

Port Kaizen Initiatives: A Case Study of a Port in Southern Malaysia

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Kaizen refers to a Japanese concept that focus upon continuous process improvements. The concept doesn't require big impactful improvement, as any type of improvement is acceptable. Kaizen is normally being practiced in engineering related aspect especially in manufacturing environment. However, it can also be applied in all other business setup. This paper is prepared to show another aspect of Kaizen that has been applied at seaports. Most of the data taken is as a result of implementing the Kaizen principles at a port in Southern Malaysia since 2017. The studied port uses the multiple Kaizen tools that is normally being used in engineering setup like the Toyota Production System (TPS) but is molded to become seaport friendly. The other Kaizen tools that are also being used include concepts like Muda, Mura, Muri, 5S and other lean practices. The process started with a 'gemba walk' and then analyzing the problems in depth. It is followed by identifying the gaps that hinders to achieve the targeted performance. This case study records the main results for and can be summarized as: achieving the targeted customer satisfaction rate of above 75%; container terminal has shown gross move per hour (GMPH) improvement in from 21 to 23 GMPH; the average loading rate for non-edible liquid has improved by between 4% to 19% with the berth occupancy maintained between 44% to 48%; the average loading rate of edible liquid has increased between 4% to 19%; average loading rate increased by 6% for bulk operations and 53% for break bulk operations; tug boat service delivery performance of 100% achievement; pilot boats service delivery performance of 100% achievement; vessel arrival & departure performance of 99% achievement if compared to 97% target and also having a highly motivated yet engaged staffs at 72%, which is better than Malaysian standard at 67%. Finally, the port is now able to consistently hitting 1 million TEUs for two consecutive years that is in 2019 and 2020, a feat that is not possible if Kaizen principles were not adopted way back in 2017.

Keywords: *5S, BusinessExcellence, Kaizen, Lean, Muda, Mura, Muri, Port, Productivity, Seaport, Terminal, Toyota Production System (TPS)*