

A five-person label maker raises productivity by 40.3%: Technology and data

MANUFACTURING

MICRO

TECHNOLOGY AND DATA

+40.3%

PRODUCTIVITY RATIO [1]

-17.3%

FINAL-STAGE LEAD TIME [1]

358

PERFORMANCE OBSERVATIONS [1]

PROBLEM

A small team carried scheduling, setup, maintenance, production, and sales-office work with little spare capacity. Frequent setup and coordination demands limited the time available for productive work.

SOLUTION

The company introduced 5S, faster changeovers, demand-led scheduling, and planned maintenance in sequence. Each change addressed a measured constraint before the team moved to the next part of the process.

RESULT

The overall productivity ratio rose from 3.70 to 5.19. The final stage also reduced lead time from 3.24 to 2.68 days.

BUSINESS LENS

SWOT: limited capacity was the weakness; team knowledge was the strength. The process changes converted that knowledge into repeatable output.

ASSUMPTIONS AND LIMITS

Single-company, six-month study. Overall lead-time change was not statistically significant; the final-stage result is reported separately.

"The manufacturing process is simpler."

Company participant, cited in Minshull et al.

DEPARTMENT APPLICATION

TECHNOLOGY AND DATA

Repeated observations made progress measurable.

Application analysis based on the cited source. It is not a separate measured result.

Prepared by Ocmulgee Business Process Solutions from the cited independent source. This is not an Ocmulgee client engagement or an original Ocmulgee result.

SOURCE [1]

Minshull, Dehe and Kotcharin, 2022. Exploring the Impact of a Sequential Lean Implementation Within a Micro-Firm. <https://openrepository.aut.ac.nz/items/ef26769a-a742-472e-9cfc-e773139be39f>

Peer-reviewed longitudinal action research | Size basis: 4 full-time and 1 part-time employee.