ABSTRACT

This article discusses the influence of prices, income and distance to consumer demand at traditional markets managed by the government in Padang. The purpose of writing the article is to analyze whether the three variables in accordance with the theory or contrary to the applicable regulations. Data collection methods used were given questionnaire on consumers who purchases in traditional markets as much as 322 respondents in eight traditional markets managed by the government. Results of the study explained that there are several traditional markets that reject the prevailing theory. The price should be negatively correlated to the demand, in some traditional markets is positive. This is because consumer behavior and perceptions of consumers who shop level. Income which should positively correlated to income, in some markets is negative. This happens because the rule of Engel’s Law. While the distance is supposed to be negatively correlated, in some markets is positive. This is because the distance to reach the traditional market location away from residential areas alike is a short distance, so that the cost of transport being used is the same and still be paid by the consumer.

Keywords: Traditional Market, Price, Income, Distance, Demand

INTRODUCTION

Market is the place of the transaction of purchase between the producers with consumers, and is one of the source of locomotion economy. The management of the market in Indonesia are generally conducted by local companies and ownership market stall stores by individuals. Based on nature and type of activities (including their auction market), markets are divided into retail market, wholesale markets, central market and special market. While seen from the scope of services and the level of the potential market, known the existence of the market environment, the area market, the city market, and the regional market, with each time the market during the day, night markets, the day and night and the market was shocked (Mahendra, 2004).

Traditional markets can be defined as institutions or mechanism in which the buyer who need and seller that producers meet and jointly held an exchange of goods and services (Campbell, 1990). While according to Stanton (1996) traditional markets is as people who have the need to slake, hace the cash to be spent and a willingness to expend money. Traditional markets are place buyers met with the dealer, goods or services offers for sale and then going on the transfer of rights belonging to.

In conducting transactions on the traditional market, there are two components that play a role, namely trafers and buyer (consumer). Traders role as providers of goods and consumers are the people who buy the goods provided by the merchants. For this, price, income and traditional markets distance from residential areas are all factors in determining consumer demand in a traditional market.
There are seventeen Traditional markets in Padang city, which consists of nine traditional markets managed by the government and the eight traditional markets managed by local communities. (Bappeda Padang City in Suryani, 2015). Traditional markets managed by the government of Padang are: Alai Market, Bandar Buat Market, Belimbing Market, Inpres Siteba Market, Lubuk Buaya Market, Raya Market, Simpang Haru Market, Tanah Kongsi Market and Ulak Karang Market. The price factor, people's income and residential distance to the market place very influential in determining consumer demand in shopping at traditional markets. This is because the price negatively correlated to the demand, meaning that if the price rises, the demand for goods in traditional markets will decrease, conversely, if the price of goods down. Income of people was positively correlated to the request, meaning that if income increases, the demand for goods also increased. Conversely, if the revenue decline, the demand for goods will also decrease. While the distance negatively correlated to the demand. If the traditional market location close to residential areas, the demand for goods would be much, otherwise if traditional location away from the residential market, the demand for goods will decline. To test how much influence each of these variables on the demand for goods in traditional markets, and whether theories explaining the provisions of variable pricing, revenues, and the distance applies to each of these traditional markets, the authors are keen to discuss it in a research. Traditional markets examined are traditional markets managed by the government of Padang. Raya Market as a trading center is not included in this study because of the function and role of it different from other traditional markets managed by the government of Padang.

THEORETICAL FOUNDATION

TRADITIONAL MARKET

The market has a very close relationship with economic activities, production, distribution and consumption. In this case the market can be defined as an arena for the distribution or exchange of goods, where the interests of producers and consumers to meet and, in turn, determine the continuity of economic activity society. Ginanjar (1980) argues that the market is the place to sell and market their goods or as a form of shelter trading activity. At first, the market turnover and meetings between the inventory and the supply of goods and services.

Based on management pattern is used, the market can be divided into two major groups (Kottler, 2011), namely:

a. Traditional market, is a market that still uses a very simple management pattern with the characteristics of each trader has a single type of business, the interaction between the seller and the buyer (bargain price), placing goods less align neatly, the comfort and security less attention.

b. Modern market, is a market that has been put on the patterns of modern management, with the characteristics of the type of merchandise carried by the trader, the price is fixed (fixed), the layout of the merchandise is well organized and tidy, comfort and safety has become a top priority,

Notions about the market showed a three (3) main elements that need to be assessed on an understanding of the market (Mursid, 1997), namely:

a. People with all the needs and desires or often referred to as a consumer.
b. The purchasing power.
c. Purchasing power is a factor that can turn desire into demand. The provision of goods and services required by the community will not be a demand if the community does not have sufficient purchasing power.
d. Behavior in purchasing.  
Related behavior patterns of people in the market, such as the pattern of spending money, changing tastes of the type of goods or services, realizing time and buy, fluctuations in the price or value.

DEMAND

Demand describes the amount of goods that wants to and is able to be purchased by the buyer (consumer). According to Miller (2000), demand is the amount of goods purchased or requested at a specific price and time. Miller (2000) says that the factors affecting demand are:

1. The prices of other goods related  
   For substitutes, two items which increase the price of the first item encourage an increase in demand for both goods. As for the complements, two items which increase the price of the first item leads to a decrease in demand for other goods.

2. Revenue  
   For normal goods, if the revenue increase would boost the demand for the goods, and vice versa assuming other things remain. As for inferior goods, if income increases will lead to a decrease in the quantity of the demand goods, with mengangga other things remain (ceteres paribus).

3. Tastes  
   The most obvious determination of the demand is taste. If consumers prefer a product / certain foods, so consumers will buy more goods.

4. Expectations (estimates of future prices)  
   Expectations or forecasts of future could affect consumer demand for goods or services at this time. Goods whose prices are expected to rise, then people will hoard or buy when prices are low.

5. Population  
   The higher the population growth, the demand for goods will increase, and conversely.

DISTANCE

Markets require land and strategic location, given the activities that occur in the market and the importance of the role of the market as one of the components of municipal services, local and area resulting in connections and influence of each of the elements supporting the economic activities of the city.

According to Hanafi (1985), the activities of the service center (market) consists of a hierarchy, threshold and range of each service center are:

a. The threshold population  is the minimum number of people required to support a service activity, for example for a small shop, a minimum number of people that should be there are 200 inhabitants. Below the threshold limits will not be any service activities.

b. The range of the market (market range) is a distance and desired by consumers to obtain a service or commodity. Besides, the ideal distance is emphasized to limit the influence of a service center (market) called with a range of markets, such as the mileage that consumers want to obtain a service or commodity. Beyond these limits, the relevant consumer will seek other markets.

Distance of buyer for an item is the extent to which a buyer was able to come buy a product to a service center, which is referred to in this case is the market. In determining distant
proximity, used the concept of distance, where the distance is not judged by the away trip but the views from the transport costs and travel time. Because distance affects the service center (the market), it is necessary application of the theory of gravity and the potential of existing residents in each area of influence, which has to do with social interaction, namely:

1. High and low threshold population
2. Dense regional level
3. Differences in culture and differences in purchasing power
4. Distance

METHOD OF ANALYSIS

This study is based on a field research conducted in 2015 to 8 traditional market places in Padang City, West Sumatra, Indonesia. Intensive interview to some sampling households in each market area were conducted based on a specific prepared questionnaires with 5 measurement scales (Cooper and Schnider, 2006). Interviews were conducted intensively in the market places when the consumers are shopping. To make a more comprehensive analysis, however, some secondary data obtained from the official reports were also utilized.

Number of sample interviewed were 332 households who were determined by the Slovin sampling method from the total number population with 6% degree of significant level. Total populations were 119,219 taken from number of households who lives in each of the market area. Based on Central Limit Theorem (CLT) the distribution will be normal, if minimum sampling are 30 (n = 30). Type of sampling used is incidental sampling, ie sampling by coincidence, that whoever the buyer who by chance met in traditional markets as object of study by researchers can be used as a sample when a buyer who happens to be found are considered suitable as a source of data. This sampling is done after knowing how many populations used in each of these traditional markets. Thus, the number of samples obtained consumers may be representative in answering the questions in the questionnaire and as a guide in determining the optimal coverage of the market in Padang. Table 1 provides distribution of sample and population by each traditional market places.

<table>
<thead>
<tr>
<th>No</th>
<th>Name of Market</th>
<th>Village</th>
<th>Population</th>
<th>Sample (Slovin)</th>
<th>Sample (CLT)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Lubuk Buaya Market</td>
<td>Lubuk Buaya</td>
<td>20,642</td>
<td>48</td>
<td>52</td>
</tr>
<tr>
<td>2</td>
<td>Ulak Karang Market</td>
<td>Ulak Karang Utara</td>
<td>6,418</td>
<td>15</td>
<td>30</td>
</tr>
<tr>
<td>3</td>
<td>Alai Market</td>
<td>Alai Parak Kopi</td>
<td>13,101</td>
<td>30</td>
<td>31</td>
</tr>
<tr>
<td>4</td>
<td>Inpres Siteba Market</td>
<td>Surau Gadang</td>
<td>20,990</td>
<td>49</td>
<td>54</td>
</tr>
<tr>
<td>5</td>
<td>Belimbing Market</td>
<td>Kuranji</td>
<td>30,471</td>
<td>71</td>
<td>71</td>
</tr>
<tr>
<td>6</td>
<td>Bandar Buat Market</td>
<td>Bandar Buat</td>
<td>14,649</td>
<td>34</td>
<td>34</td>
</tr>
<tr>
<td>7</td>
<td>Simpang Haru Market</td>
<td>Simpang Haru</td>
<td>4,600</td>
<td>11</td>
<td>30</td>
</tr>
<tr>
<td>8</td>
<td>Tanah Kongsi Market</td>
<td>Kampung Pondok</td>
<td>4,012</td>
<td>9</td>
<td>30</td>
</tr>
<tr>
<td></td>
<td><strong>TOTAL</strong></td>
<td></td>
<td><strong>119,129</strong></td>
<td><strong>267</strong></td>
<td><strong>332</strong></td>
</tr>
</tbody>
</table>

Sources: Data Analysis (2015)

Following Greenhut and H. Ohta (1975 and 1986) as well as Sjafrizal (2008), the spatial demand of a consumer in each market place may be formulated by taking into account
the transport cost from the location $j$ where household lives to market place $i$ in the variable of price. Thus, the spatial demand function may be written as follows:

$$Q_d = f(P_i + t\_o \cdot d\_o), \quad t\_o, d\_o > 0$$ (1)

For simplicity, it is assumed that the demand function is in linear form. If household income ($Y$) is also taking into account, then the empirical spatial demand function for each market place may be written as follows:

$$Q_i = \beta_0 + \beta_1 P_i + \beta_2 Y_i + \beta_3 d\_o + e$$ (2)

where:
- $Q_i$= the value of dominant goods purchased by consumers during the time of purchase
- $P_i$= price of goods (dollars) dominant
- $Y_i$= household income (dollars)
- $d\_i$= distance from home to market (meters)
- $e_i$= an error or residual value that arises because of the difference in the actual value of each $Q_i$ observed for each independent variable. Individual observations can occur negative or positive residues, due to random variations in the value of $Q_i$.

The estimation of equation (2) is done in cross-section using the ordinary least squares method for each market place. Numbers of observation are equal to number of samples in each market place, i.e 332 respondents.

**EMPIRICAL FINDINGS**

In conduction the market survey, total sample of consumers in some markets actually exceed the calculation made by the Slovin formula. This is conducted to anticipate if there is damage to several questionnaires that have an impact on research data processing. Consequently, number of samples in the market survey are 332 respondents. By using the SPSS program version 20, the estimated consumer spatial demand equations of each market place were resulted. These equations describe the effect of each independent variable (price, income and distance) on the dependent variable (demand). Table 2 describes the empirical findings for each equation in each of the traditional market in Padang City.

Based on the prevailing theory, when the commodities are normal goods, the income has a positive relationship to number commodities demanded. This means that the higher is the household income, the larger are the quantity demanded, and conversely. This study found that only 3 of the equations were coincide with such a relationship. However, there were 6 market places have negatives income coefficients, which mean that the higher is the consumer income, the less number of commodity demanded. This is because of the respondents interviewed in traditional markets are dominated by housewife buy mostly are foods for daily consumption which are considered as inferior goods. Such an evidence is in accordance with the famous Engle’s Law in Microeconomics Theory. For example, when consumer income increased, the consumption of meat (normal goods) tends to will high, but the it will reduces the consumption of salted fish (inferior goods) Consequently, the income coefficients for normal goods will be positive and negative for inferior goods.

Another related variable is the distance that connects consumers to the location of a market place. Based on the prevailing theory, the longer is the distance from the residential settlements the less is the amount of the commodity demanded is and oppositely is true when the distance is short. But empirical findings of this study are oppositely since most o the distance coefficients were positive. This is because the distance between the household
residential location to the market place in Padang City are relatively short, so that the influences of the transportation expenses to the commodity demanded were small. Besides, the local consumer behavior is also influenced their desire to acquire goods that vary although the location of the target market can be reached at the expense of transportation costs, time and effort. Thus, consumers will buy goods needs in the traditional markets in large numbers at locations more distant markets from their settlements because there are things that should they sacrificed, such as transportation costs, time and effort. Materials stretcher staples can be used as a backup (stock) that can be used and processed at any time.

TABLE 2. EMPIRICAL FINDINGS OF THE SPATIAL DEMAND FUNCTION OF THE TRADITIONAL MARKETS MANAGED BY PADANG CITY

<table>
<thead>
<tr>
<th>NO</th>
<th>MARKET NAME</th>
<th>MODEL</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Alai Market</td>
<td>( Q_i = 0.022 - 0.016P_A - 0.012Y_A + 1.001d_{AB} )</td>
</tr>
<tr>
<td></td>
<td></td>
<td>( \bar{R}^2 = 0.999 )</td>
</tr>
<tr>
<td></td>
<td></td>
<td>( F = 8172,898 )</td>
</tr>
<tr>
<td>2</td>
<td>Bandar Buat Market</td>
<td>( Q_i = 0.487 - 0.056P_A + 0.021Y_A + 0.990d_{AB} )</td>
</tr>
<tr>
<td></td>
<td></td>
<td>( \bar{R}^2 = 0.980 )</td>
</tr>
<tr>
<td></td>
<td></td>
<td>( F = 544,904 )</td>
</tr>
<tr>
<td>3</td>
<td>Belimbing Market</td>
<td>( Q_i = 0.492 + 0.120P_A - 0.039Y_A + 0.864d_{AB} )</td>
</tr>
<tr>
<td></td>
<td></td>
<td>( \bar{R}^2 = 0.836 )</td>
</tr>
<tr>
<td></td>
<td></td>
<td>( F = 120,203 )</td>
</tr>
<tr>
<td>4</td>
<td>Inpres Siteba Market</td>
<td>( Q_i = 0.169 + 0.209P_A - 0.013Y_A + 0.822d_{AB} )</td>
</tr>
<tr>
<td></td>
<td></td>
<td>( \bar{R}^2 = 0.816 )</td>
</tr>
<tr>
<td></td>
<td></td>
<td>( F = 79,482 )</td>
</tr>
<tr>
<td>5</td>
<td>Lubuk Buaya Market</td>
<td>( Q_i = 0.060 - 0.088P_A - 0.026Y_A + 1.021d_{AB} )</td>
</tr>
<tr>
<td></td>
<td></td>
<td>( \bar{R}^2 = 0.976 )</td>
</tr>
<tr>
<td></td>
<td></td>
<td>( F = 702,115 )</td>
</tr>
<tr>
<td>5</td>
<td>Simpang Haru Market</td>
<td>( Q_i = 0.000 + 0.997P_A + 0.073Y_A + 0.011d_{AB} )</td>
</tr>
<tr>
<td></td>
<td></td>
<td>( \bar{R}^2 = 1.000 )</td>
</tr>
<tr>
<td></td>
<td></td>
<td>( F = 18879,280 )</td>
</tr>
<tr>
<td>7</td>
<td>Tanah Kongsi Market</td>
<td>( Q_i = 0.000 + 0.996P_A - 0.012Y_A - 0.032d_{AB} )</td>
</tr>
</tbody>
</table>
CONCLUSION

This study provides an empirical analysis of the spatial demand function and calculating the size of market areas that can serve the local consumers optimally. Besides the conventional variables such as price and household income, distance from market place to location where the consumers live is as the spatial element in the demand function. While that market boundaries is based on the distance where the prices of good for two nearest market are equal. In other words, the market boundary is the location where the consumer is indifferent whether to buy the consumer goods from one market or to another closest one. For simplicity, it is assumed that the market area is in circle. The data are collected through field survey on 332 local consumers of 8 traditional market places managed by the Padang City office.

The empirical findings indicate that the variable of distance which is the main characteristic of the spatial demand function, as well as price and household income are highly significant. But the positive sign of distance need some explanations. When distance from the household to the market place is relatively far, the consumers tend to buy more goods to be consumed for several days to avoid to daily visit to the market place. Oppositely, when the distance is relatively short, the consumer tends to buy limited goods because they can visits the market place every day to get fresh foods. The sign of income coefficient varies in accordance to types of commodities bought. Normal goods have positive sign, but the inferior goods have negative signs (Engle’s law).

REFERENCE

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