RISK ANALYSIS ON CONSTRUCTION PROJECT OF MULTI-PURPOSED PORT IN TELUK LAMONG SURABAYA FROM CONTRACTOR PERCEPTION

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ABSTRACT

Construction project of Multi-purposed Port in Teluk Lamong Surabaya which is still progressing has been planned to be an international port facility in Surabaya. The fact that the project is designed 14 mLWS in depth, extremely diverse soil data and located close to crowded shipping route has made it potential to have high risk during its construction. The purpose of this research is to determine the risk level and the response the high risk.

Research methodology that was applied to identify the risk were documentation review, initial survey and focus group discussion (FGD), while probability assessment and risk impact data were obtained with a questionnaire. Risk level was determined by using probability impact grid. The respondents of the questionnaire were the main project team from the contractor of Multi-purposed Port project in Teluk Lamong. The response toward the risk which has high risk level was done through FGD forum.

The final result of the research showed that there were 10 high level risks such as (1) extreme weather (heavy rain, strong water current, powerful wind, lightening), (2) delay work accomplishment by sub-contractor,(3) productivity disturbance by extreme climate, (4) different and incomplete soil investigation data, (5) unforeseen site conditions (under ground rocks, mine, utility network), (6) ship crashing on to the construction, (7) the collision of the tug boat’s ponton barge with other ships on the operational basis, (8) penalty due to delay,(9) different working condition to the contract and (10) the changes of the contract scope (work quantity). Most of the respondents used risk mitigation and risk transfer in order to response project risk.

Key words : risk analysis, risk level, probability impact grid, risk response.