ABSTRACT

Surabaya West Acces Channel (SWAC) is a gateway to some port in Surabaya and Gresik. Before the dredging, swac is 100 meters wide with depth of -8.5 meters, that way the ships which passing Surabaya West Acces Channel are limited by the shallow draught of channel. To solve this problem, need to do dredging so the depth can be of -13.5 meters with a channel width of 150 meters. The purpose of this study was to determine the correlation between the access channel with an increase in port competitiveness. In determine the port competitiveness of the model calculations, are based on the port efficiency, income by the port operators and port cost that are covered by the user of port. The result of this final project show, comparison of existing condition with scenario A (dredging done with loading and unloading equipment and facilities have not changes): port efficiency increased 3%, revenue of port operators increased 3%, port cost decreased 1%. Comparison existing condition with scenario B (dredging done and load factor increased to 100% with loading and unloading equipments and facilities have not changes): port efficiency increased 8%, revenue of port operators decreased 2%, port cost decreased 23%. Comparison existing condition with scenario C (dredging done and load factor increased to 100% with productivity loading and unloading equipments were increased and facilities have not changes): port efficiency increased 8%, revenue of port operators increased 8%, port cost decreased 24%. Comparison existing condition with scenario D (dredging done and increase vessel size with load factor 100% with unit and productivity loading and unloading equipments were increased and facilities have not changes): port efficiency increased 10%, revenue of port operators increased 19%, port cost decreased 44%.

Keywords: Access channel; Port competitiveness; load factor