

A 12-person food bank cuts packing time by almost 36%: Technology and data

NONPROFIT AND EDUCATION

SMALL

TECHNOLOGY AND DATA

-36%

PACKING TIME [1]

-33.3%

VOLUNTEERS REQUIRED [1]

12

STAFF MEMBERS [1]

PROBLEM

Three volunteers used an inconsistent packing flow with excess movement and local decisions. Variation in roles and replenishment made each packing cycle harder to predict and supervise.

SOLUTION

University researchers used DMAIC, customer analysis, process-value analysis, a spaghetti diagram, and 5S in a live pilot. The team clarified roles, reduced travel, and tested the revised flow under operating conditions.

RESULT

Packing time fell by almost 36%. Required labor fell from three volunteers to two while the supervisor gained clearer process control.

BUSINESS LENS

Process economics: a small team increased service capacity through flow and role changes, not added labor.

ASSUMPTIONS AND LIMITS

One pilot at the Toa Payoh Food Pantry 2.0 site. Long-term control results were not available.

DEPARTMENT APPLICATION

TECHNOLOGY AND DATA

DMAIC measures made waste and control points visible.

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]

See and Tay, 2021. Application of Lean Six Sigma to Improve The Food Bank Singapore's Vending Machine Replenishment Process.
<https://doi.org/10.46254/AN11.20210619>

Reviewed IEOM university conference case | Size basis: The Food Bank Singapore's 2021 annual report names 12 staff members.

The Food Bank Singapore 2021 annual report: https://foodbank.sg/wp-content/uploads/2023/06/FoodBank_AnnualReport2021.pdf