An Anallysis on The Factors Which Influence the Capitalization of Renting Storehouses at Medan Baru, Medan

Ingan Malem Perangin-Angin[1], Khaira Amalia Fachrudin[2],
Nazaruddin Matondang[3]

[1]*(Universitas Sumatera Utara, Indonesia)*
[2]*(Universitas Sumatera Utara, Indonesia)*
[3]*(Universitas Sumatera Utara, Indonesia)*

Abstract: *The level of capitalization is the ratio of net income obtained from a property with its value. When the market value of the property and the level of capitalization are known, reasonable renting value of the property can be determined. Thus, knowing the level of property capitalization will be very helpful in making decision to invest in property, especially storehouses, because they are the types of property which are usually transacted. The objective of the research was to analyze the influence of the factors of capitalization such as age of building, the number of floors, the range from business center, parking lots, and the width of road on the level of capitalization in renting storehouses at Medan Baru, Medan. The data were analyzed by using multiple linear regression analysis and observation data. There were 67 samples all over the population area: Jalan Iskandar Muda, Jalan Gajah Mada, and Jalan Abdullah Lubis at Medan Baru. They were taken by using simple random sampling technique by giving number in each population unit. Slovin formula was used to determine the number of samples. The result of the research showed that $\alpha=5\%$. The variable of the number of floors, parking lots, and the width of road had positive and significant influence on the level of capitalization in renting storehouses. Meanwhile, the variables of the age of buildings and the range from business center did not have any significant influence. It could be concluded that independent variables (the number of floors, parking lots, and the width of road) could simultaneously explain the change in dependent variables (the level of capitalization in renting storehouses) and had positive influence on the level of capitalization.*

Keywords: *Number of Floors, Parking Lot, Width of Road, Level of Capitalization in Renting Storehouses*

I. Introduction

The development of the city of Medan as the capital of the provincial level I North Sumatra is one of the metropolitan cities that has a tendency as other metropolitan cities. Medan City as a functional core city has a strong spatial relationship with the surrounding area. The intensity of development in the city of Medan is increasing, causing the need for land for the construction of housing and shopping centers is also increasing, along with that there is also the development of land values, both social and economic values.

Based on the results of the 2010 Population Census enumeration, the temporary population of Medan City was 2,109,339 people, consisting of 1,040,680 men and 1,068,659 women. Medan City Sex Ratio amounted to 97. From the results of the census, the largest population in Medan Deli District was 167,659 inhabitants, followed by Medan Helvetia District and Medan Denai Subdistrict with 144,478 and 141,842 people respectively. While based on the order of the smallest population is Medan Maimun Subdistrict as many as 39,919 inhabitants, followed by Medan Baru Subdistrict and Medan Polonia Subdistrict which were 42,189 and 52 552 respectively. These three sub-districts are in the core center of Medan City as an area of economic activity and other business worlds. While the population of Medan Johor District is in the middle with a population of 123,469 people, with a density of 8,468 people.

Medan Baru Subdistrict is one of 21 sub-districts in Medan City. Medan Baru Subdistrict is bordered by Medan Sunggal and Medan Selayang in the west, Medan Polonia in the east, Medan Johor in the south, and Medan Petisah in the north. Most of the population of this sub-district are immigrants from various tribes namely; Batak, Chinese, Javanese, while the native population of the Deli Malay tribe is only 20%.

Hidayati and Harjanto (2003) state that increasing population is the main factor that causes increased property demand. Increasing the population of a city or region will cause more demand for houses, office space, shops, industries, and others.

Based on the data, shop houses that are in a nearby location but different rental prices and selling prices. This phenomenon is something that needs to be studied scientifically. The capitalization rate for shop houses on Jalan Iskandar Muda, is an average of 3.6%, which means, to determine the shophouse rental prices in

the area should be the selling price multiplied by the level of capitalization, in fact the rental price is determined based on unknown estimates.

The capitalization rate is the ratio of net income generated from a property to its property value. If the market value of the property and the capitalization rate are known, a reasonable rental property can be determined. So that the level of property capitalization will be very helpful in making property investment decisions, especially shophouses, because shop houses are the most frequently traded type of property, namely cash flow one period after a fixed period, with a capitalization rate at the terminal period. Investment opportunities in the form of shop houses still have a favorable rate of return. These benefits can be in the form of rental income and capital gains. To take an investment decision, it is important to pay attention to the important things, both the return and the risks involved in the investment. Both of these factors are a mirror in the level of capitalization.

Given this, it is necessary to carry out an analysis of the level of store capitalization that can be used to estimate the market value of the shop property based on the rent value. Another consideration is that this shop property is a type of high-value property with its relatively high development, especially in the city of Medan, and its information is relatively quite available.

II. Theoretical Review

2.1 Capitalization Rate

Capitalization rate is the ratio between net income generated from a property and its property value. In the practice of valuing property with an income approach. The capitalization rate is used to convert the income generated by a property to property value. There are two methods commonly used to determine capitalization rates, namely direct capitalization and yield capitalization. The difference between the two is the assumption used. Direct capitalization assumes that the income received in the coming years is the same as reflected by income in the year of valuation. While the yield capitalization includes assumptions regarding factors such as the rate of return expected by investors. The remaining economic life, tenure and anticipation of depreciation / appreciation.

Furthermore, based on the results of the analysis of the overall capitalization rate and some properties that became the study sample, a statistical analysis was performed to determine the average and standard deviation. In addition to the statistical tests conducted to determine the capitalization rate, the average shop value was also analyzed by the relationship between the capitalization rate and the factors that influence it.

2.2 Property Market Value

Hermit (2009) states that the growth and development of demand in the property market (land, houses, office floors, commercial floors, etc.) is sensitive to the influence of the national economy on several fundamental economic factors as follows: 1) The rate of national economic growth; 2) Large demand for modern offices; 3) Expansion and development of service industries; 4) Government policies that are pro-property development and 5) Expansion of consumption credit.

Hidayati and Harjanto (2003) define value as something that should be paid by the buyer or accepted by the seller in a transaction. Determining the value of land must consider the highest and best use defined as the most possible and optimal use of a property, which is physically possible, adequately considered, legally permitted, financially feasible, and produces the highest value of the property. The use of the highest and best is also influenced by some of the existing developments adding to or contributing to property values.

2.3 Factors Affecting the Capitalization Rate for Rent of Shop Houses
1. Building Age

Ruko is as complex as shops and residences / houses with infrastructure and environmental facilities, where the environmental infrastructure consists of roads, parking lots, waterways (drainage), garbage disposal, and electricity networks, while the completeness of the environment includes commercial facilities, banking, health and public transportation services. The shop or building specifications are the arrangement of building components which are one unit, arranged and connected to one another structurally according to a system, absorbing and forwarding static and dynamic loads to the ground.

The age of the building is the period of time the building can fulfill the function and reliability of the building, according to the requirements set. For buildings, the age of buildings is calculated to be 50 years and 20 years for building houses. Economical age is a period of time in which assets (buildings) are expected to be used / used economically according to their functions (Committee for Formulating Indonesian Assessment Standards / KPSPI, 2013). Whereas the remaining economic life / remaining useful life of the building is the period of time calculated from the estimated value to the end of the economic life / benefit of the asset (building), ie the remaining time of asset utilization (building) in accordance with its function.

2. Number of Floors

Understanding the floor is the basic part of a space, which has an important role to strengthen the existence of objects in space. The function of the floor in general is to support activity in space and form the character of space. When people walk on the floor, the characters that appear are: durable, not slippery and neutral in color (not dominant). Multi-storey buildings are buildings that have more than one floor vertically. This multi-storey building is built on the limitations of land that is expensive in urban areas and the high level of demand for space for various types of activities.

The height of the building is how many floors are allowed by developers in the area that can be built. The height of this building is actually only to create the expected skyline of the environment. What often happens in the field is the height of the building exceeds that specified (Rosalina, 2011).

3. Distance to the Business Center

Distance is a unit of measurement that separates one location from another, where distance has a large influence in attracting tenants to the relevant shopping center. The level of crowd from the shopping center has several supporting aspects, the closer to the business center, the higher the occupancy rate of the tenants, especially if supported by easy transportation access and around dense settlements (Hermit, 2009).

4. Parking

Parking is an immovable condition of a vehicle that is temporary because it was abandoned by the driver. Legally prohibited from parking in the middle of the highway; but roadside parking is generally permitted. Parking facilities are built together with most buildings, to facilitate building-use vehicles. Including in the sense of parking is any vehicle that stops at certain places whether expressed with traffic signs or not, and not solely for the purpose of raising and / or reduce people and / or goods.

5. Road Width

The width of the road is the width of the road in front of the land and the building that is the main access to the location of the land and the building and is calculated in meters (m). Irawan and Pranata (2010) stated that the road width variable in front of the land has a positive and significant effect on the value of land and buildings of victims of Lapindo mudflow, where the regression coefficient is 11603.28. Meanwhile, Sutawijaya (2004) revealed that the width of the road in front of the land will have a positive influence on the value of land by 0.402%.

2.4 Hypothesis

Based on the background and description of the previous research as well as the theoretical framework, then in this study several hypotheses can be proposed as follows:
1. It is assumed that the age of the building has a significant effect on the capitalization rate of the value of shop rental.
2. Allegedly the number of floors has a significant effect on the rate of capitalization of the value of shop rental.
3. It is suspected that the distance to the center of business has a significant effect on the capitalization rate of the value of shop rental.
4. It is assumed that the ease of parking lots has a significant effect on the capitalization rate of shop rental value.
5. Allegedly the width of the road has a significant effect on the capitalization rate of the value of shop rental.

III. Materials and Method

3.1 Types of Research

The approach used in this study is based on a survey approach. Singarimbun (1995) state that, survey research is research that takes samples from one population and uses a questionnaire as a tool for collecting basic data and collecting data on factors related to research variables.

This type of research according to the level of exploration is quantitative descriptive. Sugiyono (2004) states that, explanation level research is the level of explanation. This study intends to explain the position of the variables studied and the relationship between one variable with another variable while descriptive research is research conducted to determine the value of independent variables, either one or more variables (independent) without making comparisons, or relationships with other variables . The nature of this research is descriptive explanatory. Sugiyono stated that, explanatory research is a study that intends to explain the position of the variables studied and the relationship between one variable and another.

3.2 Location Research

The research was carried out on Iskandar Muda Street, Jalan Gajah Mada and Abdullah Lubis Road, located in Medan Baru District, North Sumatra Province. Location selection is based on considerations on these roads, there are rental shophouses that are used for offices and trade. This research is planned to take ± 2 (two) months starting in November 2015.

3.3 Population and Samples

The population in this study were all the shop houses that were rented on 85 Iskandar Muda Street, Gajah Mada Street 62 shop houses and Abdullah Lubis Street, 53 shophouses. Based on the population data, the total population is 200 shop houses. To simplify research in obtaining primary data because the population is very large, it is necessary to withdraw the number of samples that can represent the entire population.

From the results of these calculations the sample produced was 66.67, then rounded up to 67 shophouses rented out. The method of determining the sample used in this study by sampling technique is Unrestricted Random Sample, ie the sample is drawn directly from the population, the population is not divided into sub-samples. The method that is used more precisely is to use Simple Random Samples, namely by the way each population unit is numbered, then the desired sample is drawn randomly or randomly from the population (Nanang, 2011).

3.4 Data Analysis Method

This study uses descriptive qualitative analysis method to determine the existence of relationships between dependent variables and independent using inductive statistics correlation with multiple regression analysis. The qualitative descriptive objective in this study is to provide a systematic, factual and accurate description of certain facts.

a. Descriptive Analysis

Sugiyono (2004) explains that qualitative research methods are research methods used to examine natural objects, where researchers are key instruments, while data collection techniques are conducted by interview methods, data analysis is inductive, and the results of qualitative research emphasize meaning rather than generalization.

b. Multiple Linear Regression Analysis

This analysis is conducted to see if there is a causal relationship between the two variables or examine how large one variable affects the other variables. Relationship between variables that describe the function, namely: y = f (x). This function explains the relationship between the dependent variable (Y) and the free variable (X). Hypothesis testing using t test, F test, r squared test.

IV. Results and Discussion

4.1 Descriptive Statistics Analysis

In this study the amount of data taken is as much as 67. This is based on the formula used, namely Slovin with an error value of 10%.

From the data obtained the number of observational data as many as 67 obtained the results of research analysis as follows:

1. The capitalization rate has a minimum value of 2, a maximum of 5 with an average value of 3.8879.
2. The age of the building has a minimum value of 1 year and a maximum of 23 years with an average of 3.48.
3. The number of floors in the shophouse rental sample in Medan Baru sub-district has a minimum value of 3, maximum 5, an average of 3,985.
4. The distance to the business center has a minimum value of 40 meters, a maximum of 1.5 km with an average of 522, 85 meters.
5. Parking facilities have a minimum value of 0, a maximum of 1, an average of 0.66.
6. The width of the road has a minimum value of 14.3 meters, a maximum of 15 meters, an average of 14.88 meters.

4.2 Results and Discussion

a. Effect of Building Age on the Capitalization Rate for Rent of Shophouse

Age of building (UB) is the age of the building since it was completed until the year of the study, related to the level of physical depreciation of the building. According to Fullerton (1968), the economic life of buildings and shop buildings ranged from 35 years to 40 years.

Based on the results of the study, it was found that the age of the building to the level of capitalization of shop rental did not significantly influence the Medan Baru area in Medan This is confirmed by the results of

the Age Building regression analysis (X_1) which has a prob value. t-statistic 0.307 greater than 0.05, it can be said that the Building Age influence (X_1) directly on the Capitalization Rate of Ruko Rent Value (Y) is not significant. This is contrary to the results of research conducted by previous researchers, namely research conducted by Yulianto (2009) which suggests that property rental value is influenced by variables of property distance, physical property, age of buildings, while road access does not affect the value of rental shops in Magelang City.

In a theoretical view it is stated that the age of a building of a certain period and certain uses significantly influences the value of buildings, this occurs because the need for the construction of a house or shop is indicated by the demand (demand) which in turn will be met with supply. Seeing this aspect of demand and supply, there will be an equilibrium price, for example the age of a building that has been worn out for residential and shop houses or small and medium scale offices located on the main road, but in buildings older buildings located in the center of the city, there is a tendency that the age of the building does not affect the rent value because in general they do not see in terms of age of the building but in terms of the utilization of economic value and the location of the shop or property.

b. Effect of Number of Floors on the Capitalization Rate for Rent of Storehouses

In this study the results show that the number of floors to the capitalization rate of shop houses in Medan Baru has a significant effect. This is confirmed by the regression results of the number of floors (X_2) which have a prob value. t-statistic 0.027 smaller than 0.05, it can be said that the effect of the Number of Floors (X_2) directly on the Capitalization Rate of Rented Shophouse Value (Y) is significant. Previous research Mizan (2005) The results showed that the building area / number of floors, tempo of rent, distance from the business center, had a significant effect on the capitalization rate with a clear power of 74.33%.

In this study area multilevel buildings are built on the limitations of land that are expensive in urban areas and the high level of demand for space for various types of activities. The more number of floors that are built will increase the efficiency of urban land so that the capacity of a shophouse can be increased, but on the other hand Medan Baru District is also a trade and office area so that the number of floors and building area greatly affect rental prices and selling prices of shop houses in Medan District New.

c. Effect of Distance to the Business Center on the Capitalization Rate for Rent of Storehouses

From the results of the study, it was found that the distance to the business center to the capitalization rate of shop rental had no significant effect. This is confirmed by the results of the regression distance to the center of Business (X_3) having a prob value. t-statistic 0.747 greater than 0.05, it can be said that the effect of Distance to the Business Center (X_3) directly on the Capitalization Rate of Ruko Rent Value (Y) is not significant, this is because the research area is in the office and trade area which is one of the trade centers in the Medan Baru area, this is what causes the distance to the business center does not affect the level of capitalization in the research area. Different from the research conducted by Muslim (2008) which states that the location factor variables, namely the distance to the Mataram City CBD and the width of the front road and physical factor variables, namely the leased floor area and the effective age of the building are proven to affect the variation in rent value shophouse significantly.

The distance to the center of business can also be said as the distance of land to the center of business activity or the local market closest to the land and building. Land distance to the CBD or local market center has a positive and significant effect on the value of urban land in Surabaya (Raeka and Sulistyarso, 2012). If the land receives negative externalities, such as close to garbage, graves, intersections, the land will be of low value when compared to land that does not accept negative externalities.

d. Effect of Parking Facilities on the Capitalization Rate for Rent of Storehouses

Based on the results of the study, it was found that the effect of parking facilities on the capitalization rate of shop rental in Medan Baru directly had a significant effect. This is confirmed by regression results parking facilities (X_4) have a prob value. t-statistic 0.001 is smaller than 0.05 so it can be said that the effect of parking facilities (X_4) directly on the Capitalization Rate of Ruko Sewa Value (Y) has a significant effect. This is because the Medan Baru area, which is a research area, is a trade and office center in Medan City, so parking facilities should be very important in the area. These results were also obtained by previous researchers, namely Zukriady (2006) who stated that location, building area, building age, rental tempo, and parking area together had a significant effect on the capitalization rate of shophouses also stated that parking area has a significant influence on the level of capitalization.

Urban areas such as in this research area with high population density and high economic level result in high levels of private vehicle ownership. If this condition is supported by government policies in traffic management that do not limit the use of private cars, then the movement will always support private vehicles.

Not all business center developers are able to provide sufficient parking space, so that the road body around it is used for parking lots.

e. Effect of Road Width on the Capitalization Rate for Rent of Storehouses

Based on the results of the study, it was found that the width of the road had a significant effect on the capitalization rate of shop rental in the Medan Baru area. This is confirmed by the results of the Road Width regression (X_5) which has a prob value. t-statistic 0,000 is smaller than 0.05, it can be said that the effect of Road Width (X_5) directly on the Capitalization Rate of Rented Shophouse Value (Y) is significant. The same results were also obtained in previous studies, namely research conducted by Muslim (2008) at the conclusion of his research stating that location factor variables were the distance to the Mataram City CBD and the width of the front road and physical factor variables namely building floor rent and the effective age of the building which is proven to influence the variation in the value of shop rental significantly.

In the study area, mostly in the road arterial area which is in the area of Medan Baru Subdistrict, the use of property is used for service and trade business activities both direct owners and tenants. Buildings on the roadside are used for offices and shops. Seeing this condition, the size of the road width for each designation must be adjusted to the business involved so that the width of the road becomes a determining factor to obtain an efficient and effective economic benefit value, in this case the width of the road is considered as one of the main factors in opening business or economic activity.

V. Conclusion and Suggestion

Conclusion

Based on the results of this study, it can be concluded several things as follows:
1. The age of the building does not significantly influence the capitalization rate of ruko rent in the Medan Baru Subdistrict area.
2. The number of floors has a positive and significant effect on the capitalization rate of rental shophouses in the Medan Baru District.
3. Distance between business centers does not significantly affect the capitalization rate of ruko rental in the Medan Baru Subdistrict area.
4. Parking facilities have a positive and significant effect on the capitalization rate of rental shophouses in the Medan Baru District.
5. The width of the road has a positive and significant effect on the capitalization rate of ruko rent in the Medan Baru Sub-District area.

Suggestion

Based on the results of the study, the suggestions that I can give as a researcher are as follows:
1. For the general public who are interested in renting shophouses in the area around the Medan Baru Subdistrict, especially on Iskandar Muda Road, Abdullah Lubis Road, and Jalan Gajah Mada Medan, it is recommended that the results of this study show that the number of floors, parking facilities and road width is a dominant factor forming the high rent value around the neighborhood.
2. For the Appraisal profession can use a regression model produced in this study to be taken into consideration in assessing the value of shop rental around Jalan Iskandar Muda, Abdullah Lubis Road, and Jalan Gajah Mada Medan.
3. For the government, especially the Regional Government of Medan City to further improve and develop the road network infrastructure around the Medan Baru Sub-District environment, given that the area is so highly developed as a shopping area, offices and housing.
4. For further researchers who will conduct research in this research area it is recommended to use other variables such as the Tax Object Selling Value or NJOP and Land Building Tax or PBB in Medan City, especially around the neighborhood of Medan Baru Subdistrict on Jalan Iskandar Muda, Jalan Gajah Mada and Jalan Abdullah Lubis Medan as independent variables in factors that affect the capitalization rate of shop rental.

Reference

[1]. Hermit, Herman Ir. (2009). Teknik Penaksiran Harga Tanah Perkotaan: Teori dan Praktek Penilaian Tanah. Bandung: CV. Mandar Maju.
[2]. Hidayati, Wahyu dan Harjanto, Budi. (2003). Konsep Dasar Penilaian Properti, Edisi Pertama. Yogyakarta: BPFE.
[3]. Irawan dan Pranata. (2010). Analisa Penetapan Nilai Ganti Kerugian Properti Korban Luapan Lumpur Lapindo. Jejak. Vol. 3, No. 2.
[4]. Mizan. (2005). Analisis Tingkat Kapitalisasi Properti Pertokoan dan Faktor-faktor yang Mempengaruhinya di Kota Palembang. Yogyakarta: Universitas Gadjah Mada.
[5]. Muslim, M. Z. (2008). Analisis Faktor yang Mempengaruhi Nilai Sewa Ruko dan Tingkat Penyesuaiannya, 2007 (Studi pada Kota Mataram). Yogyakarta: Universitas Gadjah Mada.
[6]. Nanang, Martono. (2011). Metode Penelitian Kuantitatif. Jakarta: PT. Raya Grafindo Persada.

[7]. Rosalina. (2011). Sistem Pemeliharaan Gedung Ditinjau Dari Keandalan Bangunan Gedung (Studi Kasus: Gedung Rumah Susun Sederhana Sewa Di Kabupaten Cilacap). Jurnal Universitas Sebelas Maret.

[8]. Singarimbun, Masri. (1995). Metode Penelitian Survey. Jakarta: LP3S.

[9]. Sugiyono. (2004). Metode Penelitian Administrasi. Bandung: Alfabeta.

[10]. Sutawijaya, Adrian. (2004). Analisis Faktor-Faktor yang Mempengaruhi Nilai Tanah sebagai Dasar Penilaian Nilai Jual Objek Pajak (NJOP) PBB di Kota Semarang. Jurnal Ekonomi Pembangunan, Kajian Ekonomi Negara Berkembang.

[11]. Yulianto, T. (2009). Pengaruh Faktor Lokasi dan Fisik Properti terhadap Nilai Sewa Pertokoan di Kota Magelang Tahun 2009. Yogyakarta: Universitas Gadjah Mada.

[12]. Zukriady, E. (2006). Analisis Kapitalisasi Rumah Toko di Kecamatan Pangkalan Kerinci Kabupaten Pelalawan Provinsi Riau, 2006. Yogyakarta: Universitas Gadjah Mada.