

UNIVERSITI TEKNOLOGI MARA

**PRODUCTION FLOW
IMPROVEMENTS IN PHYSICAL
TESTING LINE THROUGH
IMPLEMENTATION OF LEAN
MANUFACTURING IN TEXTILE
INDUSTRY**

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Dissertation submitted in partial fulfillment
of the requirements for the degree of
Master of Science
(Mechanical Engineering)

Faculty of Mechanical Engineering

July 2019

ABSTRACT

Optimization of streamlined process flow is very important in the production floor of textile industry, so that the delivery of finish product can meet shipping schedule with smooth operation process. This research is focused on analyzing the best way to improve operation flow layout that focus on walking tester time and identifying the wastages that can be reduced at physical tests area as well as investigating the effects of the improvement after applying the Lean Manufacturing. The main objective of this study is to identify the efficiency way to improve the productivity in physical tests especially weight test and washing test for color fastness by using Lean Manufacturing and some Lean Six Sigma. The data is collected from the time study at textile testing processes and be analyzed by using standard work analysis, Standardized Work Chart (SWC) and Standardized Work Combination Table (SWCT). Then, the new layout is designed from the implementation of Kaizen projects. This study enables the company to identify wastes as well as improving their delivery on time and reducing the motion in operation sequences, so that the workplace ergonomics assessment can be organized to have more efficient working environment.

ACKNOWLEDGEMENT

I am thankful, because I have successfully finished this dissertation about “Production Flow Improvements in Physical Testing Line Through Implementation of Lean Manufacturing in Textile Industry” that been given to me in two semesters. I would like to acknowledge the Universiti Teknologi Mara (UiTM) and Penfabric Mill 4 Sdn Bhd for the supporting of this research Thank to Faculty of Mechanical Engineering because give me the opportunity to participated this programme.

My special thanks are sent to Dr Noor Azlina Mohd Salleh, my supervisor, for her patient guidance and continuous encouragement in training me to conduct research, try boldly on new ideas and potential solutions and keep balances between the depth and width of knowledge purposely to integrate them systematically.

Last but not least, I want to express my deepest gratitude to my family and parents, without their support, my study for Master by Mix-mode Programme would have been impossible.

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