BRANCH OFFICE LOCATION DECISION BY INTEGRATING OBJECTIVE AND SUBJECTIVE FACTORS
(CASE STUDY: PT. PJB SERVICES)

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ABSTRACT

Facility location decision is a critical issue because a failure of decision making take huge amount of money. Conventionally, facility location decision deal with transportation model by calculating objective factors. Besides, subjective factors, like decision maker’s thought and opinion is also the important factor that can be analyzed by Analytic Network Process (ANP). But, both transportation model and ANP work independently. Because of that, integration of subjective and objective factors is needed. Fortunately, Brown Gibson Model can solve that issue.

PT. PJB Services is an operation and maintenance service company for power plant that decided to build a new branch office with three alternatives locations. Brown Gibson Model is suitable because it can integrate both objective and subjective factors. Objective factors input can be calculated by transportation model to decide the location with the lowest transportation rate. Besides, it can calculate the worker’s allocation from office and branch office to the power plant. ANP calculate subjective factors from decision maker’s questionnaire and brainstorming for criteria. Sensitivity analysis for objective and subjective factor weights is needed to know how significant the changing of these weights effects the location decision.

The results show that Jakarta is chosen to be branch office with the highest rank for LPMi (0.3961), followed by Semarang (0.3347), and the last one is Medan (0.2692). Average transportation rate in 2013 -2017 compared with 2012 has decreased 56,996 %. It can be concluded that increasing one office can reduce transportation rate as objective factor and satisfy decision maker’s thought as subjective factors.

Keywords : Facility Location Decision, Brown Gibson Model, Transportation Model, Analytic Network Process (ANP)