Study of public’s perceptions toward land use in Pasar Kaget (Case study: Pasar Kaget at Jalan Ahmad Yani Binjai)

PYA Rajali¹, B Hamid¹ and IF Pane²,³

¹ Postgraduate Student, Department of Architecture, Faculty of Engineering, Universitas Sumatera Utara, Padang Bulan, Medan 20155, Indonesia
² Department of Architecture, Faculty of Engineering, Universitas Sumatera Utara, Padang Bulan, Medan 20155, Indonesia
³ Laboratory History, Theory and Criticism of Architecture, Department of Architecture, Universitas Sumatera Utara, Padang Bulan, Medan 20155, Indonesia

E-mail: yuni_rajali@yahoo.co.id

Abstract. Pasar Kaget Binjai built 15 years ago has developed from one vendor to more than 60 vendors recorded in Binjai Government. In its operation, this market uses Binjai main roads as a strategic location. It opens from evening to dawn. The existence of Pasar Kaget Binjai has been developing and created people’s perceptions toward the use of land for Pasar Kaget Binjai (Jalan Ahmad Yani Binjai). The purpose of this research is to identify people’s perceptions toward the land use for Pasar Kaget on Jalan Ahmad Yani Binjai based on strategic location which is oriented to public point of view toward the location of Pasar Kaget, the variety of public activities in the location, and the use of city roads as activity location. The research uses descriptive qualitative approach, it tries to observe the condition of research object through description, definition or explanation of either measured or unmeasured analysis by analyzing influential variable. The analysis method is divided into three analysis, namely the analysis of people’s perceptions of the factors of strategic land, activities, and land use. The conclusion drawn from the research is that despite the strategic location of Pasar Kaget Binjai with good access, easy and cheap transportation facilities to/from market location, and the good conditions of roads/ facilities, people do not agree to keep the location of Pasar Kaget on Jalan Ahmad Yani Binjai. They prefer to be relocated to other location with a permanent market condition. It is recommended that Binjai government relocate Pasar Kaget Binjai to the other location which can accommodate crowded activities under careful consideration of the location. Meanwhile, it is suggested that the people keep supporting the development program of Binjai government for Pasar Kaget to increase city infrastructure.

1. Introduction

The market as an element of city space formation has an important role in the development of the city, both regarding economic, social, and cultural. The existence of the market as a supporter of economic activities of a city is very large, because in the market buying and selling activities occur. Although the existence of the modern market is currently growing rapidly, the existence of traditional markets in the city also can not be ignored. Traditional market in the city is also one of the elements of city space, even traditional markets have some advantages compared to modern market. Traditional markets have more potential than modern markets, a mix of seller and buyer cultures, a place for tourists to enjoy local culinary flavors, strategic placement, cleanliness of the environment can attract tourists to enjoy
food at the night market, and the last is the price Quite affordable (cheap), is some potential that is not owned by the modern market. In addition to the social aspect in this case, the traditional market in terms of tourism can also be developed [1].

Land use change is a shift of land function that had been for certain designation changed into a certain allotment (others). With the change of land use the area is experiencing development, especially the number of physical facilities and infrastructure in the form of economy, roads, and other infrastructure. In its development, the land change will be distributed at certain places that have good potential. In addition to the distribution of changes, land use will have patterns of land-use change according to the distribution of land use changes essentially grouped into: longitudinal patterns following the path; Pattern extends along the river; Radial pattern; Scattered patterns; Pattern extends along the shoreline; Patterns extending along the coastline and railroad [2].

The shock market located in the street corridor Ahmad Yani Binjai is one of the traditional markets that appear unplanned and move only at certain hours. The issue that will be raised in this research is about its existence in one of the collector roads in Binjai city. The existence of Pasar Kaget Kota Binjai at night on Jalan Ahmad Yani Binjai has made the area in the road corridor more meaningful, and become a center of big buying and selling activity at night in Binjai City. The growth of trade in this area is increasing, and attracts more visitors to the region. With the increasing activity of trade in the road corridor, this creates a special description for each person, be its merchants, buyers or other public. The linkage between these issues is mainly in the perception of the community as observers and perpetrators of activity in Pasar Kaget Binjai in the use of land in the road corridor as a place of activity.

The purpose of this study was to identify the perception that emerged from the community on the land use of Pasar Kaget on the Ahmad Yani Binjai road to the factors of land cultivation, the factor of community activity and the factor of land use change in the utilization of urban road as activity land based on perception forming factor approach.

In his book, Robbin argues that there are three factors that can affect the perception of society that is [3]:

- Individuals concerned (perception/perpetrator of perception);
- The goal of perception;
- Situation.

Every factor that influences perception is also influenced by several things. As can be seen in Figure 1. In the picture, the three factors that affect perception is also influenced by some things that cause the occurrence of these factors. The factors in perception are influenced by attitudes, motives, interests, experiences, and expectations. Factors on the target are influenced by something new, movement, sound, size, background, closeness, and similarity. Factors in a situation are affected by time, working conditions, and social circumstances.
In measuring perceptions there are three approaches to reveal the attitude of a direct interview, observation, and attitude statement. To reveal one's attitude, including the perceptions of a psychological object. There are three methods, namely Likert scale, Thurstone method and Guttman scale. The Likert scale usually presents an alternative answer to the respondents in five alternatives [4]. However, in reality, it can be modified into two or three choices. Each answer has a certain weight value according to the direction of a revelation of attitudes or perceptions. Has been arranged according to the intensity of the strongest to the lowest or the weakest.

Accordingly, the public perception of land use change in Binjai market was measured using Likert scale model. Likert scale is used to measure attitudes, opinions, and perceptions of a person or group of people about social phenomena. In research, this social phenomenon has been specified specifically by the researchers, from now on referred to as research variables. Perception measurements can be made using the Likert Scale [4], with the following categories:

Positive Statement / Negative Statement
- Strongly Agree: SS
- Agree: S
- Ordinary: B
- Disagree: TS
- Strongly Disagree: STS

Land use is a pattern or embodiment of a city activity system within a particular space and location, where all three (activity, land use, and location) interact and have a reciprocal relationship. An operational landfill pattern can be defined as a form of relationship between various aspects of the resources in a unified whole and about the spatial formation, which describes the function, shape, size, and pattern of the location of the land [5].

The value of this land depends on environmental factors, the state of drainage and the location where the land is located. The latter has much to do with accessibility issues. The degree of accessibility is the color of the low value of this land. The higher the accessibility of a location the higher the value of land and usually this is associated with the consumer's presence of goods or services. This degree of affordability is associated with a large potential shopper and the ease of coming/goings to/from that location or market [6].

Figure 1. Factors that affecting perception.
(Source: Robbin and Judge, 2013)
In planning, land use is strongly influenced by humans, activities, and locations, where all three relationships are highly correlated, so it can be considered a cycle of land use change in Figure 2 [7].

![Figure 2. Land change cycle.](Source: Catanese, 1986)

Thus, from the above theories in general, researchers interpret that land use is defined as a manifestation of reciprocal relationships between community activities, land use, and location/Karelian landscape that is dynamic (changing) depending on factors such as: topography, population, land value, accessibility, infrastructure and facilities, and environmental carrying capacity. This land use assessment will have major implications for the region's economy, the allocation of resources and labor and the structure of urban space.

There are 3 (three) factors forming land use in a region. These three factors are interconnected with one another, such as land tenure, community activities, and land use change. Indicators that will be the benchmark in determining public perception about the market stability of the Binjai shock market require careful consideration of factors such as: access, visibility, traffic, spacious parking lots, convenient and safe, expansion, environment, competition, government regulations.

Community activities are trading activities and supporters. In the trading activity itself, consumers will usually take the decision to buy or not the product or service. Some of the motives behind the purchase of consumers are: strategic sales locations, good service, easy-to-reach and inexpensive supplies; price; Goods classification; Services offered; Interesting store; Ability of sales force.

Land conversion or land-use change is the general function of land change or transformation of land in the allocation of land resources from one use to another. [8] However, as the terminology in the studies of Land economics, the notion focuses primarily on the process of land use from agricultural land or rural areas to non-agricultural or urban uses accompanied by increased land values.

2. Method
Analysis of the data in this study is a qualitative descriptive analysis of the results where the identification and collection of data on the above variables are then analyzed and presented in the form of graphs and diagrams. The results of the analysis then made the formulation of what the public perception of the Pasar kaget Binjai based on aspects that affect the occurrence of these perceptions. Then to give more depth to the public perception of the *Pasar kaget* Binjai based on changes in land use, it will be used in descriptive analysis by relying on visualization in the field to create a conclusion which reinforces the above data analysis.

The substantial scope of this study is as follows:

- A study of the factors that influence community perceptions by Robbins and Judge. Where in the book, they argued that there are three factors that influence public perception, namely: the person that does the perception, the objective of the perception, and the situation.
Studies of factors affecting urban land use include land tenure factors, community activities, and land use change.

Data collection; To make a complete description of the market condition shocked Binjai then the data collection is done by visual observation; Visual recording of existing market condition shock; Distributing questionnaires to obtain information on current issues and potentials of the region and to explore the aspirations and preferences of the inhabitants of the region on the development of the shock market.

The sampling technique is randomized or random sampling in which each respondent has the same opportunity to be selected as a sample. Binjai consists of 5 (five) districts, sub-districts, namely Kota Binjai, Binjai Utara subdistrict, District East Binjai, Binjai District of Southern and Western District of Binjai. The population of Binjai City (N) is 252,263 persons, so based on the above formula, the sample size for the consumer (n) is 100 people. This result is obtained by assuming the value of $p = 0.5$ and value $B = 0.1$ (10%). Assumptions bound of error (B) captured 10% for this study is not a study that contains high risk such as research in the field of health in which the bound of error should be as small as possible.

3. Results and Discussion

3.1. Public perceptions of the strategic of land on the Pasar Kaget Binjai

The aspect of land civilization is one form of urban land use [9]. A central place is a place where maximum human participation is possible, both for those engaged in service activities, as well as consumers of the goods and services they produce. A central place has boundaries of influence or scope which is a complementary circle or region of the central place. Based on the perception factor as one of the factors forming a person’s perception of a thing, then Figure 3 illustrates the percentage of one's perception of Pasar Kaget Binjai.

![Figure 3. Percentage of public perceptions on the land's strategic of perception factors.](image)

Description of the question based on the number in the diagram picture:

- Is the access easy to reach the market
- Occupancy costs to Pasar Kaget Binjai
- Can the presence of the market be immediately visible and doesn’t hard to find
- Is the road condition in the market surprised and wide
- Is it easy for public transportation to cross the road corridor of Ahmad Yani Binjai to reach out to Pasar Kaget

Accessibility is one of the factors affecting land use change in urban areas. In the urban space structure, there are several factors related to the economic value of land. The accessibility
(accessibility) of a land and the complementarity factor between land use will determine the economic value of a land. Increasing the value of the land if associated with urban areas (urban) will be more related to the location kestrategisannya (location factor) [9].

This is related to a statement, that the value of land and land use has a close relationship [6]. The value of this land depends on environmental factors, the state of drainage and the location where the land is located. The latter has much to do with accessibility issues. The degree of accessibility is the color of the low value of this land. The higher the accessibility of a location the higher the value of land and usually this is associated with the consumer's presence of goods or services. This degree of affordability is associated with a large potential of shopper and the ease of coming/going to/from that location or market.

From the results of surveys conducted can be stated that the Pasar Kaget Binjai have a high value of accessibility. From 100 questionnaires distributed to respondents, positive perceptions of the market aspect of the Pasar Kaget Binjai. Where 51% of respondents agree that access to pasar kaget is easy to reach at a cost that is also relatively affordable (54% of respondents). As many as 54% of respondents strongly agree if the visibility/market presence is surprisingly easy to find and see clearly. There are 60% of respondents agree that public transportation such as angkot and becak easily reach the market location shocked. Even 49% of respondents agree that good road conditions in the market location are shocked.

Figure 4 shows the percentage of people's perception on the land's credibility, it can be seen that the Pasar Kaget Binjai positively enough to the situation in Binjai market. Of the 100 questionnaires given to the respondents, 44% of the public considered normal to the activity in the pasar kaget that started from evening until early morning with no affecting the flow of traffic, and 37% of the people surveyed stated quite often buying merchandise in the pasar kaget When crossing it. As many as 47% of people agree with the retail-retail arrangement in the market, 56% agree that the market location is close to the settlement, 37% of people think the market is quite comfortable and 43% think shopping in the market is quite safe.

Figure 4. Percentage of people's perceptions of strategic of land from situation factors.

Description of the question based on the number in the diagram picture:

- Does the long time activity affect the flow of traffic
- Is the retail arrangement in the market a good enough
- Is the market near with settlements
- Is the situation in the market feel comfortable
- Is it secure if you shop in the market
- Are you often buy merchandise when you cross the market in shock
3.2. Public perception of community activities at Pasar Kaget Binjai

Land use planning is strongly influenced by people, activities, and locations, where all three relationships are closely related. The main elements of human behavior as well as the dynamics of human behavior which then in the process of the reward have resulted in the creation of certain spatial patterns within a city [6]. The human behavior that arises because of the values that live within the individual or group perception. Whether consciously or unconsciously, explicitly or implicitly, for individuals or groups of individuals, in their work in urban areas will always lead to certain patterns of land use. The pattern of human behavior can be observed from systems of activities undertaken by individuals and private entities, and governments [5].

Based on the results of questionnaires about the perception of the community on the activity of the shock market given to 100 random respondents, the answer pattern shown in Figure 5 shows that 42% of the Binjai people regard the interest in shopping in the shock market, but 32% Interested in shopping in the pasar kaget ed. This is according to Binjai community that the sales service in the market is very good, as many as 37% of Binjai people agree to declare it.

![Figure 5. Percentage of public perception on activity in Pasar Kaget ed from perception factor.](image)

Description of the question based on the number in the diagram picture:

- Preferably / interested in shopping in the Pasar Kaget than other similar markets
- The sales service in the market is good

But with the bustling market conditions of being on the collector road in Binjai city, the main issue of this location's credibility to the Pasar Kaget situation is congestion, and noise, as shown in Figure 6. Traffic congestion negatively affects the environment such as pollution. In traffic congestion the speed of motor vehicles is relatively slow, and the fuel smoke is more pronounced. Also, the effect of traffic congestion also generates other negative effects of increased noise due to the use of motor vehicles that also more increase. Noise has a negative side effect, both psychologically and physiologically and economically [6].

![Figure 6. Condition of congestion in Pasar Kaget Binjai.](image)

Markets can improve relationships between people and create trust among communities, creating a comfortable space for society [10]. And according to the results of the questionnaire given to the respondents that 37% of the people agreed to the seller in the Binjai shock market are friendly, and 51% of Binjai people agree that the presence of this shock market is close to where they live and is easily accessible, as seen in the results of questionnaire distribution In Figure 7.
How does the merchant and his worker service, whether good and friendly
• Is the market location shocked near your home and easy to reach

3.3. Analysis of public perception on land use change in Pasar Kaget Binjai
Based on the conditions in Fig. 8 and Fig. 9 we can see the shift in function from public land use to land for trading and services in markets. The traders use the public road location as a place of business. The use of this little bit of land must cause different perceptions as well.

Based on the conditions in the figure above we can see the shifting function of public land use into land for trading and services in the market. The traders use the public road location as a place of business. The use of this little bit of land must cause different perceptions as well. Indicators of community perception research on land use change are seen from several aspects such as topography, population, land value, accessibility, infrastructure and facilities, and environmental carrying capacity.

To see how the public perception of land change in Binjai pasar Kaget will be explained in Figure 10 where the picture diagram is seen how the perception of society when viewed from perceived factors. From Figure 11, 49% of respondents agreed that the condition of infrastructure / road in Binjai market was good. There were 44% of respondents from 100 respondents who stated that their utility condition, such as garbage and drainage, is normal. This means that for the drainage system (drainage channel) is not a negative issue in the Pasar Kaget Binjai.
Figure 10. Percentage of public perceptions of perception factors on land use changes in Pasar Kaget Binjai.

Description of the question based on the number in the diagram picture:
- How is the condition of infrastructure/road in the corridor of Ahmad Yani road, whether the conditions are good
- Is the condition of utilities (drainage, garbage) in the market a good shock

Other municipal infrastructure such as garbage and land area in the Pasar Kaget Binjai even considered quite good by the respondents. In Figure 12, seen condition of road conditions Ahmad Yani Binjai which is a road corridor which is also as a market location shocked Binjai. The photo was taken at 08.41 pm in December 2015. In Figure 11, it can be seen that there are several piles of garbage along the road corridor of Ahmad Yani Binjai which is the garbage from the trading activity in the Binjai market. But also seen carry every day there is a janitor from the Department of Hygiene and Garden City of Binjai who collects and clean up the remains of the garbage.

a. The condition of Ahmad Yani road in the morning (seen there are some piles of garbage)

b. The condition of Ahmad Yani street in the morning (seen there is a car of municipal government cleanliness Binjai municipalities that collect and clean up the piles of garbage)

Figure 11. Condition of utilities (sewage) in Pasar Kaget Binjai.

In Figure 12, we can see how people's perception of land use change in Binjai market is based on their perception situation approach. Questionnaires distributed to 100 respondents found that 42% of Binjai people agree that the time to go to the market can be reached within 45 minutes journey. This is by the standard mileage from residence to the local market that takes 30-45 minutes to go. And as many as 35% of people agree that the physical condition of the environment in the market is good. This
statement is supported by a statement of questions about the condition of good infrastructure, and shocking market situation is quite safe and comfortable according to statements from the public.

![Figure 12. Percentage of public perceptions of situation factors on land utilization in Pasar Kaget.](image)

Description of the question based on the number in the diagram picture:

- Is the travel time to the market location <45 minutes
- Whether the physical condition of the market environment is good

4. Conclusions

4.1. Public perception on land strategic aspect
Public perception on land market in Binjai market was seen from the indicator of the land's cultivation is seen from the analysis result, where regarding accessibility, the existence of Binjai's market is strategic. From the result of the analysis 51% of respondents agree that access to pasar kaget is easy to reach, 54% of respondents agree that the cost to the market is relatively affordable, 60% of respondents agree that public transportation such as angkot and becak easily reach the market location of shock, 49% Which is good at the market location is shocked. From the visibility indicator/presence of the shock market itself is easy to find and see clearly. 54% of respondents strongly agree if the existence of the Pasar kaget Binjai can be seen clearly from a normal distance.

Traffic in the market is a great opportunity to buy, which is often spontaneous purchasing decisions, without planning, and or without special efforts. 37% of the results of the analysis stated quite often buying merchandise in the pasar kaget when crossing it. There is a need to increase parking facilities, where 62% of Binjai people strongly agree if there is management of traffic and parking in the pasar kaget. 47% of the public agreed with the retail-retail arrangement in the shock market. 56% agreed that the market location was close to the settlement, 44% of the people considered normal to the activity activity in the shock market starting from evening until early morning without affecting the flow of traffic. Despite being near the settlement area 37% of people considered the pasar kaget situation quite comfortable and 43% thought shopping in the market was quite safe.

In relation to the objectives of the public perception of location credibility, it can be stated that access to the shock market is easily accessible and passed; Visibility/existence of the location can be seen clearly; Traffic on buying opportunities is good enough; The need for managing traffic and parking lots; Merchandise competition makes retail-merchandise merchandise become more attractive, because in the market surprise itself there are several types with the same merchandise and are in a nearby location; Government regulations responded positively by the community related to its existence in the road Ahmad Yani Binjai.

4.2. Public perception on community activities aspect
Public perception on community activity in Binjai market was seen from the indicator of community activity as seen from the result of analysis, where 42% of Binjai people considered normal to the interest of shopping in pasar kaget, but 32% agreed if they prefer / interested in shopping at pasar
kaget. According to the Binjai community, the sales service in the market is very good, as many as 37% of Binjai people agree to this. 37% of the public agrees to the seller in the Binjai startled market friendly. 47% of the people of Binjai agree if the retail-retail merchandise and food offered in the market is appealing. 51% of Binjai people agree that the presence of this shock market is close to where they live and is easily accessible.

4.3. Public perception on land use change aspect

The public perception on land use change in Binjai market was seen from the indicator of land use change from the result of an analisa, where 49% of respondents agreed that the condition of infrastructure / road in Binjai market was good. 44% of respondents from 100 respondents stated that utility conditions, such as garbage and drainage, are normal. 35% of respondents agreed if done expansion of road network in pasar kaget ed Binjai. 46% of the people agreed if there was an increase in the means of transportation as a means of connecting to the shock market. 42% of the people of Binjai agree that the time to go to the market can be taken within 45 minutes journey. 35% of the public agreed that the physical condition of the environment in the market was good.

From the results of questionnaires distributed, the community agreed that there would be an increase in transportation facilities as a liaison to the shock market, and agreed if the road network was expanded. Aksesibilitas to the pasar kaget can also be taken in the standard travel mileage, which is under 45 minutes. As well as environmental conditions, both infrastructure and physical market environment is good. This is consistent with the indicators of land use change aspects, namely the carrying capacity of good environment, supporting infrastructure and facilities, good accessibility, and high land value.

Acknowledgment

I am grateful to the University of North Sumatra and the lecturers of the Engineering Faculty of the USU Department of Architecture who have provided opportunities and assistance in this scientific research. As well as big thanks to both parents and brothers who have supported in this research.

References

[1] Khursiah and Wai Yeng, Lye 2011 Exploring The Potential Of A Night Market As A Tourist Attraction International Journal of Bussiness and Social Science
[2] Chalil, T Munawar 2012 Pemodelan Dampak Pembangunan Jembatan Batam-Bintan Terhadap Dinamika Kependudukan, Ekonomi, dan Guna Lahan Batam dan Bintan. Jurnal Perencanaan Wilayah dan Kota vol 23 no 3
[3] Robbins, Stephen P and Judge, Timothy A 2013 Organizational Behaviou 166 (United Stated of America: Pearsen Education Inc)
[4] Sugiono, Soetomo 2002 Dari Urbanisasi ke Morfologi Kota.Mencari Konsep Pembangunan Tata Ruang Kota yang Beragam (Semarang: Undip Press)
[5] Chapin F Stuart, Jr et al 1995 Urban Land Use Planning, Fourth Edition (USA: University of Illinois Press)
[6] Yunus, Hadi Sabari 2012 Struktur Tata Ruang Kota (Yogyakarta: Pustaka Belajar)
[7] Catanese, Antoni J 1986 Pengantar Perencanaan Kota (Surabaya: Erlangga Surabaya)
[8] Tjahjati, Budi 2000.Pembangunan Kota Dalam Rangka Otonomi Daerah Makalah Stadium General Bagi Mahasiswa Planologi TA 2000/2001
[9] Widowati, Titin and Wijaya H Bina 2014 Variabel Penentu Harga Lahan di Perumahan Sekitar Kawasan Pendidikan Universitas Diponegoro Semarang Jurnal Teknik PWK vol 3 no 1
[10] Khanian, Mojtaba; Bolouhar, Behdad; Gheitaran, Nima; Manteghi Nezhad, Sheida 2013 Studying the Causes of Vitality in Traditional Market of Iran (Case Study: Shoemaking Order of Central Market of Hamdan) World Applied Scieneced Journal