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# Factors Determining Decision to Rent Low-Cost Flats (RUSUNAWA): A Case Study in Indonesia\*

Elisabet SIAHAAN<sup>1</sup>, Khaira Amalia FACHRUDIN<sup>2</sup>, Hilma Tamiami FACHRUDIN<sup>3</sup>, Iskandar MUDA<sup>4</sup>

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## Abstract

The purpose of this study is to analyze and to provide suggestions to the government as developers and managers of RUSUNAWA to make it more effective and efficient in building and managing it. This research was conducted in three locations of rented low-cost flats in North Sumatra, namely RUSUNAWA Kayu Putih, RUSUNAWA Seruwai Belawan, and RUSUNAWA Binjai. The majority of respondents in this study were women who were in the productive age group of 30–40 years, but economic difficulties forced them to live in low-cost flats. This phenomenon shows that in the productive age poverty also occurs. This research applied a quantitative descriptive method by selecting three locations of RUSUNAWA in two cities in the North Sumatra Region and involving 200 tenants as respondents. The data was obtained by observing, interviewing, and distributing research questionnaires, and then were processed by SEM-PLS. The results showed that the factors determining the tenants to rent RUSUNAWA in North Sumatra Province are convenience, attractiveness, sanitation, cleanliness, design, and the location offered. It indicates that a healthy and clean environment, the condition of the building, and the facilities offered become the priorities for the tenants.

**Keywords:** Decision to Rent, Low-cost Flats, North Sumatera Province, Environment

**JEL Classification Code:** D12, D91, R21

## 1. Introduction

The high level of urbanization, the limited supply of land, and the increasing number of people who need housing make the need for shelter increase in North Sumatra Province. To overcome the scarcity of land and to meet the primary need

for a decent and comfortable place to live, the construction of rented low-cost flats (RUSUNAWA) undertaken by the government in North Sumatra Province is the right decision. Rapid population growth and high migration of people from rural to urban areas lead to higher demand for housings. The World Bank issued that the urbanization population of Indonesia will reach up to 55.33% in 2018 and it is predicted that in 2019 the urbanization rate will rise to 55.99% as well (Statistics Center of Indonesia, 2020). A similar phenomenon also occurs in many countries, especially in developing countries. Consequently, this urbanization leads to many urban problems, for instance, the uncontrolled growth of slums. Indonesia is the fourth most populous country in the world. One of the largest populations in Indonesia can be found in the city of Medan, North Sumatera Province with a population of 2.3 million (Statistics Center of Indonesia, 2020). However, this great number of the population significantly has caused limited space for living. Thus, rented low-cost flats, called RUSUNAWA in the Indonesian language (RUSU = flat, NA = low-cost WA = rented) are considered as one of the best alternatives for providing the basic needs of people for a comfortable and healthy place to live in a clean, convenient and developed city (Khair et al., 2015). These flats are built

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<sup>1</sup>First Author and Corresponding Author. Lecturer, Faculty of Economics and Business, Universitas Sumatera Utara, Indonesia [Postal Address: Jalan Dr. T. Mansur No.9, Padang Bulan, Medan Baru, Medan, Sumatera Utara 20222, Indonesia]  
Email: elisabet@usu.ac.id; elisabeth.siahaan.dr@gmail.com

<sup>2</sup>Lecturer, Faculty of Economics and Business, Universitas Sumatera Utara, Medan, Indonesia.

<sup>3</sup>Lecturer, Faculty of Economics and Business, Universitas Sumatera Utara, Medan, Indonesia.

<sup>4</sup>Lecturer, Faculty of Economics and Business, Universitas Sumatera Utara, Medan, Indonesia.

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for the housing needs of low-income people and currently are being developed by the local government to wipe out dense and slum areas, especially in Medan and Binjai city.

Urbanization and population growth cannot be stopped and avoided, but they must be managed properly to prosper the community. Construction of flats in urban areas is considered the best solution to meet the needs of residents for shelter (Haarhoff et al., 2012, 2016; Ismail et al., 2015; David et al., 2017). This is because the construction of flats can reduce land use and maintain the open spaces so that the city becomes more spacious. Besides, flats built in strategic areas can be used as a way to rejuvenate cities from slums and illegal settlements (Randolph, 2006; Haarhoff et al., 2012; Ghavidelfar et al., 2018). Further, they fundamentally also function to improve qualified housings for the occupants. Several studies have been conducted related to the advantages of flats in several countries (Bunker et al., 2002; Buxton & Tieman, 2005; Randolph, 2006; Chranz, 2011). However, there is almost no research that examines the factors that affect the interests and reasons of a tenant who comes from a low-income community in deciding to rent a low-cost flat, especially in the North Sumatra region, Indonesia. Therefore, this study aims to evaluate these factors and also to analyze whether facilities, environment, location, and building design significantly become the priorities. This research involves low-cost flats in two cities in the North Sumatra Region, namely Binjai City and Medan City - researched at three locations of low-cost flats, namely RUSUNAWA Binjai, RUSUNAWA Kayu Putih, and RUSUNAWA Seruwai, Belawan. Low-cost apartments are called RUSUNAWA in Indonesia Language. The purpose of RUSUNAWA in Indonesia is for providing the housing needs of low-income people and currently are being developed by the local government to wipe out dense and slum areas.

This research will contribute to the developers and managers of flats to provide low-cost flats that meet the needs and the criteria of prospective tenants so that the demand for rented flats remains high (Zalejska et al., 2013; Emekli & Guney, 2019; Hoda et al., 2020). Also, the results of the study will provide input to the government and developers to pay attention to the conditions that must be considered in the construction of RUSUNAWA, such as design, layout, and location, and manage it under the capabilities and needs of low-income groups, especially those living in the area of North Sumatera Province and other countries with high population density, but occupying limited land.

## **2. Literature Review**

### **2.1. Standard Rented Flats**

The standard rented flat is a residential complex that functions as a residence for low-income people (Haarhoff

et al., 2012). In Indonesia, it is a part of the government's programs to improve the welfare of the community by reducing urban slums and creating decent housing and environment. The construction is subsidized from the State Budget and or Regional Budget. The concept of standard rented flats proposed in this study is based on Indonesian Law No. 20 of 2011 which defined flats as multi-story buildings that are built in an environment, that are divided into functionally structured sections, both horizontally and vertically (Arfiansyah, 2018). Each unit can be owned and used separately, especially for a place to live that is equipped with a shared part, shared object, and shared land. Flats are viewed as the most appropriate alternative to renew the city. Dirt and slum housings which takes large area has been transformed into a flat area with four-story buildings so that the land use in urban areas and cities becomes more efficient and the landscape becomes more beautiful (Khair et al., 2015).

### **2.2. Decision to Rent**

The decision to rent a low-cost flat is necessarily an individual activity. The term 'rent' means payment for the use of a house, apartment, or piece of land, without distinguishing between payments for the improvement of the land and the underlying land itself (Khair et al., 2015; Haila, 2016). Renting is different from buying. Buying involves exchanging ownership for money, meanwhile renting is shifting only the circumstances (not the ownership) from provider to tenant (money flows from tenant to provider) and then the product returns to the provider (Durgee & O'Connor, 1995). In renting decisions, consumers pass the stage of determining the potential rent to the owner. The renting process begins when consumers analyze the internal and legal factors of a company. Consumers assess the feasibility of rent by looking at a competitive advantage and the environment. Consumers give value by analyzing the sources and capabilities needed by consumers (Duhamel et al., 2014). Based on the description above, it can be concluded that the tenant or prospective tenant must consider the stages correlated to the decision to rent RUSUNAWA to get the tenancy expected.

### **2.3. Attractiveness**

Attractiveness or enticement gives a significant influence to trigger or to motivate a tenant to rent RUSUNAWA, especially for low-income tenants as their decision is related to the budget they own (Khair et al., 2015). Some benefits that can be enticements for the tenants include enabling the tenants to estimate their monthly expenditures, helping them to defer routine repairs and maintenance to the landowner, giving flexibility for them to renovate their house (paying

less for a short time of renovation), and increasing their interaction to improving the neighborhood. Rental homes may be located in neighbors or developing environments where there are communities of good character (Nguyen, 2020). The assessment of the attractions in this research is evaluated based on what is exactly felt by the respondents (Hamermesh, 2011). Hamermesh (2011) identified that enticement is affected by some factors, for instance, the financial condition. Thus, enticement will influence future tenants to choose RUSUNAWA as their residence. The more attractive the enticement, the more attracted the tenants.

## **2.4. Environment**

The environment is the environment that affects the development and behavior of living things. Everything that exists around humans influences the development of human life both directly and indirectly. The environment is related to the physical environment and social environment (Arfiansyah, 2018). In the case of flats, the process of adjusting the physical environment can be seen from the conditions of environmental cleanliness, environmental health, and the comfort and safety of the environment (Khair et al., 2015). Meanwhile, the social environment is closely related to the understanding of humans' interaction with their environment. This relation results from the ability of humans to adapt and react towards their environment that can create a good feeling (Emekli & Guney, 2019).

## **2.5. The Location**

The property has a location valuation concept in the form of 3L - Location, Location, and Location (Siahaan et al., 2017). The first location means that the value of the property depends on the distance of the property from the city center. The closer it is to the city center, the price will be more expensive and vice versa. The meaning of the second location is accessibility. The value of the property depends on its location whether it is easy to reach or not. The easier to access, the higher the value and vice versa. The third location shows that the location is close to something we need but far from something we do not want close. One of the factors influencing tenants to rent low-cost flats for rent is the location of flats, taking into account fast and easy road access, close to the city market, close to education and health centers, and easy transportation, free from flooding (Emekli & Guney, 2019).

## **2.6. Building Design**

In general, the design is a plan or idea. Building design refers to the broadly based architectural, engineering, and technical applications to the design of buildings. The design

of a low-cost apartment building for rent can be seen from the suitability of the conditions for a low-cost apartment for rent in the drawing brochure offering the actual physical condition of the building (Agyefi-Mensah et al., 2015). As consumers, they certainly will feel satisfied if they get the condition of the house as desired.

## **2.7. Facilities**

A facility is a building or room which was created to serve a specific purpose or is the ease of doing something. Facilities are buildings, pieces of equipment, or services that are provided for a particular purpose. Facilities are physical equipment to support and facilitate activities. So it can be concluded that the facilities are infrastructure provided by the manager of a low-cost flat for rent to be used by the residents. The influence of the facility will support the attraction as a reason for the tenants to rent a flat (Khair et al., 2015).

## **3. Research Methods**

The data was collected by survey method through distributing questionnaires to 200 tenants who lived in the Rusunwa Medan City, namely RUSUNAWA Seruwai, RUSUNAWA Kayu Putih, and RUSUNAWA Binjai. The research was conducted from February 2019 to October 2019. This research applied a quantitative descriptive method by selecting three locations of RUSUNAWA in two cities in the North Sumatra Region and involving 200 tenants as respondents. The data was obtained by observing, interviewing, and distributing research questionnaires, and then were processed by SEM-PLS.

## **4. Results and Discussion**

### **4.1. Results**

#### **4.1.1. Characteristics of Respondents**

This research was conducted in three locations of rented low-cost flats in North Sumatra, namely RUSUNAWA Kayu Putih, RUSUNAWA Seruwai Belawan, and Rinjawa Binjai with as many as 200 respondents. Samples were selected by proportional random sampling. The more people rent, the more representative samples. In this study, the most rented was RUSUNAWA Kayu Putih with 80 respondents, then RUSUNAWA Serui with 65 respondents and RUSUNAWA Binjai has the smallest population with 55 respondents. The majority of respondents in this study were women who were in the productive age group of 30–40 years, but economic difficulties forced them to live in low-cost flats. This phenomenon shows that in the productive age poverty

also occurs. This is because tenants have a low educational background so that the quality of human resources is not optimal, as such, they can only do routine work which does not require high creativity.

Looking at work, the majority of respondents are housewives. The average housewife who rents in this RUSUNAWA has a low educational background such as elementary and junior high school, so the opportunity to take up employment in a formal company is very small. Therefore, the wives stay at home to take care of the family and do not have additional income, and only rely on the husband's mediocre income. Educational background is very important to enter the workforce. This causes only one person to fund household expenses, namely a father with a low income so that the lives of residents in the low-income flat are categorized as mediocre and lead to shortages. Male respondents, generally work as entrepreneurs, factory workers, drivers, fishermen, with irregular and inadequate income. When seen from the length of stay, most of the respondents lived in a low-cost flat for around 2 to 3 years. The majority of research respondents stated that the main reason for living in RUSUNAWA was relatively lower rent compared to other ordinary houses.

#### 4.1.2. The Loading Factor

The validity of structural constructs is evaluated based on a load of indicators in explaining structural factors. The loading factor becomes a reference in assessing whether the indicators used are appropriate in evaluating the structural constructs that represent them. The loading factor in this study has experienced a shrinking so that only those loading factors remain that are truly representative and stable in explaining the structural construction of the study. Table 1 summarizes the loading factors of the final research model.

Model reliability was evaluated based on the Composite Reliability and Cronbach Alpha values of each construct. This value is expected to have a value of  $>0.7$  to achieve stability of the indicator in constructing and explaining its structural constructs. The Composite Reliability and Cronbach Alpha values are summarized in Table 2.

The validity of the structural construct was also evaluated based on the value of the Average Variance Extracted (AVE) in each construct. It is expected that the value of the AVE is  $>0.5$  in each construct. This number indicates the variance of data that can be explained in the construct through the indicators used. The summary of the AVE values is summarized in Table 3 and Figure 1.

The results of the model evaluation in Figure 1 indicate that the final model of this study has fulfilled the validity and reliability rules of the model at the outer model analysis level. Thus, the research model will be evaluated based

on the inner model to see the effect between the variables obtained. The method used is to use bootstrap.

#### 4.1.3. The Direct Effect of Research

Table 4 shows the results of the direct effect.

Table 4 provides information that the decision to rent a low-cost flat is greatly influenced by the environment, attractiveness, and location. Convenience, sanitation, cleanliness, pleasant environment will make the occupants physically and mentally healthy so that they will behave positively and will become more productive and ultimately prosper. The results of this study were supported by Khair et al. (2015) who stated that the physical environment plays an important role in developing the comfort and satisfaction of residents at low prices. This result is in line with the research of Zalejska et al. (2013) and Emekli and Guney (2019) who stated that the environment is an important factor in the decision to rent an apartment.

The environment, buildings, and facilities are factors that become the priorities for the tenants. Besides, facilities significantly influence the decision to rent if and only if facilities can build an attractiveness for low-cost flats. The results of this study were supported by previous research (Khair et al., 2015; Arfiansyah, 2018; Emekli & Guney, 2019) stating that facilities had an important influence in the implementation of the low-cost housing development program. The more attractive RUSUNAWA is perceived by prospective tenants, the greater the intention to decide to rent low-cost flats. Managers need to make low-cost flats more attractive. The more attractive the low-cost flats, the higher the public's desire to rent low-cost flats. According to tenants, an important factor that makes them interested in renting low-cost flats is an easy renting process. Prospective tenants already know the terms of renting low-cost flats beforehand so that there are no obstacles in preparing the conditions for renting. All the facilities and prices offered by these low-cost flats must be in accordance with the expectations and needs of tenants. This is what makes tenants interested in renting low-cost flats and finally decides to rent low-cost flats. Location is the most important factor in influencing the decision to rent a flat. Locations that are bypassed by public transportation, which are not in a jammed location, which are close to schools, close to the market, and close to the workplace, and easy to access are the concerns of consumers in deciding to rent a flat. The environment has a dominant influence in explaining the attractiveness of the RUSUNAWA and the decision to rent from the RUSUNAWA. However, other factors such as the design of buildings and facilities significantly influence the attraction of renting low-cost apartments. Likewise, the environment, the attractiveness of low-cost flats, and location significantly influence the formation of decisions in renting.

**Table 1:** Contains Research Factor Models

	Attractiveness	Building	Environment	Facilities	Location	Rent Decision
X2.1					0.721	
X2.2					0.819	
X2.3					0.793	
X2.4					0.713	
X2.5					0.588	
X2.6					0.844	
X2.7					0.601	
X3.1		0.724				
X3.2		0.727				
X3.3		0.747				
X3.5		0.681				
X3.6		0.760				
X4.1				0.744		
X4.2				0.746		
X4.3				0.879		
X5.2			0.684			
X5.4			0.767			
X5.5			0.870			
X5.6			0.649			
X5.7			0.898			
X5.8			0.880			
X6.2	0.701					
X6.4	0.634					
X6.5	0.788					
X6.6	0.737					
Y.5						0.940
Y.6						0.551
Y.7						0.954

**Table 2:** Constructive Reliability

	Composite Reliability	Cronbach's Alpha
Attractiveness	0.808	0.783
Building	0.849	0.780
Environment	0.912	0.882
Facilities	0.834	0.709
Location	0.888	0.854
Rent Decision	0.869	0.775

**Table 3:** Average Variance Extracted

	Average Variance Extracted (AVE)
Attractiveness	0.514
Building	0.530
Environment	0.636
Facilities	0.628
Location	0.535
Rent Decision	0.699

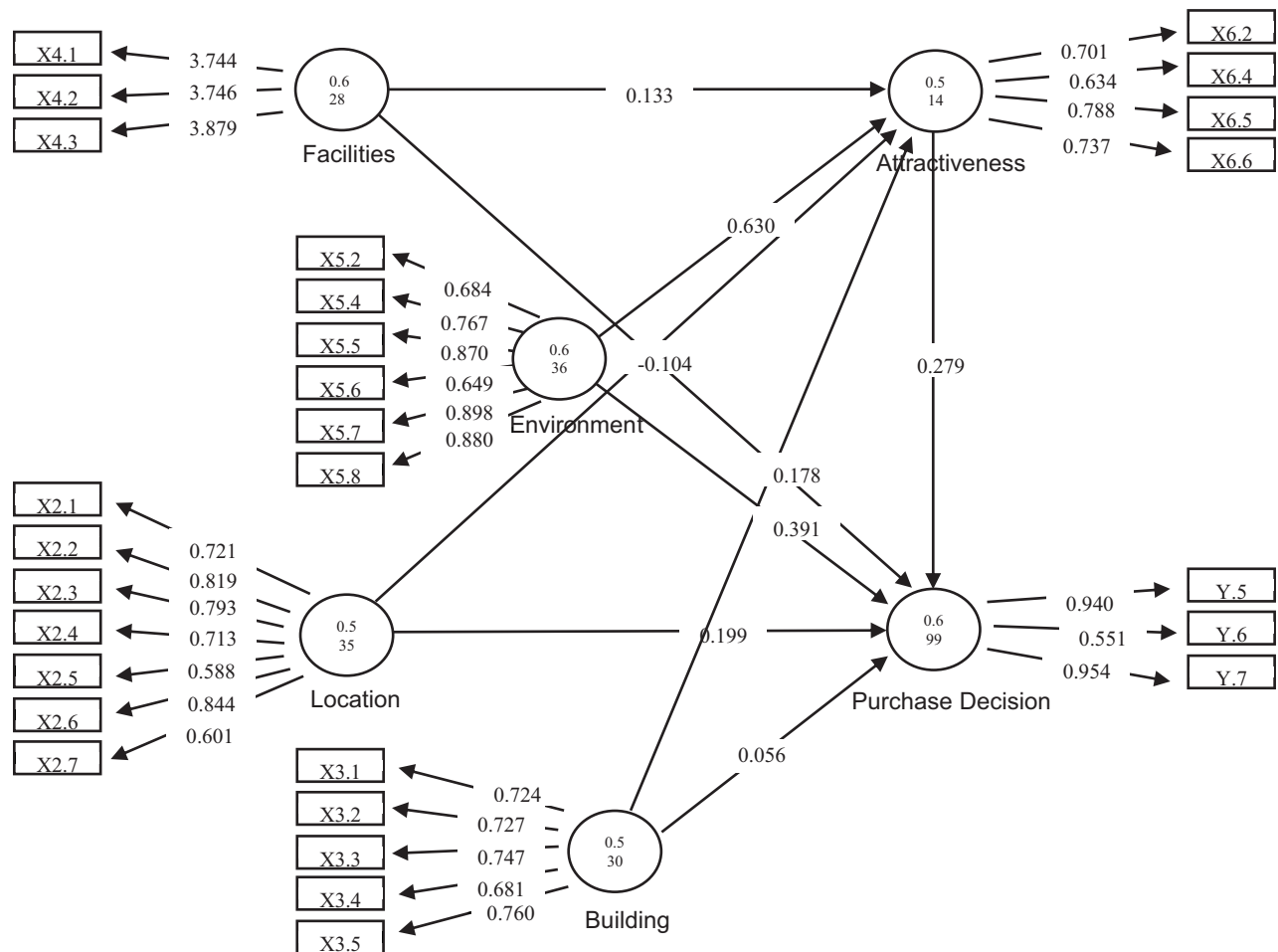


Figure 1: Validation and Reliability of Research Structural Models

Table 4: Direct Effects

	Original Sample (O)	T-statistics ( O/STDEV )	P-values	Decision
Attractiveness → Rent Decision h5	0.279	3.066	0.002	Accept
Building → Attractiveness h1	0.178	2.341	0.020	Accept
Building → Rent Decision h6	0.056	0.629	0.529	Reject
Environment → Attractiveness h2	0.630	8.432	0.000	Accept
Environment → Rent Decision h7	0.391	3.273	0.001	Accept
Facilities → Attractiveness h3	0.133	2.296	0.022	Accept
Facilities → Rent Decision h8	-0.104	1.481	0.139	Reject
Location → Attractiveness h4	-0.072	0.924	0.356	Reject
Location → Rent Decision h9	0.199	2.400	0.017	Accept

#### 4.1.4. The Indirect Effect of Research

Table 5 shows the results of the indirect effect.

Table 5 shows that the indirect effect of this study was generated through mediating variables. Where the mediating variable in this study is attractiveness in RUSUNAWA. This interest proved to significantly influence tenants' decisions in renting low-cost rental flats. The results of the study prove that the indirect effect only has a significant effect on the environmental influence on purchasing decisions. This means that the better the environment, the better the quality of the environment, the more comfortable the low-cost flat environment, the more interested the community to rent low-cost flats and finally decide to rent the low-cost flats. The decision to rent a low-cost flat is influenced by attractiveness. The environment is also a dominant factor that attracts consumers in renting low-cost flats. This shows that even low-income people are very concerned about the social and physical environment of the flat they will rent. Because the environment greatly influences their happiness, behavior, and productivity. The results of this study are supported by research by Ismail et al. (2015), Khair et al. (2015), and Siahaan et al. (2017, 2019) who stated that a healthy, pleasant environment is an attraction for people to rent and buy housing.

Location is the most important factor that influences the decision to rent a low-cost flat. The results of this study are supported by Sidabutar (2017) who stated that location has a positive and significant effect on the decision to rent RUSUNAWA. According to Zalejska et al. (2013), the location does not play a significant role in determining the decision to renting a flat in the city. The design of the building is an attraction to renting low-cost flats. Koeri (2016) stated that space and design have a positive and significant effect on the decision to rent an apartment in Bangkok. It is recommended that the government pay attention to air and light circulation to support the health

of residents and minimize the use of electronic devices. For example, the glass used can reduce heat by up to 30 percent to reduce costs and electricity, using building materials that are free of chemicals harmful to humans and the environment such as the use of non-VOC (Volatile Organic Compounds) water base paints, the use of pipes with materials that are non-toxic, rust-resistant, odorless and separate anti-fats for the needs of clean water, dirty water, and kitchen dirty water (drain kitchen). The concept of reuse and recycle should be used in a clean water treatment system. In addition to relying on infiltration wells, they also use a Water Treatment Plant (WTP) that produces clean water above the quality of the PDAM by the government. The facilities in this study are not dominant as an attraction in influencing the decision to rent. The facility will only influence the decision to rent if the facility is able to build the attraction of the flat. However, Mahardini and Woyanti (2012), Siahaan (2014, 2018), and David et al. (2017) stated that facilities greatly influence the decision to buy a house.

#### 4.2. Discussion

Based on the results of observations in the field and the respondent's answers and the results of interviews, it is recommended to the local government and the central government to allocate appropriate funds for the care and maintenance of low-cost flats. So that the low-cost flats for rent become a comfortable and pleasant place to live in. As such, if all the units of low-cost flats for rent are in a suitable condition, 100% of the flats can be occupied and the presence of low-cost flats can be beneficial for low-income people.

The government must firmly implement policies that require the replacement of each occupant. For example, after three years of residence, the government may not extend the lease. Thus triggering the rotation of tenants from old tenants to new tenants so that it is more targeted. This policy triggers the old residents to be more enthusiastic in working so that they have savings that will be used to have their own homes, and no longer rent. The environment is a significant and dominant factor in influencing the attractiveness of prospective tenants in renting a low-income apartment and the environment is also a dominant factor that is considered by prospective tenants in deciding to rent in a low-rise apartment. Therefore, it is important for the Medan City Housing and Spatial Planning (PKP2R) Department to build a comfortable living environment with the manager of low-rise housing regularly and patiently providing counseling to residents on the importance of a clean environment, especially to children from an early age, providing bins for every floor and separating organic and non-organic waste, and planning the waste disposal stage starting from the

**Table 5:** Indirect Effects

	Original Sample (O)	T-statistics ( O/STDEV )	P-values
Building → Rent Decision h10	0.050	1.878	0.061
Environment → Rent Decision h11	0.176	2.621	0.009
Facilities → Rent Decision h12	0.037	2.006	0.045
Location → Rent Decision h13	-0.020	0.810	0.418

household to the final disposal site and thinking about how to recycle waste to be reused. Facilities are a significant factor in influencing the attractiveness of prospective tenants in renting a flat. Therefore, it is recommended that the government pay attention to appropriate facilities such as the existence of fire alarms installed on each floor, the presence of natural gas on the ground floor that is directly connected to the occupant units, the existence of functioning drainage to be able to regulate water supply to prevent flooding, the existence of children's play areas, jogging tracks, parks, health clinics, and early childhood education (PAUD). The condition of the building is a significant factor in influencing the attractiveness of prospective tenants in renting a flat. Therefore, the Government through the PKP2R service, every month must check every unit to see the physical condition of the building and ensures that every damaged unit is repaired immediately so that all apartment units are rented, and there is no long queue to rent. The goal of the government is to provide adequate housing for the people so that people are proud of their government.

## 5. Conclusions and Suggestions

Referring to the purpose of this study, it can be concluded that the decision of renting low-cost flats in Medan and Binjai City, North Sumatra is influenced by the environment and the attractiveness of the location. What is capable of being the attraction of these low-cost apartments is the environment, building design, and facilities. The mediating variable in this study is an interest in RUSUNAWA. This interest proved to significantly influence tenants' decisions in renting low-cost flats. This means that the better the quality of the environment, the more comfortable the low-cost flat environment, the more interested the community to rent low-cost flats and finally decide to rent the low-cost flats. Thus, environmental conditions will increasingly influence consumer decisions in deciding to rent when the environment is able to be an attraction for residents who inhabit the low-cost flats for rent. good with neighbors who are fellow tenants in the RUSUNAWA. An easy-to-reach location is also a consideration in renting low-cost flats by considering fast and easy road access, close to the city market, close to education and health centers, and easy transportation. The next influence that attracts rental decisions is the design of buildings and facilities. Tenants will be satisfied if they get the condition of the house and facilities as desired.

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