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Analysis of the Impact of Subsidized Housing Development on the Life Satisfaction of Surrounding Communities in Alam Barajo District Jambi City

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Abstract
Introduction: *The development of subsidized housing in urban areas aims to meet the housing needs of low-income communities. However, large-scale housing development can also cause changes in the environmental, social, and economic conditions of surrounding communities that potentially influence community life satisfaction.* ***Objective:*** *This study aims to analyze the influence of subsidized housing development on community life satisfaction in Alam Barajo District, Jambi City through environmental, social, and economic aspects.* ***Method:*** *This study uses a quantitative approach with a survey method involving 100 respondents who live around subsidized housing areas. Data analysis was conducted using Structural Equation Modeling based on Partial Least Squares (SEM-PLS) with the assistance of SmartPLS software.* ***Results and Discussion:*** *The results of the study show that subsidized housing development has a significant influence on the environmental, social, and economic aspects of the community. However, in relation to community life satisfaction, only the social variable has a significant influence. The indirect effect analysis also shows that the social aspect acts as a mediator in the relationship between subsidized housing development and community life satisfaction.* ***Conclusion:*** *Subsidized housing development has an impact on the environmental, social, and economic conditions of the community in Alam Barajo District. However, community life satisfaction is more influenced by the social dynamics formed within the residential environment.*

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Introduction

Subsidized housing development has become a central component of regional development policy in Indonesia, particularly as a response to population growth, increasing housing demand, and the persistent housing backlog among low-income communities (MBR) (Tarigan, 2024); (Anwar, Wahyu, & Arisanty, 2022). The Indonesian government has implemented various affordable housing programs aimed at improving public access to adequate shelter and stimulating economic activity in surrounding areas (Ministry of Public Works and Public Housing, 2022). However, large-scale residential development does not only yield positive outcomes. The conversion of land into housing estates can alter environmental conditions, reshape social dynamics, and generate both opportunities and cost-of-living pressures for existing residents (Pintauli & Safitri, 2021); (Ramadhan & Sya'ban, 2024); (Rinjani, Karyadi, & Chaniago, 2025); (Angga, 2024). These multidimensional changes raise an important question about how housing development ultimately affects the subjective wellbeing of communities living nearby (Septiani, 2022); (Sari, 2022)

Life satisfaction serves as a key indicator of subjective community welfare, reflecting individuals' overall evaluations of their life conditions across social, economic, health, and environmental dimensions (Ilham, 2020). Prior studies have demonstrated that changes in the physical and social environment resulting from housing development can shape community perceptions of quality of life. Environmental factors such as land use change and infrastructure demand, social factors such as shifts in interaction patterns among residents, and economic factors such as the emergence of new business activities are all plausible pathways through which residential development may influence life satisfaction. Understanding these pathways requires an analytical framework capable of capturing the complexity of such relationships simultaneously (MUTMAINAH, 2024).

Despite a growing body of literature on housing development impacts, studies that comprehensively examine the relationship between subsidized housing development and community life satisfaction — particularly through a structural model approach — remain limited, especially in the context of Indonesian urban areas. The phenomenon is particularly evident in Alam Barajo District, Jambi City, one of the regions experiencing rapid subsidized housing expansion in recent years, where changes in environmental, social, and economic conditions have been observable yet their influence on residents' life satisfaction has not been systematically investigated.

This study therefore aims to analyze the influence of subsidized housing development on community life satisfaction in Alam Barajo District, Jambi City, through environmental, social, and economic dimensions, using Structural Equation Modeling based on Partial Least Squares (SEM-PLS). The findings are expected to contribute to the literature on regional development studies and to inform evidence-based planning for sustainable and welfare-oriented housing development

Method

This study uses a quantitative approach with a survey method to analyze the influence of subsidized housing development on community life satisfaction in Alam Barajo District, Jambi City. The research population consists of people living around subsidized housing areas with a total population of 116,253 residents. The sample size was determined using the Slovin formula with an error rate of 10%, resulting in 100 respondents. The sampling technique used was stratified simple random sampling to ensure that respondents represent communities living around subsidized housing areas.

Data collection was conducted through the distribution of questionnaires using a five-point Likert scale. The research variables consist of subsidized housing development as the independent variable, environmental, social, and economic aspects as mediating variables, and community life satisfaction as the dependent variable. The data were analyzed using Structural Equation Modeling (SEM) based on Partial Least Squares (PLS) with the assistance of SmartPLS software. The analysis was conducted through the evaluation of the measurement model (outer model) to test construct validity and reliability, as well as the evaluation of the structural model (inner model) to examine relationships between variables through path coefficients, t-statistics, and p-values (Hair et al., 2019).

Result and discussion

1. Result

Respondent Characteristics

Respondent characteristics in this study are used to provide an overview of the profile of the community that became the research sample around subsidized housing areas in Alam Barajo District, Jambi City. Information regarding respondent characteristics includes gender, age, level of education, and occupation. The characteristics of respondents can be seen in Table 1.

Table 1
Respondent Characteristics

Characteristics	Category	n	%
Gender	Male	51	51
	Female	49	49
Age	17–28 years	28	28
	29–40 years	31	31
	41–52 years	26	26
	≥53 years	15	15
Education	Junior High School	6	6
	Senior High School	54	54
	Diploma/Bachelor	39	39
	Master's Degree	1	1
Occupation	Housewife	19	19
	Trader	10	10
	Private Sector Employee	24	24
	Entrepreneur	22	22
	Laborer	11	11
	Civil Servant	4	4
	Others	10	10

Source: Research data, 2026.

Based on Table 1, it is known that most respondents are male at 51%, while female respondents account for 49%. This indicates that the composition of respondents is relatively balanced between males and females, providing a proportional representation of community perceptions regarding the impact of subsidized housing development in the research area.

Based on the age group, most respondents are in the range of 29–40 years at 31%, followed by the age group of 17–28 years at 28%, and the age group of 41–52 years at 26%. Meanwhile, respondents aged above 53 years account for 15%. This composition indicates that most respondents are in the productive age group who are actively involved in social and economic activities, thus having direct experience with changes resulting from subsidized housing development. In terms of education level, most respondents have a senior high school education at 54%, followed by respondents with diploma or bachelor's degrees at 39%. Meanwhile, respondents with junior high school education account for 6%, and those with a master's degree account for 1%. Based on occupation, most respondents work in the private sector at 24% and as entrepreneurs at 22%. In addition, there are respondents who work as housewives at 19%, laborers at 11%, traders at 10%, civil servants at 4%, and other occupations at 10%.

Measurement Model Evaluation (Outer Model)

The evaluation of the measurement model (outer model) was conducted to test the validity and reliability of the constructs used in this study. This testing aims to ensure that each indicator is able to represent the latent variables being measured. In this study, the outer model evaluation was carried out by examining the values of Average Variance Extracted (AVE), Composite Reliability, and Cronbach's Alpha. The results of the measurement model evaluation can be seen in Table 2.

Table 2
Construct Reliability and Validity Evaluation Results

Variable	Cronbach's Alpha	Composite Reliability	AVE
Housing Development (X)	0.820	0.873	0.545
Environment (Z1)	0.794	0.860	0.524
Social (Z2)	0.882	0.905	0.515
Economic (Z3)	0.860	0.901	0.585
Life Satisfaction (Y)	0.875	0.900	0.501

Source: SmartPLS processed results, 2026.

Based on Table 2, all constructs in this study meet the criteria of validity and reliability. The Average Variance Extracted (AVE) value for each variable is greater than 0.50, indicating that each construct explains more than 50% of the variance of its indicators. The Composite Reliability values for all variables are above 0.70, with the social variable recording the highest value (0.905) and the environmental variable the lowest (0.860). The Cronbach's Alpha values for all constructs likewise exceed 0.70, confirming good reliability. According to Hair et al. (2019), a construct is considered reliable when the Composite Reliability and Cronbach's Alpha values are greater than 0.70 and the AVE value is greater than 0.50.

Structural Model Evaluation (Inner Model)

The evaluation of the structural model (inner model) was conducted to determine the relationships among latent variables in the research model and to test the proposed hypotheses. This testing was carried out by examining the path coefficient values, t-statistics, and p-values obtained through the bootstrapping procedure in the SmartPLS application. The relationships among variables in the research model can be seen in Table 3.

Table 3
Direct Effect Testing Results

Variable Relationship	Path Coefficient	T Statistic	P Value
Housing Development → Environment	0.375	3.451	0.001
Housing Development → Social	0.677	13.102	0.000
Housing Development → Economic	0.573	5.902	0.000
Environment → Life Satisfaction	0.141	1.344	0.179
Social → Life Satisfaction	0.464	2.238	0.025
Economic → Life Satisfaction	0.139	0.593	0.553
Housing Development → Life Satisfaction	0.446	5.350	0.000

Source: SmartPLS processed results, 2026.

Based on Table 3, subsidized housing development has a positive and significant influence on the environmental aspect (path coefficient = 0.375; p = 0.001), social aspect (path coefficient = 0.677; p = 0.000), and economic aspect (path coefficient = 0.573; p = 0.000). Among the three intervening variables, only the social variable shows a significant influence on community life satisfaction (path coefficient = 0.464; p = 0.025), while the environmental (p = 0.179) and economic (p = 0.553) variables do not reach statistical significance. Subsidized housing development also exerts a direct positive and significant influence on community life satisfaction (path coefficient = 0.446; p = 0.000).

Indirect Effect

In addition to testing the direct effects between variables, this study also analyzes indirect effects to determine whether environmental, social, and economic variables act as mediating variables in the relationship between subsidized housing development and community life satisfaction. The testing of indirect effects was conducted through the bootstrapping procedure in the SEM-PLS analysis. The results of the indirect effect testing can be seen in Table 4.

Table 4
Indirect Effect Testing Results

Mediation Path	Coefficient	T-Statistic	p-value
Housing Development → Environment → Life Satisfaction	0.053	0.942	0.346
Housing Development → Economic → Life Satisfaction	0.080	0.533	0.594
Housing Development → Social → Life Satisfaction	0.314	2.242	0.025

Source: SmartPLS processed results, 2026.

Based on Table 4, the social variable plays a significant mediating role in the relationship between subsidized housing development and community life satisfaction (coefficient = 0.314; p = 0.025). Environmental and economic variables do not show significant mediation effects, with p-values of 0.346 and 0.594, respectively

2. Discussion

Respondent Characteristics

The relatively balanced gender composition and the predominance of productive-age respondents (17–52 years, totaling 85%) suggest that findings of this study reflect the perceptions of a community actively engaged in daily social and economic life. The relatively high educational attainment — with 93% of respondents holding at least a senior high school qualification — implies that respondents are reasonably capable of perceiving and evaluating changes in their surrounding environment. According to Statistics Indonesia (2022), the level of education can influence how individuals understand and assess changes in social, economic, and environmental conditions around them. The diversity of occupations further indicates that communities around subsidized housing areas have varied economic backgrounds, which can influence community perceptions regarding the impact of housing development across environmental, social, and economic aspects (Indarto & Rahayu, 2015).

Measurement Model Evaluation (Outer Model)

The outer model evaluation confirms that all constructs in this study achieve acceptable levels of convergent validity and reliability. All AVE values exceed the threshold of 0.50, and all Composite Reliability and Cronbach's Alpha values exceed 0.70, consistent with the criteria established by Hair et al. (2019). These results indicate that the indicators used in the study adequately represent their respective latent constructs and can be used with confidence in subsequent structural model analysis.

Structural Model Evaluation (Inner Model) — Direct Effects

The finding that subsidized housing development significantly influences all three mediating variables — environment, social, and economic — is consistent with the literature suggesting that large-scale residential development produces multidimensional community impacts (Indarto & Rahayu, 2015; Gaol et al., 2023). The strongest path coefficient is observed for the social dimension (0.677), suggesting that housing development is most strongly expressed through changes in social dynamics, including increased population mobility, shifts in lifestyle patterns, and changes in community activity patterns. However, among the three mediating variables, only the social variable exerts a statistically significant influence on life satisfaction ($p = 0.025$), while the environmental ($p = 0.179$) and economic ($p = 0.553$) variables do not reach significance. It is important to note that this study employs a cross-sectional design, which captures associations at a single point in time. As such, causal interpretations — including the conclusion that environmental and economic changes directly cause or do not cause changes in life satisfaction — should be made with caution. The observed associations reflect community perceptions at the time of data collection and may not fully capture longer-term developmental trajectories.

The non-significance of the environmental variable on life satisfaction warrants further reflection. One possible explanation concerns the sensitivity of the indicators used to measure the environmental construct. If the indicators primarily capture objective or infrastructural dimensions of environmental change — such as road and drainage improvements — they may not adequately reflect the subjective environmental quality that residents actually experience in their daily lives, such as noise levels, green space accessibility, air quality, or perceived neighborhood safety. Residents may acknowledge that infrastructure has improved while simultaneously not perceiving these changes as

meaningful contributors to their overall life satisfaction. Future studies may benefit from incorporating subjective environmental quality indicators alongside objective physical measurements.

The non-significance of the economic variable similarly merits consideration. Although housing development is associated with the emergence of new trade and service activities, economic benefits may not be distributed evenly across the community. Residents who do not directly participate in these economic opportunities — such as housewives, laborers, and civil servants, who collectively represent 34% of this sample — may not perceive economic gains as personally relevant to their life satisfaction. Furthermore, economic changes resulting from housing development, such as rising land values or increased cost of living, may offset perceived gains for some groups, rendering the net economic effect on life satisfaction statistically negligible in cross-sectional measurement. It is also worth noting that the environmental and economic constructs are likely to be intercorrelated. Improved infrastructure (environmental dimension) tends to stimulate economic activity in surrounding areas, while economic growth can in turn drive further environmental modification. The presence of such intercorrelation between mediating variables in SEM-PLS models can attenuate individual path coefficients, potentially suppressing the independent contribution of each variable to life satisfaction. Future studies are encouraged to examine the correlation matrix between mediating constructs and to consider including interaction terms or conducting multigroup analyses to better disentangle these overlapping effects.

Indirect Effect

The significant mediation of the social variable (indirect coefficient = 0.314; p = 0.025) indicates that the pathway from housing development to life satisfaction is largely channeled through changes in social conditions within the community. This is consistent with Diener et al. (2018), who note that social relationships, community participation, and the quality of interpersonal interactions are among the most robust predictors of subjective wellbeing. The arrival of new residents in subsidized housing areas can stimulate increased social interaction and community dynamics that ultimately enhance residents' sense of life satisfaction.

The non-significant mediation of the environmental and economic variables further reinforces the interpretation that, at the time of data collection, community members in Alam Barajo District place greater subjective value on social connectedness than on physical environmental improvements or economic opportunities arising from housing development. This finding does not necessarily imply that environmental and economic changes are unimportant; rather, it suggests that within a cross-sectional measurement framework, and given the indicators currently employed, these dimensions have not yet translated into perceived improvements in overall life satisfaction. Longitudinal follow-up studies, which can track changes in life satisfaction over time as environmental and economic conditions continue to develop, would provide a more definitive test of the causal pathways proposed in this model.

These findings are consistent with the study conducted by Indarto and Rahayu (2015), which states that housing development can bring significant social changes to surrounding communities, particularly through increased social activities and interactions among residents. Therefore, the social aspect becomes an important factor that needs to be considered in residential area development planning in order to provide positive impacts on community welfare and life satisfaction.

Conclusion

Based on the results of the analysis regarding the impact of subsidized housing development on community life satisfaction in Alam Barajo District, Jambi City, it can be concluded that subsidized housing development has a significant influence on the environmental, social, and economic aspects of the surrounding community. This indicates that the development of residential areas contributes to changes in environmental physical conditions, community social dynamics, and economic activities in the research area. The results of the study also show that the social aspect has a positive and significant influence on community life satisfaction. Meanwhile, environmental and economic aspects do not show a significant influence on community life satisfaction. This indicates that community life satisfaction is more influenced by the quality of social relationships, interactions among community members, and social dynamics that occur in the living environment.

In addition, the results of the indirect effect analysis show that the social variable acts as a mediator in the relationship between subsidized housing development and community life satisfaction. Conversely, environmental and economic variables do not act as significant mediators in the relationship. Thus, it can be concluded that subsidized housing development can improve community life satisfaction primarily through changes in the social aspects of the community. The findings of this study indicate that residential area development should not only consider physical and economic aspects but also social aspects of the community. Therefore, housing development planning needs to consider efforts to strengthen social interactions, increase community participation, and create a harmonious social environment so that housing development can provide a more optimal contribution to improving the quality of life of the community.

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