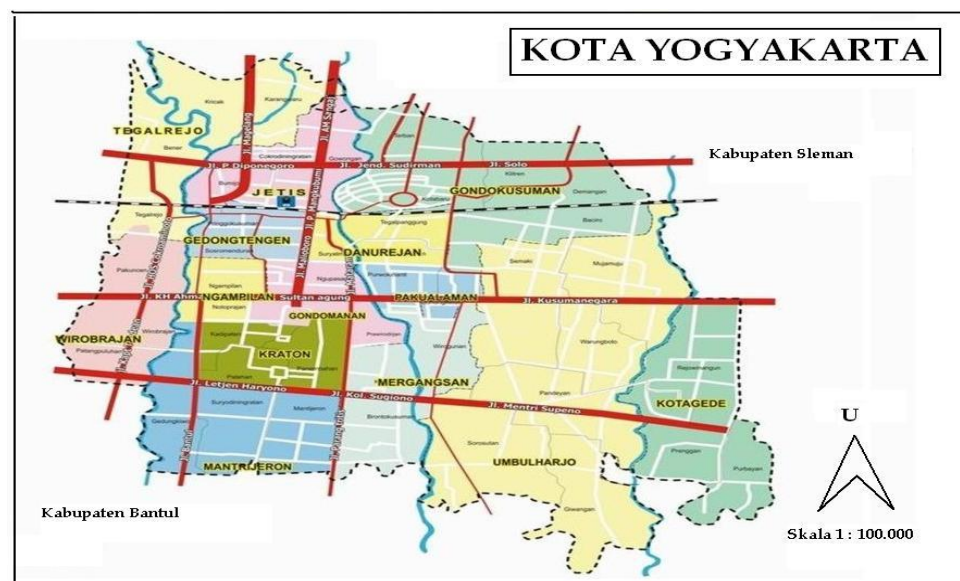


CHAPTER IV

GENERAL DESCRIPTION

A. General Description of Yogyakarta City

Yogyakarta City is located between $110^{\circ} 24' 19''$ east longitude and between $0715^{\circ} 24''$ - $0749^{\circ} 26''$ latitude south, with an area of approximately 32.5 km^2 or 1,02% of the total area of Special Region of Yogyakarta. The longest distance from north to south is about 7.5 km and from west to east approximately 5.6 km.



Source : Department of revenue financial and assets management, the local Government of Yogyakarta City

Figure 4.1
Map of Yogyakarta City

Administratively, consists of 14 districts, 45 wards, with territorial boundaries as follows:

- North side : Sleman Regency
- East side : Bantul Regency and Sleman Regency

- South side : Bantul Regency
- Western side : Bantul Regency and Sleman Regency¹

B. Characteristics of Respondents

Yogyakarta City is part of the Special Region of Yogyakarta. The population of Yogyakarta City in 2015 as many as 412,704 inhabitants with details of 201,082 men and 211,622 female population. With an area of 32.50 km², the population density of Yogyakarta City 2015 is 12,699 people per km². Population density can be calculated based on the number of inhabitants for each square kilometer. The ever-increasing population growth makes the need for clean water also increases. Water sources in the city of Yogyakarta in the form of Water PDAM and Water Well. The number of household customers of PDAM Tirtamarta in Yogyakarta City is 29,954.

The respondent in this research are household customers of PDAM Tirtamarta in Yogyakarta City. Total of 308 people were sampled and willing to be respondents, where the respondents consisted of those who became domestic customers of PDAM Tirtamarta. Previously, researchers conducted Focus Group Discussion (FGD) to 15 residents of household customers of PDAM Tirtamarta to determine the initial offer, from 308 respondents as many as 182 respondents male sex while 127 respondents female sex.

¹ Yogyakarta Municipality in Figures, 2016

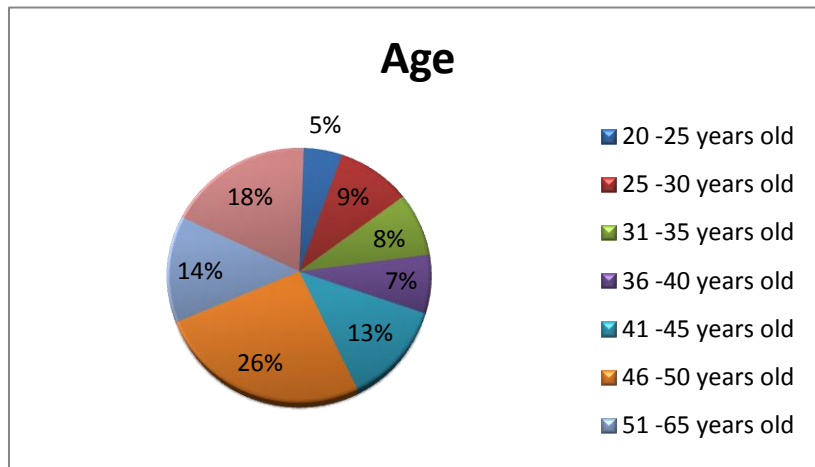


Figure 4.2
Respondents based on Age

Based on Figure 4.2 it can be seen that from the results of the research, the percentage of respondents aged 46-50 years is the greatest that are as much as 26% or 79 respondents, while for respondents with age 56-60 years as many as 47 respondents. The smallest percentage of respondents with the age of 20-25 years with the details of 5% or 15 respondents, and 29 respondents at the age of 25-30 years. This means that most of the respondents are those who have age 46-50 years.

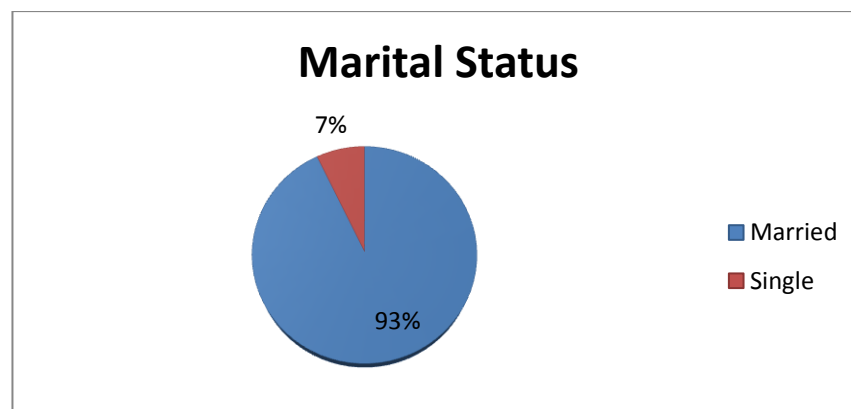


Figure 4.3
Respondents based on Marital Status

Based on Figure 4.3 it can be seen that married respondents amounted to greater than unmarried. Respondents who are married amounted to 286 respondents or 93%. While unmarried respondents amounted to 22 respondents or 7%, from the total number of respondents in the research by there are 308 respondents.

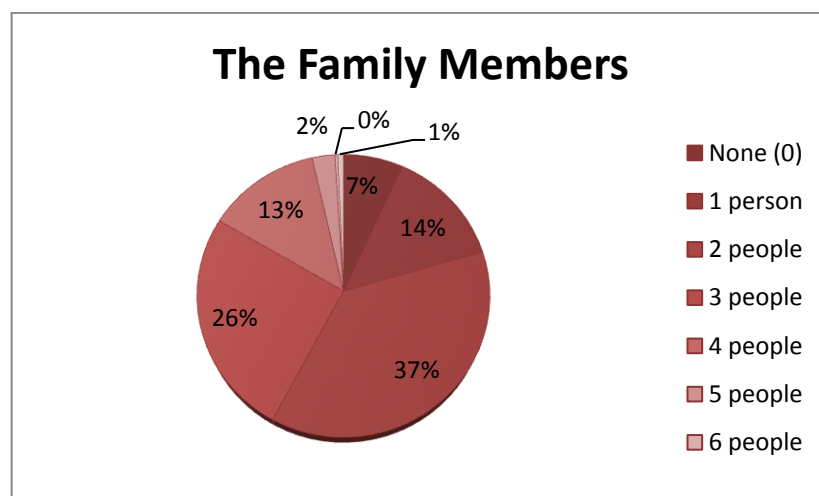


Figure 4.4
Respondents based on The Family Members

In Figure 4.4 it can be seen that the most percentage are the respondent who has the family members of 2 people, as many as 115 respondents or 37%. A total of 26% or 79 people are respondents who have family members of 3 people. Respondents who have dependents of 1 person are as much as 42 people or 14%. The percentage of respondents who have the family members as many as 4 people is as many as 40 people or 13%. A total of 21 respondents or 7% are respondents who do not have family members in the responsibility. In the percentage of 2% are respondents who have the family members as much as 5 people and the total to 8 people. The

rest of 1% or 2 respondents are the respondents who have the family members of 7 people and 0% or 1 respondent is the number of respondents who have family members of 6 people. The average respondent who has a family members 1 or 2 are a married respondent so that they has burden of the respondent's responsibility.

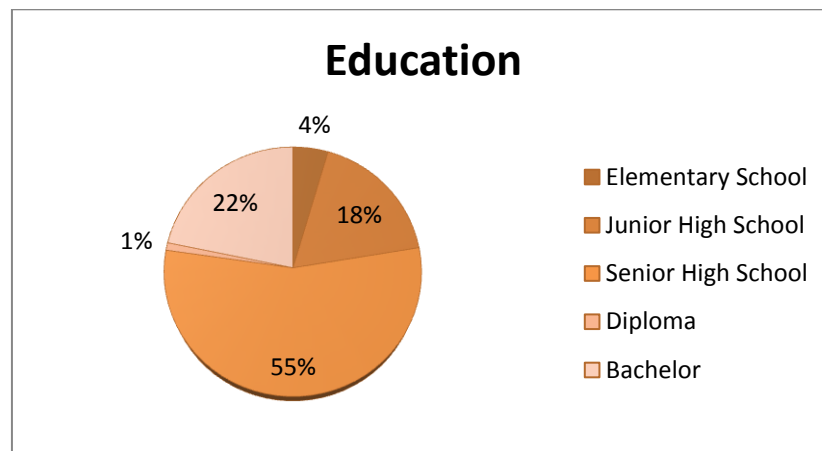


Figure 4.5

Respondents based on Education Level

Based on data collected by the researchers, it can be seen from Figure 4.5, that out of 308 respondents, the highest level of education are in the Senior High School with a percentage of 55% or as many as 169 respondents. The percentage of respondents with a Bachelor's Degree is 22% or as many as 67 people. Percentage of respondents with a history of Junior High School education is 18% or 55 respondents. Respondents who have a percentage of 4% with a total of 14 people are respondents who have a history of education in Elementary School, while 1% or 3 people are respondents who have a history of education that is rarely encountered the

Diploma. From Figure 4.5 are respondents who have a high percentage of education history is Senior High School.

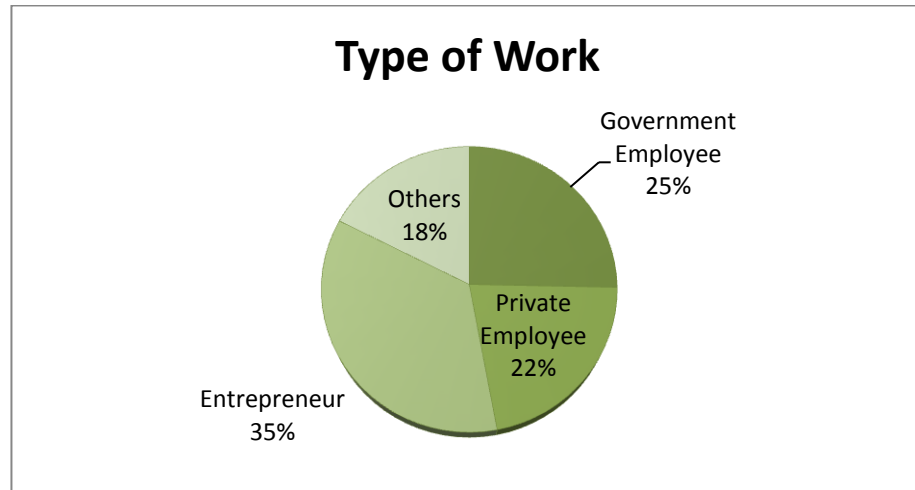


Figure 4.6

Respondents based on Type of Work

Based on Figure 4.6 it can be seen that the respondents in this research based on the largest type of job is Entrepreneur with a percentage of 35% or 109 people from 308 respondents. Respondents with the type of work of Government Employee have a percentage of 25% with a total of 78 people, whereas 22% or 67 people are respondents with employment as Private Employees. The remaining 18% are respondents who work in addition to the options in the questionnaire such as Housewives, Tailor, and others.

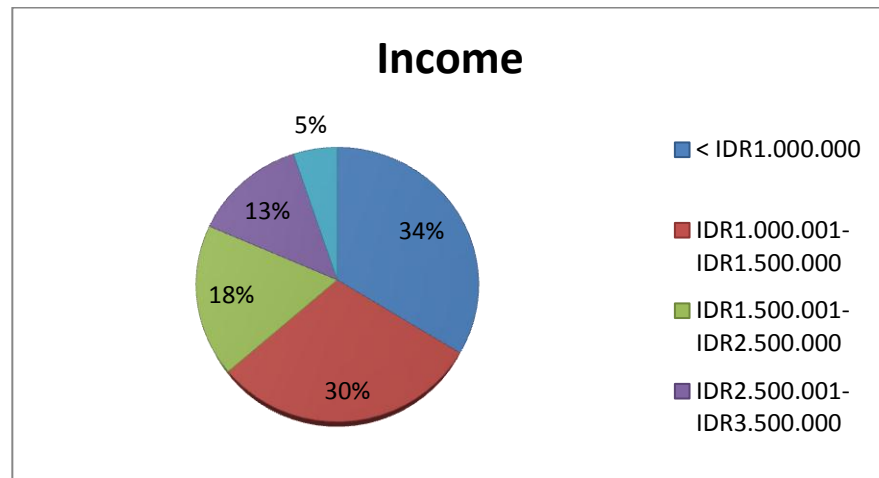


Figure 4.7

Respondents based on Income

Based on the research that has been done it can be seen in Figure 4.7 that the percentage of income amount of <IDR1,000,000 is the largest with the percentage of 34% or as many as 104 respondents (Appendix 4), while for respondents with the income of IDR1,000,000-IDR1,500,001 with percentage 30% or as many as 92 respondents. Respondents with a percentage of 18% or as many as 55 respondents have an income of IDR1,500.001-IDR2,500,000. The smallest percentage of respondents with income of >IDR 3,500,001 with details of 16 respondents or 5%, and 41 or 13% are respondents with an income of IDR2,500,001-IDR3,500,000.

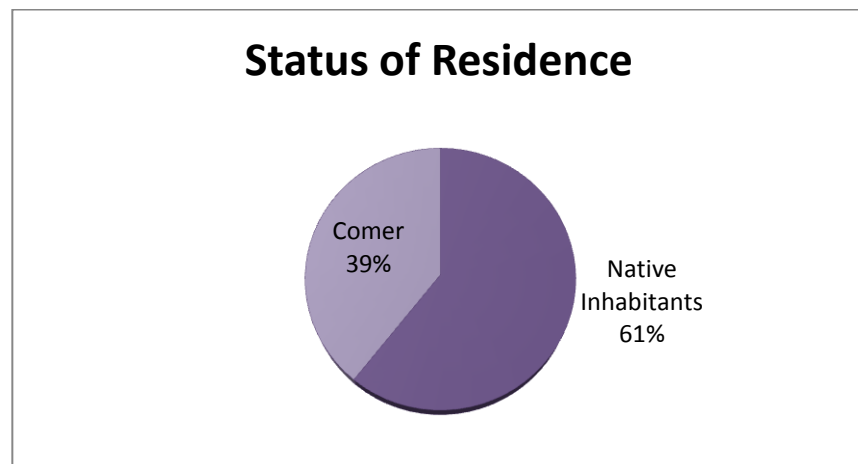


Figure 4.8

Respondents based on Status of Residence

According to Figure 4.8, the research shows that the Indigenous people still number more than migrants. The percentage of indigenous people is 61% or 187 respondents, while migrants are 121 respondents or with a percentage of 39%. The research was based on 308 respondents in the field. Most of the existing migrants are those who are from outside Yogyakarta who are married with people from Yogyakarta and then moved and settled in the Yogyakarta City or those who looking for work and get a job in Yogyakarta City.

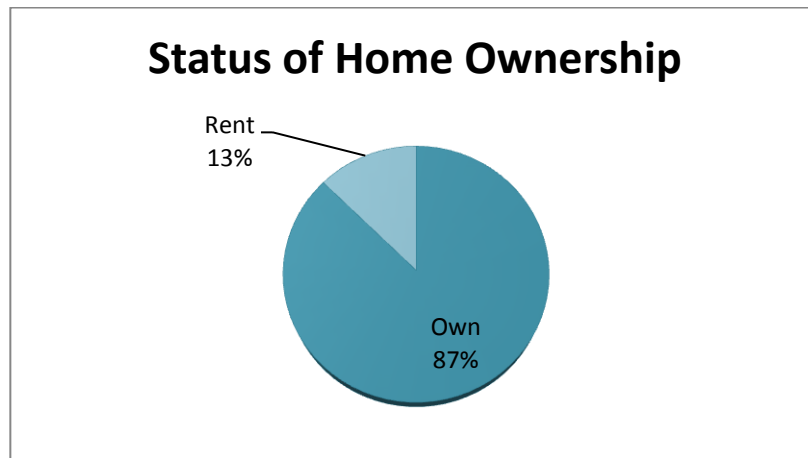


Figure 4.9

Respondents based on Status of Home Ownership

In Figure 4.9, the percentage of home ownership has the percentage of 87% or 269 respondents, while the rented house is 13% or 39 respondents. It can be concluded that the respondent is still dominated by the house whose own status is owned. Most of the respondents who own their own home have some houses in the house and they stay for just certain moments, the elderly respondents usually stay with their children.

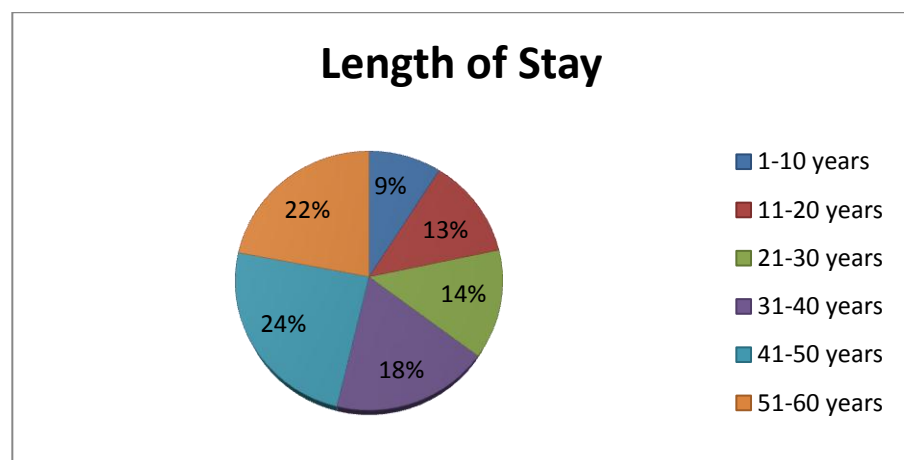


Figure 4.10

Respondents based on Duration of Stay

Based on Figure 4.10 it can be seen that from the results of the research, the largest percentage of respondents is 24% or 75 respondents with a length of stay 41-50 years, then the percentage of 22% or 68 people are respondents with the length of stay 51-60 years. The smallest percentage is 9% or 1-10 years with 28 respondents. This means that most of the respondents are those who have lived for 41-50 years. Most of the respondents with a long stay range of 51-60 are native inhabitants who have been stay in Yogyakarta City since birth.

C. Utilization Patterns and Water Resources of Society

1. Water Sources

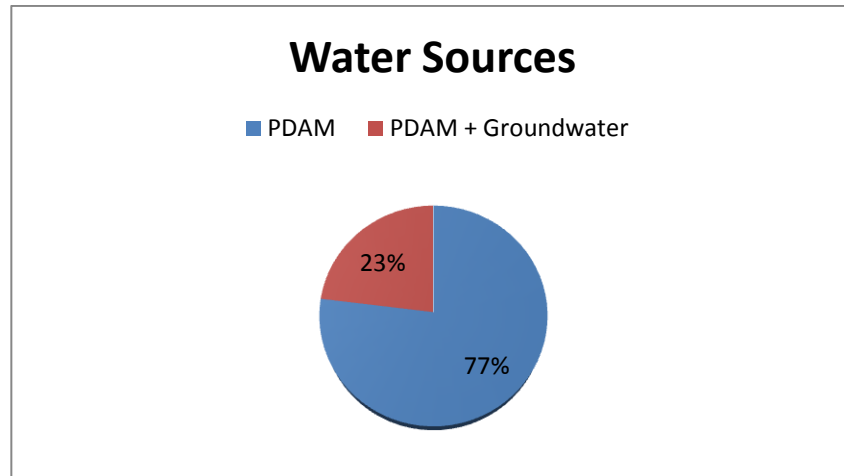
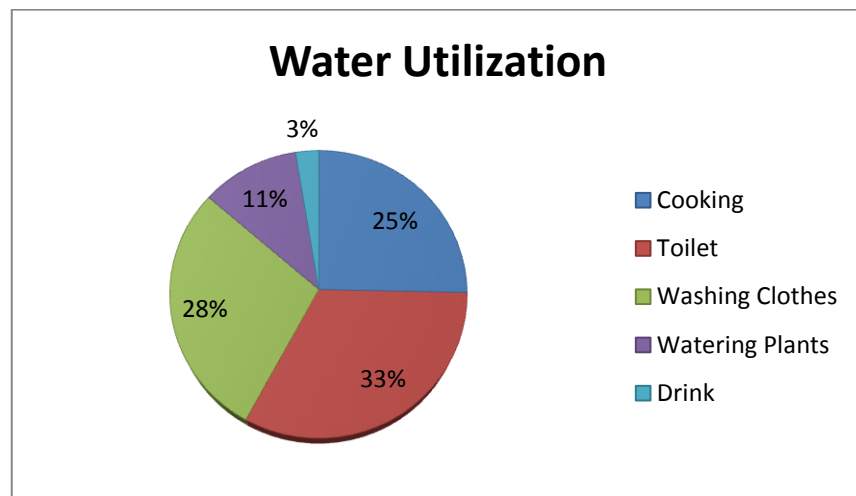


Figure 4.11
Respondents based on Water Sources

Figure 4.11 illustrates the percentage of respondents using PDAM or Well water and PDAM. 308 respondents 77% or 237 use water sources from PDAM only. Respondents who use 2 sources of water

that is well water and PDAM have percentage 23% or 71 respondents. This indicates that of 308 respondents in the survey, respondents who use PDAM water are still larger than those using PDAM and water wells.

2. Water Utilization

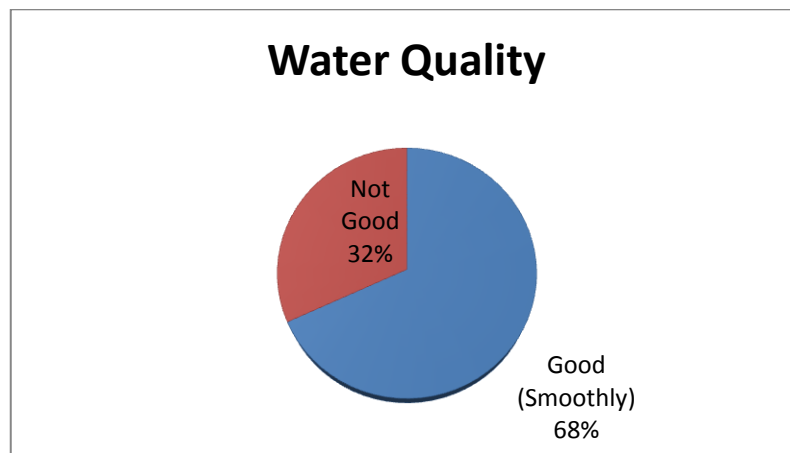


Picture 4.12
Respondents based on Water Used in a Day

From the results of the research it shows in Picture 4.12 that most of the PDAM water used for toilets with a percentage of 32% or as many as 289 respondents, this is something that makes the use of water PDAM is very important for every day in terms of quantity and quality, which is sustainable and requires a quantity of water that is not small. Furthermore, the use of PDAM water for washing clothes has a percentage of 27% or as many as 253 respondents. Percentage of PDAM water use for cooking is 25% or 225 respondents. The use of PDAM water for watering plants by 11% or 98 respondents, this is

because not all of the household customers have plants to be watered at home. The lowest percentage of water usage is for daily drinking only 3% or 23 respondents because currently, respondents prefer to use water in packs/gallons that are faster and more practice.

3. Perception about Water Quality of PDAM Tirtamarta



Picture 4.13
Respondents based on Perception of Water Quality

Most of the respondents in this research showed that the quality of water in use smoothly with the percentage of 68% or 210 respondents. The percentage of respondents who has stated the quality of water has not been good as much as 32% or 98 respondents. Some respondents who stated that the water has not been good from the interviews because every draining of water is very chlorine and in the morning the water flows are very small because of the many people who use PDAM water in the morning. In the research that has been done, respondents choose packed water or gallon for daily drinking water

consumption, although water from PDAM can be used for daily consumption, respondents prefer to use water packs/gallon for more practical and easy.

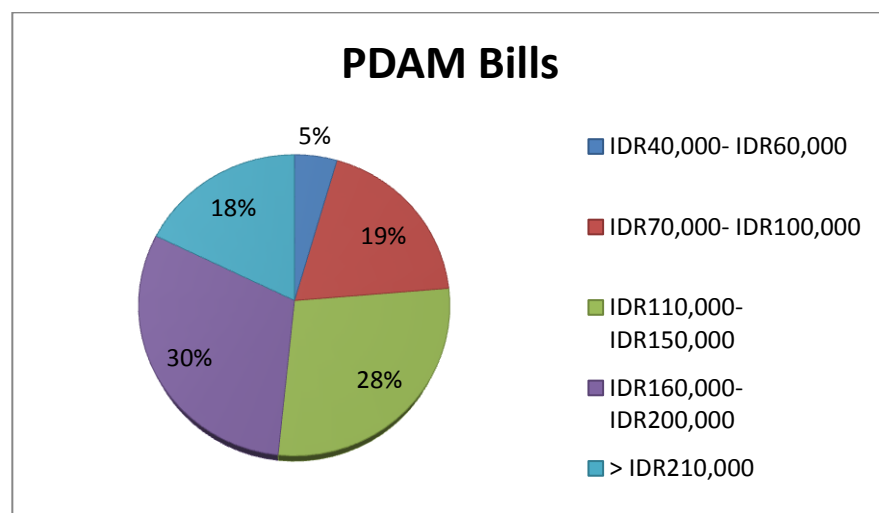


Figure 4.14
Respondents based on PDAM Bills

Figure 4.14 shows that the percentage of utility bills of PDAM household customers. From the total 308 respondents, the highest percentage was 30% or 94 respondents (Appendix 4) with bills ranging from IDR160.000- IDR200.000. As for the percentage of 28% or 86 respondents with a monthly PDAM bill of IDR110,000- IDR150,000. The household customers with the percentage of 19% or 59 respondents with monthly bills of IDR70,000-IDR100,000. Percentage respondents with billing >IDR210,000 amounted to 55 respondents or 18%. Then. The lowest percentage are respondents

with the total bill of IDR40,000- IDR60,000 with the number of 14 people and the percentage of 5%.



Figure 4.15
Respondents based on Customer Satisfaction

Based on Figure 4.15 shows that the level of customer satisfaction with the service of PDAM. Of 308 respondents 65% or as many as 202 respondents were satisfied with the services provided by the PDAM and as many as 35% or 107 have not been satisfied with the service of the PDAM. This can certainly be a reference for better PDAM in the future in terms of service because with the fasting of customers it will increase the trust of respondents for the programs from PDAM such as quality improvement. Respondents who are not satisfied according to interview result because PDAM does not give warning to water bill every month, so sometimes respondent forgot to pay water bill from PDAM.

4. Willingness to pay for Quality Improvement

Willingness to pay for this research is the willingness to pay of household customers to quality improvement that is a change of pipe leaking into a new pipe from PDAM. The proportion of respondents who are willing to pay for quality improvements is as follows:

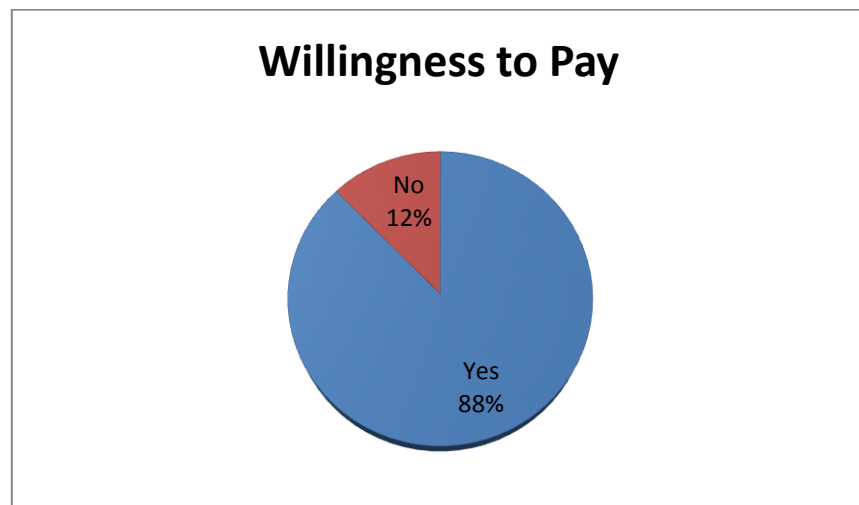


Figure 4.16
Respondents and Willingness to pay

From Figure 4.16 it can be seen that out of 308 respondents interviewed by researchers, 88% or 270 respondents were willing to pay for quality repairs with the replacement of leaky pipes with new pipes from PDAM as they wanted to participate in order to make the water available and more evenly distributed so as to make water more smoothly to make it easier daily activities and reduced wasted water loss. According to respondents, clean water is very important to improve the quality and quantity of PDAM respondents feel the need to participate. While the rest with a percentage of 12% or 38

respondents are not willing to pay for quality improvements from the PDAM on the grounds that the price is still burdensome respondents. Respondents who do not willing to pay for quality improvements are mostly those with two water sources, namely PDAM and water wells, they do not want to pay because they think there is still a source of water from water wells that can still be in use. Previously researchers determined the initial bid value of IDR4,000, the value is assumed that every year there is 1 damaged pipe and the price of HDPE Pipes. Then the researcher raises the bid of IDR2,000. From 15 respondents, 10 people willing to pay IDR6,000, 2 people willing to pay IDR6,500, 1 person willing to pay IDR8,000, and 1 person willing to pay IDR9,000. From the FGD is then calculated the average value which is then used as the amount of willingness to pay offer with the dichotomous model. The average yield is IDR6,000.