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WHAT MAKES NORTH KALIMANTAN RESIDENTS TAKE HOUSING LOANS?

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ABSTRACT

Housing is one of the human needs that must be met. Many ways are used to get the required residence (house). One of them is by taking a housing loan. Various factors can become obstacles in taking housing loans. This study used logistic regression – Logit and took a sample of 514 households in North Kalimantan Province. This research will examine the influence of economic, social, demographic, and geographic factors in household decisions to take housing loans. The results showed that household income, interest rates, HOH employment status, HOH age, and household location had a significant positive effect. In contrast, income per capita and marital status had a significant negative effect. Meanwhile, the number of HM working had no significant effect. Of the variables used, the household location variable influences a household's decision to take housing loans with an OR of 3.62.

Keywords: *A Home Loan, Logit, Economic, Social, Demographic, Geographic Factors*

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ABSTRAK

Perumahan merupakan salah satu kebutuhan manusia yang harus dipenuhi. Banyak cara digunakan untuk mendapatkan kebutuhan tempat tanggal (rumah). Salah satunya dengan mengambil kredit perumahan. Berbagai faktor dapat menjadi kendala dalam mengambil kredit perumahan. Penelitian ini menggunakan regresi logistik – Logit dan mengambil sampel sebanyak 514 rumah tangga di Provinsi Kalimantan Utara. Peneitian ini akan melihat pengaruh faktor ekonomi, sosial, demografi, dan geografi dalam memengaruhi keputusan rumah tangga mengambil kredit perumahan. Hasil penelitian menunjukkan pendapatan rumah tangga, suku bunga, status pekerjaan KRT, umur KRT, dan lokasi rumah tangga berpengaruh signifikan positif sebaliknya pendapatan per kapita dan status perkawinan berpengaruh signifikan negatif. Sedangkan, jumlah ART yang bekerja berpengaruh tidak signifikan. Dari variabel yang digunakan variabel lokasi rumah tangga yang paling berpengaruh terhadap keputusan rumah tangga mengambil kredit perumahan dengan nilai OR sebesar 3.62.

Kata Kunci: *Kredit Perumahan, Logit, Faktor Ekonomi, Sosial, Demografi, geografi*

JEL : C1, D0, G5

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Introduction

Housing is a crucial need everywhere in the world (Al Obaid, 2020). Shelter (board) is one of the 3 (three) basic human needs that must be met in addition to food and clothing needs. A place to live or a house is necessary for living human life and daily life (BPS, 2020). Thus, the house is not only interpreted as a place to live alone, but the ownership of a house or land is considered an investment item in the long term. The house is also often used as a benchmark for human welfare. Someone can buy a house in cash if that person has money whose value is equal to the price of the house (Sandria et al., 2016). However, along with the many demands that must be met by the community, buying a house in cash is increasingly difficult to do (Ganthari & Syafri, 2019). Banking is an institution that bridges people who need funds and people who have excess funds. Funds channeled by the banking sector are obtained from public savings. Meanwhile, the amount of people's savings is determined by the amount of people's income.

The reality is that many people still have not been able to prosper in their lives due to low incomes, so they are increasingly unable to own a house as expected. Therefore, one alternative to owning a home is through a housing loan. In general, prospective homeowners are reluctant to borrow loans from financial institutions because of the stringent requirements for access and affordability of loans (Nwanekezie & Onuoha, 2019). Finance is the main obstacle to owning housing loans (Sughana & Sheela, 2021). Therefore, to respond to this condition, the Indonesian government adopted a policy so that people, especially the lower middle-income group, can have decent and affordable housing with their purchasing power by providing housing credit facilities (KPR). This is where the role of banks in supporting economic activity is enormous. One of the credit facilities needed by the community is the provision of housing loans.

In 2012, North Kalimantan Province was officially formed as the 34th province in Indonesia (UU No.20 Tahun Pembentukan Kaltara, 2012). As one of the youngest provinces in Indonesia, North Kalimantan province cannot be separated from development efforts for the welfare of its people. Through the Office of Public Works, Spatial Planning, Housing, and Settlement Areas (PUPR), North Kalimantan Province has a mission to provide the development of settlement facilities and infrastructure to create decent, healthy, and affordable settlements. Thus, Kaltara Province is also inseparable from government policies that assist homeownership for low-class people by distributing various credit facilities, especially mortgage loans.

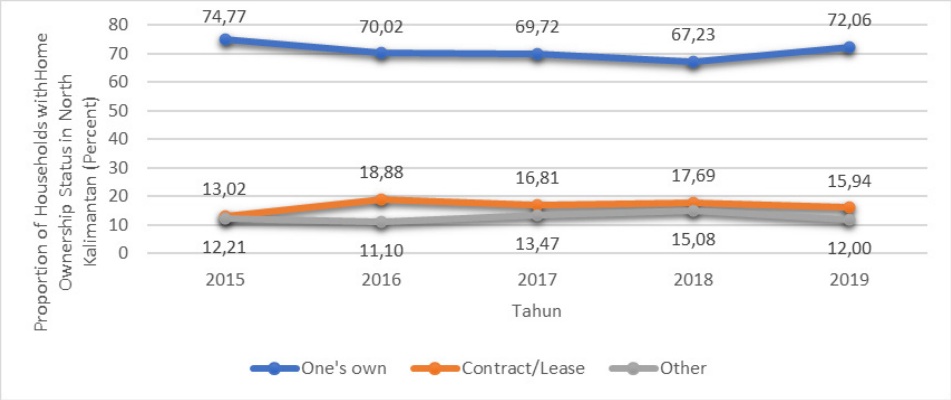

Figure 1. Percentage of Proportion of Households Based on Home Ownership Status in 2015-2019 in North Kalimantan

Source: BPS (2022)

According to data from the Central Statistics Agency for North Kalimantan Province, the population of North Kalimantan Province in 2015 was 641,936 people; in 2016, there were 666,333 people; in 2017, there were 691,058 people, while in 2018, there were 716,047

people and finally, in 2019 there were 742,245 people. It can be seen that the population of North Kalimantan Province increases every year, but this is inversely proportional to home ownership in the province.

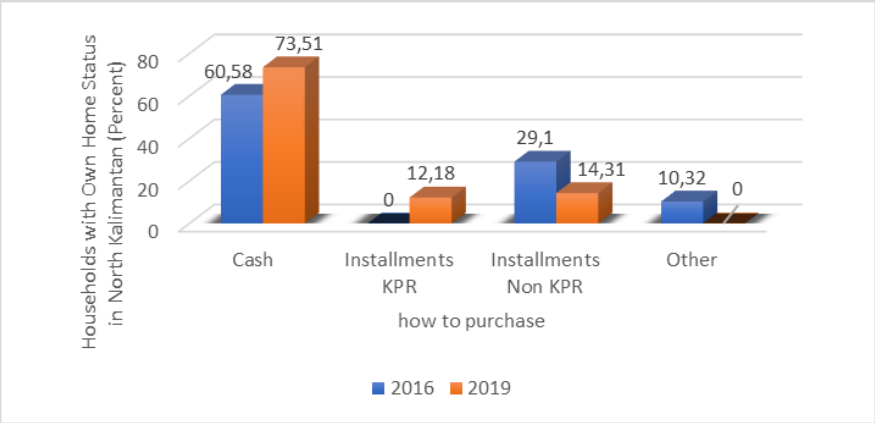

Figure 2: Percentage of Households with Own House Status and Method of Purchase in 2013 and 2019 in North Kalimantan

Source: BPS (2017, 2020)

According to the BPS of the Republic of Indonesia, the proportion of households based on their home ownership status has fluctuated over the last five years, from 2015-2019. Figure 1 shows the percentage of house ownership based on ownership status. The most significant percentage is in the status of owning a house, then the status of the contract/lease, and finally, others (e.g., rent-free). For four years, namely in 2015-2018, the ownership of houses with self-owned status has continued to decrease, and in 2019 the percentage increased again. This is a question of what causes fluctuations in home ownership with their status in the province of North Kalimantan which has continued to decline for four years (2015-2018), inversely proportional to the number of residents who have increased yearly (2015-2019). Supposedly an increase in population will increase the demand for housing (Al Obaid, 2020).

The National Socio-Economic Survey (Susenas) for health and housing modules conducted by BPS produced data on the percentage of households with self-owned housing status and the purchase method. Figure 2 shows that in 2016 the most significant percentage of how to buy a house, namely by cash percentage of 60.58 percent. In second place is the non-mortgage installment method (29.10 percent), and the following position in other ways (10.32 percent) and mortgage installments (0 percent). Meanwhile, in 2019 the most significant percentage was still for buying houses by cash, namely 73.51 percent, non-mortgage installments of 14.31 percent, and mortgage installments of 12.18 percent. Between 2016 and 2019, there has been a change in how people obtain home ownership, starting with cash purchases and installment mortgage purchases, which have increased in 2019. However, on the contrary, the method of purchasing non-mortgage mortgages and others decreased in 2019.

Literature Review

Demand Theory

The optimal choice of consumers in requesting goods and services depends on the consumer's income and the price (Varian, 2014, p. 95), according to Loanable Funds Theory. In principle, the cost of borrowing or the price paid for borrowed funds is the interest rate (usually expressed as a percentage of the loan per year) (Mishkin, 2019, p. 3). In the credit market, the demand for credit is influenced by household income and the cost of credit, that is, the additional costs incurred by households when taking credit/loans (Snyder et al., 2015,

p. 113). In some situations, a person's preference can also affect the consumption of an item to get maximum satisfaction; a person will prefer to consume or not consume one item. (Snyder et al., 2015:98). Therefore, a person's demand for an item is a function of price, income, and preference (taste) (Kennedy, 2017, pp. 7-8).

Previous Research

One main factor influencing customers in choosing a bank or housing finance company is the interest rate (Sughana & Sheela, 2021). In various countries, housing interest rates are a person's primary consideration in taking credit. Low housing loan interest rates can attract someone to take credit. The interest rate as the price in demand for credit shows that if the price goes down, it will increase the demand for credit. Sandria et al. (2016), Khoirudin (2017), and Ganthari & Syafri (2019) found a negative relationship between interest rates and the decision to take housing loans. Even in Saudi Arabia, housing with zero percent interest rates is a unique attraction (Al Obaid, 2020). The risks involved when taking credit make credit with fixed interest rates a particular preference in influencing the decision to take credit (Gambetti & Giusberti, 2012). A person's decision to take credit housing can also be measured by the income he receives. Sandria et al. (2016) used time series data and found a significant favorable influence on customer demand for home ownership loans in Palembang. Likewise, Ariyanti & Kusumah (2018) and Sughana & Sheela (2021) found that income can increase the demand for credit housing. It differs from Ganthari & Syafri (2019), who use per capita income to see the effect on housing ownership and find that increasing per capita income will increase the desire to buy or invest in home ownership.

Apart from economic factors, according to Kotler et al. (2021), other factors that influence the decision to take credit are as follows:

1. cultural factors (culture, sub-culture, and social class),
2. social factors (reference group, family, and roles and status), an
3. personal factors (age, occupation, personality and self-concept, and lifestyle).

Sughana & Sheela (2021) analyzed the decision to take housing loans in Visakhapatnam, India. She found that most respondents who took housing loans were married and had permanent employee status. In the business context, the large number of workers positively increases business income (Meilinda & Mahmud, 2020; Nayaka & Kartika, 2018). Meanwhile, in the household context, the increasing number of working household members is expected to increase household income and, through increasing household income, will increase the decision to take housing loans. Age dramatically determines one's mindset; generally, the higher the age, the more mature the mindset. This mindset influences a person to invest by deciding to take a housing loan. In general, a strategic location, easy road access, and close to city markets are the most critical factors in influencing demand decisions for housing (Hadija et al., 2019). The high demand for housing in urban areas due to urbanization has increased the demand for housing.

The concept of utility can also explain a person's preference for consuming an item to obtain satisfaction (Pindyck & Rubinfeld, 2013, p. 78), in this case, the preference for taking housing loans. Therefore, from the above literature study, the following research hypotheses will be developed: What are the economic factors which consist of household income variables, per capita income, and housing loan interest rates; social factors consisting of variables of the employment status of the head of the household; Demographic factors consist of the age of the head of the household (HOH), the number of working household members (HM), and marital status, as well as geographical factors consisting of the location of the household, influences the household's decision to take housing loans in North Kalimantan

Data and Research Methods

This study examines the relationship between the factors influencing household decisions to take housing loans. The data used in this study is secondary data, namely microdata from the September 2019 National Social and Economic Survey (Susenas) and data from Bank Indonesia (BI). The objects studied were households with a sample of 514 households in North Kalimantan.

The Decision to Take Housing Loans

A household's decision to take a mortgage is also influenced by household income, prices (loan interest rates), and the preferences of someone who can encourage them to take a mortgage. Households will take housing loans from credit sources I if and only if the utility derived from it is more significant than all other sources of credit (k) which can be selected,

$$U_{ij} > U_{ik} = U_{ij}(Y_i) + \mu_{ij} > U_{ik}(Y_i) + \mu_{ik} \quad (1)$$

$$U_{ij}(Y_i) - U_{ik}(Y_i) > \mu_{ik} - \mu_{ij} \quad (2)$$

In general, it can be generalized to,

$$U_{ij} = Z_{1j} + Z_{2j} + \ldots + Z_{nj} + \mu_{ij} \quad (3)$$

Equation (2.3) can be written as,

$$U_{ij} = Z_{ij} + \mu_{ij} \quad (4)$$

where,

U_{ij} is the utility obtained by household I from taking sources of credit j.

Z_{ij} is a systematic component representing household utility I in taking credit j.

μ_{ij} is a random variable that takes into account unexceeded factors.

Households will choose the alternative that provides maximum utility. In Cameron & Trivedi (2009:479), household probability in determining choices when taking housing loans j , if and only if:

$$P_{ij} = \Pr ob(U_{ij} > U_{ik}) \forall k \neq j \quad (5)$$

The decision of households to take housing loans in this study is based on the decision to take housing loans or not to take housing loans.

Logit Method

This study uses the logit regression method. Logit regression is due to the condition of the dependent variable, which is qualitative or binary. In general, the logit model aims to find the probability of an event (Gujarati & Porter, 2012, p. 172). This study uses the logit model to find opportunities for a household to take a mortgage or not.

Mathematically, it is stated that the possibility of a household taking a mortgage or not:

$$\widehat{V_i} = \frac{1}{1 + e^{-Z_i}} = \frac{e^Z}{1 + e^Z} \quad (6)$$

where $Z_i = \beta_1 + \beta_2 X_i$

If $\widehat{V_i}$ is the probability that an event occurs (the household takes housing credit), then the probability that the event $(1-\widehat{V_i})$ does not occur or that the household does not take housing credit is:

$$1-\widehat{V_t}=\frac{1}{1+e^{Z_i}} \quad (7)$$

The above equation can be written as,

$$\frac{P_i}{1-P_i}=\frac{1+e^{Z_i}}{1+e^{-Z_i}}=e^{Z_i} \quad (8)$$

$\frac{P_i}{1-P_i}=e^{Z_i}$ is the odds ratio (odd ratio/OR) of an event, namely the ratio of the probability of an event occurring to the probability of not occurring. In this study, what is meant is the ratio of the likelihood of households taking mortgages to households that do not take mortgages. If equation (8) is converted to a natural logarithm, the following results will be obtained:

$$L_i=\ln\left[\frac{P_i}{1-P_i}\right]=Z_i=\beta_1+\beta_2X_i \quad (9)$$

L_i is the probability ratio that is not only linear in X_i; the parameter L_i is called logit, so the logit model is contained in equation (9).

Marginal Effect (ME)

Some researchers also use the value of the *marginal effect* to help interpret. The value of the *marginal effect* can measure the effect of changing one unit of the independent variable on the probability of the i- category (Cameron & Trivedi, 2005, pp. 501-502). Thus, the value of the *marginal effect* can provide a better understanding of the logistic regression model (Greene, 2018, pp. 829-831). The marginal effect shows changes in the dependent variable when certain independent variables change, whereas other independent variables are considered constant. The general form of the *marginal effect* value for x_i in the multinomial logistic model is:

$$\frac{\delta P_j}{\delta x_j}=P_j\left[\beta_j-\sum_{k=0}^{J}P_k\beta_k\right]=P_j\left[\beta_j-\overline{\beta}\right] \quad (10)$$

Where β_j is the regression coefficient of the independent variable or the j th slope (Greene, 2018, p. 830). Therefore in this study, the value of the *marginal effect* will be used in interpreting the regression results.

This study's decision to take housing loans includes Public Housing Loans (KPR) and Non-KPR Loans. Therefore, the analysis model in this study can be written as follows:

$$\ln\left(\frac{P(Y=1\mid x)}{P(Y=0\mid x)}\right)_i=\beta_0+\beta_1Income_i+\beta_2Capita_i+\beta_3Interest_i+\beta_4DJob_i+\beta_5Work_i+\beta_6Age_i+\beta_7DMarital_i+\beta_8DLocation_i+\varepsilon_i \quad (11)$$

The description of each variable, both the dependent and independent variables in the model, can be seen in the table below.

Table 1: Summary of Research Variables

Variable	Information
(1)	(2)
The decision to Take Housing Loans *(DHouse)*	0. Do not take housing loans
	1. Take a housing loan

Variable	Information
(1)	(2)
Income (*Income*)	Household income (thousand rupiahs)
The income per Capita (*Capita*)	Household per capita income (thousand rupiahs)
Interest (*Interest*)	Housing loan interest rates (percent)
Job Status HOH (*DJob*)	0. Other
	1. Employees/Staff
Working HM (*Work*)	Number of working household members (orang)
Age (*Age*)	Age of head of household (year)
Marital Status (*DMarital*)	0. Not married
	1. Married
Household Location (*DLocation*)	0. Rural
	1. Urban

Finding and Discussion

Overview

Table 2 shows that the average income of households that take housing loans (IDR 6,038.59 thousand) is greater than that of households that do not (IDR 2,852.48 thousand). This shows that the greater the income, the greater the tendency for households to take housing loans. In contrast, the table shows that the average per capita income of households that do not take housing loans (IDR 1,902.14 thousand) is more significant than those that take housing loans (IDR 1,635.48 thousand). This shows that if a household has a higher per capita income, it will tend not to take housing loans (it is possible that with a significant per capita income, it can afford to build its own house directly). Furthermore, the average housing loan interest rate for households that take housing loans (7.65 percent) is more significant than for households that do not (0 percent). This shows that the higher the interest rate, the greater the tendency for households to take housing loans. The interest rate may be the price that must be paid when taking a loan so that if a household is able/ willing to pay that price, the household will tend to take credit. On the other hand, if a household is unable/ unwilling to pay the fee, it will decide not to take credit.

Table 2: Descriptive Research Variables

Independent Variable		Not Taking Home Loans	Taking Home Loans
Income (Thousand Rupiah)	Mean	2,852.48	6,038.59
	Standard Deviation	2,802.12	3,939.67
	Minimum	2,065.95	748.09
	Maximum	10,600.00	25,700.00
Income Per Capita (Thousand Rupiah)	Mean	1,902.14	1,635.48
	Standard Deviation	1,272.46	1,043.62
	Minimum	469.09	365.09
	Maximum	10,300.00	8,072.22

Independent Variable		Not Taking Home Loans	Taking Home Loans
Interest Rate (Percent)	Mean	0	7.65
	Standard Deviation	0	7.27
	Minimum	0	7.25
	Maximum	0	8.75
Number of Working Members (Person)	Mean	1.53	1.63
	Standard Deviation	0.83	0.86
	Minimum	1.00	1.00
	Maximum	6.00	6.00
Age of HOH (years)	Mean	40.34	48.57
	Standard Deviation	10.08	11.89
	Minimum	22.00	19.00
	Maximum	79.00	81.00

The average number of household members who worked on the decision to take housing loans was more significant (1.63 people) compared to the average number of household members who worked on the decision not to take housing loans (1.53 people). This shows that the more household members with income (work), the more likely they are to take housing loans because household income will increase. The average age of households who took housing loans was higher (48.57 years) than those who did not (40.34 years). The older the household head is, the more inclined to take housing loans. This is due to the ability to accumulate higher income so that it will be more able to take housing loans.

Table 3: Descriptive Research Variables (2)

Independent Variable		Min	Max	Percentage of Households	
				Not Taking Home Loans	Taking Home Loans
Job-status	Other	0	1	95.35%	4.65%
	Employees/Staff			94.65%	5.35%
Marital status	Not married	0	1	92.77%	7.23%
	Married			96.01%	3.99%
Location	Rural	0	1	96.89%	3.11%
	Urban			93.00%	7.00%

Table 3 shows that households with a head of household as an employee are more likely to take housing loans (5.65 percent) than households whose status is other than an employee (4.65 percent). This makes it possible for employees to have monthly income so that when applying for a housing loan, they are more likely to be approved because they are considered capable of paying the installments every month, especially if they have permanent employee status. Households with single/unmarried status tend to take housing loans compared to households with married status. This is possible if the status of a married household has a significant expenditure making it challenging to take housing loans. Furthermore, households in urban areas also have a more significant percentage of taking housing loans (7 percent) than those in rural areas (3.11 percent). This is possible because households in rural areas tend to build their own houses. After all, raw materials for houses (wood) are more accessible and widely available in rural areas (wooden houses).

Result

This section discusses the research results and empirical discussion of the logistic regression model – Logit regarding household decisions to take housing loans in North Kalimantan. The empirical results of the logistic regression – Logit model are presented based on Table 4. The logistic regression – Logit results of households' decisions to take housing loans in North Kalimantan show that the value of count R2 is 0.778. It can be interpreted that this model, which includes economic, social, demographic, and geographic factors, is an independent variable that can explain the dependent variable, namely the decision of households to take housing loans in North Kalimantan by 77.80% percent. In contrast, the others are influenced by other variables outside the model.

Table 4 shows that the household income variable significantly positively influences household decisions to take housing loans with an ME value of 0.00002. It can be interpreted that for every increase in household income of IDR 1000, - then the probability of a decision to take a housing loan is 0.00002 percent. This is in line with demand theory; the more an individual's income increases, the more their purchasing power will increase, increasing the demand for an item. This result aligns with the research of Ariyanti & Kusumah (2018) and Sandria et al. (2016), who found a positive effect of customer income on demand for simple housing and home ownership loans.

On the other hand, the per capita income variable significantly negatively affects household decisions to take housing loans. Although increased household income will increase the decision to take housing loans, the preferences of households in North Kalimantan may change if they perceive that they have a high enough income. According to the 2019 housing statistics publication, households in North Kalimantan tend to build their own houses (85.62 percent) compared to other methods, especially in rural areas (BPS, 2020:30-31). This result is inversely proportional to the research results of Ganthari & Syafri (2019), which found significant positive results per capita income on demand for housing loans.

Table 4: Logistic Regression Results – *Logit*

Independent Variable	*Marginal Effect (dy/dx)*	*Odd Ratio*
Income (thousand rupiahs)	0.00002***	1.00015***
	(0.00001)	(0.00005)
ln_*Capita* (thousand rupiahs)	-0.00005**	0.99968**
	(0.000002)	(0.00013)
interest (percent)	0.03124***	1.81986***
	(0,00939)	(0,05081)
DJob	0.08812**	1.75127**
(Staff/Employee = 1)	(0.03548)	(0.40263)
Work (people)	-0.04005	0.77514
	(0.02573)	(0.12774)
Age (year)	0.01056***	1.06949***
	(0.02573)	(0.01261)
DMarital	-0.05719***	0.42622**
(Married = 1)	(0.05719)	(0.15744)
DLocation	0.20209***	3.61512***
(Urban = 1)	(0,03355)	(0,85858)

Independent Variable	*Marginal Effect (dy/dx)*	*Odd Ratio*
Constanta		0,13803***
		(0,09153)
Goodness of Fit		
Count R2/Pseudo R2	0,778	0,189
Prob > Chi2	0,0000	0,0000
Number of Observations	514	514

***$p < 0,01$; ** $p < 0,05$; * $p < 0,10$

Values in parentheses indicate standard error values

The last economic factor is the interest rate variable. This variable significantly influences the decision to take housing loans with an ME value of 0.03124. It can be interpreted that for every 1 percent increase in interest rates, the probability of a household's decision to take housing loans increases by 0.03124 percent. This result is inversely proportional to *The Loanable Fund Theory*, where increasing interest rates will reduce the demand for credit. The literature review chapter shows that interest rates are costs incurred on borrowed funds. It can be interpreted that if someone is able or willing to pay the loan costs (interest rates), they will take a loan because these costs will be dependents that must be paid in line with the credit taken.

Conversely, if the person is unable or unwilling to pay the fee, the person will not take credit. Therefore, this study's results indicate households' ability to repay borrowing costs. The higher the ability to pay loan costs, the higher the decision to take housing loans. This result is different from Khoirudin (2017) research which found a significant negative relationship between interest rates and homeownership loans.

The creditor will look at the debtor's financial ability to provide credit. In the banking world, there is an analysis principle known as 5C in giving credit. One of these principles is *Capacity*, which looks at the ability of the debtor to repay the loan (Kasmir, 2014, p. 95). The regression results show that the variable household head employment status positively influences the decision to take housing loans. This is possible because the status of the head of household as a staff/employee is deemed capable of paying the loan installments, which are generally paid every month (especially those with permanent employee status). After all, the employee/employee has a regular monthly income. According to Bajaj Finance Ltd (2021), a job status that has a regular income will be preferred by borrowers; in other words, it will be easier to get a housing loan. Therefore, this can influence the household's decision to take housing loans because it is likely to be approved by the lender. This result is in line with Sughana & Sheela (2021), which found a significant positive relationship between permanent employee variables and someone's decision to take out a housing loan because permanent employees are considered capable of paying monthly installments.

The first demographic factor is the number of working household members. However, these variables do not significantly affect household decisions to take housing loans. Furthermore, the age variable of the head of household has a significant favorable influence on the decision to take housing loans. Older age is considered more secure and can accumulate higher income. Higher-income will increase the decision to take a housing loan. This result aligns with a study by Patil et al. (2021) and Sughana & Sheela (2021), who found that someone aged between 31-40 years is more likely to take out a home loan than those under their age. The marital status variable significantly positively influences the decision to

take housing loans. It is possible that unmarried people do not have many dependents, so they are more likely to take housing loans which can be used as investments in the future. This result differs from the findings of Sughana & Sheela (2021) that married people tend to take homeownership loans compared to unmarried people because a home is a primary need if they are married.

The last factor that influences a household's decision to take a loan is where the household is located. The regression results table shows that this variable significantly influences household decisions to take housing loans with an ME value of 0.20209. Every 1 percent increase in urban households will increase the probability of households taking housing loans by 0.2 percent. This shows that households in urban areas prefer housing credit to those in rural areas. This possibility occurs because households in rural areas prefer to build their own houses rather than buy from developers in cash or on credit. The availability of raw materials for houses (wood) at a lower price and the cooperation between residents when building houses make this possible. Another possibility is that urban areas are more strategic for building housing. According to Sembiring & Sunargo (2022), the more strategic the housing location, the higher the demand for housing. Therefore, developers prefer building housing in urban rather than rural areas.

Conclusion

This study found that household income, interest rates, employment status, age of head of household, and location of residence have a significant favorable influence on household decisions to take housing loans. Meanwhile, per capita income and marital status significantly affect the decision to take housing loans.

The small number of samples used makes the effect of a significant variable similar between one category and another. For example, the OR value of the household income variable on the decision to take housing loans is only 1.00015 times compared to the decision not to take housing loans. These results indicate that the effect of household income on the decision to take a housing loan is almost the same whether the decision to take a credit or not. Several other variables also give similar results. However, the location variable shows different results. The OR value of the location variable where the date is located is 3.62. It can be interpreted that households in urban areas have a 3.62 times probability of taking housing loans compared to those in rural areas. This shows the location variable, where the date is the most significant determinant of whether a household will take out a housing loan.

Limitations and Suggestions

The limitations of this study are only analyzing one point (*cross-section*), namely 2019. For further research, *time series* data can be used so that the influence of the variables used can be more in-depth to analyze household decisions to take housing loans, especially trends in loan interest rates.

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