

Navigating the Public Housing Market: Key Factors Assisting Buyers through PLS-SEM

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ABSTRACT

Government housing initiatives play a vital role in improving affordability, accessibility, and promoting sustainable urban development. This study investigates the key factors contributing to the success of public housing projects and examines how prospective property buyers perceive these factors. Data was collected through a questionnaire survey of 100 randomly selected prospective buyers in Shah Alam. Using quantitative methods, Partial Least Squares Structural Equation Modelling (PLS-SEM) was employed to analyze the relationships between various components. The analysis revealed that infrastructure, demographic, social, and environmental factors significantly influence the success of public housing projects. In contrast, other examined variables were found to have no significant effect. The findings highlight the importance of prioritizing these critical factors in housing policies and programs to better address the needs of future homeowners.

Keywords: Public housing; house buyers; real estate; PLS-SEM; quantitative analysis

INTRODUCTION

The Malaysian government has continuously acknowledged the significance of tackling housing affordability and fostering homeownership as essential elements of national development. Since achieving independence, numerous housing programs have been executed aimed at diverse socioeconomic categories, especially low- and middle-income households (Liu & Ong 2021). These initiatives seek to offer cheap housing alternatives and guarantee equitable homeownership opportunities, essential for maintaining social stability and promoting economic growth (Mohd-Rahim et al. 2019).

The efficiency of public housing projects in Malaysia has been influenced by various elements, including the quality of infrastructure, demographic trends, social dynamics, and environmental considerations (Ismail & Azili 2019; Myeda et al. 2016; Postnikova et al. 2021). Existing literature and government policy frameworks consistently highlight enhancing the quality of life in public

housing developments requires ensuring adequate access to social services and economic opportunities (Culwick & Patel 2020). Demographic factors such as population growth, urbanization, and income distribution significantly influence housing demand and the efficacy of government housing initiatives. For instance, studies in Malaysia have demonstrated that robust demographic performance, particularly population growth, is a primary driver of residential property price increases, underscoring the necessity for responsive housing policies to meet escalating demand (Trofimov et al. 2018).

Environmental factors, such as resilience to climate-related stressors and the adoption of sustainable development practices, are increasingly critical for the long-term success of housing developments. A systematic review emphasizes that incorporating sustainability and resilience into the built environment enhances its capacity to adapt to climate change impacts, thereby ensuring the enduring prosperity of housing projects (Goh et al. 2024).

Public housing projects in Malaysia have numerous obstacles that hinder their efficacy in promoting

homeownership. An important problem arises from the discrepancy between the geographical distribution of dwellings and the availability of necessary infrastructure. Several low-cost housing schemes are being built in areas with poor access to public transportation, job opportunities, and necessities (Mariadas & Murthy 2023).

Public housing developments frequently lack adequate infrastructure, such as efficient transit links and access to essential services, making them less appealing to prospective inhabitants (Shuid 2016). The lack of infrastructure can create social isolation and limit residents' economic opportunities. This reduces the appeal of these dwellings and limits tenants' ability to improve their socioeconomic standing.

Another impediment is the growing inequality in affordability, exacerbated by rising property prices and economic concerns. Government efforts to provide affordable housing frequently fail to satisfy rising demand, particularly in urban areas. An overabundance of housing units in less desirable places, combined with a scarcity in more desirable ones, has made promoting homeownership difficult (Musaddad et al. 2023).

Obtaining financial support remains a serious challenge. Numerous prospective homebuyers experience challenges in getting mortgages due to stringent credit criteria and fluctuating economic conditions, particularly considering the COVID-19 outbreak. The adoption of novel alternatives, such as micro-apartments and co-living spaces, has been slow, limiting their impact on the housing market (Mariadas & Murthy 2023).

Despite the government's various efforts, there are still challenges to overcome in meeting the populace's diverse needs. More research on these characteristics is required to improve the efficacy of public housing projects in promoting sustainable homeownership in Malaysia.

LITERATURE REVIEW

Public housing projects in Malaysia are government-led efforts to provide affordable housing options to low- and middle-income families. These projects are critical in addressing the nation's housing needs while also improving quality of life. According to Malaysia's Housing and Local Government Ministry, government housing programs aim to assist the public and private sectors in supporting the

development of cost-effective and time-efficient affordable housing (KPKT 2020).

Prior research profoundly influences our comprehension of housing choices, underscoring a multifaceted interaction of economic, demographic, and policy-related elements. Andrews and Caldera Sánchez (2011) discovered that homeownership trends are significantly impacted by macroeconomic conditions and public policy, but Dias and Duarte (2022) contend that monetary policy directly influences affordability and tenure choices. Conflicting conclusions arise when examining regional contexts: Liu and Ong (2021) challenge the efficacy of Malaysia's national housing policies in guaranteeing affordability, whereas Culwick and Patel (2020) highlight the potential of government-led housing initiatives to foster equity and sustainability in urban areas.

Research underscores the discrepancy between policy objectives and actual results. Lateef Olanrewaju and Idrus (2020) observe ongoing supply deficiencies despite affordable housing initiatives, in contrast to Bah et al. (2018), who propose enhancing informal housing as a feasible alternative. Postnikova et al. (2021) and Ismail and Azili (2019) underscore the significance of quality and facilities in determining satisfaction—elements sometimes neglected in policy frameworks.

The impact of social, cultural, and demographic changes is also essential. Cheng and Haan (2023) illustrate the distinct impact of housing affordability on immigrant populations, corroborating the findings of Odeyemi and Skobba (2022) about gender discrepancies between rural and urban areas. Collectively, previous research enhances our comprehension of housing choices.

KEY FACTORS OF PUBLIC HOUSING EFFECTIVENESS

A complex interplay of various factors shapes the effectiveness of public housing initiatives. This study has identified several factors from the literature that contribute to the effectiveness of public housing in assisting homebuyers. It can be grouped under four (4) main factors including economic and market, policy and regulatory factors, infrastructure and demographic, social and environmental. It is essential to comprehend these components to optimise housing policies and achieve the intended results. Table 1 below shows the sources of factors that are relevant to this research under study.

TABLE 1. Sources of Factors/ Indicators

No.	Main Factor	Sub-factor / Author
1.	Economic and Market	Inflation rate's impact (Dias & Duarte, 2022; Liu & Ong, 2021; Musaddad et al. 2023), Employment opportunities (Liu & Ong, 2021). Income levels (Andrews & Caldera Sánchez, 2011; Liu & Ong, 2021), Current demand (Li, 2015; Liu & Ong, 2021), Current housing supply (Bhanye et al. 2024; Li, 2015; Liu & Ong, 2021), Market trends impact (Liu & Ong, 2021), Accessing mortgage financing (Davison et al. 2012), Current interest rates for mortgage loans (Dias & Duarte, 2022; Liu & Ong, 2021), Credit accessibility (Davison et al. 2012; Dias & Duarte, 2022), Availability of financing options (Andrews & Caldera Sánchez, 2011; Liu & Ong, 2021).
2.	Policy and Regulatory Factors	Impact of government taxation policies (Fernández et al. 2024; Worthington & Higgs, 2013), Land use regulations (Abd-Elkawy, 2020; Liu & Ong, 2021; Peverini, 2023), Urban planning initiatives (Davison et al. 2012; Li, 2015), Current employment policy, Availability of land (Bah et al. 2018; Tan et al. 2017), Ongoing or upcoming development projects (Reid, 2023), Local housing market policy (Swanzy-Impraim et al. 2023).
3.	Infrastructure and Demographic	Transportation facilities, Quality of healthcare services, Availability of educational institutions, Availability of amenities (Bah et al. 2018; Bhanye et al. 2024), Population growth (Bhanye et al. 2024; Davison et al. 2012), Age distribution (Andrews & Caldera Sánchez, 2011), Household composition (Andrews & Caldera Sánchez, 2011).
4.	Social and Environmental	Awareness-government housing projects and Communicates information (Mahamood et al. 2023), Environmental sustainability, green building practices, and Energy efficiency features (Silva et al. 2024), Cultural attitudes (Andrews & Caldera Sánchez, 2011), Family structure (Cheng & Haan, 2023; Odeyemi & Skobba, 2022), Community relations (Sepawie et al. 2022).
5.	Effectiveness in Assisting Homebuyers	Increase in home ownership rates (Andrews & Caldera Sánchez, 2011; Dias & Duarte, 2022), increase affordability of housing (Li, 2015; Liu & Ong, 2021; Peverini, 2023), Reducing the housing backlog (Bah et al. 2018; Bhanye et al. 2024), satisfaction of homebuyers (Sepawie et al. 2022).

The findings emphasize the critical role of economic and market factors in public housing projects. Inflation rates, as noted in the research (Dias & Duarte 2022; Liu & Ong 2021; Musaddad et al. 2023), significantly impact housing affordability and living expenses. This necessitates government intervention to stabilize prices and enhance affordability. Improved employment opportunities, which Liu & Ong (2021) identify as vital, promote homeownership by increasing disposable income. Similarly, income levels, highlighted by Andrews & Caldera Sánchez (2011) and Liu & Ong (2021), directly affect the ability to buy homes, underlining the importance of targeted government policies.

Market dynamics, including current demand, housing supply (Bhanye et al. 2024; Li 2015; Liu & Ong 2021; Lateef Olanrewaju & Idrus 2020), and trends, shape housing affordability and accessibility. Access to mortgage financing, influenced by interest rates (Dias & Duarte 2022; Liu & Ong 2021) and credit availability (Davison et al. 2012), remains essential for facilitating homeownership, supported by government initiatives to enhance loan accessibility and financing options (Andrews & Caldera Sánchez 2011; Liu & Ong 2021).

Policy and regulatory frameworks also significantly impact the success of public housing projects. Taxation policies (Fernández et al. 2024; Worthington & Higgs 2013) affect housing affordability and investment

attractiveness. Land use regulations (Abd-Elkawy 2020; Liu & Ong 2021; Peverini 2023) and urban planning initiatives (Davison et al. 2012; Li 2015) influence housing accessibility and development. Employment rates, a critical factor for housing demand, are tied to local housing policies (Swanzy-Impraim et al. 2023). The availability of land (Bah et al. 2018; Tan et al. 2017) and ongoing development projects (Reid 2023) further demonstrate government commitment to addressing housing challenges.

Infrastructure and demographic factors, critical indicators of housing effectiveness, align with the sub-factors listed under "Infrastructure and Demographic." Transportation facilities improve accessibility and desirability, stimulating growth in housing demand, as noted by Bah et al. (2018) and Bhanye et al. (2024). The availability of quality healthcare and educational institutions strongly influences housing decisions, reflecting Andrews & Caldera Sánchez's (2011) emphasis on age distribution and household composition. Amenities like parks and shopping centres enhance life quality and attract investment, echoing the findings of Bah et al. (2018). Moreover, population growth (Bhanye et al. 2024; Davison et al. 2012) signals the increasing need for housing, requiring government intervention.

The discussion highlights the importance of social and environmental considerations. Awareness of government housing projects and effective communication (Mahamood

et al. 2023), foster community engagement. Green building practices and energy efficiency features (Silva et al. 2024) enhance environmental sustainability and appeal. Cultural attitudes and family structure (Cheng & Haan 2023; Odeyemi & Skobba 2022) directly shape housing preferences and project designs, while community relations (Sepawie et al. 2022) strengthen social cohesion.

Lastly, public housing effectiveness factors, including increasing homeownership rates, housing affordability (Li, 2015; Liu & Ong 2021; Peverini 2023), reducing housing backlogs (Bah et al. 2018; Bhanye et al. 2024), and homebuyer satisfaction (Sepawie et al. 2022), are critical indicators of success. These align with the sub-factors listed in Table 1, demonstrating the comprehensive approach required to evaluate and enhance public housing initiatives.

Therefore, the review of literature leads to four (4) hypotheses: -

H1: Economic and Market Factors (AA) has a positive and significant relationship with public housing Project Effectiveness in assisting Homebuyers (EE)

H2: Policy and regulatory (BB) has a positive and significant relationship with public housing Project Effectiveness in assisting Homebuyers (EE).

H3: Infrastructure and Demographic (CC) has a positive and significant relationship with public housing Project Effectiveness in assisting Homebuyers (EE).

H4: Social and environmental factors construct (DD) has a positive and significant relationship with public housing Project Effectiveness in assisting Homebuyers (EE).

CONCEPTUAL FRAMEWORK

Figure 1 depicts the research model utilised in this study. Prior research on the notion of the factors and its impact on the public housing projects has emphasised the need for a model that can analyse the relationship in a single study. Before developing the model, the study identified important elements of public housing project effectiveness.

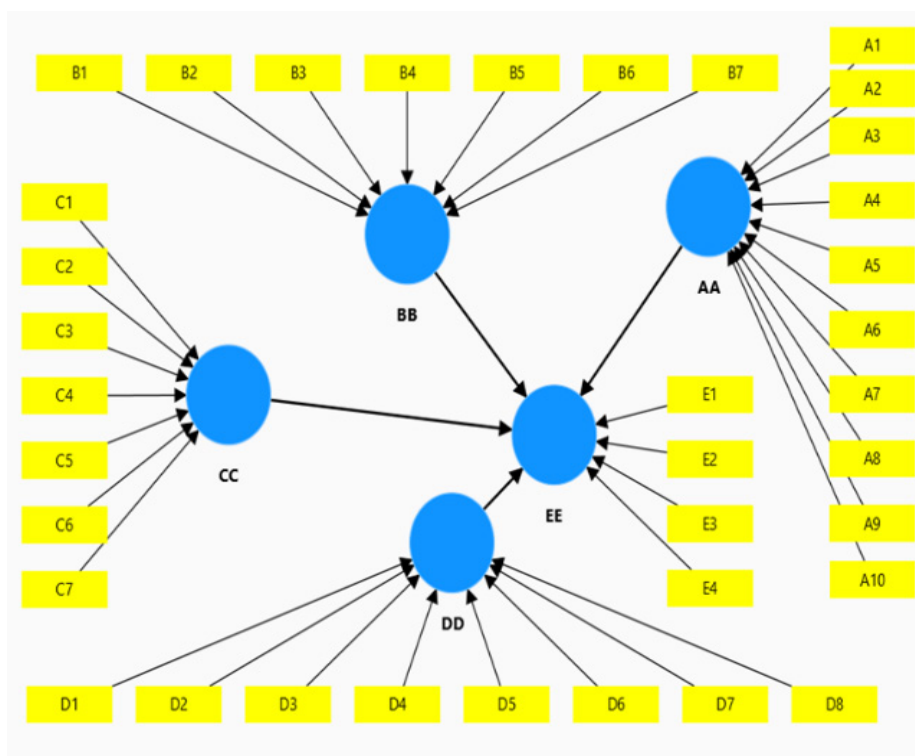


FIGURE 1. Research Model

A literature study offers a theoretical understanding to support the creation of the research model. This study has found four (4) primary elements that enhance the Effectiveness of public housing projects.

These constructs consist of Economic and Market Factors, Policy and Regulatory Factors, Infrastructure and

Demographic Factors, Social and Environmental Factors. The relationship model for this study is a formative-formative modelling. Table 2 provides a description of the constructs and indicators that were utilized for the PLS-SEM analysis

TABLE 2. Summary of Construct and Indicators in PLS-SEM Analysis

Main Construct	Indicator	Particular
<i>Economic and Market Factors (AA)</i>	A1	Inflation rate's impact.
	A2	Employment opportunities.
	A3	Income levels.
	A4	Current demand.
	A5	Current housing supply.
	A6	Market trends impact.
	A7	Accessing mortgage financing.
	A8	Current interest rates for mortgage loans.
	A9	Credit accessibility.
	A10	Availability of financing options.
<i>Policy and Regulatory Factors (BB)</i>	B1	Impact of government taxation policies.
	B2	Land use regulations.
	B3	Urban planning initiatives.
	B4	Current employment policy.
	B5	Availability of land.
	B6	Ongoing or upcoming development projects.
	B7	Local market conditions.
<i>Infrastructure and Demographic (CC)</i>	C1	Transportation facilities.
	C2	Quality of healthcare services.
	C3	Availability of educational institutions.
	C4	Availability of amenities.
	C5	Population growth rate.
	C6	Age distribution.
	C7	Household composition.
<i>Social and Environmental (DD)</i>	D1	Awareness-government housing projects.
	D2	Communicates information.
	D3	Environmental sustainability.
	D4	Green building practices.
	D5	Energy efficiency features.
	D6	Cultural attitudes.
	D7	Family structure.
	D8	Community relations.
<i>Effectiveness in Assisting Home buyers (EE)</i>	E1	Increase in home ownership rates.
	E2	Increase affordability of housing.
	E3	Reducing the housing backlog.
	E4	Increase overall satisfaction of homebuyers.

METHODOLOGY

This section outlines the technique utilised to examine the factors affecting the efficacy of public housing projects. It delineates the sample methodology, data acquisition strategy, and analytical technique. This work employed the Partial Least Squares Structural Equation Modelling (PLS-SEM) technique to analyse the interactions between constructs, utilising a formative-formative measuring

paradigm, in accordance with previous research by Wan Rodi et al. (2018 2024) in similar circumstances.

The target sample consisted of prospective home purchasers living in Shah Alam, Selangor. A stratified random sample technique was utilised to guarantee representation across essential demographic characteristics, including age, gender, and employment sector. Respondents were randomly picked within each stratum to reduce bias and improve generalisability. Two hundred (200)

questionnaires were disseminated by Google Forms utilising multiple internet platforms, including email, Telegram, and WhatsApp. A total of 100 valid responses were obtained.

Hair et al. (2017) asserts that the requisite minimum sample size for PLS-SEM is established via the “10-times rule” or by power analysis. Considering the model complexity and the number of indicators employed in this study, a sample size of 100 is deemed statistically sufficient for PLS-SEM analysis.

The questionnaire was constructed using constructs and items derived from validated instruments in prior research to guarantee content validity. A pilot test was conducted with 30 respondents to evaluate the clarity, reliability, and relevance of the items. The pilot study’s feedback was utilised to enhance the instrument before its comprehensive implementation.

The concluding questionnaire consisted of three segments: Section 1 documented demographic information (e.g., gender, age category, and employment sector); Section 2 examined factors affecting the efficacy of public housing initiatives; and Section 3 assessed the perceived efficacy of these initiatives. Responses were documented on a five-point Likert scale, spanning from Strongly Disagree (1) to Strongly Agree (5). The questionnaire employed a five-point Likert scale due to its simplicity, balanced response possibilities, and appropriateness for PLS-SEM analysis. This highly recognized scale guarantees adequate diversity, enhances respondent clarity, and bolsters the dependability of the study outcomes.

This study utilizes frequency analysis to condense and detect any anomalies in the data, ensuring its suitability for examination. The subsequent stage of data analysis entailed employing PLS-SEM to examine the link and validate the previously formulated hypotheses. PLS-SEM is particularly advantageous when dealing with limited sample sizes, as it possesses the capability to effectively handle many indicators (Hair et al. 2017).

RESULTS

This section presents the findings derived from the PLS-SEM analysis. The results were analyzed and discussed, starting from the measurement model and extending to the structural model.

This analysis was utilized to construct a structural model that illustrates the link between the parameters and the effectiveness factors of public housing projects to aid prospective buyers in the housing market.

Prior to conducting the PLS-SEM analysis, an initial data screening was performed to evaluate missing values, outliers, and the normality of the data. The findings revealed no substantial problems, affirming the dataset’s appropriateness for additional investigation. Subsequently,

the study proceeded with the evaluation of the measuring model.

In accordance with PLS-SEM protocols, the internal consistency reliability and validity of the constructs were evaluated before analysing multicollinearity using the VIF test. The constructs’ reliability was validated using Cronbach’s alpha values surpassing the suggested threshold of 0.70. The composite reliability (CR) ratings varied from 0.85 to 0.92, signifying robust internal consistency. Convergent validity was evaluated by Average Variance Extracted (AVE), with all constructs exhibiting AVE values beyond 0.50, hence reinforcing the sufficiency of the measuring model.

The path coefficients for convergent validity between AA and AAGlobal (0.85), BB and BBGlobal (0.84), CC and CCGlobal (0.86), and DD and DDGlobal (0.87) demonstrate robust convergent validity for all formative constructs. The results validate the reliability and validity of the constructs, endorsing their application in the evaluation of the structural model. Table 3 below shows the convergent validity results of the constructs.

TABLE 3. Convergent Validity Test on Constructs.

Construct	Global Item	Path Coefficient	Interpretation
AA	AAGlobal	0.85	Acceptable (≥ 0.80)
BB	BBGlobal	0.84	Acceptable (≥ 0.80)
CC	CCGlobal	0.86	Acceptable (≥ 0.80)
DD	DDGlobal	0.87	Acceptable (≥ 0.80)

FORMATIVE MEASUREMENT MODEL EVALUATION

Initially, the constructs were analyzed using the Variance Inflation Factor (VIF) to determine their levels of collinearity. A VIF score below 5.0 signifies that the formative indicators are not affected by collinearity, as stated by Hair et al. (2017). The results indicate that all indicators yielded a favourable VIF score below 5.0, which is appropriate for the subsequent study.

Furthermore, the PLS-SEM algorithm and bootstrapping technique were employed to assess the significance of indicator outer weights, outer loadings, and t-values in testing the measurement model. As a rule of thumb, t-values greater than 1.65, 1.96, and 2.58 indicate significance at the 10%, 5%, and 1% levels, respectively (Hair et al. 2017). The 0.10 significance level was chosen in this analysis to capture moderate relationships, which is suitable for exploratory research and complex models. While 0.05 is more common for stronger evidence, the

0.10 level allows detecting emerging patterns in the early stages of research or in models with limited sample sizes.

The objective was to identify the appropriate indicator for retention or removal from the measurement model. If the indicator has an outer weight of more than 0.7 and is statistically significant, it should be retained in the model.

However, even if it is not statistically significant, it should still be retained if its outer loading is over 0.5 (Hair et al. 2017). Alternatively, if the outer loading is below 0.5, it will be removed from the model. Indicators with negative outer weights were also removed from the model, as they

suggest a contradictory contribution to the construct, potentially distorting its meaning and reducing validity. Retaining such indicators can introduce multicollinearity and weaken the model's explanatory power, so their removal enhances reliability and interpretability (Hair et al. 2017).

Table 4 depicts several indicators, namely A3, A7, B6, C4, C6, D5 and D6, which were excluded from the measurement model due to their outer loading being below 0.5 or, with negative outer weight. Table 3 depicts the significant value of the formative measurement model.

TABLE 4. The Significant Value of the Formative Measurement Model

Main Construct	Indicator	Weight	t-value	Significance	VIF	Outer Loadings	Result
				(One-tailed)			
AA	A1	0.048	0.187	NS	2.129	0.575	Retained
	A2	0.21	0.744	NS	1.809	0.671	Retained
	A3	-0.087	0.362	NS	2.054	0.476	Removed
	A4	0.404	1.945	S	1.821	0.708	Retained
	A5	0.334	1.382	NS	1.556	0.598	Retained
	A6	0.011	0.059	NS	1.849	0.57	Retained
	A7	-0.126	0.508	NS	2.048	0.571	Removed
	A8	0.385	1.983	S	2.08	0.612	Retained
	A9	0.228	1.197	NS	1.300	0.596	Retained
	A10	0.126	0.551	NS	1.741	0.65	Retained
BB	B1	0.297	1.15	NS	1.741	0.741	Retained
	B2	0.063	0.228	NS	2.262	0.546	Retained
	B3	0.199	0.696	NS	1.971	0.594	Retained
	B4	0.332	1.709	S	1.534	0.559	Retained
	B5	0.515	2.026	S	1.362	0.784	Retained
	B6	-0.14	0.421	NS	2.395	0.57	Removed
	B7	0.187	0.738	NS	1.897	0.626	Retained
CC	C1	0.206	0.915	NS	2.625	0.786	Retained
	C2	0.147	0.628	NS	3.021	0.747	Retained
	C3	0.251	1.23	NS	2.254	0.757	Retained
	C4	-0.095	0.503	NS	2.702	0.726	Removed
	C5	0.234	1.228	NS	2.178	0.765	Retained
	C6	-0.052	0.371	NS	1.541	0.464	Removed
	C7	0.425	2.044	S	2.251	0.836	Retained
DD	D1	0.011	0.054	NS	1.992	0.590	Retained
	D2	0.339	1.502	NS	2.719	0.641	Retained
	D3	0.544	2.994	S	2.29	0.87	Retained
	D4	0.085	0.444	NS	1.804	0.627	Retained
	D5	-0.024	0.107	NS	2.728	0.722	Removed
	D6	-0.135	0.531	NS	2.745	0.616	Removed
	D7	0.447	2.006	NS	3.026	0.637	Retained
	D8	0.103	0.513	NS	1.963	0.633	Retained

STRUCTURAL MODEL EVALUATION

The final structural model for this study is illustrated in Figure 2 above. Subsequently, the evaluation of the structural model was carried out by three specific

procedures: collinearity assessment, analysis of structural path coefficients and hypothesis testing, and calculation of the coefficient of determination (adjusted R square) to determine the link between exogenous and endogenous latent variables.

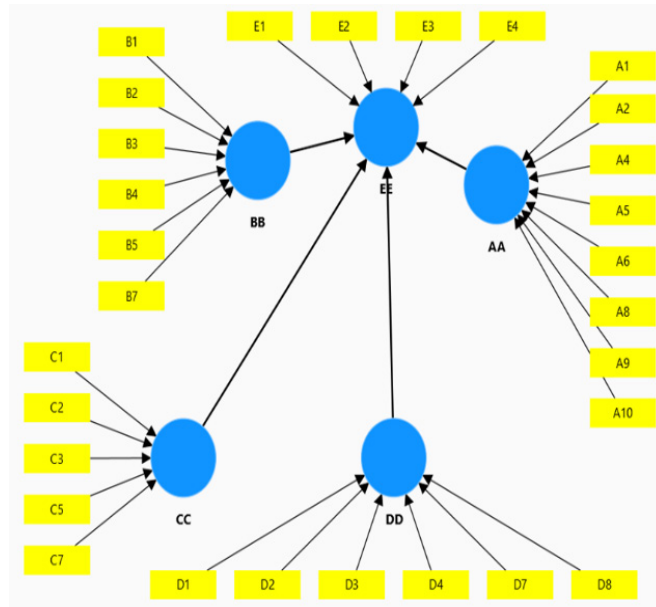


FIGURE 2. Final Measurement and Structural Model

In reference to Table 5, the collinearity assessment using VIF indicates that all predictors in the structural model were not affected by collinearity issues. Variance Inflation Factor (VIF) readings that exceed 5 or 10 are generally considered troublesome and may require additional research or remedial action.

Subsequently, the bootstrapping technique was employed to evaluate the structure route coefficient by utilizing 5,000 bootstrap samples for indicator weighting. Thus, this technique will ascertain the importance and connection between endogenous and exogenous factors for the purpose of analysis. A relationship is considered greater when the correlation coefficient values are closer to -1.00 or +1.00, indicating a negative or positive relationship, respectively.

TABLE 5. Summary of the VIF Value for the Exogenous Latent Variables

Endogen Construct	Exogen Construct	VIF
EE	AA	3.589
	BB	3.508
	CC	3.937
	DD	4.794

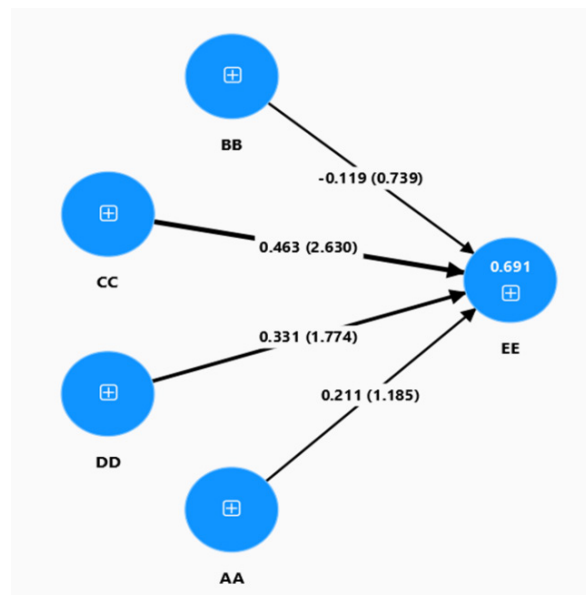


FIGURE 3. Structural Model Coefficient Value and Bootstrapping Results t-values.

The structural model analysis in Figure 3 showed that the adjusted R-square value was 0.691 and the R-square value was 0.716, showing a high level of predictive ability

for the model. The results of analysis indicated that there was no significant link between AA and EE (H1). The coefficient was 0.211 and the t-value was 1.185, both of which were not statistically significant. As a result, H1 was rejected.

Similarly, the correlation between BB and EE (H2) was found to be statistically insignificant (coefficient = -0.119, t-value = 0.739), leading to the rejection of H2. The association between CC and EE (H3) was found to be

significant, with a coefficient of 0.463 and a t-value of 2.63*, providing support for H3.

Furthermore, a significant association was observed between DD and EE (H4) with a coefficient of 0.331 and a t-value of 1.774*, providing support for H4. Thus, the model provides support for hypotheses H3 and H4, but hypotheses H1 and H2 are rejected. Table 5 shows the summary of the main constructs path coefficient and t-values.

TABLE 5. Path Coefficient And T-Values for All Constructs

Hypothesis	Relationship	Coefficient value	t-value	Results
H_1	$AA \rightarrow EE$	0.211	1.185 ^{NS}	Reject
H_2	$BB \rightarrow EE$	-0.119	0.739 ^{NS}	Reject
H_3	$CC \rightarrow EE$	0.463	2.630*	Accept
H_4	$DD \rightarrow EE$	0.331	1.774*	Accept

Notes:

NS: Non-significant at the 0.10 level.

*: Significant at the 0.10 level.

DISCUSSIONS

This study's findings offer significant insight into the factors influencing homeownership in public housing complexes, corroborating and enhancing existing work. The study sought to investigate the factors—spanning infrastructure, demographics, social aspects, environmental conditions, economic variables, and regulatory frameworks—that affect public housing inhabitants' inclination towards homeownership. These findings pertain directly to the research objectives: (i) to identify principal drivers affecting homeownership among public housing residents, and (ii) to evaluate the comparative importance of these factors.

Infrastructure and demographic features proved to be the most significant variables, affirming their pivotal role in influencing housing decisions. The importance of access to public transit, healthcare, and educational institutions corroborates recent research (Bah et al. 2018; Bhanye et al. 2024), strengthening the idea that closeness to key services increases the appeal and habitability of public housing.

These elements are especially crucial for families with children and elderly individuals, since they pertain directly to everyday convenience and long-term welfare. For example, younger households emphasize proximity to educational institutions and child-friendly facilities, whereas older persons are more affected by closeness to healthcare services—reflecting the conclusions of Andrews & Caldera Sánchez (2011). These characteristics combined foster an environment favorable for the move from renting

to ownership, a central theme in both this study and previous studies.

Social and environmental aspects demonstrated considerable value, especially in cultivating a feeling of community and enhancing livable environments. According to Sepawie et al. (2022), positive social interactions and the existence of green infrastructure, as noted by Silva et al. (2024), enhance inhabitants' emotional and psychological engagement with their living environment. A pristine, secure, and socially interactive neighborhood enhances inhabitants' affinity for their locale, which is an essential prelude to desires for homeownership.

Notably, economic and market variables—such as home prices, income stability, and access to financing—were determined to be statistically unimportant. This contradicts a significant body of literature that identifies these factors as primary determinants of homeownership (Zamri, 2021; Said et al. 2024). A credible rationale is the subsidized character of public housing and the existence of government support systems, which may mitigate the effects of unadulterated market forces.

Similarly, legislative and regulatory elements—such as land use restrictions and urban planning (Abd-Elkawy, 2020; Davison et al. 2012)—did not demonstrate a significant direct impact on individual homeownership choices. Although these frameworks are crucial in establishing the whole housing environment, they seem to affect access to housing more than the individual choice to purchase. Their indirect effects, although structurally significant, do not dramatically influence residents' perceptions or daily decision-making processes.

This study emphasizes that residents' choices to seek homeownership in public housing are predominantly influenced by concrete lived experiences—such as infrastructure availability, demographic requirements, social cohesion, and environmental quality—rather than theoretical economic or policy factors.

These findings have significant implications for housing policy: instead of exclusively concentrating on financial incentives or regulatory modifications, governments and housing developers should emphasize the creation of supporting physical and social environments. This could markedly improve residents' readiness and ability to shift from tenants to homeowners.

CONCLUSIONS

Overall, public housing helps low- and middle-income people own homes. Infrastructure, demography, and social/environmental variables affect these activities. Apart from that, quality transportation, utilities, and service proximity make public housing developments more desirable and functional.

These characteristics enhance inhabitants' lives and project longevity. Additionally, housing demand and government operations depend on population growth, age distribution, and income. Community cohesion, education, and healthcare also impact housing project success.

Specifically, strong community and social support networks can help homeowners stay in their homes by fostering safe and successful communities. Climate resilience and natural areas are increasingly crucial in sustainable and adaptable housing solutions. It is advisable that public housing efforts that encourage homeownership must address infrastructure, demography, social, and environmental aspects.

This study enhances existing literature by providing a framework for analyzing the various factors that affect public housing ownership. Public housing policies should incorporate infrastructure, demographic, social, and environmental factors to improve long-term property ownership. The findings offer significant insights for governments seeking to enhance housing effectiveness in addressing citizens' needs and promoting sustainable homeownership.

Future research should enhance this model through comparative studies across various regions to determine the most effective strategies, thus reinforcing government policies aimed at promoting inclusive and sustainable homeownership.

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DECLARATION OF COMPETING INTEREST

None.

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