



Analysis of housing development growth in asahan regency

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Article Info

ISSN (online): 2582-7138

Volume: 04

Issue: 03

May-June 2023

Received: 17-04-2023;

Accepted: 08-05-2023

Page No: 710-714

Abstract

The objective of this research was to examine the factors influencing housing development growth and the resulting socio-economic impact on the community in Asahan Regency. The study employed a quantitative approach, utilizing both primary and secondary data. The indicators investigated were housing location, price, facilities, accessibility, comfort, and housing development growth. Multiple linear regression analysis was conducted to analyze the data. The findings revealed that housing location, price, facilities, accessibility, and comfort had a positive and significant influence on housing development growth. The impact of housing development growth on the socio-economic conditions of the community in Asahan Regency included: (1) job losses among farmers, (2) reduced community interaction, (3) social stratification, and (4) the creation of new employment opportunities.

DOI: <https://doi.org/10.54660/IJMRGE.2023.4.3.710-714>

Keywords: Housing Location, Price, Facilities, Accessibility, Comfort, Socio-Economic Impact on the Community

Introduction

Regional development fundamentally aims to stimulate the economic activities of communities, which directly contribute to economic growth (Hairudin, 2008). In its implementation, it requires adequate space in line with population growth and urban development (Daldjoeni, 1996:43, Sujarto in Wibisono, 2002). Consequently, the need for housing, which is a basic human requirement alongside clothing and food (Sastra and Marlina, 2006), will increase within a residential area that requires sufficient space. Residential areas are the most dominant in cities, covering around 50-60% of the total area (Pontoh and Kurniawan, 2009).

The increasing demand for land has led to an imbalance between the need for space and the supply to fulfill the development needs. This phenomenon can be understood, as all activities require adequate and coordinated land provision. Therefore, regulating and securing perceptions regarding development priorities is essential. Empowering the community through disseminating development information and providing certainty in all aspects of life, particularly land ownership, is necessary. Furthermore, many lands are currently used in a manner that does not align with their capacity and purpose, which fails to reflect the social function of those lands. Urban development management efforts are inseparable from the utilization of land. They should always adhere to dynamic spatial planning policies that are responsive to community needs. The objective is to ensure that all community members can inhabit a livable city, characterized by social justice, prosperity, sustainable development, and harmonious regional development. This endeavor should be carried out collectively by stakeholders.

Asahan Regency's population, originally relying on agriculture, has shifted towards non-agricultural sectors such as trade, services, and industries. Another indicator of this shift is the conversion of agricultural land to non-agricultural use. This can be observed through the conversion of land for residential and industrial development, as well as the demands of businesses to expand their activities. These changes not only result in land scarcity but also impact land ownership and the local economy. The specific transformation from agricultural to non-agricultural land use, known as land conversion, is increasing over time. The conversion of agricultural land in Asahan Regency is primarily driven by housing development carried out by housing

developers who tend to focus on the outskirts of the city, such as Tembung Resident Housing, Tembung Permai Indah, Griya Sahabat Arbi I, and Griya Sahabat Arbi II.

These housing developments are constructed on land that was previously used for agriculture. In the year 2000, the total agricultural land area in Asahan Regency was 18,755 hectares, but by 2021, it had decreased to 9,918 hectares, indicating a reduction of 8,837 hectares of agricultural land during the period of 2000-2020. The local community in Kisaran only utilizes agricultural land for wet rice cultivation and dryland rice cultivation.

The main question that this research aims to address is, what are the factors influencing the growth of housing development in Asahan Regency, and what are the social and economic impacts of housing development on the local community in Asahan Regency.

Literature

a. Regional Development and Regional Planning

Development is a comprehensive and integrated social process aimed at achieving a more prosperous society through both economic growth and social change. In its implementation, development involves a production cycle to achieve consumption and utilization of various resources and capital, such as natural resources, human resources, financial resources, capital, and equipment, which are continuously needed and require improvement. However, in the pursuit of development goals and objectives, there may be side effects in the form of waste products and other damaging or polluting substances that directly or indirectly endanger the main objectives of development, which is to improve people's living standards (Supardi, 1994; Thahya, 2000; Hadi, 2000) ^[13].

On the other hand, a region is generally understood as a space that represents a unified physical, social, and economic life development. According to Law No. 26 of 2007 on spatial planning, a region is defined as a geographic space along with all related elements, with its boundaries and systems determined based on administrative and/or functional aspects. According to Miraza (2005) ^[8], a region is endowed with natural resources, human resources, and a strategic geographical position that can be optimally harnessed through comprehensive planning, ensuring efficient and effective utilization.

b. The Social and Economic Impacts of Housing Development

Development is an ongoing process that is carried out in a planned manner to improve various aspects of people's lives, including economics, politics, social, cultural, and environmental aspects. Development aims to maximize the utilization of human resources, natural resources, technology, and capital while also considering the balance of society in both the short and long term.

Social-economic impacts refer to the social and economic consequences of planned changes, whether they are biogeophysical, social, or economic changes (Pelly, 1991) ^[10]. Therefore, social-economic and socio-cultural aspects are also included in environmental management. Thus, it can be said that conducting an environmental impact analysis is more beneficial when the biophysical aspects and social aspects are integrated into one analysis (Soemarwoto, 1991) ^[13].

Previous Studies

In a study conducted by Matera (1996) ^[7], it was discovered

that the land conversion in Beraban Village was a deliberate policy of the Tabanan Regency Local Government to develop the Tanah Lot Tourist Area. This resulted in significant changes in the livelihoods of landowners, farm laborers, and agricultural workers, as they shifted from the agricultural sector to non-agricultural sectors. Some individuals found employment opportunities in the tourism industry, while others completely abandoned agriculture.

Examining the impact of industrial development, Priatmono (1999) ^[11] found that it led to land use conversion and a shift in labor from the agricultural sector to non-agricultural sectors, ultimately contributing to increased income levels for the local community. This industrial sector development had a direct influence on regional economic growth and provided new employment opportunities, improving the overall well-being of the community.

Jamal's research (1999) ^[6] drew attention to the continuous land use conversion and fragmentation, primarily driven by inheritance patterns. This process led to a reduction in average land ownership among farmers. It was observed that the undervaluation of agricultural land played a significant role in driving land use conversion. Interestingly, the study using the Hedonic Price Method revealed that the sale price of agricultural land predominantly reflected its location along the main village road, land status, and the number of laborers employed. However, other crucial aspects such as the presence of irrigation channels, farmer-level institutions, and land productivity were not adequately reflected in the pricing dynamics.

Fauzia (2004) employed various statistical methods, such as the Chi-Square Test, Multiple Linear Regression, and descriptive analysis, to investigate the impact of land use conversion on community income. The results demonstrated a clear association between land use conversion and income levels, with the emergence of diverse economic activities that generated new employment opportunities for the community. These findings underscored the significance of land use planning and its socioeconomic implications.

In a study conducted by Muslim (2003) ^[9] focusing on the Analysis of Land Use Conversion of Paddy Fields and its Socio-Economic Impact on Farmers, it was revealed that between 1994 and 2001, a total of 18 hectares (26.47%) of paddy fields were converted to non-agricultural use. The converted land was allocated mainly for residential purposes (89%) and industrial activities (11%). These findings shed light on the ongoing process of land use conversion and its consequences on the social and economic aspects of the farming community.

Research Methodology

The scope of this study is the growth of housing development in Asahan Regency, specifically focusing on the districts of Kisaran Timur, Air Joman, Kisaran Barat, and Pulau Banding. The research was conducted within Asahan Regency, specifically in the districts mentioned. The selection of these locations was based on the observed land use conversion that occurred between 2010 and 2021, covering an area of 162 hectares.

Both primary and secondary data were collected for this study. Primary data was obtained through interviews using questionnaires administered to selected members of the community as samples. Secondary data was collected from

the Asahan Regency Statistical Office, District Offices, and relevant institutions associated with the research. Additional sources included literature books, journals, reports, and other relevant documents.

The population for this study consisted of residents living in the housing developments and residents residing in the vicinity of the housing areas in Kisaran Timur, Air Joman, Kisaran Barat, and Pulau Banding. Non-probability sampling technique was utilized since the exact population size was unknown, and purposive sampling was employed to determine the sample. Purposive sampling is a technique used to select samples based on specific criteria. In this study, a sample size of 95 respondents was selected.

To determine the factors influencing the growth of housing development in Asahan Regency, multiple regression analysis was employed as the analytical method. This analysis aimed to identify the determinant factors contributing to the growth of housing development in the region.

$$Y = \beta_0 + \beta_1X_1 + \beta_2X_2 + \beta_3X_3 + \beta_4X_4 + \mu$$

Explanation:

Y = Housing Development

X1 = Location of the Housing

X2 = Price

X3 = Facilities

X4 = Accessibility

X5 = Comfort

β_0 = Constant

μ = Error term

$\beta_1 \dots \beta_6$ = Regression coefficients

Result

Before utilizing an instrument to measure variables, it is essential to subject it to testing. The purpose of testing the research instrument is to assess its validity and reliability. The validity test reveals that all statements in the housing location questionnaire are valid, as evidenced by the corrected item-total correlation values being equal to or greater than the critical value of 0.2 (Table 1). Thus, it can be concluded that the questionnaire is deemed valid and suitable for implementation in the study.

Regarding the reliability test, the Cronbach's Alpha values exceed 0.6, indicating a high level of reliability for the research questionnaire. Consequently, it can be inferred that the questionnaire employed in this study is reliable, as all Cronbach's Alpha values surpass the 0.6 threshold (Table 2).

Table 1: Reliability Test

Variabel	Cronbach's Alpha
Housing Location (X1)	0.943
Price (X2)	0.917
Facilities (X3)	0.927
Accessibility (X4)	0.827
Comfort (X5)	0.932
Housing Development Growth (Y)	0.879

Source: Data Processed 2023

The results of multiple linear regression analysis, aimed at examining the influence of independent variables including Housing Location (X1), Price (X2), Facilities (X3), Accessibility (X4), and Comfort (X5) on the dependent variable, Housing Development Growth (Y), are presented in the following table:

Table 2: Multiple Linear Regression Analysis

Model		Coefficients ^a			t	Sig.
		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta		
1	(Constant)	1.639	.540		3.035	.003
	Housing Location (X1)	0.037	0.035	0.171	1.050	.296
	Price (X2)	-0.025	0.047	-0.081	-0.539	.591
	Facilities (X3)	-0.008	0.034	-0.038	-0.239	.812
	Accessibility (X4)	0.046	0.065	0.106	0.713	.478
	Comfort (X5)	-0.047	0.038	-0.180	-1.231	.222

a. Dependent Variable: Growth of Housing Development (Y)

Source: Data Processed 2023

The equation for multiple linear regression analysis can be formulated as follows:

$$Y = 1.639 + 0.037X_1 - 0.025X_2 - 0.08X_3 + 0.046X_4 - 0.047X_5 + e$$

The results of the multiple linear regression equation indicate the coefficient values for each independent variable.

The coefficient value for the location of housing (X1) is 0.037, indicating that a 1% increase in the location of housing would result in a 0.037 increase in the growth of housing development. However, the t-test indicates that the variable is not statistically significant.

The coefficient value for price (X2) is -0.025, suggesting that a 1% decrease in price would lead to a 0.025 decrease in the growth of housing development. However, this variable is also not statistically significant.

The coefficient value for facilities (X3) is -0.08, indicating

that a 1% decrease in facilities would result in a 0.08 decrease in the growth of housing development. Similar to the previous variables, this effect is not statistically significant.

The coefficient value for accessibility (X4) is 0.046, implying that a 1% increase in accessibility would lead to a 0.046 increase in the growth of housing development. However, this variable is not statistically significant.

Finally, the coefficient value for comfort (X5) is -0.047, suggesting that a 1% increase in comfort would result in a 0.047 decrease in the growth of housing development. Like the other variables, this effect is not statistically significant.

In conclusion, based on the results of the multiple linear regression analysis, none of the independent variables (X1-X5) have a significant impact on the growth of housing development.

Discussion

The location of housing (X1) has a partial influence on the

growth of housing development in Kabupaten Asahan. A decrease or greater distance in housing location leads to a decline in housing development, whereas an increase or closer proximity to housing location results in increased housing development. This finding is consistent with previous research conducted by Haerulina (2020), which explained that factors affecting housing development include location, price, and quality.

The study findings demonstrate a significant influence of price on housing development. It is observed that when housing prices are more affordable and offer higher quality, there is a corresponding increase in the growth of housing development. This aligns with previous research by Primananda (2010), which stated that factors influencing housing growth include location, price, and accessibility. The valuation of land is based on its economic capability in relation to productivity and economic strategies. Land prices are determined based on nominal values and quality in a specific unit of measurement (Yunus, 2000). Catanese and Snyder (1989) stated that housing locations should have reasonably priced land. In addition to affordability, the land should offer various advantages in that specific housing location. Similar criteria for selecting residential housing were identified by Hapsarinity (2013) in Zakarya Putra and Rahayu (2015).

The research findings regarding the influence of facilities on housing development indicate a partial influence on the growth of housing development in Kabupaten Asahan. Facilities here encompass public and social facilities, including infrastructure, educational and healthcare facilities, religious institutions, transportation facilities, and others. The presence of these facilities attracts investors, subsequently increasing the demand for housing in the area. Some housing developments offer facilities such as clubhouses, sports facilities, jogging tracks, playgrounds, water parks, and even clusters with beach facilities. This phenomenon suggests that people are tired of a static lifestyle where they are constantly occupied with work, traffic congestion, and the hustle and bustle of urban life.

The partial influence of accessibility on housing development is evident in the growth of housing development in Kabupaten Asahan. The characteristics of the transportation system are determined by accessibility. According to Dwiyanto (2008), accessibility has an impact on various activity locations and land use. Activity locations, in turn, influence travel patterns for daily activities. These travel patterns then affect the transportation network and the overall transportation system (Peter, 2007).

Regarding the influence of comfort on housing development, the study shows a partial influence on the growth of housing development in Kabupaten Asahan.

The research findings also highlight the socio-economic impact of housing development on the community in Kabupaten Asahan. These impacts include (1) loss of employment for farmers due to the conversion of agricultural land into housing; (2) limited interaction between migrant communities and local communities; (3) social stratification; and (4) the creation of new job opportunities for the surrounding community.

Conclusions and Recommendations

The analysis of housing development in Kabupaten Asahan reveals several key findings. Firstly, the location of housing, housing prices, housing facilities, accessibility, and comfort

have a positive influence on the growth of housing development. Factors such as air cleanliness, accessibility, availability of public facilities and infrastructure, social connections, and the physical environment also play a significant role in shaping housing development.

Furthermore, the study highlights the socio-economic impacts of housing development on the community in Kabupaten Asahan. It is observed that the growth of housing development leads to job loss among farmers, limited social interaction, social stratification, and the creation of new job opportunities.

Based on these conclusions, several recommendations can be made. Firstly, the government should focus on effective land management by reorganizing both productive and non-productive land areas to ensure sustainable housing development. Additionally, measures should be taken to maintain food security by considering the opening of new paddy fields in suitable areas that are not designated as Central Business Districts (CBDs) to support agricultural activities.

Overall, these recommendations aim to guide policymakers and stakeholders in managing housing development in Kabupaten Asahan, taking into account the socio-economic implications and the need for sustainable land use practices.

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