

THE ANALYSIS FACTORS TO DETERMINE OF MODERN STORES LOCATION IN PEKANBARU CITY

Yoghi Kurniawan, Febby Asteriani & Puji Astuti

Islamic University of Riau, Indonesia

e-mail: febby411@yahoo.com, pujiastutiafrinal@yahoo.co.id

Abstract

The development of modern stores in Indonesia influenced the development of modern stores in many cities. Pekanbaru become an attractive destination for retail businesses. It had the potential to grow in terms of trade. This indication is shown by the proliferation of modern shops in several locations in Pekanbaru. There are many factors that affect the modern shops owner to determining location of the modern shops. These factors related to accessibility, population, land prices, building rental rates, competition, physical condition of the land, infrastructure and the provision of space. This study used a deductive approach with quantitative analysis techniques. At first, the theory of the modern store locations are collected and carried stabilization theory, by distributing questionnaires to the respondents. Then, the results of questionnaires processed by factor analysis using the program PASW (Predictive Analysis Software) Statistics 18. The results of data processing by factor analysis showed that the initial factor of 8 or 20 observed variables, reduces to 4 new factors with 18 variables that factor into the spread. The new factor composed of factor 1 (number and density of the population), factor 2 (availability of pedestrian path/pedestrian), factor 3 (soil type), and factor 4 (communication network availability). In addition, the identified main factors, namely: factor 1 (number and density of the population).

Keywords: Modern Shop, FactorAnalysis, Minimarket, Supermarket

INTRODUCTION

Riau Province as a province in Indonesia which has a population growth rate of about 3.4% as a result of the high flows of migration. This condition puts it as an economic region that has potential and business opportunities for domestic businesses, including retail business in the urban sector. Pekanbaru is the capital city of Riau Province has developed quite rapidly, especially on economic activity. Economic growth can be seen from Gross Regional Domestic Product (GDP). Based on data from the Pekanbaru Central Statistics Agency, economic growth in the last 5 years reached 9.38%, where the tertiary sector, especially trade, hotels and restaurants as the largest contributor to the GDP in 2011, ie 32.23% or 3,180. 369 (billion rupiah) at constant prices. A population of 937 939 inhabitants, indicating that Pekanbaru has the potential to be developed one in the trade sector. Besides supported as the city centers of trade and services contained in spatial planning and urban development plans.

Modern stores have spread in various regions. The entry of the giant retailer adds to a long list of modern shops there. Increasing this facility does provide a variety of options to the community to meet their needs. However, existence modern stores in many locations can lead to various problems, such as: competition, accessibility, and inefficiency of land.

The growth of modern stores in Pekanbaru feared could damage competition from a variety of existing trading facilities, as well as raising fears of monopoly of land in the surrounding area. The business locations cause problems such as congestion due to the accessibility of such business activities as well as the lack of adequate vehicle parking.

The most important thing in setting up the trading business is being able to determine the location factor in the progress and success of a business, and can provide benefits for businesses. In

addition, the business location selection decision or modern retail trade shops will be focused on maximizing profits. In general, the ideal location for activities / trading business is the location with the potential for the commercial area, easily accessible, the potential for growth, interception of competitors, and the location of economic (Sopiah and Syihabudhin, 2008). Some of the problems arising from modern stores in the city of Pekanbaru is:

1. Competition; modern shop in an area can take place between the members of modern stores or between modern shop with other trading facilities such as traditional markets and shopping centers. This competition can give a positive or negative impact. One of the positive impact is the growing economy of a region, while the negative impact to be considered is the competition with the traditional markets which are a group of small merchants, where it can be deadly small traders.
2. Accessibility; the modern stores around the site will affect the accessibility of the modern shop. That cause arises problem of traffic jams as a result of the activities of a modern store. And the parking space available is inadequate for consumer vehicles, as well as the loading and unloading of goods.
3. Inefficiency of land; This modern stores that are in a particular region can monopolize the land in the surrounding area.

Literature

According to Djojodipuro (1992), location theory is the science that investigates the spatial (spatial order) of economic activity, or the science that investigates the allocation of geographic sources of potential, as well as its relationship with or influence on the existence of various activities/other activities both economic and social. In its efforts to minimize costs, then a company among others are trying to choose the right location. Companies that sell merchandise, to be close to consumers who require wares. The closer it is to the consumer, the more likely that the consumer will purchase necessary items thereof (Djojodipuro, 1992). Therefore, it is important for him to determine the location in order to obtain minimum cost.

Refers to the Minister of Trade of the Republic of Indonesia 53 / M-Dag / Per / 12/2008 Year 2008 on guidelines for structuring and development of traditional markets, modern shops, and shopping malls, modern store is a store with self-service system, selling various kinds of goods in retail in the form of minimarket, supermarkets, department stores, hypermarkets or wholesalers in the form of wholesale.

Modern stores or often called a modern retail, because the activities include the sale of goods at retail. Modern meaning here is the arrangement of items grouped according to the same purpose in the same section that can be seen and taken directly by the buyer, the use of air conditioning equipment, and their professional salesperson (Ma'ruf, 2005).

Based on Indonesian Presidential Regulation No. 112 of 2007 is also explained the characteristics of modern stores as follows:

1. The floor area of the modern store sales can be explained as follows:
 - a. Minimarket, less than 400 m².
 - b. Supermarket, 400 m² to 5000 m².
 - c. Hypermarket, over 5000 m².
 - d. Department Store, over 400 m².
 - e. Grocery, over 5000 m².
2. The type of goods sold at modern stores can be explained as follows:
 - a. Minimarket, Supermarkets and Hypermarkets sell retail consumer goods, especially food products and other household products;
 - b. Department Store sells consumer goods in retail clothing and accessories products primarily to the arrangement of items based on gender and / or age level of the consumer; and
 - c. Grocery wholesale selling consumer goods.

According to Ma'ruf (2005) there are several factors in considering the selection of the location or point of outlets :

1. Foot traffic; Pedestrian traffic that crosses over a location, this traffic can be triggered by events that are around these locations, it is also the availability of infrastructure walkers can also improve the flow of pedestrian traffic, so it can be a potential market for retailers at the location.
2. Vehicle traffic; Vehicle traffic such as information about the number and characteristics of vehicles passing through a very important location in the potential market. Factors road width, road conditions, and congestion will be an added value or less value for the rider. The road is wide, smooth, and not so jammed will be high attraction for riders and ended up being a good potential for retailers. Instead, the road always jammed despite the wide and smooth will reduce the attractiveness of an outlet / store located there.
3. The parking facilities; For large cities, shopping malls or shopping centers that have adequate parking facilities can be a better choice for retailers. Adequate facilities cover a wide area, orderly, safe, just get a light, clean, and entrance and exit easy.
4. Public transport; Public transport such as buses and public transportation passing in front of a store will draw higher because many consumers that easily go directly to a store. Minimarkets and supermarkets that sell products and household consumption can be visited by practically all walks of life (meaning all segments of the market) either driving or riding a public transport.
5. The composition of the store; Composition complementary store will be a shopping destination called one-stop shopping. Therefore, a retailer who wanted to open a store at the mall, shopping center, or standing alone should learn first shops around him. Shop complementary raises affinity (a type of synergy).
6. The location of the establishment of outlets; The specific location or the location of a road where a booth was set up to consider. The layout of the establishment of outlets is often associated with visibility (visibility), which is the invisibility of the store by pedestrians and motorists. Therefore, the location of the corner shop into a very strategic place. Another consideration is the proximity to the store or stores that will complement each other.
7. Terms and conditions of use of the room; Terms and conditions of use of space, either shop at the mall or stores in shopping centers, need to be studied and compared before deciding the location taken. Things that need to be seen is ownership versus leasing, types of leasing, operating and maintenance costs, taxes, restrictions need to know, and others.

RESEARCH METHODE

This study uses a deductive approach with quantitative analysis techniques. At first the theories that already exists on the factors in the site selection of modern shops are collected and made stabilization of theories relating to these factors. Next, set variables of the study and then proven in the field by distributing questionnaires to the respondents types of options.

This study aims to identify the factors that determine or be considered the owner / manager in the selection of the modern store locations in the city of Pekanbaru. The target in this study: a). identify the characteristics of modern stores, b). confirm the theoretical factors of modern store site selection to its owner, and c). Determining the main factor in choosing a store location modern.

Modern stores in the scope of this study a minimarket and a supermarket are registered on the relevant agencies in the city of Pekanbaru. The scope of the discussion in this study related to the variables to be considered in choosing the location of modern stores such as minimarkets and supermarkets, include:

1. Accessibility; One important aspect to consider in choosing a location is accessibility, because it affects the sustainability of the business carried on. Variables related to accessibility, including proximity to residential areas population, proximity to business centers, proximity to the main road, traveled by public transport, availability of vehicle parking, availability pedestrian path / pedestrian, the quality of the road surface, and the width of the road.
2. Population; Demographic aspect is also important to consider. These aspects include the number and density of population and income level of residents in a location.

3. The price of land; The price of land varies according to location, closer to the city center the more expensive price. This needs to be someone in choosing a modern store locations, especially if someday will expand its business.
4. Building Rent; Similarly, the price of land, this aspect is also influential for business owners who have limited proficiency in running the business, so these factors need to be considered.
5. Competition; Competitive conditions include the number and size of competitors, as well as proximity to the competition need to be considered. It can be utilized in a company pursuing a strategy of competition, both in price and services rendered.
6. Land Condition; The physical state of the soil such as topography and soil types will be related to the capital cost of a retail project, so it needs to be considered.
7. Infrastructure; Infrastructure related to the availability of electricity networks and the availability of communications networks..
8. Conditions of Space; Provisions relating to general provisions of room space utilization and the provision of space intensity. For example, some sites are prohibited to be used as an area of trade and services, so this needs to be considered. So is linked with the provisions of the intensity of the room.

The scope of areas in this study is in the administrative area of Pekanbaru, which consists of 11 districts: District of Pekanbaru Kota, Limapuluh District , Senapelan District, Sukajadi District, Rumbai District, Rumbai Pesisir District, Tenayan Raya District, Bukit Raya District, Marpoyan Damai District, Tampab District and Payung Sekaki District.

Sampling Technique

Data obtained from field observations and the results of questionnaires to the owner/manager of modern stores such as minimarkets and supermarkets regarding their votes in an election modern store locations. Questionnaire distributed a questionnaire types of options. This type of measurement used are itemized rating scale. This type of measurement provides a selection kebutuhan.dalam according to this study used four types of options (Asteriani, 2005). Respondents were asked to give an assessment. Assessment is provided comprising:

- 1 = Strongly Specifies (SS)
- 2 = Not Determine (ND)
- 3 = Specifies (S)
- 4 = Very Specifies (VS)

Sampling technique used in this research is purposive sampling. Purposive sampling is a sampling technique based on the assessment of researchers who those who deserve to be sampled. Determination of the number of samples by purposive sampling technique is not determined exactly how many, while considered to have been able to describe the (answer) what the objectives and research problems. Based on the analysis used in this study, there is no minimum sample size acceptable in the factor analysis, factor analysis as a general rule, the number of respondents is at least three times the number of variables (Simamora, 2005).

Due to the variables in this study amounted to 20 variables and using a ratio of 1: 3, the number of respondents is 60 people. From the secondary data have identified as many as 60 modern stores in the city of Pekanbaru and has been determined to be the respondent. Of the total respondents, 60 percent or 36 respondents are owners and 40 per cent or 24 respondents were managers minimarkets or supermarkets are on the assessment of the questionnaires distributed.

Data Analysis

The approach in this study using quantitative analysis techniques. The main characteristics important factor of the analysis is the ability to reduce the existing data, so that will facilitate analysis. By providing a series of correlation coefficients for a class of variables, factor analysis technique allowed us to see whether some of the major patterns of relationship that allows data can be compiled or reduced to a class of factors smaller.

This factor analysis using the program PASW (Predictive Analytics Software) Statistics 18. Stages of the factor analysis are as follows:

1. Formulate the problem; determine the factors or be taken into consideration by the owners/managers in selecting the location of modern stores in Pekanbaru. Input data were obtained from the questionnaire answers to the owner / manager of minimarkets and supermarkets as respondents. Based on the model of factor analysis, the results of the factor analysis, it can be seen where the most dominant factor in the location decisions of modern stores with a view factor coefficient values obtained.
2. Establish a correlation matrix; that factor analysis can be done, should be correlated variables analyzed. If the correlation coefficient is too small, then the factor analysis can not be done, or by removing the variable with the coefficient is small. Ideally, the original variables are correlated with each other and can be correlated with a factor, as a new variable, derived from the original variables. PASW program provides a test indicator to the value of the correlation coefficient between the members of variables and factors, through the Barlett's test of Sphericity and the value of KMO (Kaiser Meyer Olkin). The Barlett's test of Sphericity used to test that the variables are correlated in the population. While the index KMO (Kaiser Meyer Olkin) compares the magnitude of the correlation coefficient was observed with the magnitude of the correlation coefficient partial. KMO value is small shows that the correlation between pairs of variables can not be explained by other variables and factor analysis can not be done. Ideally the factor analysis KMO index must be greater than 0.5 (Setyawarman, 2009).
3. Extraction of factors; At this stage of the process will be the core of the analysis of factors, namely the extraction of the set of variables that exist ($KMO > 0.5$) thus forming one or more factors. There are two methods in this process, namely PCA (principal components analysis) and CFA (common factor analysis). Both of these methods can be selected, in particular for calculating scales / coefficient score factors. In the PCA (principal components analysis) are used with the justification that the principal is the one things that many factors must specify a minimum, taking into account the maximum variance in the data used in subsequent multivariate analysis. Instead CFA (common factor analysis) is used with justification that the main purpose identify the underlying dimensions and variance common interest. In this study PCA (principal components analysis) will be used.
4. Rotation Factor; In the rotation factor, factor matrix transformed into simple matrix making it easier to interpret. There are two methods in the rotation factor, which is orthogonal and oblique rotation. Orthogonal where the axis of rotation is the rotation of a straight to maintained upright (Angle 90 degrees). Many used methods are varimax rotation procedure. This procedure is orthogonal methods that seeks to minimize the number of high loading variables on one factor, thus facilitate the creation of factors interpretation. Produce orthogonal factor rotation that are not correlated with each other. While oblique rotation in which the rotation axis is not maintained to be perpendicular to each other (angle 90 degrees) and factors are not correlated. This method can be used, if the factors in the population strongly correlate. In this study, will be using the varimax rotation.
5. Interpretation of factors; Interpretation can be made easier with the surrogate variables, where variables that have a high loading factors on each others, then the variable representing each factors.

Variables that will be used in the analysis to determine the factors in the site selection of modern shops in Pekanbaru:

Table 1. Selected Variables

No	Variables	Symbol
1	Distance	
	a. Proximity to the residential area	X1
	b. Proximity to the business center	X2
	c. Proximity to the main roads	X3
	Transportaton	
	a. Crossed by public transport	X4
	b. Availability vehicle parking	X5
	c. Availability of pedestrian	X6
	The physical condition of the road	
	a. Road surface quality	X7
2	a. Population density	X9
	b. Population income level	X10
3	a. Price of the land	X11
4	a. Building Rent	X12
5	a. Size of competitor	X13
	b. Proximity to the competitor	X14
6	a. Topography	X15
	b. Type of soil	X16
7	a. Availability of the electricity network	X17
	b. Availability of the communication network	X18
8	a. General rules of space utilization	X19
	b. Intensity of the space conditions	X20

Soure: Result of Analysis, 2013

Modern Store in Pekanbaru

Modern stores located in Pekanbaru started up since 1993. The service system imposed in minimarkets and supermarkets are self-service, where visitors are given the freedom to select the desired item, then bring it to the cashier to pay. The type of goods sold at minimarkets and supermarkets are the everyday needs of society. As for the types of goods sold are basic foods, toiletries, snacks (snacks), cigarete, fruits, and household items. Secondary and tertiary sector contributes more dominant than the primary sector, the economic structure of the Pekanbaru City supported by trade, hotels and restaurants amounted to 3,180,369 (billion rupiah) with the distribution percentage of 32.23% . Based on data from the Integrated Service Agency and Department of Industry and Trade of the Pekanbaru City, modern stores scattered throughout the Pekanbaru City is officially registered in the year 2012-2013 amounted to 60 modern stores. Distribution of modern stores in the Pekanbaru City dominated by minimarket 49 stores and supermarket 11 stores.



Figure 1. Modern Stores in Pekanbaru

Table 2. Distribution of Modern Store Locations in Pekanbaru

No	District	Modern Stores Category		Amount	Percentage
		Minimarket	Supermarket		
1	Pekanbaru Kota	2	1	3	5,00
2	Limapuluh	8	0	8	13,33
3	Senapelan	3	2	5	8,33
4	Sukajadi	8	0	8	13,33
5	Rumbai	0	1	1	1,67
6	Rumbai Pesisir	1	0	1	1,67
7	Tenayan Raya	4	3	7	11,67
8	Bukit Raya	4	1	5	8,33
9	Marpoyan Damai	2	1	3	5,00
10	Tampan	6	2	8	13,33
11	Payung Sekaki	11	0	11	18,33
Totally		49	11	60	100,00

Source: Survey, 2013

RESULT AND DISCUSSION

Factor Analysis In Electoral Conduct Against Modern Store Locations

Factor analysis is basically used to reduce the data, which is a process to summarize a number of variables to be fewer and named it as a factor. This study uses 20 variables, that is a consideration in the selection of the modern store locations in Pekanbaru.

1. Defining Issues

The initial step in the factor analysis is to formulate the problem. This step is done by determining the variables as many as 20 variables (Table 1)

2. Creating Correlation Matrix

Based on the results of data processing through the program PASW Statistic18 in Kaiser-Meyer-Olkin (KMO) table and Barlett Test of sphericity. It is known that the KMO value of $0.744 > 0.5$ and statistical values Barlett Test of sphericity amounted to 823.457 with 0.000 Significance values less than 0.05. This means that the analysis can be continued.

Then further analyzed by looking at the value Measure of Sampling Adequacy (MSA). If each variable has a value Measure of Sampling Adequacy (MSA) > 0.5 , then that variable is valid. If there is a variable with the MSA of less than 0.5, then the variable is not valid, so removed and recalculation of the variable. MSA value from the table obtained one variable that MSA value is less than 0.5, namely: general provisions variable space utilization (x19) with a value of 0.500. then, these variables are issued and performed recalculation.

Table 3. Kaiser-Meyer-Olkin (KMO) and Barlett Test of sphericity

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.	.767
Bartlett's Test of Sphericity	773.558
Approx. Chi-Square	773.558
Df	171
Sig.	.000

Source: Result of Analysis, 2013

Then proceed again with the MSA see the value of each variable. It is known that variable has a value of 19 MSA $> 0,5$ maka that variable is valid. For the MSA for each variable can be seen in Table 4.

Table 4. Values for Each MSA Variable

No	Variables	MSA	Keterangan
1	Proximity to the residential area(X1)	0,808	Valid
2	Proximity to the business center (X2)	0,760	Valid
3	Proximity to the main roads (X3)	0,768	Valid
4	Crossed by public transportation (X4)	0,796	Valid
5	Availability of vehicle parking (X5)	0,810	Valid
6	Availability of pedestrian (X6)	0,779	Valid
7	Road surface quality (X7)	0,757	Valid
8	Width of the road (X8)	0,879	Valid
9	Population density (X9)	0,787	Valid
10	Population income level (X10)	0,767	Valid
11	Price of the land (X11)	0,773	Valid
12	Building rent (X12)	0,815	Valid
13	Size of competitor (X13)	0,787	Valid
14	Proximity to the competitor (X14)	0,723	Valid
15	Topography (X15)	0,803	Valid
16	Type of soil (X16)	0,574	Valid
17	Availability of the electricity network (X17)	0,658	Valid
18	Availability of the communication network (X18)	0,631	Valid
19	Intensity of the space conditions (X20)	0,659	Valid

Source : Result of Analysis, 2013

3. Determining of Total Factor / Factor Extraction

Total factor determined from eigenvalue. The bigger the coefficient eigenvalue a factor means the representative in representing a number of variables. Factors known representative is the factor with eigen value greater than or equal to 1. By using the method of Principal Component Analysis (PCA) obtained four (4) factors with eigenvalue ≥ 1 . Factor 1, which is a major factor has eigenvalues of 6.902, a factor of 2 has eigenvalues amounted to 2.802, a factor of 3 has eigenvalues of 2.218, and a factor of 4 has eigenvalues of 1.302.

Table 5. Factors with eigenvalue ≥ 1

Factor	Eigenvalues	Percent of Variance	Commulative Percent
1	6,902	36,326	36,326
2	2,802	14,749	51,076
3	2,218	11,674	62,750
4	1,302	6,852	69,603

Source : Result of Analysis, 2013

4. Factor Rotation

Factor rotation is the simplification of the matrix factor, which has a structure that is quite difficult to interpret. To facilitate interpretation of factors, matrix factor being transformed into simpler matrices with the rotation of factors. In this penelitian factor rotation using Varimax rotation, as it will facilitate the interpreting.

Table 6. *Rotated Component Matrix^a*

	Component			
	1	2	3	4
Proximity to the settlement area(X1)	.711	.141	.190	.263
Proximity to the business center (X2)	.275	.556	.169	.232
Proximity to the main roads (X3)	.778	.007	.116	.198

	Component			
	1	2	3	4
Crossed by public transportation (X4)	.436	.270	.107	.594
Availability of vehicle parking(X5)	.689	.251	.007	.223
Availability of pedestrian (X6)	.065	.845	.105	.269
Road surface quality (X7)	.325	.200	.400	.725
Width of the road (X8)*	.418	.204	.410	.442
Population density (X9)	.866	.014	.113	.247
Population income level (X10)	.610	.529	-.389	-.024
Price of the land (X11)	.303	.250	.804	.036
Building rent (X12)	.320	.819	-.164	-.134
Size of competitor (X13)	.738	.308	.294	.084
Proximity to the competitor (X14)	.439	.658	-.012	-.363
Topography (X15)	.048	.581	.466	.154
Type of soil (X16)	.012	-.046	.850	-.001
Availability of the electricity network (X17)	.575	-.229	-.309	.408
Availability of the comunication network (X18)	.242	-.030	-.148	.811
Intensity of the space conditions (X20)	-.298	.680	.237	.085

Source : Result of Analysis, 2013

From the above table can be explained each variable as follows:

- (1) X1 (Proximity to the residential area) has a loading factor (correlation) of 0.711, the factor of 1. Because the strongest correlation is at a factor of 1, then the variable X1 (Proximity to the residential area) became a member of one factor.
- (2) X2 (Proximity to the business center) has a loading factor (correlation) of 0,556, on faktor2. Because the strongest correlation is at a factor of 2, then the variable X2 (Proximity to the business center) become a member of a factor of 2.
- (3) X3 (Proximity to the main roads) has a loading factor (correlation) of 0.778, the factor of 1. Because the strongest correlation is at a factor of 1, then X3 (Proximity to the main roads) became a member of factor 1.
- (4) X4 (Crossed by public transportation) has a loading factor (correlation) of 0.594, the factor of 4. Because the strongest correlation is at a factor of 4, then the variable X4 (Crossed by public transportation) a member of factor 4.
- (5) X5 (Availability of vehicle parking) has a loading factor (correlation) of 0.689, the factor of 1. Because the strongest correlation is at a factor of 1, then the variable X5 (Availability of vehicle parking) be a member of a factor 1.
- (6) X6 (Availability of pedestrian)has a loading factor (correlation) of 0.845, on faktor2. Because the strongest correlation is at a factor of 2, then the variable X6 (Availability of pedestrian) be a member of a factor of 2.
- (7) X7 (Road surface quality) has a loading factor (correlation) of 0.725, the factor of 4. Because the strongest correlation is at a factor of 4, then the variable X7 (Road surface quality) be a member of a factor of 4.
- (8) X8 (Width of the road) has a loading factor (correlation) of 0.442, the factor of 4. Because the strongest correlation is at a factor of 4, then the variable X8 (Width of the road) be a member of a factor of 4.
- (9) X9 (Population density) has a loading factor (correlation) of 0.866, the factor of 1. Because the strongest correlation is at a factor of 1, then the variable X9 (Population density) be a member of a factor 1.
- (10) X10 (Population income level) has a loading factor (correlation) of 0.610, the factor of 1. Because the strongest correlation is at a factor of 1, then the variable X10 (Population income level) be a member of one factor 1.

- (11) X11 (Price of the land) has a loading factor (correlation) of 0.804, the factor of 3. Since the strongest correlation is at a factor of 3, then the variable X11 (Price of the land) be a member of a factor of 3.
- (12) X12 (Building rent) has a loading factor (correlation) of 0.819, on faktor2. Because the strongest correlation is at a factor of 2, then the variable X12 (Building rent) be a member of a factor of 2.
- (13) X13 (Size of competitor) has a loading factor (correlation) of 0.738, the factor of 1. Because the strongest correlation is at a factor of 1, then the variable X13 (Size of competitor) be a member of a factor 1.
- (14) X14 (Proximity to the competitor) has a loading factor (correlation) of 0.658, on faktor2. Because the strongest correlation is at a factor of 2, then the variable X14 (Proximity to the competitor) be a member of a factor of 2.
- (15) X15 (Topography) has a loading factor (correlation) of 0.581, on faktor2. Because the strongest correlation is at a factor of 2, then the variable X15 (Topography) be a member of a factor of 2.
- (16) X16 (Type of soil) has a loading factor (correlation) of 0.850, the factor of 3. Since the strongest correlation is at a factor of 3, then the variable X16 (Type of soil) be a member of a factor of 3.
- (17) X17 (Availability of the electricity network) has a loading factor (correlation) of 0.575, the factor of 1. Because the strongest correlation is at a factor of 1, then the variable X17 (Availability of the electricity network) be a member of a factor 1.
- (18) X18 (Availability of the communication network) has a loading factor (correlation) of 0.811, the factor of 4. Because the strongest correlation is at a factor of 4, then the variable X18 (Availability of the communication network) be a member of a factor of 4.
- (19) X20 (Intensity of the space conditions) has a loading factor (correlation) of 0.680, on faktor2. Because the strongest correlation is at a factor of 2, then the variable X20 (Intensity of the space conditions) be a member of a factor of 2.

5. Interpretation Factor

Interpretation is done by grouping variable factors that have a loading factor of at least 0.50. Variables with the loading factor under 0.50 were excluded from the model. In table 6, the road width variables incorporated in the first factor excluded, because the loading factor under 0.50. Furthermore, 18 of these variables are spread into four factors: factor I, factor II, factor III, and factor IV with 69.603 percent of the total variance. It showed that it was able to explain the factors considered to determine or be a consideration in picking the modern store locations in Pekanbaru. The four factors are named according to the variables grouped scattered upon these factors. Factor analysis did not specify the name of each of the factors and concepts for factors produced. The name and concept or meaning of each factor is determined based on the theory of a surrogate, whereas variabel which has a high loading factors on each of the factors, then variable represents the name of each factors..

Table 7. Interpretation Factor

No	Variables	Factor	Eigenvalue	Loading Factor	Percent of Variance
1	Population density (X9)	FACTOR I	6,902	0,866	36,326
2	Proximity to the main roads (X3)			0,778	
3	Size of competitor (X13)			0,738	
4	Proximity to the residential area (X1)			0,711	
5	Availability of vehicle parking (X5)			0,689	
6	Population density (X9)			0,610	
7	Availability of the electricity network (X17)			0,575	
8	Availability of pedestrian (X6)	FACTOR II	2,802	0,845	14,749
9	Building rent (X12)			0,819	
10	Intensity of the space conditions (X20)			0,680	
11	Proximity to the competitor (X14)			0,658	
12	Topography (X15)			0,581	
13	Proximity to the business center (X2)	FACTOR III	2,218	0,556	11,674
14	Type of soil (X16)			0,850	
15	Price of land (X11)			0,804	
16	Availability of the communication network (X18)	FACTOR IV	1,302	0,811	6,852
17	Road surface quality (X7)			0,725	
18	Crossed by public transportation (X4)			0,594	
19	Width of the roads (X8)			0,442	

Source : Result of Analysis, 2013

From table 7, it have identified factors in the selection of the modern store locations in Pekanbaru. The utilization condition of space removed from the model, it means that its not considered by the owners/managers in selecting a business location minimarket and supermarket. Due to the lack of clarity regarding the dissemination or use directives is to the community, especially businesses minimarket and a supermarket in Pekanbaru. Meanwhile, the variable width of the road is also not considered, because it conditions on the location of modern store business observed is sufficient for the survival of businesses run by entrepreneurs minimarkets and supermarkets.

The results of data processing by analysis factor, also identified a group of variables that are primary or dominant factor in the site selection minimarket and a supermarket in Pekanbaru. The main factor is a factor I, where in the variables belonging to the first factor is things more decisive or more

to be considered in choosing a store location modern than other variables belonging to the factor II, factor III, and factors IV.

CONCLUSIONS

The factors that determine the conduct of the election modern store locations in Pekanbaru is:

- a. Factor I consists of seven variables: population density, proximity to the main roads, size of competitors, proximity to the residential areas, availability of vehicle parking lot, income level, and availability of the electricity networks.
- b. Factor II consists of six variables: availability of pedestrian, building rent, provision of space intensity, proximity to competitors, topography, and proximity to the business center.
- c. Factor III consists of two variables: type of soil and land prices.
- d. Factor IV consists of three variables: availability of the communication network, quality of the road surface, and crossed by public transport.

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