

Improving Indonesian logistics performance with using six sigma, DMAIC and integration Process

Sirajuddin and T. Yuri Zagloel

Department of Industrial Engineering, Engineering Faculty, Indonesia University, Kampus UI Depok
16424, Indonesia.

sirajd_udin@yahoo.com, yuri@ie.ui.ac.id

Syarkawi Rauf

Economic Faculty, Hasanuddin University, Makassar, Indonesia

msrauf@yahoo.com

Abstract

Indonesia is a maritime country that having much potential marine natural resources. As a maritime country, that connected among islands, Indonesia needs to develop a national logistics management concept in order to make trading in goods and services more quickly, safely and smoothly. One becoming the focal point of the current government is the development of the sea toll or the development of infrastructure and service quality system of national port, so the distribution of goods and services from each region can be more efficiently and waiting time (dwelling time) can be dropped from 6-7 days to 3, 5-4 days, and the national logistics costs can decrease from 27% of GDP to 23% - 19% of GDP. Indonesia was concerned to improve the performance of quality of national logistics services. This is the reason why author interest to discusses in the Journal. The method that we used to analyzing problems of dwelling time is the method of Six Sigma, DMAIC and process integration. With DMAIC method, six sigma and process integration, problems of dwelling time can be reduced to achieve the target be 3.4 - 4 days.

Keywords : Logistics, port performance, six sigma, DMAIC

Biography author

Sirajuddin S.T., M.T. is a student of doctoral program of industrial engineering at University of Indonesia. He earned his Bachelor's Degree in Mechanical Engineering from Hasanuddin University in Makassar, and a Master's Degree in Industrial Engineering Management from University of Indonesia, Depok, Indonesia. Now, he is currently a full-time senior lecturer in industrial engineering department at the University of Sultan Ageng Tirtayasa, Serang, Banten Province, Indonesia. His research interests include industrial management, industrial organization, simulation, modeling, and lean.

Prof. Dr. Ir. T. Yuri M. Zagloel, M.Eng.Sc. is currently active as Head of Industrial Engineering Department, University of Indonesia. Mr. Yuri was born in Jakarta, March 20th, 1963. He started his higher education in Mechanical Engineering, University of Indonesia and graduated in 1987. Then, he continued his study in the University of New South Wales and Obtained his master's degree (M.Eng.Sc.) in 1991. In 2000, he completed his education paths by finishing his doctoral degree in the University of Indonesia. Mr. Several Yuri has taught courses

in Industrial Engineering UI, Including Introduction to Industrial Engineering, Engineering Ethics, and Total Quality Management. His research interests' are in Quality Management and Production System field. Not being restrained by his activities, he IS ALSO Involved in laboratory activities by becoming a Head of Production Systems Laboratory.

Dr. Syarkawi Muhammad Rauf, SE, ME, is currently a senior lecturer in economic faculty of Hasanuddin University. Mr. Syarkawi holds a Bachelor of economic degree in economic management from Hasanuddin University and a Master of economic degree in Indonesian university and university phd in Indonesia. His research interests include industrial management, industrial organization, micro-economic, fair competition, economic macros, and sustainable economic development.