

ABSTRACT

Material is one of the important resources that takes a huge percentage (50-70%) of cost in a construction project. During the implementation of a construction project, the continuity of material flow should be thoroughly monitored. For example, the lack of material supplies could affect time efficiency and productivity of projects, especially for a large-scale project. Also, if the material shipping and arrival are out of the schedule, the budget of project will be getting higher due to low productivity, and the final project will be finished late. This research has been done with the aim to analyze main factors that affect lead time of construction material for residential projects.

The research data was received by sharing questionnaires to 30 respondents. The research sample was received by purposive sampling, which means to target the experts who work for residential projects in Jakarta. The process and data analysis was done through Analytical Hierarchy Process (AHP) method, which aims to obtain the priority list of factors that could affect lead time of construction material.

The result of this research has shown and identified that there are 22 risk variables that could affect lead time of construction material which are categorized into 3 factors: (1) supplier; (2) contractor; and (3) non-technical. The highest percentage of risk variables that could affect lead time of construction material for suppliers comes from the lack of material supplies, that is 34.16%. In terms of contractors, the issue comes from material specification, which is 18.94% and in relation to non-technical matter, the issue comes from the delay in decision-making process about the project layout or material samples which is 31.75%.

Key words: Lead Time, Construction Material, Analytical Hierarchy Process (AHP).