

ABSTRACT

Because the number of construction projects are increasing, limited field of construction, and value of the land are increasing, buildings are being constructed higher and utilize wider space on land dimensions. It means that the construction of basement floors will be constructed as deep and as many as necessary. Because of high rate of density from neighbour buildings, basement structures are constructed with the Top-Down construction method. The Top-Down construction method is rarely used and not generally done by the local contractor in Indonesia. The risks of uncertainty cause a delay in project completion or affects the time performance of the project. The goals of this research are to identify the risk factors that affect the time performance of project and understand the preventive actions to reduce or eliminate those risks. The risk managements are divided into risks identification, risk analysis, and risk responses. To understand the impact and the frequency of the risk factors, research is done with the qualitative data by analyzing the perception from the handpicked sample of industry practitioners by using questionner. Risk variables are gained by literature study and the Delphi method on expert's judgement. The rank of the risks and prioritize of the risks are gained by the Analytical Hierarchy Process (AHP). The prioritize of the risks is divided into high, medium and low. The risk management will be conducted to the high risks or dominant risks in order to make a good time performance of the Top-Down project.

Keywords: Top-Down construction, risk management, time overrun.