

SUPPORTIVE SYSTEM OF PORT WORKER PERFORMANCE
(A Case Study : Ule Lheu Port)

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ABSTRACT

The Ule Lheu port is a harbor with artificial pond model, where the geographical site is lied in the open sea and the sailing frequency is routine each day, the building is designed to facilitate optimum service by prioritizing the safety of life at sea. A decision, which was made for overall action on Ule Lheu port building management, is absolutely needed, one supportive decision is to evaluate the building performance. This research was to examine weight of interest rate among port buildings by using AHP (Analytical Hierarchy Process) method as supportive tool.

The AHP method was used for evaluating the weight of interest by giving interest intensity value to matrix operation. Using a level-2 reciprocal matrix, the performance criteria are as follows: structural, safety of life at sea, functional and economic criteria of buildings, navigation channel, break water, pier, sailing guide tool, and terminal hall.

Results of weighing indicated that

$$Y_{\text{Building Performance}} = 0,333 \text{ STR} + 0,333 \text{ KESPEL} + 0,222 \text{ FGS} + 0,111 \text{ EKM}$$

$$Y_{\text{Harbor Building}} = 0,217 \text{ AP} + 0,243 \text{ PG} + 0,231 \text{ DM} + 0,213 \text{ APP} + 0,096 \text{ GED}$$

After these result were applied and tasted to Ule Lheu port, the building had 6,8 condition index, meaning that it was in medium condition. Building, which had lowest value, was a navigation channel with 5,2-value, break water with 5,9-value, the pier with 6,4-value, sailing guide tool and terminal buildings with 9- value.

Keywords : *Port building performance, Analytical Hierarchy Process (AHP), interest weight, index condition.*