



**FACULTY OF TECHNOLOGY MANAGEMENT AND  
TECHOPRENEURSHIP**

**“A STUDY ON WORKER’S CAPABILITIES AND  
INNOVATIVENESS IN ICT SMEs”**

**NAME : NURFATIN BINTI RABU**

**MATRIC NO : B061110185**

**COURSE : 4BTMI**

**SUPERVISOR : DR JUHAINI BINTI JABAR**

**PANEL : CIK SITI NORWARDATULAINA BINTI MOHD YUSOF**

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NURFATIN BINTI RABU

UNIVERSITI TEKNIKAL MALAYSIA MELAKA

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NURFATIN BINTI RABU

This report is submitted as a partial fulfillment for  
Bachelor of Technology Management (Technology Innovation)

Faculty of Technology Management and Technopreneurship (FPTT)

Universiti Teknikal Malaysia Melaka

JUNE 2015

## DECLARATION

‘I declare that this report entitled “**A Study on Worker’s Capabilities and Innovativeness in ICT SMEs**” is my original work and all references have been cited adequately as required by the University’

Signature : .....

Full Name : NURFATIN BINTI RABU

Date : .....

**SUPERVISOR APPROVAL**

‘I hereby declare that I have examine and read this thesis and verify that it is adequate in terms of scope and quality awarded for Bachelor of Technology Management (Technology Innovation)’

Signature : .....

Supervisor Name : .....

Date : .....

Signature : .....

Panel Name : .....

Date : .....

## **DEDICATION**

This research is lovingly dedicated to my respective parents, who always inspired me along completing this research. They have given me the drive and discipline to tackle any tasks with enthusiasm and determination. Without their love and support this research would not have been made possible.

## ACKNOWLEDGMENT

First and foremost, praise to Allah S.W.T that give me chance to complete my Final Year Project with much success. I would like to express my sincere thank and heartfelt gratitude to the following people that has supported and help me to complete this study. In preparing this research report, I were in contact many people, academicians, respondents, and family.

For the formal completion of the thesis, I feel the need to acknowledge many individuals. Firstly, my special gratitude goes to my supervisor Dr Juhaini Jabar. She has been of great help and has shown much support and wisdom. I have benefited tremendously from her genuine understanding of the field of innovation and technology management.

I start by conveying warm thanks to my beloved family for their continuous encouragement and support. My deep thanks also go to my friends and colleagues at Universiti Teknikal Malaysia Melaka (UTeM).

On a personal level, I have no words that can describe my love and respect to that person who stood by my side all these years, my father and my husband. Without their support, fulfilling this dream of mine would have been very difficult. For my mother, who is no longer with us in this earthly life but always among us in spirit, I convey my deepest feelings of gratitude and love. They have always encompassed me and my dreams. I present this work in their memory.

## ABSTRACT

This research, it is a study on a worker's capabilities and innovativeness in ICT SMEs. This research will be done in ICT Company at Klang Valley. The worker's capabilities are widely known as the way to create some worker's to innovativeness. Worker's capabilities through the learning factors and training factors can create a new virtual way to improve their worker's more innovate. Clearly, the emergences of information and communication technology (ICT) have been proved that it changed the way for conducting the success. Nowadays, as we know that the information and communication technology (ICT) is one of the fastest growing industries in the world. In order to enhance worker's capabilities, learning factors and training factors widely used to analyse the relationship worker's capabilities and innovativeness in ICT industry. A series of survey was conducted to collect data from respondents using quantitative method and the researcher objectives will be achieved and answering the research questions. Data were collected from 100 SMEs companies in ICT sector and the finding shows that there are positively relationships between experiential, teamwork, on job-training and e-learning factor towards worker's innovativeness. From the results, it shows that the entire hypothesis was accepted based on the data analysis conducted.



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## LIST OF SYMBOLS

<b>SYMBOLS</b>	<b>DESCRIPTION</b>
SMEs	Small and Medium Enterprises
ICT	Information & Communication Technology

## LIST OF APPENDICES

1. Gantt Chart PSM I
2. Gantt Chart PSM II
3. A Research Project Survey

## CHAPTER 1

### INTRODUCTION

#### 1.1 Background of Study

SME's industry was stands by itself to support and complete the developing of other sectors. It gives the advantage not only for the government but it also give advantage to private sector.

Nowadays, the SME's mostly Malaysian SME's are lack of resources such as their worker's skills, expertise from their worker's and capital for moving towards to technology. Moreover, to transform from the traditional business strategy to some a new strategy, it is too risky and very high challenging. Mostly, they failure to trained their worker's to be more likely to adopting new innovativeness especially in terms of the learning and training among the worker's.

The purpose of this study is to describe and briefly the questions based of the issues and the challenges in Information and Communication Technology (ICT) in the Small and Medium Enterprises (SME's) in Malaysia. The related issue of a study on worker's capabilities and innovativeness in ICT SME's will synthesis to produce research objectives, problem statement or research question, literature review, research methodology and the assumption of the study.

## 1.2 Problem Statement

There have several problems in exploring research related to the innovativeness among the worker's in information and communication technology (ICT) SME's. Research has indicated that workers of SMEs are a "disadvantaged group" in terms of training and learning. Smaller firms are interested only in the advantages for the owner/manager when training and learning is set up without consideration for the workers. SMEs are reluctant to find any kind of training and learning at all, means that workers miss out on the chances to improve their skills.

*Reference: Review articles from Development and Learning in organizations SME*

## 1.3 Research Questions

In exploring the research related to the innovativeness among the worker's in information and communication technology (ICT) SME's, the study seeks to answer the following questions:

- What are the factors enhancing of worker's capabilities in creating innovativeness worker's?
- What are the relationship between worker's capabilities and innovativeness in ICT SME's?
- What is the provided learning and training opportunities in ICT SME's?

## 1.4 Research Objectives

- To identify the factors enhancing of worker's capabilities in creating innovativeness worker's.
- To analyse the relationship between worker's capabilities and innovativeness in ICT SME's.
- To investigate the provided learning and training in ICT SME's.

## 1.5 Scope, Limitations and Key Assumptions of the Study

### ➤ Scope

At present, SME's nowadays have grown very well in the global economy. However, SME industry in Malaysia is still under exploited by several small and medium enterprises to compete in the drive towards innovative technology. Sometimes, it constraints include in lack of human resource challenges and skills; regulatory conditions and weak institutional regimes can cause for SME's do not survive and compete in this industry. Furthermore, to transform the SME's to innovativeness, ideas and suggestions from worker's are very helpful in creating an innovation in SME's and every SME's have own technique in producing innovative worker's.

### ➤ Limitations

Normally, when doing a research, the researcher will found a few limitations to complete in success of the study. The major factors that Researchers faced usually are:

- Lack of resources  
When doing this research, I need a lot of references to complete the research and I found just a little bit journal, articles, books and PDF to relate with this topic.

- Fund and capital  
To complete this research and project, I need a lot of fund and capital; Especially to printing the journal and article because reading through the paper is easier to understand than reading directly from a laptop.
- Limit time  
Time is too limited to preparing this research and at the same time need to complete other tasks that have been given.
- This research finding is only focused on the SMEs ICT. Therefore, it is not compatible to apply to other sector of SMEs in Malaysia.
- The amounts of the respondents were limited because the researcher looks on population in the company.

#### ➤ **Key Assumption of the Study**

The main purpose of this study is to show that how far the learning and training factors influencing the innovativeness worker's in ICT SME's. Other than that, this study is also wanted to give the impact in the future for the SME's industry to compete with others. In addition, it was giving the advantages for an organization to have a great worker's and push them always to innovativeness. In addition, the worker's can bring some of a new idea for their organization to developing the countries.

### **1.6 Significant of the Study**

The importance of this study is to define the relations between the variables that affect in creating innovativeness workers. By understanding all the variable such as learning factors and training factors will be able to help more understand on how this variables will enhancing the innovativeness worker's. In addition, the significant by doing this research is to give the impact in the future for the SME's

industry. Besides that, by learning and training for workers it was an advantage to use it in the organization for upgrade level of their worker's with the other developing countries. Furthermore, the ICT SME's also need to investigate what is the best learning and training must provided to create the innovativeness worker's.

### **1.7 Summary**

Basically, most of the study will explain about the strength of the worker's capabilities and innovativeness in ICT SME's. Since the worker's is the role towards the innovativeness well known concept, the researcher need to look closer what actually this concepts all about to more advance. The contributions from the worker's capabilities to the SME's industry also will help them to improve the organization and their performance to compete with other.

## CHAPTER 2

### LITERATURE REVIEW

#### 2.1 Introduction

The purpose of this chapter, it is to summarize the previous work or new work on flow and the researcher discusses about the literature review where discuss about the theory and paradigm of the research study. Besides, to achieve the objectives of this study, the information mostly get from the resources gathered from the journals, books, online articles, thesis and other related. According to Corbin and Strauss, et Al., (2008), the purpose of your literature review is not to provide a summary of everything that has been written on your research topic, but to review the most relevant and significant research on your topic. If your analysis is effective, new findings and theories will emerge that neither you nor anyone else has thought about.

The primary purpose of this research is to identify the factors enhancing of worker's capabilities in creating innovativeness worker's and to analyse the relationship between worker's capabilities in creating innovativeness worker's. In this chapter, it is provided learning and training in ICT SME's for worker's innovativeness to provide the theoretical framework for the analysis.

## 2.2 Small and Medium Enterprises (SME's) in Malaysia

Small and Medium Enterprises (SME's) is an important role to become a catalyst of economic growth in Malaysia and SME's stands by itself to support and complete the developing of others sectors. Besides that, SME's also to be responsible to drive the innovation and competition in many economic sectors.

*“High-tech, knowledge-based industries will play a crucial part in our transformation and future growth but we must not overlook the small and medium-sized businesses that are the workshops of our economy”.* ( Datuk Seri Najib Tun Razak [2013] ).

Small and medium enterprises (SMEs) play a vital role in the Malaysian economy and are considered to be the backbone of industrial development in the country (Saleh and Ndubisi, 2006, Ramayah et. al., 2002).

Most SME's perceived the barriers of implementing IT into their business operations as expensive, risky, complex procedure, lack of technical expatriate, and customer services (Yeung et al., 2003; Chong et. al., 2001; Pires and Aisbett, 2001).

According to Soh et al., (1997), if SME's in Malaysia adopt the ICT, the potential commercial functions that could be performed include, marketing themselves both locally and globally, gathering business information and consumer feedback, providing customer support and conducting electronic transactions.

According to Lim (2006), most SME's in Malaysia realize that ICT is critical to the productivity and performance of their companies. But, implementation and maintenance of these ICT systems is restricted due to inability to handle, owing to high staff turnover and lack of ICT project management expertise.