INVESTIGATING KNOWLEDGE MANAGEMENT PRACTICES TO MINIMIZE THE IMPACT IN STAFF TURNOVER: A CASE IN MANUFACTURING ORGANIZASIONS

K. P. A. N. Karunanayake

(148412P)

Degree of Master of Science

In

Project Management

Department of Building Economics

University of Moratuwa

Sri Lanka

November2018

INVESTIGATING KNOWLEDGE MANAGEMENT PRACTICES TO MINIMIZE THE IMPACT IN STAFF TURNOVER: A CASE IN MANUFACTURING ORGANIZASIONS

K. P. A. N. Karunanayake

(148412P)

Thesis/Dissertation submitted in partial fulfillment of the requirements for the degree Master of Science in Project Management

Department of Building Economics

University of Moratuwa

Sri Lanka

November2018

DECLARATION

I hereby declare that the work included in this dissertation as part or as whole, has not been submitted for any other academic qualification at any other university or institute. The material included in this document contains the findings of researcher and elsewhere abstracts of previous publications where references are provided accordingly.

……

K. P. A. N. Karunanayake

Date: ……...

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

Signature of the supervisor:……

Date: ……...

ABSTRACT

Skilled staff turnover plays a wide role in continuous knowledge loss in manufacturing organizations. The result of staff turnover impacts the organizational performance, productivity, effectiveness, employee performances and its knowledge. The importance of managing an organization's knowledge is a need in manufacturing organizations. This research identified the importance of knowledge management in the manufacturing sector with high staff turnover. This enables project managers to take project knowledge management into practice within the organization.

This study uses a qualitative approach. The aim of the study was achieved by a case study research strategy. Semi structured interviews were performed as data collection technique. Data was collected from TMC Trailer Manufactured Ltd, focusing on knowledge management methodologies used at the project phases and figure out the impact of staff turnover on organizational knowledge.

The knowledge management techniques vary from one project phase to another project phase. Based on the outcome of this research, project managers can identify the most effective knowledge management techniques to be used at each phases. According to the study, the most frequently used KM techniques in the planning stage were "Learning & Idea Capturing" and "Refer Knowledge Base". The most prominently used KM techniques in the designing stage was "Brainstorming" and "Learning & Idea Capturing". While the most frequently used KM technique in the building, testing and launching stages was found to be "Refer Knowledge Base". From this research study, project managers are clearly able to identify the critical areas affect by skilled staff turnover, how to prepare for in advance and minimize knowledge loss.

ACKNOWLEDGEMENT

In the preparation and finish this research report, I acknowledge the encouragement and assistance given by number of people and companies.

I would like to express my sincere gratitude to my supervisor, Dr. (Mrs.) Udayangani Kulatunga for her valuable support, encouragement and guidance throughout the research.

I would like to express my deepest gratitude to the Course Coordinator of the MSc (PM) program, Ch.QS Vijitha Disaratna, University of Moratuwa for the valuable guidance given to make this research success.

I would like to thank Dr. (Mrs.) Yasangika Sandanayake, Head of the Department of Building Economics for her valuable advices and continuous guidance.

Further, I want to express my special thanks to Mr. Prasanna Haturusinghe, Director In charge of the trailer manufacturing organization for all the support given for making this research work success.

I would also like to thank all the staff members of the trailer manufacturing organization, who participated for interviews and supported the research study.

I like to express my gratitude to staff of the Department of Building Economics, University of Moratuwa for the support given to me to complete this research work.

I would like to thank my family for their continuous support and encouraging words that helped me through tough times. Last but not least, I would like to thank my friends who have provided me with advice and helped through the entire process.

TABLE OF CONTENTS

DECLARATION …… **i**
ABSTRACT …… ii
ACKNOWLWDGEMENT …… **iii**
TABLE OF CONTENTS ……... **iv**
LIST OF FIGURES ……... **vii**
LIST OF TABLES ……..... ….. **vii**
LIST OF ABBREVIATIONS……. **ix**

CHAPTER 01 – INTRODUCTION …….. **01**
1.0 Introduction ……. 01
1.1 Background of the Study ……. 01
1.2 Research Problem …… 02
1.3 Importance of the Study …….. 03
1.4 Aim …….. 04
1.5 Research Objectives ……. 04
1.6 Research Methodology …… 04
1.7 Structure of Dissertation …….. 05

CHAPTER 02 – LITERATURE STUDY ……. **06**
2.0 Introduction ……. 06
2.1 Staff Turnover ……. 06
2.2 Impact on Staff Turnover …… 08
2.2.1 Impact on Productivity of the Organization ……... 08
2.2.2 Impact on Organisational Effectiveness …….. 09
2.2.3 Impact on Employee Performance …… 09
2.2.4 Impact on Organizational Knowledge …….. 10
2.3 Knowledge Management ……. 11
2.4 Project Knowledge Management ……. 13
2.5 The Project Phases …… 15

2.6 Knowledge Management Techniques ……. 16
2.6.1 “Brainstorming” KM Technique …….. 16
2.6.2 “Refer knowledge base” KM Technique ……. 17
2.6.3 “Learning & Idea Capturing” KM Technique …… 17
2.6.4 “After Action Review” KM Technique …… 17
2.6.5 “Blogs” KM Technique ……. 18
2.7 Chapter Summery ……. 19

CHAPTER 03 – RESEARCH METHODOLOGY …… 20
3.0 Introduction ……... 20
3.1 Research Design …… 20
3.2 Research Philosophy ……. 22
3.3 Research Approach ……... 22
3.3.1 Qualitative Research …….. 23
3.3.2 Quantitative Research …… 23
3.3.3 Justification to use Qualitative Methodology …… 25
3.4 Research Strategy ……..…… 25
3.5 Case Study …….. 26
3.5.1 Definition and Use of Case Study ……26
3.6 Research Technique ……... 28
3.6.1 Data Collection ……28
3.6.1.1 Historic Data …….. 28
3.6.1.2 Interviews …….. 29
3.6.2 Data Analysis Procedure …….. 29
3.7 Chapter Summery ……. 30

CHAPTER 04 – DATA ANALYSIS …… 31
4.0 Introduction …… 31
4.1 Introduction to Case Study Organization ……. 31
4.1.1 TMC Group Man Power …… 32
4.1.2 TMC High Staff Turnover ……. 33

4.2 Data Sample ……... 35
4.2.1 Characteristics of the Participants …….. 36
4.3 Impact on Organizational Knowledge with Skilled Staff Leaving …….. 37
4.4 Impact of Skilled Member Leaving the Project …… 38
4.5 Understanding the KM Role within the Organization …….. 39
4.6 The KM Techniques, Effectiveness and Barriers within the Organization …….. 42
4.6.1 Planning Stage …… 42
4.6.2 Designing Stage …… 45
4.6.3 Building Stage …… 48
4.6.4 Testing Stage …….. 51
4.6.5 Launch Stage …….. 54
4.6.6 Other KM Techniques used within the Organization …… 56
4.7 The KM Barriers and how to Overcome those Barriers ……... 57
4.7.1 Understanding how to Overcome those KM Barriers …… 58
4.8 The Most Effected Stage of Skilled Staff Member Leaving the Project ……. 60
4.9 Understanding the Reasons for Staff Leaving the Organization …… 60
4.10 Other Possible way of Capturing Knowledge ……..... 64
4.11 Chapter Summery ……. 65

CHAPTER 05 – CONCLUSIONS & RECOMMENDATIONS ……. 66
5.0 Introduction …… 66
5.1 Objective 01: Identify the Impact of Leaving Skilled Staff from Ongoing Projects …… 66
5.2 Objective 02: Identify the Knowledge Management Methodologies Applied for each Project Stages …… 66
5.3 Objective 03: Identify the Effectiveness of Current Knowledge Management Practices within the Organization ……. 67

5.4 Objective 04: Identify the Barriers to Practice Knowledge Management within the Organization and Propose Best Method to Overcome ……67
5.5 Objective 05: Propose Best Methods to Retain the Knowledge within the Organization …….. 68
5.6 Recommendations from Findings …….. 68
5.7 Limitation …… 68
5.8 Future Research ……... 69

LIST OF REFERENCE ……... **70**
APPENDIX A …… **83**
APPENDIX B …… **84**
APPENDIX C…… **90**

LIST OF FIGURES

Figure 3.1 Nested Model or Hierarchical Model ……... 21
Figure 3.2 Case Study Design and Unit of Analysis …….. 27
Figure 4.1 Length of the Interviewees' Work Experience in TMC ……. 36

LIST OF TABLES

Table 3.1 Quantitative vs. Qualitative Approaches …… 24
Table 3.2 Objectives of the Research within Data Collection Method …….. 30
Table 4.1 TMCs' Volume of Business for Past Three Years …….……... 32
Table 4.2 TMC Group Man Power …….……..... 33
Table 4.3 TMCs' Staff Turnover for Past Three Years ……..…...….. 33
Table 4.4 Details of the Participants for the Interview ……. 35
Table 4.5 Interviewees Experience in Trailer Manufacturing Industry ……..…. 36
Table 4.6 Identification of a KM Role within the Organization …….. 39
Table 4.7 Identification of KM within the Organization …… 41
Table 4.8 Responses for KM methodologies Apply in Planning Stage ……. 44
Table 4.9 Responses for KM methodologies Apply in Designing Stage …… 47

Table 4.10 Responses for KM methodologies Apply in Building Stage ……. 50
Table 4.11 Responses for KM methodologies Apply in Testing Stage ……. 53
Table 4.12 Responses for KM methodologies Apply in Launching Stage ……. 55
Table 4.13 View on other KM Methodologies Applied ……. 56
Table 4.14 Critical Stage Identified ……. 60
Table 4.15 Reasons for Leaving the Organization …….. 63