

## Executive Summary

This report was based on a project to improve the inventory receiving efficiency (from average 3.8 days to less than two days), at Kosan Crisplant Lanka (pvt) Ltd (KCLK). The Kosan Crisplant Group is the global leader (approximately with 60% market share) for supplying of LPG filling equipment and systems, and KCLK is the sole manufacturer in the KC Group. The study found that KCLK operations are highly depended on the imported raw materials from India, Singapore and a number of European countries, where the lead-times ranges from one to eight weeks. On the other hand, KCLK has to deliver the completed projects to customer (KCDK) or end-user destinations within five, twelve and fourteen weeks (including a three-week transit period) for the small, large, and special project categories, respectively.

The analysis based on the lead-times and delivery commitments showed that for the large project category (which is 60% of the total), the Stores and Production will have only one week to deal with all the tasks (inventory receiving, issuing and production) for the latest arrived goods. In this situation, even if the Stores takes the minimum two days for the inventory receiving process and one day for the goods issuing, that accounts for 60% of a five-day week, which means the Production has to deal with the production tasks on the latest arrived goods within the remaining two days (40% of five-day week). The Production catches-up with delays by working overtime and the analysis showed that the cost of overtime related to the inventory receiving delays accounts for approximately Rs. 700,000.

The project objective was to improve the inventory receiving efficiency from average 3.8 days to less than two days by using a theoretical framework, which comprised lean management, resource allocation and human resource development. Process and layout improvements, automation and training of employees improved the inventory receiving efficiency by (approximately) 42% with an investment about Rs 1.5 million with a payback period of three months. Evaluation on the improvements showed that the most difficult type of shipments could be received in less than two days. Other positive outputs and outcomes of the project include - improved safety, layout (with 49 new storing locations) and communication system; developed motivated and empowered employees; and reduced expenditure on overtime works (approximately Rs 700,000 monthly).