Spatial Distribution of Economic Facilities in Tondo Urban The village, Palu City

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ABSTRACT

This research was conducted in Tondo Village, Palu City, with the aim of knowing the spatial distribution (distribution and distribution patterns) of economic facilities in Tondo Village, Palu City, knowing the characteristics of economic facilities (Shops and Stalls) in Tondo Village, Palu City. This research is a descaptive s survey method res, each with samples taken us Saturated ing samples (taken all) for distribution and spatial patterns to determine the characteristics of res respondents using simple random sampling, namely 15% of the population of 38 res respondents Stores and 23 respons es and Stall from the entire population of 253 Stores and 152 Stall in Tondo village, data collected through observation, interviews, and document recording methods whose results were analyzed using Nearestt neighbor analysis, the results showed that the spatial distribution pattern of Stores and Stall in Tondo Village showed a clustering pattern. The characteristics of economic facilities (shops and s calls) in Tondo Village, Palu city, are owned by traders with an average age of 30 to 40 years with a high school education level, the income earned from the shop business is Rp.6,293,478, per month and the average shop business income is Rp. 9,131,579 per month, the reason for choosing a business location is because they see an opportunity that the enthusiasm of buyers in this location is more promising for profit, the length of time they have been in the Shop and shop business above five years on average.

1. Introduction

1.1 Background

Regional development is often associated with economic growth in a region. This has led to a new paradigm that regional development is economic development in a region [1]. Regional economic development is closely related to economic activities in a region. The industrial sector is an important sector in regional economic development because it is the driving force of the community's economy [2]. The rapid development of developed countries in Europe is one of them because it is supported by a strong industrial sector [3].

In Indonesia, industrial development is one of the economic developments that become a a benchmark for improving the quality of life of modern society [4]. One form of development in the economic sector is the emergence of modern shops; trade and services are an important aspect of everyday human life [5]. Returning to the basis of humans, who are social creatures, requires humans to cooperate with other humans to meet their needs. In ancient times there was still a lot of exchange of goods or what is commonly called barter, but as times progressed, humans began to recognize a better and more efficient means of exchange that we call money [6]. If, in his time, we had to bring goods that we would exchange with other goods, now we only need to bring money and even credit cards to buy the items we want, which is currently called buying and selling.

In addition to modern stores, there is also an economic sector, namely traditional shops, namely shops that provide household needs such as groceries, food, and drinks. Traditional shops are businesses that are owned by some people and are used as a support for their lives. Besides being easy to establish with no large capital, this business also has the potential to generate profits directly Traditional shops are generally family businesses that do not rule out the possibility of absorbing labor.

One of the efforts to achieve prosperity for all people in the period of regional autonomy is by means of development [7]. Economic development, in particular, is often associated with increased economic growth. The benchmark for the success of regional economic development can be seen from several indicators, namely the Gross Regional Domestic Product (GRDP), which indicates the performance of the economy in general as a measure of the progress of a region, the growth rate, per capita income and shifts/changes in economic structure [8].

The selection of industrial locations prioritizes aspects of geographical conditions which are aspects that have a major influence in determining industrial locations because they adhere to regional and environmental aspects in a spatial context that aims to maximize sales. Determination of the location of an industry basically aims to seek maximum profit by reducing input costs. These input costs include raw materials, labor costs, transportation costs, production costs, and distribution costs. Therefore, it is necessary to consider various orientation factors; if the location determination is wrong, it will cause continuous losses. Generally, factor orientation refers to raw materials, labor, production, and market, which are the most influential factors in industrial site selection. The orientation basis of the decision is mainly emphasized low transportation costs. Many phenomena and social facts have been described, and based on the description above, the researcher is interested in conducting research and formulating the problem, namely (1) What is the Spatial Distribution (distribution and distribution pattern) of Economic Facilities in Tondo Village, Palu City? (2) What are the characteristics of economic facilities (stalls and shops) in Tondo Urban Village, Palu City?. Research Purpose es The objectives to be achieved by researchers in this study namely Spatial distribution (distribution and distribution patterns) of economic facilities in Tondo and Characteristics of economic facilities (stalls and shops) in Tondo Urban Village, Palu City.

2. Method

2.1 Research Type

This type of research is quantitative research with a descriptive survey approach. The research location is Tondo Village, Palu City.

2.2 Research Subject

The subjects of this research are people who own shops and stalls in Tondo Village, Palu City.

2.3 Data Collection Technique
a. Observation

Observation is a method and technique of collecting data by systematically observing and recording symptoms or phenomena that exist in the object of research [9]–[11]. This observation method is used to observe the phenomenon under study in the form of data on the type of business, number, and distribution of stall and shop locations in Tondo village, Palu.

b. Questionnaire

A questionnaire is an attempt to collect information by submitting a number of written questions to be answered in writing by the respondent [12]–[14]. This method is used to collect primary data from respondents, namely Stall and shop owners, so that data on the type of business, number, distribution of stall and shop locations, and business owner profiles will be obtained.

c. Documentation

The documentation technique referred to in this study aims to obtain images related to the research location. Taking documentation will strengthen research data to make it more valid. So that researchers will find it easier to analyze data with documentary evidence [15], [16].

d. Data Analysis Technique

In a study, a researcher will use data analysis, and the data analysis used in this study is quantitative descriptive analysis to solve research problems; the analyzed data has meaning to answer the problem. There are several ways to analyze the data used in this study, namely, as follows.

- Knowing the distribution of business locations using maps. The distribution of locations in question is the place where business owners carry out their economic activities. That way, when a mapping can be known in which area the business is located. After knowing the area or location of the business, the location of shops, stalls, and minimarkets in carrying out their economic activities can be mapped.
- Knowing the characteristics of economic facilities (shops/stalls/grocery stores) in Tondo Village.

3. RESULTS AND DISCUSSION

3.1 Spatial Distribution of Economic Facilities (Output Map of Shops and Stalls Distribution)

a. Distribution pattern of Stall in Tondo Village

The distribution of stalls in Tondo Village can be calculated by considering several elements, including the area of 38.09 KM^2 and the number of observation points, as many as 152. The data obtained is then processed, and the results obtained include the *Nearest Neighbor Ratio of* 0.5, and the average distance between observation points (*Nearest Neighbor Observed)* is 43.50 meters (See Figure 1). This shows that the distribution pattern in this area is clustered. This result is influenced by the business location selection factor; in this area, the average stall business is located close to the main road, which is a very strategic place according to the stall business owner. as for the presentation

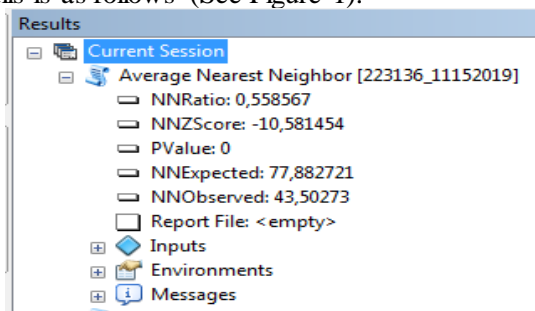of the distribution map of stalls is as follows (See Figure 1).

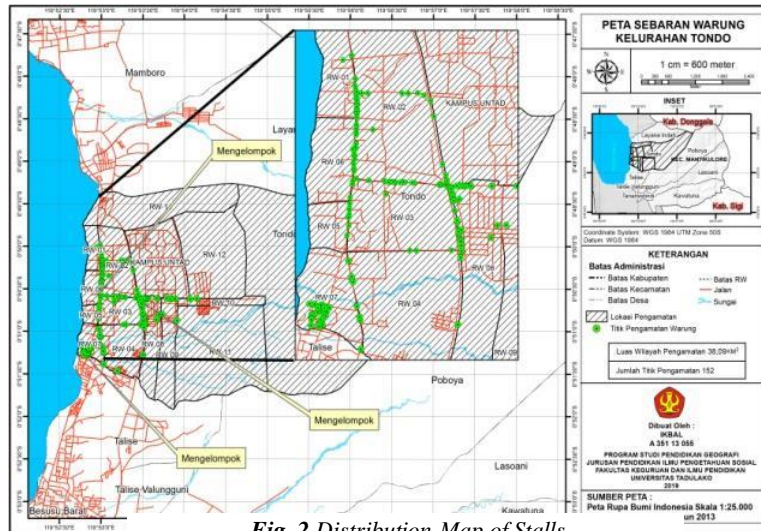**Fig.1.** Results of Nearest Neighbor Analysis on Stalls

***Fig. 2** Distribution Map of Stalls*

b. Distribution pattern of shops in Tondo Village

The distribution of shops in Tondo Village, the area is 38.09 KM[2,] and the number of observation points are 253. The data obtained is then processed, and the results obtained include the *Nearest Neighbor Ratio of* 0.4, and the average distance between observation points (*Nearest Neighbor Observed)* is 30.05 meters (See Figure 3). This shows that the distribution pattern in this area is also clustered.   This result is influenced by the reason the business owner chooses the shop business because the manager already owns the shop business land in the area, so they do not have land. Contract status, shop businesses in Tondo Village tend to cluster in the main road area and densely populated areas. (See Figure 3)
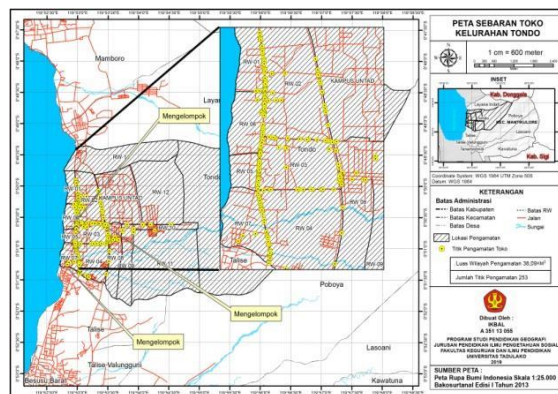

***Fig. 3** Store Distribution Map*

The distribution of shops and stalls in Tondo Village, the area is 38.09 KM[2,] and the number of observation points is 253 shops and 152 stalls. The data obtained is then processed, and the results obtained include the *Nearest Neighbor Ratio of* 0.45, and the average distance between observation points (*Nearest Neighbor Observed)* is 22.17 meters (See Figure 3). This shows that the distribution pattern at the Tondo Village location is clustered. This result is influenced by the reason the business owner chooses a business location in this area because the manager already owns a shop and stall business in the area, so they do not have a land contract status and, on average, tend to cluster in the main road area and densely populated areas. The presentation of the shop distribution map is as follows. (See Figure 4)
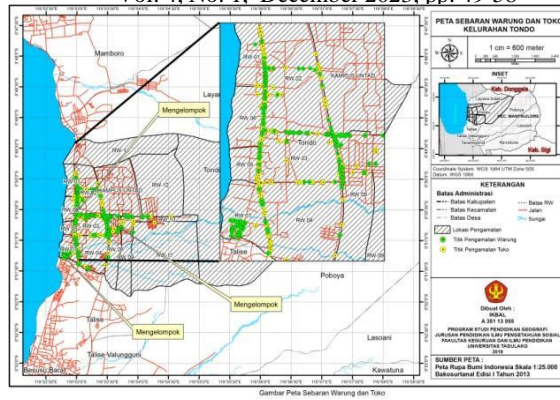
Fig. 4 Distribution Map of Shops and Stalls

3.2 Respondent Characteristics

Table 1 Respondent characteristics based on gender

Gender of respondent	Shop		Stall	
	Frequency	Percentage (%)	frequency	Percentage (%)
Male	12	32%	13	57%
Female	26	68%	10	43%
Total	38	100%	23	100%

Source: Primary data processing results from 2022

3.3 Gender of respondent

Based on the questionnaires that have been distributed to 38 shop respondents, 32% are male and 68% are female, and from 23 stall owner respondents, 57% are male, and 43% are female, as shown in Figures 5 and 6 below:
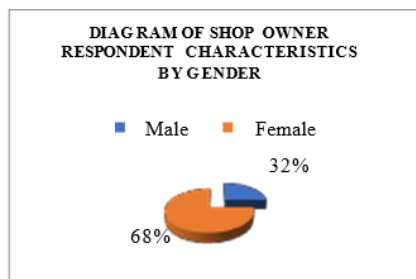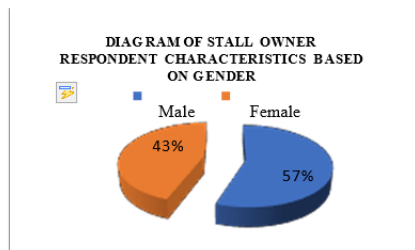

Fig. 5 Respondent characteristics

Fig 6. Characteristics of Stall Respondents Based on Gender

a. Shop

Based on Table 2, the results show that shop respondents with an age classification of 31-40 years dominate the number of respondents, namely 40%, then ages 21-30 years as much as 13%, ages 41-

50 years as much as 29%, ages> 50 as much as 18%, and ages < 20 no, as in Figure 7 below:
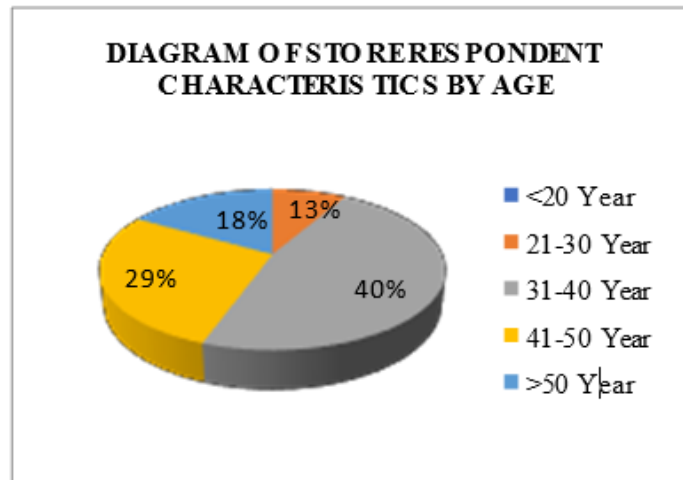

Fig 7. Characteristics of Store Respondents by Age

b. Stall

Based on Table 2, the results show that shop respondents with an age classification of 41-50 years dominate the number of respondents, namely 44%, then ages 21-30 years as much as 17%, ages 31-40 years as much as 30%, ages> 50 as much as 9% and ages <20 no, as in Figure 9 below:
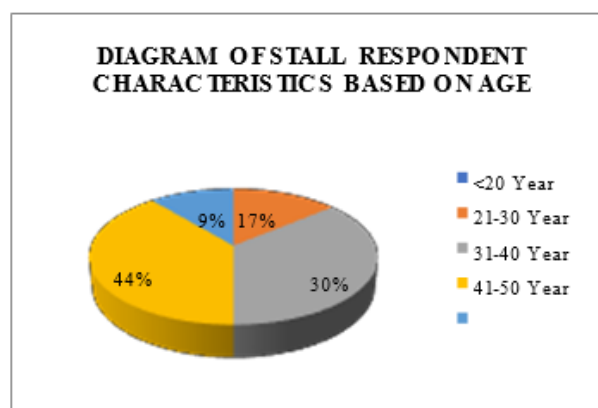

Fig 9. Characteristics of Stall Respondents by Age

3.5 Respondent Education

Table 3 Characteristics of respondents based on education

Education level of respondents	Shop		Stall	
	Frequency	**Percentage (%)**	**frequency**	**Percentage (%)**

Education Level of Respondents				
• Elementary School	6	16	4	17
• Junior High School	12	31	8	35
• Senior High School	20	53	11	48
• Bachelor	0	0	0	0
Total	38	100%	23	100%

Source: Primary data processing results from 2022

Educational characteristics of shop owner respondents obtained from the results of the questionnaire, namely, elementary school education 16%, junior high school 31%, and high school 53% Bachelor's degree does not exist while stalling owner respondents, namely elementary school education

17%, junior high school 35%, high school 48%, and undergraduate education level does not exist, can be seen in Figures 3.10 and 3.11 below:
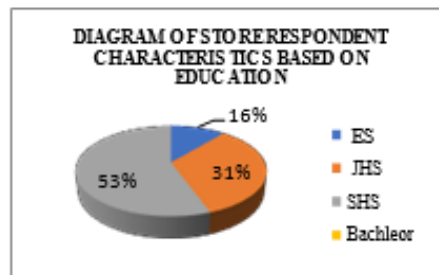

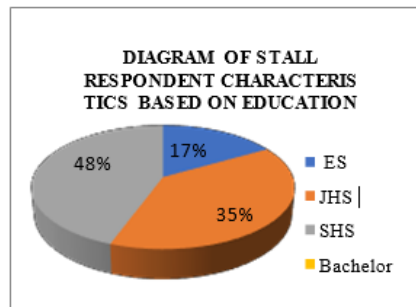*Figure 10 Characteristics of Store Respondents Based on Education*

Figure 11 Characteristics of Stall Respondents Based on Education

3.6 Status of Stalls and Shops

Table 4. Duration of business in shops and stalls Category

How long have you been in business:	Shop	Percentage(%)	Stall	Percentage(%)	F
a. <1 Year	0	0	0	0	
b. 1-2 Years	6	16	2	9	
c. 3-4 Years	8	21	4	17	
d. 4-5 Years	10	26	6	26	61
e. >5 Years	14	37	11	48	

Based on Table 4, it can be seen that those who run a shop business are six people or 16% and two people or 9% of respondents who have been running a shop business for 1-2 years, those who

Ikbal et.al, (Spatial Distributio n of Economic Facilities in Tondo Urban Village, Palu City)

run a 3-4 year business are eight people or 21% of shop businesses, and four people or 17% of stalls, those who run a business for 4-5 years are ten people or 26% of shop businesses, six people or 26% of stalls while those who run a business for> 5 years are 14 people or 37% of shop businesses, and 11 people or 48% of
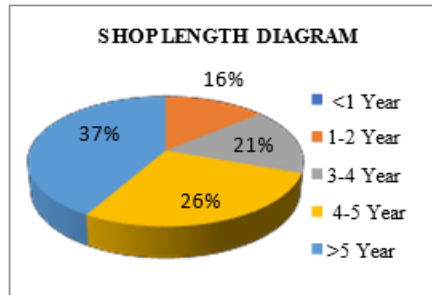
stalls. Further can be seen in Figures 12 & 13 below:

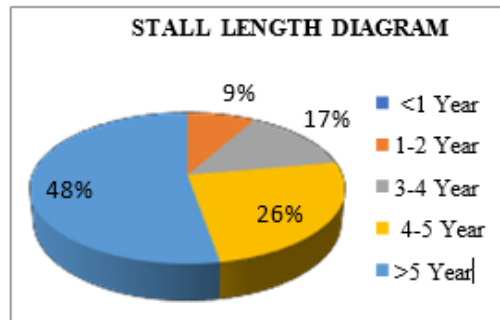*Figure 12 Shop length of business diagram*

Figure 13 Stall length diagram

Table 5 shows the reasons for business owners choosing a location to build a place of business 23 people, or 61%, for the shop business and for the stall business, ten people, or 44%, said that they opened a business in Tondo Village, Palu City because they saw the enthusiasm of buyers in this location more promising profits, then ten people or 26% of shop and stall owners nine people or 39% said they followed the invitation of family/relatives/friends of fellow traders who had previously sold in this location, while as many as five people or 13% of shop and stall owners four people or 17% said that they opened a business in Tondo.

Table 5: Reasons for choosing a business place/location

Reasons for choosing a business place/location	Shop (F)	Percentage (%)	Stall(F)	Percentage (%)	F
a. Seeing the opportunity that the the enthusiasm of buyers in this location is more promising profits	23	61	10	44	
b. Following the invitation of family/relatives who already sell in this location	10	26	9	39	
c. Follow government programs or directives that provide special locations for business areas	0	0	0	0	61
d. Only speculate live or by trial and error.	5	13	4	17	

Based on Table 6 above shows that income is less than Rp.3,100,000. Namely, there are six types of shops with a percentage of 16% and are categorized as low income, then those with income between Rp. 3,100,000 - Rp. 5,300,000, there are 12 types of shop businesses with a percentage of 31% categorized as medium income, while those categorized as high income are those with income above Rp. 5,300,000. There are 20 types of shop businesses with a percentage of 53%. Whereas in the shop business with an income below Rp. 3,100,000, there are two types of shop businesses with a percentage of 9% and are categorized as low income, and shop businesses with an income between Rp. 3,100,000- Rp. 5,300,000, namely six types of shop businesses with a percentage of 26% and categorized as moderate-income, while those with an income above Rp. 5,300,000 are 15 types of shop businesses with a percentage of 65% and categorized as high income.

3.7 Discussion

The distribution pattern of Stall and shops in Tondo Village is motivated by various reasons. All of this must be connected to the opportunities that exist in the place where they do business. The role of business location is the main thing in carrying out a business because basically, the determination of business location aims to seek maximum profit from the production process in a business; the placement of business locations must be with various considerations, this is to avoid the negative effects of business development that will be established. The role of determining the location of trade is very important in a trading activity because, basically, the determination of the location of trade aims to get maximum profit.

Determination of location cannot be done carelessly but must be done with various considerations; this is to avoid the unfavorable effects of establishing the location. The location of stalls and shops is mostly in places that are less residential, but the dominating location of the distribution of stalls and shops is in the main road area of Tondo Village; this happens because the location is very strategic, and there are many centers of economic activity in this area, such as boarding houses and educational facilities. So that many Stall and shop business owners open their businesses here. The Stall and Shop businesses form a pattern, clustering, because this distribution pattern is influenced by the road network pattern. Business activities of stalls and shops with clustered distribution patterns occur along or on the edge of main roads or on connecting roads. The reason why stalls and shops choose locations on these roads is because of their high accessibility, which has great potential to bring in consumers. Business activities with a cluster distribution pattern mostly occur along the main road of Kelurahan Tondo, which is the road in Kelurahan Tondo, allowing stalls and shops to easily find consumers, both local and interlocal. This is in accordance with the theory of business location that determining the location must be based on the determining factors of location, such as proximity to transportation facilities (roads and means of transportation).

Kelurahan Tondo is an area that shows many business actors, including stalls and shops, with many business actors in Kelurahan Tondo. This can increase the productivity of the Kelurahan Tondo area; the distribution pattern of stalls and shops has two categories, namely clustering patterns and Random patterns, the distribution pattern of clustering stalls and shops in Kelurahan Tondo, is caused by the reason business owners choose their business location.

Based on the results of data collection in the field regarding the characteristics of respondents, which include gender, age, and education where the majority of stall and shop business owners in Tondo Village, Palu City, are, on average, male with an average age of 30 to 40 years with their last education level up to high school level, with expertise and a good management system making Stall and shop entrepreneurs meet their daily needs and even the average Stall and shop business owner already has his own place of residence which previously only rented.

Revenue is very influential for the survival of a business entity; the greater the revenue earned, of course, the greater the company's ability to finance all expenditure activities to be carried out by the company. Revenue for a number of economic actors is money that has been received by the company from customers as a result of the sale of goods and services. Income is also defined as the amount of income, both from individuals and families, in the form of money they get from services every month, or it can also be interpreted as a business success [17].

4. Conclusion & Recommendation

4.1 Conclusion

Based on the results and discussion described above, it can be concluded as follows:

1. The spatial distribution of stalls and shops in Tondo Village, Palu City, based on the results of the average mapping, is categorized into a clustering pattern; this is evidenced by taking the coordinate points of stalls and shops in Tondo Village.
2. The characteristics of economic facilities in Kelurahan Tondo, Palu City, are seen from the average age category of 30 to 40 years with their latest education level up to high school level, and the income obtained from the Stall business is Rp. 6,293,478 per month, and the shop business has an average monthly income of Rp.9,131,579.

4.2. Recommended

Shop owners should make efforts to maintain their business existence, for example, by improving business management, increasing business capital, and improving the quality of their business services to be able to compete. Further research should be conducted because this study still has limitations; namely: data regarding the amount of turnover, income, and number of customers obtained in this study are only approximate.