OPTIMIZATION OF WATER DISTRIBUTION FOR PDAM’s CUSTOMER IN JAYAPURA

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ABSTRACT

The availability for clean water is one of the main problems in major cities as it happens in Jayapura, where the service to get clean water is poor. This can be proven by the difficulty experienced by PDAM’s customer in Jayapura, where the water supply cannot fulfill their daily needs. This research’s goal is to set the concept to optimize the clean water distribution for Jayapura PDAM’s customer, gradually with some analysis that matches with the problems.

This research was begun with gathering data and information, with both primary and secondary surveys. After that, the analysis started with identification of demand and supply of clean water in every service’s cluster where inside this analysis we calculate the water needs from the customer compared to water supply from every fountain. And then we identified the water supply distribution performance in problematic service’s cluster using the questionnaire as the source. The Delphi Analyst is used to analyze the factors that cause the problem in distributing clean water, then the Descriptive Analysis is used to formulate how to optimize the distribution of clean water, that will be used by Jayapura PDAM’s to optimize the service to distribute clean water to its customer with using the triangulation analysis.

And from the final result, we identified that there were problems in distributing clean water from Jayapura PDAM’s UPP services. The problems were the poor quality of the pipe and the pipe joints, the high error rate when reading the water meter, and also the high contour of service’s area. For that, we need to formulate the concept to optimize the distribution of clean water so that Jayapura PDAM’s customer can fulfill their daily needs.

Keyword: Availability, distribution, optimization.