

**ANALYSIS OF FACTORS INFLUENCING DEMAND OF SIMPLE HOUSES AT  
ACEH BESAR REGENCY**

**Abstract**

*The objective of this research is to find out the influence of individual income, interest, house price and location regarding on the demand of simple house at Aceh Besar Regency. Analysis method employed in this research was Quantitative Method. Data collecting in this research was Primary Data. The analysis result indicates that the demand of simple houses at Aceh Besar Regency is remarkably high. Individual income and interest give significant influence toward the demanding of the simple houses at Aceh Besar Regency, meanwhile house price and location had less impact regarding the demand of simple houses at Aceh Besar Regency. The government is highly expected to maintain and preserve the subsidy of the interest for the people. Therefore it makes easier for them to get simple houses especially at Aceh Besar Regency, because houses are also basic needs in addition to food and clothing.*

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**Keywords:**

*The Demand Of Simple Houses,  
Individual Income and Interest.*

## **INTRODUCTION**

The need of houses is a basic needs for people other than Food and Clothing. People will always emphasize the need of basic needs rather than the secondary needs. It also goes for the need of houses, houses as a place for habitation and living are amongs the basic needs for humanity. Every human requires houses as a place for shelter, gathering, family activities and also as one way of investment.

The purpose of house have changed as well, as a place just for sheltering it is also required to fulfill the the needs and wishes of the householder, such as strategic location, good and solid building and also comfortable environment. In other words house is not only as a place for sheltering but also as a decent place for living. House is also a place for tutoring daily education amongs family members, in that case house need to be comfortable as possible in order to simplify the process of education toward the children so they can be a greater generation in the future, with the actualization of prosperous family members comes the expectation of better human resources in the future. Home demand is a reflection of an offering made by property developer especially simple house developer in order to help society to fulfill their need of housing. Demand accours if an individual has willing and ability to purchase a goods or services (Sukirno, 2003).

Aceh Besar Regency is Regency which directly border with capital province of Aceh, Banda Aceh. As capital province, each and every economic activities, health services, entertainment and shopping center which is occur at Banda Aceh gives direct impact toward people at Aceh Besar Regency, including home or house. People who have worked or activities at the capital province tend to live or stay at Aceh Besar Regency due to availability of land for housing. Real estate developer especially simple house developers tend to offer and build the simple house at Aceh Besar Regency due to relatively lower price of the land rather than at Banda Aceh. Based on the statement above place Aceh Besar Regency holds quite high on population growth in Province of Aceh. As shown as table below :

Number of Household Population  
Aceh Besar Regency Year 2012-2016

No.	Years	Number of Population (per person)	Number of Household	Percentage (%)
1.	2012	369.134	85.996	0,00
2.	2013	376.491	87.793	2,09
3.	2014	384.619	89.151	1,55
4.	2015	392.584	90.997	2,07
5.	2016	400.913	92.786	1,97

Source: Aceh Besar Regency Central Bureau of Statistics (fixed)

Based on table above shown that the number of population at Aceh Besar Regency keeps growing each years, in 2012 the number of population at Aceh Besar Regency is 369.134 inhabitants. In 2013 the number of population of Aceh Besar Regency has increased to 376.491 inhabitants and also in 2014 which has increased to 384,619 inhabitants, in 2015 has also increased to 392,584 inhabitants and it also occur in 2016 with 400,913 inhaitants. With the population growth comes along the increasing number of household or householder, and it will rise up the demanding of houses at Aceh Besar Regency. It shown as table below:

Number of Simple Houses Demand at Aceh Besar Regency  
2010-2015

No.	Years	Number of Houses (unit)
1.	2010	498
2.	2011	617
3.	2012	707
4.	2013	497
5.	2014	2.466
6.	2015	2.968

source: Bank Tabungan Negara Cabang Banda Aceh (fixed)

Based on table above it indicated that the demand of simple houses is always increase each year. In 2010 the number of simple houses demand is 498 units, it rise up in 2011 to be 617 units. While in 2015 the number of simple houses demand is 2,968 units. In another words during the last five years the demand of simple houses is always increase at Aceh Besar Regency.

Regarding to the explanation above, the writer of this study come out with a title “An analysis of factors influencing simple houses demand at Aceh Besar Regency”.

## **THEORETICAL REVIEW**

### **Theory and Laws of Demand**

Theory of demand basically is a hypothesis that says if the price of of a good is low (*ceteris paribus*) it is expected the demand of the good will increases. On the other hand, if the price of the good rise up (*ceteris paribus*) it is expected the demand of the good will decreases. Demand related with the number of demand. Number of demand is the number of items that buyers willing and able to pay for. The number of demand has negative relation with the price. The number of demand will decrease if the price is high and increase when the price is down. The relation between the price with the number of demand is commonly use in economics term and called the law of demand. (Mankiw, 2004:80), the law of demand states that if all thing is same, when a price of a good increases, the number of demand will be down, and when the price is down then the number of demand will increases.

From economics perspective, the definition of demand a little bit different with the definition we use daily. On daily used, definition of demand is refer to the number of needed goods. Meanwhile in economics point of view the definition of demand is if supported by purchasing power of consumens it's called effective demand, If it based just for the need only its called absolute demand (Nicholson, 2005). Theory of demand is derived from consumer's behavior in achieving maximum satisfaction by maximizing utility with limitation of budget. This is certainly can be explained by demand curve, a curve that show correlation between maximum number of purchased items with alternative price at specific time (*ceteris paribus*), and on specific price people always buy the small number when that amount they able to get.

According to Samuelson & Norddhaus, 2007, explain that correlation between quality requested with the price of a commodity, consider other factors as constant. This definition

shows that the number of items or services which are requested on the price level, in another word on each level of price there will be item requested. Meanwhile (Sukirno, 2002) explain s that theory of demand described if a person or even many consumers as buyers who are asked to identify the negative relation which is reflected to the theory of demand. Theory of demand states that buyers tend and expect that the price of items is down (expected demand) although in reality is not like that, in fact the price tend to increases on its process. Why expected demand at price level is down? Because buyers can increase to buy so they can have profit (consumer surplus).

### **Definition of Housing**

There few definition about house or housing. According to *The Dictioonary of Real Estate Appraisal*,2002:313 says that property of housing is an empty land or a land which is developed, used or provided for residences or places to stay such as single family houses, apartments, flats.

Based on Housing and Settlements Act No 14 of 1992:

- a. House is a construction which is purposed as residence or dwelling and facilities for betterment of family.
- b. Housing is a group of houses which is purposed as residential environment equipped with environmental facilities and infrastructure.
- c. Settlement is part of living environment outside protected area, whether it is urban or rural areas and it purpose as residential environment and a place for living activity.

As says (*American Institute Of Real Estate Appraisal*, 2001), resindential property divided into single family resindential and multifamily residential. Another word by Abd. Rahman, 1992:170 stated that property of housing can be divided into :

1. Houses, can be divided into elite houses, middle houses, simple houses, and cheap houses
2. Flats, can be divided into flats, apartments and condominium.

Joint Ministerial Decree issued 1992 by Ministry of Home Affairs, Ministry of Public Works and Ministry of Public Housing stated that property of housing can be classified into:

1. Simple houses are houses which are built with land areas between 54 m<sup>2</sup> to 200 m<sup>2</sup> and the construction cost of each m<sup>2</sup> is not to exceed the highest stated price per m<sup>2</sup> of valid class C government house building.
2. Middle houses are houses which are built with land areas between 200 m<sup>2</sup> to 600 m<sup>2</sup>, and the construction cost per m<sup>2</sup> is amongs the highest stated price per m<sup>2</sup> of the valid class C and A government house building.
3. Luxury houses are houses which are built with land areas between 6,00 m<sup>2</sup> to 2,000 m<sup>2</sup> and the construction cost per m<sup>2</sup> is above the highest stated price per m<sup>2</sup> of valid class A government house building.

According to burgess in (Hendarto, 2002) the spread of residential development or residential area by the developers of the housing can be influenced by several factors, among others :

1. Competition
2. Private Ownership
3. Differential Desirability
4. Topograpy
5. Transportation
6. Intertia of Early

In addition to the above factors that may affect the location of the settlement is the value of the land

### **Definition of Housing Demand**

Housing demand plays important role on influencing the price of the housing market. This is because of the limited of land offering for development meanwhile the housing demand keep changing and rising.

On Valuestate (Firdaus,1997:14) state that the housing demand made by customer can be influenced :

1. Location

The existence of housing location, whether it is at the city center or at the countryside will impact toward home buying interest. Strategic location of the housing has high value for greater demand. Economic factors of the houses location had also been considered by the house buyers. Distance toward work place, vacation spots, and public facilities play as a motive of time efficiency and transportation cost. These two are economic factors which had been consideration in choosing of house location.

2. Population Growth

With the key words that every human being needs a place to shelter, it makes every population growth whether naturally or unnatural (urbanization) to increase the demand of houses.

3. Buyers Income

The ability of a person to have a house is determined by the individual income. In any changes that an individual income rise up and the economic condition stable (no recession nor inflation), the tendency to possess a house will increase in quality and quantity.

4. Easiness of Obtaining Loan

On housing property market, housing demand is also influenced by government policies and financial institutions such as banking. The characteristics of property market which need lot of fund make individual heavily dependent on easiness of funding. The easiness of funding would be loan facilities, lowering the interest rates of loan and repayment period. If this easiness is provided, it is believed that the demand of housing will increase eventually. On the hand, if the process of obtaining loan is very strick and tight or high loan interest rate will decrease the demand of housing by community.

5. Public Facilities

Facilities in here includes public and social facilities, amongs them is infrastructure, education facilities, health facilities, religious facilities, transportation, and etc. The existence of those facilities provoke and attract investor and eventually will increase the demand of housing at that areas..

6. The Market Price of House

As well as in theory of supply and demand, higher price of goods cause lower demand of the goods. If the price of middle house is up, tendency to possess the house with that price will also drop at the end. And the demand of housing will be switched to the lower price.

7. Laws and Regulations

Regulations concerning type of land using authority which limits the right of the land is also influence the demand of housing. Likewise with other regulation such as tax regulation (PBB and BPHTB) is also be consideration on home buying.

## **METHODOLOGY OF RESEARCH**

### **Scope of Research**

The scope of this research was whole area of housing, whether it is national housing or regular housing at Aceh Besar Regency. As objects of this research was all consumers or buyers of simple housing at Aceh Besar Regency.

### **Data and Data Sources**

This research used primary and secondary data. Primary data is retrieved directly from the field, face to face interview with respondents or also with questionnaire which is handed to owner of simple housing. Secondary data is sourced from variety government institution through their publications, among them Central Bureau of Statistics (BPS) Banda Aceh Representative Office, Provincial Government of Aceh, Central Bureau of Statistics (BPS) Aceh Besar Representative Office, Bank Tabungan Negara (BTN) Banda Aceh Representative Office and others institution related to this research. Questionnaire had been used in this research was the one which was developed by Pramono and Raharja in 2012. The questionnaire used Scale Likert with 5 option answering; Strongly Disagree (STS); score 1 point, Disagree (TS); score 2 point, Fair; score 3 point, Agree; score 4, and Strongly Agree; score 5 point.

### **Methodology of Data Analysis**

This research used multiple linear regression method to explain the relationship between variables. Multiple linear regression analysis is used to analyze if independent variables (individual incomes, house prices, location, interest rates) affect dependent variables which is proportion of



simple housing demand at Aceh Besar Regency. Data processing in this research used a software SPSS version 17. In general, the multiple linear regression is as below:

$$Q = \beta_0 + \beta_1P + \beta_2I + \beta_3L + \beta_4R + \epsilon_i$$

Where;

- Q = House demand
- P = House prices
- I = Individual income
- L = Location
- R = Interest rates
- $\beta_0$  = A constant
- $\beta_i$  = Regression coefficient of each variable
- $\epsilon$  = Residual

## RESULT AND DISCUSSION

### Characteristic of Respondent on Income Perspective

Income is all wages and such which respondent of simple house owner get in a month at Aceh Besar Regency. Respondent characteristic of simple house owners at Aceh Besar Regency, based on income point of view, showed as table below:

**Income of Respondent of Simple House Owner  
Aceh Besar Regency in 2017**

Income Value (Rp/Month)	Frequency	Percentage
2.000.000-2.999.000	2	3
3.000.000-3.999.000	12	16
4.000.000-4.999.000	15	20
5.000.000-5.999.000	28	38
≥6.000.000	16	22
<b>Total</b>	<b>73</b>	<b>100</b>

Source: Primary Data, 2017 (fixed)

### Characteristic of Respondent on House Prices Perspective

A House price is the cost for buying simple houses at Aceh Besar Regency. The characteristic of respondent of simple house owners at Aceh Besar Regency, based on the house price point of view, showed as table below:

Price	Frequency	Percentage
100.000.000-119.999.000	18	25
120.000.000-149.999.000	7	10
150.000.000-179.999.000	27	37
180.000.000-199.999.000	17	23
≥200.000.000	4	5
<b>Total</b>	<b>73</b>	<b>100,00</b>

Source: Primary Data, 2017 (fixed)

### Characteristic of Respondent on Location Perspective

Location is the distance between capital subdistrict where a simple housing had been built to the location of simple housing which was offered by the developer on kilometer. The characteristic of respondent of simple housing owners at Aceh Besar Regency, on location point of view showed as table below:

Distance (KM)	Frequency	Percentage
1-2	18	23
3-4	7	9
5-6	30	39
7-8	16	21
9-10	3	4
≥11	3	4
<b>Total</b>	<b>73</b>	<b>100,00</b>

Source : Primary Data, 2017 (fixed)

### Characteristic of Respondent on Interest rates perspective

Interest rates is the amount of interest rates which is valid at the contract signed (% / year). The characteristic of respondent of the simple housing owner, on interest rates point of view, showed as table below :

**Interest Rates of Simple House  
Aceh Besar Regency in 2017**

Interest (%)	Frequency	Percentage
5	58	80
7	10	14
9	1	1
≥10	4	5
Total	73	100,00

Source : Primary Data, 2017 (fixed)

Based on table above can be showed that the 5% interest rates of simple housing is 58 persons or 80% of total respondents, the 7% interest rates of simple housing is 10 persons or 14% of total respondents, the 9% interest rates of simple housing is 1 person or 1% of total respondents, and the interest rates of simple housing which is up to 10% is 4 persons or 5% of total sample.

### Regression Analysis

According to the research result and data processing with SPSS version 17.0, a equation is obtain as below:

**Result of Regression Test**

Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.
		B	Std. Error	Beta		
	(Constant)	5,145	0,476		10,802	0,000
	Individual Income	0,109	0,039	0,214	2,807	0,007
	House Price	0,102	0,077	0,093	1,322	0,190
	Location	0,040	0,045	0,055	0,880	0,382
	Interest Rates	-0,273	0,032	-0,673	-8,498	0,000

Based on table above and put into regression equation :

$$Q = 5,145 + 0,109I + 0,102P + 0,040L - 0,273R$$

Based on equation of multiple regression above, we can identify that:

1. Coefficient of income variable in equation of multiple regression is positive, 0.109, and significant, this indicate that every 1% increment of income then will be 0.109% increment of simple house demand.
2. Coefficient of price variable in equation of multiple regressions is positive, 0.102, and insignificant, this indicate that every 1% increment of price value then will be 0.102% increment of simple housing demand value. This is contradictive with the hypothesis, because the easiness in obtaining simple house with relatively affordable interest rates and monthly repayment makes respondents choose not to put house price into consideration when buying a simple house.
3. Coefficient of location variable in equation of multiple regressions is positive, 0.040, and insignificant, this indicate that every 1% increment of location value then will be 0.040% increment of simple housing demand value. This is contradictive with the hypothesis, because based on the research result indicated that the location of simple house sometimes is far from subdistrict capital but close to work place of the simple house owners, and so the simple house owners disregard about the far distance from the simple housing locations to subdistrict capital.
4. Coefficient of interest rates variable in equation of multiple regressions is negative, - 0.273, this indicate that every 1% increment of interest rates then will be -0.273% reduction of simple housing demand.

### **T - Test (partially)**

In identifying the influencing of income, price, location and interest rates variables against the demand of simple housing can be known with the amount of  $t_{hitung}$  for each variable with confidence level of 95 percent or significance = 5% as shown on table of Result of Regression Test above. Based on that we conclude:

1. Income

On table above, income variable has significance value  $0,007 < 0,05$ . Therefore the result of statistic calculation indicate that income variable is significant at the level 5% toward the demand of simple housing at Aceh Besar Regency. Therefore we can concluded that income give positive influencing and significant against the demand of simple housing.

2. Price

On table above, price variable has significance value  $0.190 > 0.05$ . Therefore the result from statistic calculation indicate that price variable is insignificant at the level 5% toward the demand of simple housing at Aceh Besar Regency. Therefore we can concluded that price does not influence and significant against the demand of simple housing.

3. Location

On table above, location variable has significance value  $0.382 > 0.05$ . Therefore the result from statistic calculation indicates that location variable is insignificant at the level 5% toward the demand of simple housing at Aceh Besar Regency. Therefore we can concluded that location does not influence and significant against the demand of simple housing.

4. Interest Rates

On table above, interest rates variable has significance value  $0.000 < 0.05$ . Therefore the result from statistic calculation indicates that interest rates variable is significant at the level 5% toward the demand of simple housing at Aceh Besar Regency. Therefore we can concluded that interest rates do influence and significant against the demand of simple housing.

**Result of F Statistic Test**

Analysis of F-Test basically indicates whether all independent variables (which is on Model) collectively influence against dependen variable. Explanation as table below:

**Result of F-Test**

Model		Sum of Squares	Df	Mean Square	F	Sig.
	Regression	8,660	4	2,165	49,024	0,000 <sup>b</sup>
	Residual	3,003	68	0,044		
	Total	11,663	72			

a. Dependent Variable: Q

b. Predictors: (Constant), P,I,L,R

Based on the result of ANOVA( Analisis Of Variance ) Test or F Statistic Test, we get te value of  $F_{hitung}$  is 28,481 meanwhile significance level of  $F_{table} = 5\%$  is 0.000. It shows that  $F_{hitung}$  is bigger than  $F_{table}$  with significance level 0.000. Therefore the result of

statistic calculation indicates on accepting Alternative Hypotesis (Ha) where income and interest rates give significant influences against the value of the demand of the simple housing at Aceh Besar Regency. And deniyng proposed Alternative Hypothesis (Ho) where price and location give insignificantly influences against the value of the demand of simple housing at Aceh Besar Regency.

### **Analysis of Factors Influencing the Demand of Simple Housing**

Based on the T-Test result stated that perception of income, price, location and interest collectively influencing the demand of simple housing at Aceh Besar Regency. First hypothesis which is income as a factor influencing the demand of simple housing at Aceh Besar Regency is accepted. It can be noticed from the t-score which is bigger than t-table and significant propability. The research result indicated the correlation between incomes with demand of simple housing which is the higher the income leads to the higher the demand.

Second hypothesis says price as a factor influencing the demand of simple housing at Aceh Besar Regency is denied. It can be noticed from the t-score which is smaller than t-table and insignificant propability. The research result indicated the correlation between price with demand of simple housing which is the higher the price leads to the higher the demand.

Third hypothesis says location as a factor influencing the demand of simple housing at Aceh Besar Regency is denied. It can be noticed from the t-score which is smaller than t-table and insignificant propability. The research result indicated that the distance between location of the housing to subdistrict capital did not influence the urge of consumer to buy a house.

Fourth hypothesis says interest rates as a factor influencing the demand of simple housing at Aceh Besar Regency is accepted. It can be noticed from the t-score which is bigger than t-table and significant propability. The research result indicated the correlation between interest rates with demand of simple housing which is the higher the interest rates lead to the higher the demand.

## **CONCLUSIONS AND RECOMMENDATIONS**

### **Conclusions**

Based on explanation which has been arranged on the early chapters and correspond with the obtained data during the research, conclusions identify as below:

1. There are two variables influencing the demand of simple housing at Aceh Besar Regency which are income variable and interest rates variable because these two variables significantly influence the demand of simple housing at Aceh Besar

Regency, based on the T-test result which produce statistic test with P price value. Because P value is smaller than  $\alpha = 0,05$ .

2. There are two variables that do not influence the demand of simple housing at Aceh Besar Regency. They are price and location variable which is proved insignificantly to give no influence toward the demand of simple housing. Based on the T-test result which produce statistic test with P price value. Because P value is bigger than  $\alpha = 0,05$ .
3. Coefficient of income variable in equation of multiple regression is positive, 0.109, and significant, this indicate that every 1% increment of income then will be 0.109 percent increment of simple house demand.

### **Recommendations**

Based on analysis that has been done, the writer wish to provide suggestions as below:

1. For the developers of simple housing, income variable do influence the demand of simple housing at Aceh Besar Regency. Developers should offer the housing product that suit with the income of the costumer. Another consideration is the location of simple housing. Developers also need to use the empty or unused land rather than productive land (rice field). This way we can minimize the decreasing volume of rice field at Aceh Besar Regency. Other suggestion is to change the type of simple housing into flats type.
2. It is hope that before buying a simple house, buyers should consider the location and price of simple housing that suitabale for them.
3. Government or bankingis wished to maintain the subsidy of interest rates for future buyers of simple housing so the repayment of the interest will be smoothly.

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