

TT05/ 08

LB/DON/08/2013

IMPACT OF LEAN MANUFACTURING PRACTICES ON EMPLOYEE JOB SATISFACTION IN APPAREL INDUSTRY

LIBRARY
UNIVERSITY OF MORATUWA, SRI LANKA
MORATUWA

Welapura Mahawaduge Samantha Pradeep

(8/8712)

Thesis submitted in partial fulfillment of the requirements for the degree Master of
Science

Department of Textile and Clothing Technology

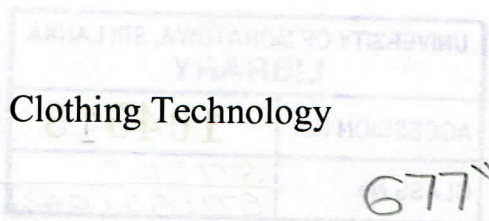
University of Moratuwa
Sri Lanka

March 2012

University of Moratuwa



104518



677"12"

677:65043

TH

104518

104518

Declaration of the Candidate & Supervisor

"I declare that this is my own work and this thesis does not incorporate without acknowledgement any material previously submitted for a Degree or Diploma in any other University or institute of higher learning and to the best of my knowledge and belief it does not contain any material previously published or written by another person except where the acknowledgement is made in the text.

Also, I hereby grant to University of Moratuwa the non-exclusive right to reproduce and distribute my thesis, in whole or in part in print, electronic or other medium. I retain the right to use this content in whole or part in future works (such as articles or books).

Signature: ***UOM Verified Signature***

Date: 25/06/2012

The above candidate has carried out research for the Masters thesis under my supervision.

UOM Verified Signature

Signature of the supervisor:

Date: 25/06/2012

UOM Verified Signature

Signature of the supervisor:

Date: 25/06/2012

Dedication

*I lovingly dedicate this thesis to my wife and mother,
who supported me
each step of the way*

Acknowledgement

I take this opportunity to express my sincere thanks to those who assisted and guided me in this study. This thesis would not have been possible without their support and encouragement.

It is with immense gratitude that I acknowledge the support and help of my supervisors Dr. W.D.G Lanarolle and Mrs. Vijitha Rathnayake for their supervision, advice and guidance from the very early stage of this research as well as giving me extraordinary experiences throughout the work.

I would also be grateful to Mr. Niranjana Wijesekera, the former Chief Executive Officer of Prym Intimates Lanka Private Limited and the management for giving their fullest cooperation to conduct this study.

I am indebted to the executives and managers of selected apparel industry firms who supported me to distribute questionnaire in their organizations disregarding the difficulties.

I convey special acknowledgement to my colleagues Sampath Jayawickrama and Althaf for their advice and support that nourished my thesis. My sincere thanks also go to my colleagues, Ranmali, Anupama, Aruni, Buddhikaa and Lasantha at Prym who supported me in various ways.

Finally, I wish to pay my tribute to my loving wife Kalpani and mother for their sacrifices during this period, strength and courage given to complete this task.

Abstract

Apparel manufacturers all over the world are pressed to deliver high quality garments at low costs in shorter lead times. Most of the apparel manufacturers started following lean manufacturing concept due to its benefits and competitive advantage. Lean Manufacturing Practices (LMPs) are implemented through employees in the organization and it is essential to find out employee job satisfaction in a lean manufacturing environment. A comprehensive literature review was conducted to get necessary lean information. The objectives of the study are to identify the impact of LMPs on employee satisfaction in apparel industry and identify the most vital factors that affect the job satisfaction of the employee with the involvement of LMPs.

Five dimensions of LMPs constructed include 6S, Empowerment, Kaizen, PDCA Methodology and Teamwork. This research focuses on empirically testing the framework under study. Data was collected from a randomly selected five lean implemented manufacturing organizations in apparel sector through a questionnaire. 125 completed responses were considered for the data analysis. The formal statistical analysis including frequency distribution of variables, validity and reliability analysis, descriptive statistical analysis, one-sample t-test and factor analysis, were carried out.

The major findings of the research on LMPs directly affect the employee job satisfaction with a positive impact. Based on the statistical result, LMPs; 6S, Empowerment, Kaizen, PDCA Methodology and Teamwork help to increase the employee job satisfaction after the implementation of Lean Manufacturing.

Among all five LMPs, Kaizen is the most vital factor that employee feels which has positively affected to the employee job satisfaction. Hence, an environment where mutual respect and positive recognition are fostered will help to increase job satisfaction.

Table of Contents

	Page No
Declaration of the candidate & Supervisor	i
Dedication	ii
Acknowledgement	iii
Abstract	iv
Table of content	v
List of figures	vii
List of tables	viii
List of abbreviations	ix
List of Appendices	x
1. Introduction	1
1.1 Background	1
1.2 Problem Statement	2
1.3 Research Objectives	3
1.4 Significance of Study	3
1.5 Scope and Limitations	4
1.6 Methodology	4
1.7 Chapter Outline	5
2. Literature Review	6
2.1 Lean Manufacturing Practices	6
2.1.1 6S	6
2.1.2 Empowerment	7
2. 1.3 Kaizen (Continuous improvement)	9
2. 1.4 PDCA Methodology	11
2. 1.5 Teamwork	11
2.2 Employee Job Satisfaction	12
2.3 Chapter Summary	13

3.	Research Methodology	14
3.1	Research Framework	14
3.2	Operationalising Variables & Data Collection	15
3.3	Research Hypothesis	17
3.4	Population and Sample Characteristic	19
3.5	Data Analysis	19
3.6	Chapter Summary	20
4.	Data Analysis & Discussion of Results	21
4.1	Introduction	21
4.2	Frequency Distribution of the Variables	21
4.3	Validity and Reliability Analysis	27
4.4	Descriptive Statistics	30
4.5	Statistical Analysis	31
4.6	Chapter Summary	37
5.	Conclusions & Recommendations	38
5.1	Conclusions	38
5.2	Recommendations	40
	Reference List	41
	Appendix A: Sample Questionnaire	45

List of Figures

		Page No
Figure 3.1	Research Framework	14
Figure 4.1	Frequency Distribution of Department	22
Figure 4.2	Frequency Distribution of Working Experience	23
Figure 4.3	Frequency Distribution of Gender	24
Figure 4.4	Frequency Distribution of Age	25
Figure 4.5	Frequency Distribution of Education Level	26

List of Tables

		Page No
Table 3.1	List of Literature Reference	15
Table 4.1	Frequency Distribution of Department	21
Table 4.2	Frequency Distribution of Working Experience	22
Table 4.3	Frequency Distribution of Gender	23
Table 4.4	Frequency Distribution of Age	24
Table 4.5	Frequency Distribution of Education Level	25
Table 4.6	Frequency Distribution of Education Level Vs Department	26
Table 4.7	Factor Loading and Cronbach's Alpha	28
Table 4.8	Descriptive Statistics of LM practices	30
Table 4.9	One-sample t-test for first hypothesis	32
Table 4.10	One-sample t-test for second hypothesis	33
Table 4.11	One-sample t-test for third hypothesis	34
Table 4.12	One-sample t-test for fourth hypothesis	35
Table 4.13	One-sample t-test for fifth hypothesis	36
Table 4.14	Loading factors for variable mean	36

List of Abbreviations

Abbreviation	Description
CANDO	Cleaning up, Arranging, Neatness, Discipline, Ongoing Improvement
EMP	Empowerment
KZ	Kaizen
LM	Lean manufacturing
LMPs	Lean Manufacturing Practices
PDCA	Plan-Do-Check-Act
TW	Teamwork

List of Appendices

Appendix	Description	Page No
Appendix – A	Sample Questionnaire	45