

EXECUTIVE SUMMARY

High customer order processing delay at XYZ Teas (Pvt) Ltd is addressed by this project. Although the raw tea purchasing and collection process in the company has been handled well as per the company's expected level, the performances of material and production have been declining. The company has a 25.04% delayed orders status as an average for the last five years. Over a period of five years, the customer order delay cost has accumulated over LKR 41.2 Million which averages to 170 order per year. In the year 2022, it has been calculated as LKR 14.5 Million which is significant for the company.

XYZ was established in 1985 with the intention of exporting pure Ceylon Tea to the rest of the world, and it is now one of the country's largest Tea exporters. During the last five years, the company has exported over six million kilograms of tea on average. Companies production facilities are strategically located in Colombo and Welisara, with easy access to port and broker warehouses for Tea Collection and closer proximity to regulatory bodies to obtain necessary approvals for shipments. The SWOT analysis has been used to identify strategic areas for improvement or competitive advantages for a business and it highlighted the internal strengths, weaknesses and potential threats and opportunities. A detailed analysis was carried out in order to identify the likely problems associated with, and a detailed study was carried out to understand the ultimate causes of these problems. The main problem was discovered to be driven by deficiencies in material wastage, machine capacity underutilization, and rework charges, and the performance gaps were quantified by comparing the company standard expected level to the average of actual performances. Those problems areas have been categorized as Material Management, Machinery Management and Skilled Worker Management.

A review of the literature assists the author in analysing and discovering problems in terms of definitions and previous research findings. In depth literature review conducted with ranked journals, publications, and industry reputable sources on the identified problems and potential solutions from warranted knowledge. The author has highlighted areas such as customer order processing delay, make to order production, organization procedures in manufacturing environment, order prioritization, significance and benefits of on-time order processing, cost factors, technology enhancements, volume impact, dispute management in customer order processing. Furthermore, under the material management, author emphasis on safety stocks, reorder levels, MRP, vendor managed inventory, smart supply chain,

OTIF, EOQ, Inventory Monitoring technologies, JIT manufacturing and decision making. Production efficiencies, Preventive maintenance, EPQ, OEE, TPM, combined control of production and resource planning have been discussed under the Machinery Management. Skilled Worker Management has been deeply reviewed with existing literature emphasising HRM, absenteeism, communication, service quality, automation, employee training, recruitments, motivation, sustainability, succession planning and competencies. Following that, the author develops the study framework with the help of the literature, and further identifies the tools and techniques that aid in solution development

Objectives have been set considering SMART goals. The key project objective has been identified as to reduce the Customer Order Processing delay from 25.04% to 10.00% within 12 months period. Associated problems have been set with objectives aiming to solve the discovered root causes. Material management objective has been set as material wastage to be reduced from 1.77% to 0.5%. Increase the machine utilization from 74.7% to 80.0%. As the second associated problem objective, machine utilization will be increased from 74.7% to 80.0% six to 12 months period. Reduce the rework charges from 2.52% to 1.00% six to 12 months period set as the third objective under skilled worker management. There are techniques that were identified for the project as MRP, Job Description, VSM, TPM, OEE, Safety Stock, TNA and Competency Mapping when providing solutions. The project's resources are identified, followed by a cost estimate for the project's implementation.

The tangible and intangible benefits of the project were identified and quantified in monetary terms and in the first year of the implementation, the total benefit was calculated to be LKR 12.3 million, and the detailed calculations were included in the appendices. The total cost for the proposed solutions was calculated to be LKR 1.27 million. As a result, the benefit-cost ratio is favourable, and it is calculated as 9.68. Based on the project components the forecasted project's output and outcomes were discussed in detail.

The literature facilitates in validating the proposed solutions and its relationship to narrow the performance gaps. The literature once again validated the linkage and validation of the solutions proposed to bridge the performance gaps. The project findings were supported by warranted knowledge, and specific recommendations were made to ensure that the proposed solutions are improved. These recommendations are discussed under material management, machinery, and skilled workers. Expansion of the solutions necessitates the use of external resources. The author improved his conceptual, problem-solving, methodical, and interpersonal skills throughout the course of this project.