union of Developers in the West Bank as the informants. It employed a questionnaire survey as the main tool of gathering data.

The questionnaire was designed and reviewed by seven experts in housing studies from Palestine and abroad. Feedback from experts was considered, and discussions were held to address modifications needed to ensure clarity. The Union provided contact information for the developers, and communication was established.

The study employed purposive sampling. The selection of companies was intentional, guided by specific criteria aligned with the research objectives, which allows the selection of participants based on characteristics deemed crucial for the objectives. This deliberate selection aligns focus on investigating opinions and challenges that may hold significance in the context of the study. This approach enables leveraging carefully curated and diverse data, facilitating a more nuanced analysis and understanding of the access to affordable housing in the Palestinian context.

The survey was administered through three methods as follows.

1. 21 companies via phone interviews,
2. 25 through face-to-face interviews, and the remaining
3. 16 companies via email and Fax.

After data collection, two companies were excluded due to insufficient responses, leaving a complete dataset from 62 companies. In order to guarantee the quality of data, each completed questionnaire was checked before it could be coded in MS Excel 2007.

The Statistical Package for Social Science (SPSS) version 22 (IBM Corp, Armonk, NY, USA) was used for data analysis. Descriptive statistics were used to calculate the frequencies and percentages of the variables. Stepwise regression analysis was conducted to identify predictor variables that impact overall Policies that will make affordable housing projects successful. T-tests and ANOVA were utilized to analyse the differences in private companies' opinions regarding their participation or support the affordable housing initiatives.

Table (1) reviews the components of the questionnaire.

**Table 1:** The variables used to understand and measure the enhancement of affordable housing accessibility in West Bank from the perspective of real estate companies

Source: Derived from the questionnaire used in the field study

<b>Component-One (7 items)</b>	<b>Component-Two (19 items)</b>	<b>Component-Three (14 items)</b>
Cognitive Analysis and Engagement Levels of Real Estate Companies in Affordable Housing	Challenges of private sector companies for providing affordable housing and proposed solutions	Strategies of enhancing affordable housing projects in West Bank
Knowledge of the concept and objectives of affordable housing, the extent of the private sector's participation in providing affordable housing, the reason for not encouraging the private sector to participate in providing affordable housing, participating or supporting initiatives related to affordable housing, the possibility of participating in the future in initiatives to produce affordable housing, the importance of considering Community housing needs and preferences, and finally the presence of partnerships with financial institutions	The possibility of the private sector being more aggressive, factors that hinder partnership, obstruction of regulatory laws for private sector companies, the nature of the changes that the legal environment needs, high construction costs, interventions to reduce the impact of construction costs, financing systems and conditions, weak infrastructure, potential interventions to reduce the impact of infrastructure. weak demand for affordable housing, possible interventions to encourage affordable housing, weak experience of private sector companies in the field of implementing affordable housing, and possible interventions to raise the level of their experience, high land prices, and possible interventions to solve the price problem.	A strategy to control construction costs, develop innovative building technologies that reduce the cost of construction, develop strategic partnerships with government agencies, simplify housing designs, building large residential complexes, reduce the areas of residential units, exempt low-income housing from licensing fees and lighting fees. and water, establishing public joint stock companies specializing in mortgage financing, private sector partnerships with municipalities, increasing the ratio of building area to land area, increasing the number of floors in projects targeting people with limited and low incomes, providing mortgage programs for projects targeting limited and low incomes, determining a percentage of housing production as affordable housing for limited and low incomes.

## Findings

This section employed cognitive analysis and engagement levels of real estate companies in affordable housing and the challenges in providing affordable housing and proposed solutions.

### Cognitive Analysis and Engagement Levels of Real Estate Companies

In the Table 2, the cognitive analysis of real estate companies shows a good understanding of the affordable housing concept, with an impressive 88.7% exhibiting substantial knowledge. However, a noteworthy 7% find the concept ambiguous, indicating a minority with unclear perceptions. This prevalence of awareness among the real estate entities highlights a commendable grasp of the intricacies surrounding affordable housing. The examination of real estate companies further unveils a spectrum of involvement in providing affordable housing.

A considerable 62.9% display a level of moderate participation, 21% exhibit robust engagement, and 16% show limited involvement. Despite these variations, an overarching trend of support emerges for participating in affordable housing endeavors. The divergent levels of engagement could potentially be linked to the prevailing trust dynamics within the broader sector. The survey delves into the rationales behind the differing participation levels, with a majority (59.7%) of real estate companies attributing limited involvement to the absence of government support. This underscores the pivotal role governments play in incentivizing real estate entities to partake in affordable housing initiatives.

Simultaneously, 37.1% cite economic infeasibility of affordable housing units as a limiting factor, indicating financial considerations as a significant barrier. A minority, comprising 3.2%, suggests that the limited participation is a consequence of public disinterest in such housing options, emphasizing the importance of aligning affordable housing projects with societal preferences. These findings collectively provide insights into the complex interplay of factors influencing the participation of the real estate companies in affordable housing and underscore the multifaceted nature of this critical aspect of urban development.

The logical orientation of these companies is evident as more than half (56.5%) have previously constructed affordable housing projects. This suggests that they have encountered both the positive and negative aspects of producing such housing, as well as the challenges faced. They have likely conveyed this knowledge to other companies through relationships and communication, forming a collective opinion on possible interventions in projects serving those with limited income. Majority of companies (93.5%) believe that great attention should be given to the needs and preferences of the residential community. This is a natural inclination considering that residents are the beneficiaries of projects contemplated by real estate companies. Analyzing the cognitive aspect revealed that the majority of real estate companies (77.4%) do not have partnerships with financial institutions regarding the provision of affordable housing, while a few (22.6%) reported partnerships with lending institutions, primarily consisting of banks in Palestine.

**Table 2:** Cognitive Analysis and Engagement of Real Estate Companies in Affordable Housing

**Source:** field study questionnaire analysis

(N=62)		
<b>Do you have knowledge of the concept and goals of affordable housing?</b>		
yes	55	88.7
no	7	11.3
<b>In your opinion, to what extent should the private sector be involved in providing affordable housing?</b>		
Strong participation	13	21.0
Moderate participation	39	62.9
Low participation	10	16.1
<b>If you do not encourage strong private sector participation in providing affordable housing, what is the most important reason among the following:</b>		
Affordable housing is not economically viable	23	37.1
Affordable housing is highly undesirable for people	2	3.2
Lack of sufficient support from government institutions for investors	37	59.7
<b>Have you ever participated in or supported any initiatives related to affordable housing?</b>		
yes	35	56.5
no	27	43.5
<b>Is it possible for you to participate in future investment initiatives for producing affordable housing?</b>		
yes	31	50.0
no	31	50.0
<b>What is the importance of considering the needs and preferences of the local community in private-sector housing projects?</b>		
Significant importance	58	93.5
Moderate importance	3	4.8
No importance	1	1.6
<b>Do you have partnerships with financial institutions to fund affordable housing?</b>		
yes	14	22.6
no	48	77.4
<b>Total</b>	<b>62</b>	<b>100</b>

In addition, the table (3) presents an analysis of survey responses regarding participants' involvement in affordable housing initiatives, differentiating between those who have participated and those who haven't. In examining the mean values for a specified dimension, participants who engaged in such initiatives exhibited a slightly higher mean ( $M = 4.3238$ ) compared to those who did not participate ( $M = 4.2130$ ). However, it's noteworthy that the standard deviation for the "no" group was notably higher ( $SD = 0.40386$ ) than that of the "yes" group ( $SD = 0.22395$ ). And the Levene's test for equality of variances indicated a significant difference in variances between the two groups ( $F = 12.868$ ,  $p = 0.001$ ), violating the assumption of equal variances. Nevertheless, the subsequent t-tests for equality of means, both under the assumption of equal variances and without, did not reveal statistically significant differences in means between the two groups ( $p > 0.05$  in both cases). The T-test shows that there are no statistically significant differences at the significance level ( $\alpha = 0.05$ ) in the answers of private companies on the subject of the study due to their contribution or non-contribution to the implementation of affordable construction projects. This indicates that private companies have sufficient knowledge of the market and requirements for implementing affordable construction projects.

**Table 3:** Affordable Housing Perceptions: Analyzing Initiative Impact

**Source:** From the results of the field study questionnaire analysis

Have you ever participated in or supported any initiatives related to affordable housing?	N	Mean	Std. Deviation	Std. Error Mean			
.. Yes	35		.22395	.03785			
No	27		.4038	.07772			
Third section Equal variances assumed	Levene's Test for Equality of		t-test for Equality of Means				
	Equal variances assumed not assumed		Sig	t	df	Sig. (2-tailed)	Mean Difference
	12.868	.001					

### Challenges of Private Sector Companies to Provide Affordable Housing

In the context of a comprehensive understanding of affordable housing issues in the West Bank, the field study sought to unveil the nature of challenges and solutions from the perspective of real estate companies as shown in the table (4). All real estate companies (100%) indicated that partnering with the government is difficult, hindering investment opportunities in building affordable housing. Of these, 59.7% attributed their view to the absence of a government policy regarding affordable housing in Palestine, while 27.4% cited bureaucracy and lengthy procedures, and a limited 12.9% expressed a lack of trust in government institutions as major obstacles to their engagement in affordable housing production. On the organizational front, 100% identified the challenge of a weak legal environment as a barrier to real estate companies' participation in affordable housing production. The majority (69.4%) believed that regulatory adjustments are needed for housing sector laws. Moreover, 98.4% of companies attributed the difficulty of providing affordable housing units to the high costs of construction materials. About 51.6% suggested that modifying designs of affordable housing projects to align with reduced construction material costs could alleviate this challenge. Another 32.3% advocated relying on local materials, and 14.5% proposed addressing material cost increases by increasing the number of floors.

93.5% of companies considered financing systems and conditions in Palestine as obstacles to implementing affordable housing projects. Approximately 74.2% supported developing new and innovative financing options to tackle this challenge, reflecting the need for financial institutions to adapt to the needs of low- and middle-income individuals in Palestine. Additionally, 98.4% of companies viewed the inadequate infrastructure in the West Bank as a challenge to engaging in affordable housing production, affecting unit prices beyond the affordability of the low-income population. To enable real estate companies, 74.2% believed the optimal solution to infrastructure problems is not mandating their direct involvement, while 12.9% and 11.3% suggested sharing infrastructure costs between real estate companies and the local community and forming partnerships with foreign donor institutions, respectively.

Many companies were influenced by their understanding of Palestinian societal preferences. Majority (88.7%) stated that the demand for affordable housing is not weak, despite the limited execution of such projects. About 41.9% believed that diversifying construction options in terms of design and spaces would encourage local communities to embrace affordable housing projects. Furthermore, 40.3% thought that raising awareness among youth about the importance of affordable housing, and 14.5% believed that conducting awareness campaigns targeting families would increase interest in purchasing affordable housing units. The analysis also revealed that 87.1% of companies perceived a lack of experience in implementing affordable housing projects as a barrier, indicating a need to enhance their multidimensional knowledge. In response, companies proposed various solutions, with 64.5% emphasizing the importance of providing adequate minimum specifications for affordable housing. Other suggestions included offering a detailed guide on the nature and objectives of affordable housing (19.4%), consulting Arab and international experiences (9.7%), and encouraging innovation (6.5%).

On another note, rising land prices posed a challenge to providing affordable housing, as acknowledged by all companies. To address this, 56.5% believed that allocating government lands for affordable housing projects is a feasible solution, while 17.7% favored organizing the real estate market in Palestine. A similar percentage suggested government and international support for developers investing in affordable housing. Additionally, 8.1% considered overcoming high land prices through multi-purpose project construction. Regarding the impact of the workforce in the construction sector, 98.4% of companies saw a shortage of labor in finishing and building as a barrier. To overcome this obstacle, 58.1% favored using technologies to reduce dependence on manual labor, 19.4% proposed importing workers, and 12.9% and 11.3% supported developing education and vocational training in Palestine and forming partnerships with foreign donor institutions, respectively.

**Table 4:** Challenges and Solutions in Affordable Housing: Views of Real Estate Companies  
Source: From the results of the field study questionnaire analysis

Frequency (N=62)		
<b>Do you believe that partnering with the government is difficult and hinders private sector participation in affordable housing projects?</b>		
Yes	62	100.0
<b>What do you think is the most significant impediment to partnering with the government in providing housing for low-income individuals?</b>		
Corruption of government institutions	8	12.9
Bureaucracy and lengthy procedures	17	27.4
Lack of government policy in this regard	37	59.7
<b>Do regulatory laws pose a challenge that hinders private sector participation in affordable housing projects?</b>		
Yes	62	100.0
<b>Regulatory housing laws need to</b>		
Repeal of some laws	3	4.8
Substantial amendments	43	69.4



Enactment of new laws	16	25.8
<b>Does the increase in the cost of construction materials in Palestine pose a challenge that hinders private sector participation in affordable housing projects?</b>		
Yes	61	98.4
No	1	1.6
<b>What is the most important action to be taken to address the increase in construction materials costs?</b>		
Adopting viable alternative technologies	1	1.6
Relying on local materials	20	32.3
Modifying projects designs to reduce reliance on costly materials	32	51.6
Increasing the number of floors	9	14.5
<b>Does the financing systems and terms in Palestine pose a challenge that hinders private sector participation in affordable housing projects?</b>		
Yes	58	93.5
No	4	6.5
<b>What is the optimal solution for dealing with financing constraints in affordable housing projects?</b>		
Developing innovative financing options.	46	74.2
Building partnerships with financial institutions	9	14.5
Seeking government grants or support	7	11.3
<b>Is the infrastructure implementation in the West Bank weak and hindering private sector participation in affordable housing projects?</b>		
Yes	61	98.4
No	1	1.6
<b>What is the optimal intervention to address infrastructure challenges and ensure private sector participation in building affordable housing?</b>		
Partnership between the public sector, local institutions	8	12.9
Building partnerships with international donor institutions.	7	11.3
Not obligating private sector companies to contribute to infrastructure	46	74.2
I Don't Know	1	1.6
<b>Do you believe that the demand for affordable housing will be weak and will not encourage private-sector engagement?</b>		
Yes	7	11.3
No	55	88.7
<b>What, in your opinion, is the most vital intervention to encourage residents to purchase or rent in affordable housing projects?</b>		
Conducting awareness campaigns targeting families to raise awareness about the importance of affordable housing	9	14.5
Promoting the concept and importance of affordable housing among young people	25	40.3
Diversifying the available options in terms of designs, spaces, and environment	26	41.9
all mentioned	2	3.2
<b>Is a lack of experience in affordable housing an obstacle for private sector companies to provide it to low-income individuals?</b>		
Yes	54	87.1
No	8	12.9
<b>What, in your opinion, is the optimal intervention to enhance the expertise of private sector companies in affordable housing?</b>		
Providing a detailed guide on the nature and objectives of affordable housing	12	19.4

Access Arab and international experiences to benefit from them	6	9.7
Providing suitable minimum specifications for affordable housing	40	64.5
Encouraging innovation and competition	4	6.5
<b>Does the increase in land prices hinder the provision of affordable housing for low-income individuals?</b>		
Yes	62	100.0
<b>What, in your opinion, is the optimal intervention to address the issue of rising land prices for providing affordable housing?</b>		
Allocating government lands	35	56.5
Regulating the real estate market	11	17.7
Developing mixed-use projects in addition to housing.	5	8.1
Government or international support for developers using land to build housing for low-income individuals	11	17.7
<b>Does the shortage of labor in the construction and finishing sector hinder the provision of affordable housing?</b>		
Yes	61	98.4
No	1	1.6
<b>What, in your opinion, is the optimal intervention to address the shortage of labor in the construction sector?</b>		
Importing labor from abroad	12	19.4
Developing education and vocational training	8	12.9
Using technology that reduces reliance on labor	36	58.1
Collaborating with non-governmental organizations to support labor in projects for low-income individuals	6	9.7
	<b>62</b>	<b>100</b>

Table (5) shows the preferences of real estate companies for the most appropriate location from their point of view to establish affordable housing projects. The statistical analysis utilized a One-way ANOVA test to examine the mean differences among three different categories: (Areas within cities) (Rural areas) and (New areas) concerning the evaluation of private companies regarding the study's subject on selecting project locations. The results of One-way ANOVA indicate that there are no statistically significant differences among these categories at a significance level of 0.05. This conclusion is drawn by comparing the means and standard deviations for each category, along with the F-value and p-value. Based on the results, it can be inferred that private companies' perspectives on project location selection show similarity across the studied categories. Therefore, these observed differences may be considered as random variability and do not possess statistical significance.

**Table 5:** One-way ANOVA Results for Company Responses on Project Location Selection  
Source: From the results of the field study questionnaire analysis

			Std. Deviation		
Areas within cities	1	4.0833	.	4.08	4.08
Rural areas	13	4.2244	.30120	3.67	4.92
New areas	48	4.2934	.32480	3.42	4.83
Total	62	4.2755	.31709	3.42	4.92
	<b>Sum of Squares</b>	<b>df</b>	<b>Mean Square</b>	<b>F</b>	<b>Sig.</b>
Between Groups	.086	2	.043	.421	.658
Within Groups	6.047	59	.102		
Total	6.133	61			

## Strategies of Enhancing Affordable Housing Projects in West Bank

In the Table 6, the Likert pentagon scale regarding the policies supported by real estate companies that contribute to the success of affordable housing projects from their perspective, 12 strategies were identified. These strategies aim to diversify options for real estate companies, expanding the base of policies conducive to sustainability in the housing sector. Among the proposed strategies, one that received significant consensus from real estate companies is the strategy of increasing the number of floors in projects targeting low- and medium-income individuals. This showed a high degree of agreement, with an average of 4.7742, indicating strong support. The second strategy involves increasing the building area to land area ratio (allowing higher density) in projects targeting low-income individuals. This option encourages real estate companies to invest in projects providing affordable housing, with a standard deviation of .54126 and a high average of 4.7419, indicating strong approval.

Strategies such as reducing the unit area from 80-100m<sup>2</sup> and developing partnerships with government entities, such as providing government lands, ranked third. These strategies are expected to receive acceptance from Palestinian society and real estate companies, with an average of 4.6613 for each. The strategy of reducing unit area showed higher uniformity in the companies' views, as indicated by the standard deviation of 0.67614, reflecting greater consensus. However, opinions varied on supporting the partnership strategy with government institutions, as evident from the standard deviation of 0.74534. The fifth-ranked strategy, simplifying housing designs, also garnered significant support with an average of 4.6452 and a low standard deviation of 0.74870. The sixth strategy involves developing innovative technologies to reduce construction costs, with an average of 4.5484 and a standard deviation of 0.90966. Additionally, the strategy of building large residential complexes ranked seventh as a favourable option, contributing to impacting the opportunities available for the success of providing affordable housing. This showed an average of 4.5000 and a moderate standard deviation of 0.80470.

In the eighth position, the strategy based on exempting low-income housing from licensing fees and lighting and water fees to reduce housing costs received an average of 4.4839 and an acceptable standard deviation of 0.74089. The ninth strategy, providing mortgage programs for housing projects targeting low- and moderate-income individuals, and allocating a portion of housing production for real estate companies to be affordable in agreement with the government, ranked ninth, each with an average of 4.0000. There was better uniformity in views for the mortgage program strategy, as indicated by a standard deviation of 0.65286. Lastly, the strategies of establishing private mortgage companies to support affordable housing and partnering with municipalities received weak support and confidence levels, with average scores of 3.7581 and 2.5323, and standard deviations of 0.66985 and 1.42251, respectively.

**Table 6:** Strategies for Enhancing Affordable Housing Projects in West Bank

Source: From the results of the field study questionnaire analysis

Variables	N	Mean	Std. Deviation
Adopting a strategy of developing innovative construction technologies that reduce costs will contribute to providing affordable housing	62	4.5484	.96966
Adopting a strategy of developing partnerships with government entities, such as providing government land, will encourage private sector companies to provide affordable	62	4.6613	.74534
Simplifying housing designs will lead to the success of the idea of providing affordable housing.	62	4.6452	.74870
The strategy of constructing large residential complexes (two buildings in one) to make use of available spaces is a good option that contributes to providing affordable	62	4.5000	.80470

Reducing the residential unit sizes (80 - 100 m <sup>2</sup> ) is suitable for achieving success in providing affordable housing.	62	4.6613	.67614
Exempting housing for low-income individuals from licensing fees, lighting fees, and water fees will contribute to providing affordable housing	62	4.4839	.74089
Establishing public joint-stock companies specialized in mortgage financing is a strategy that will encourage affordable housing	62	3.7581	.66985
Adopting a strategy of partnership between the private sector and municipalities to build residential complexes targeting low-income individuals will encourage real estate	62	2.5323	1.42251
Adopting a strategy of increasing the building area ratio to land area (allowing higher density) in projects targeting low-income individuals will encourage real estate	62	4.7419	.54126
Adopting a strategy of increasing the number of floors in projects targeting low and moderate-income individuals will encourage private sector companies to produce	62	4.7742	.42153
Adopting specialized mortgage programs for projects targeting low and moderate-income individuals will succeed in achieving affordable housing	62	4.0000	.65286
I support government agreement with the private sector to designate a percentage of housing production as affordable housing for low-income individuals.	62	4.0000	.74658

## Discussion

70.1% of households in Palestine are unable to construct their own houses, with (59.8%) of households in the West Bank facing this challenge (PCBS,2020). This study reveals that real estate companies in West Bank face multifaceted challenges that demand collaborative efforts from both the public and private sectors. Understanding the various challenges and responding comprehensively will contribute to the development of effective strategies to improve the prospects of affordable housing and meet the needs of this large percentage of the population. Perhaps the lack of support from real estate companies for active participation in providing affordable housing is an issue that requires attention and early treatment due to the effects it will have. As related to this result a study conducted by (MAS) Institute revealed that the private sector does not prioritize the low-income population in housing projects. This is primarily attributed to the exorbitant costs associated with housing production. Several factors contribute to this situation, with the foremost being the incapacity of relevant institutions to furnish the essential infrastructure required for construction sites. (MAS, 2015). This is what the majority of real estate companies (98.4%) identified the deficient infrastructure in the West Bank as a significant hurdle to their involvement in affordable housing. As a response, these companies will choose to enhance the infrastructure, but this adds to the overall housing unit cost, making it unaffordable for those with limited income. In the same context, the (PCBS) study showed that Most newly constructed homes in Palestine are available to higher-income groups (PCBS, 2020), this creates a complex situation that necessitates realistic interventions to mitigate disparities in the ability to afford housing costs among different societal groups. The recent study by (MAS) there has been a significant growth in housing construction over the past decade (43.4% increase in the number of inhabited housing units, there is still a notable lack of affordable housing for lower-income families.(MAS,2021. P60).

Within the framework of discussing the Palestinian government's strategy and linking it to the results of this study, The strategic plan for the housing sector included a set of policies aimed at supporting affordable housing, including launching a low-cost housing program, conducting a comprehensive review of the legal and regulatory framework for the housing sector, exploring alternative sources for housing provision, forming a high-level working group involving both the public and private sectors to address obstacles to land and infrastructure supply in housing projects, introducing necessary reforms to finance-related

laws and policies to create a more efficient and equitable housing finance market, and establishing a government-supported housing fund to assist low-income families in accessing housing at reasonable prices and establishing a National Research Center for the study, development, and support of local construction materials and innovative construction techniques. (Prime Minister Office, 2021). The governmental trends outline crucial policies aimed at supporting affordable housing. A key concern raised by the majority of real estate companies (59.7%) is the absence of specific government policies, underscoring the significance of targeted government initiatives in facilitating low-cost housing projects. The companies' emphasis on regulatory adjustments (69.4%) aligns with the government's commitment to conducting a comprehensive review of the legal and regulatory framework for the housing sector. Additionally, the recognition of high construction material costs (98.4%) corresponds with the government's focus on exploring alternative sources for housing provision and establishing a National Research Center for local construction materials. Moreover, the identified challenge of financing systems and conditions (93.5%) resonates with the government's strategic intent to introduce necessary reforms to finance-related laws and policies, promoting a more efficient and equitable housing finance market. The perceived barrier of weak infrastructure influencing unit prices beyond affordability (74.2%) reinforces the government's goal of forming a high-level working group to address obstacles to land and infrastructure supply in housing projects. With related to that (MAS) study indicate that land represents 23.3% of the construction costs for housing units in the West Bank, which affects the ability to afford housing expenses. (MAS, 2021:60).

The government's proposal to establish a government-supported housing fund aligns with real estate companies' concerns about financing obstacles and suggests a collaborative approach. Additionally, the government's endorsement of innovative technologies and the development of vocational training aligns with the companies' acknowledgment of a shortage of labor and the need for technological advancements. In conclusion, the synergy between the challenges faced by real estate companies and the strategic initiatives proposed by the government underscores the need for collaborative efforts. Effective government policies play a pivotal role in incentivizing and enabling real estate entities to actively participate in the production of affordable housing, addressing the multifaceted challenges inherent in this critical aspect of urban development. This is what this study came to emphasize, which requires that government policies be implementable and not just suggestions whose effects cannot be seen on the ground.

The current analysis delves into the cognitive orientation of real estate companies in West Bank regarding affordable housing, shedding light on the multifaceted challenges they encounter. The persistent challenge of providing housing at affordable prices is a central concern in real estate markets globally, and this study provides valuable insights into the intricacies and perspectives within the sector. The high awareness level (88.7%) among companies signifies a willingness to explore affordable housing initiatives, yet the diverse levels of participation reveal a nuanced landscape that warrants a more in-depth exploration.

While the analysis offers valuable insights, a comprehensive approach is imperative for the success of affordable housing projects. Actively involving the community in the planning process ensures that projects align with local needs and preferences, fostering a sense of ownership and community satisfaction. Furthermore, investing in the enhancement of skills and knowledge for real estate companies through training programs and knowledge exchange is crucial, contributing to a more adept and knowledgeable industry. Moreover, collaboration with the government becomes pivotal to advocate for supportive policies, financial incentives, and streamlined regulatory processes. A unified voice strengthens the position of real estate companies and facilitates an environment conducive to sustainable affordable housing initiatives. This interconnected approach, encompassing community engagement, capacity building, and government collaboration, is essential for addressing the intricate challenges and promoting successful affordable housing endeavors in West Bank.

## Conclusions

The cognitive analysis of real estate companies in the West Bank demonstrates a robust understanding of the affordable housing concept, with a significant majority exhibiting substantial knowledge. While 7% find the concept ambiguous, this represents a minority with unclear perceptions. The varying levels of engagement among these companies, ranging from moderate to robust involvement, underscore an overarching trend of support for participating in affordable housing endeavors. However, the divergent engagement levels could be linked to trust dynamics within the sector. The study reveals that limited government support and economic infeasibility of affordable housing units are the primary challenges cited by real estate companies for their limited involvement. The absence of specific government policies is a significant concern, emphasizing the pivotal role governments play in incentivizing real estate entities to partake in affordable housing initiatives.

This study concludes that real estate companies identify difficulties in partnering with the government in providing affordable housing as follows.

1. A weak legal environment,
2. High construction material costs,
3. Financing system obstacles.

It also identifies the following as barriers to engage in affordable housing production.

1. Inadequate infrastructure, and
2. A shortage of labor.

The study also sheds light on the perceived lack of experience in implementing affordable housing projects, emphasizing the need for enhanced multidimensional knowledge. The findings reveal that real estate companies support strategies such as increasing the number of floors and building area to land area ratio in projects targeting low- and medium-income individuals. These strategies received strong consensus, indicating a willingness to diversify options for sustainability in the housing sector.

This study provides comprehensive insights into the cognitive orientation, engagement levels, challenges, and preferences of real estate companies regarding affordable housing in the West Bank. The multifaceted nature of the findings of this study underscores the need for collaborative efforts from both the public and private sectors to address the identified challenges and advance affordable housing initiatives, such as enhancing public-private cooperation, promoting an enhanced legal environment for affordable construction, and providing tangible incentive policies, such as tax credits. For companies investing in affordable housing projects, encouraging government support for technology and innovation in the construction sector is also crucial to improving the overall effectiveness of affordable housing initiatives. These recommendations will lead to addressing various aspects of the challenges associated with affordable housing and promote more comprehensive and sustainable development in this area.

## Acknowledgment

The author would like to thank the Deanship of Scientific Research at the Arab American University and the Palestinian Investors and Real Estate Union for the facilitating this study. I would also like to thank both Dr. Samer Raddad, Dr. Ahmed Abu Hammad, Dr. Muslim Abu Helou, M. Mahmoud Abdullah and M. Kamal Daibes, all from Palestine, and Dr. Othman Ghoneim from Jordan. I thank Professor Muthar Al-Kilani from Iraq for arbitrating the questionnaire to ensure that the goals were achieved. The author is also grateful to the participants for their valuable contribution to this study.

## Conflict of interest

The author reported no potential conflict of interest.

## Funding

This research did not receive any specific grant from funding agencies in the public, commercial, or not-for-profit sectors.

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