THE ASSOCIATION BETWEEN IT RELATED TRAININGS
AND IT INVESTMENTS IN MALAYSIA

By
MARJAN MOHD NOOR

May, 2012

Project Paper Submitted to the College of Business,
Universiti Utara Malaysia,
In fulfillment of the requirement for the Degree of
Master of Science (International Accounting)
Othman Yeop Abdullah  
Graduate School of Business  
Universiti Utara Malaysia

PERAKUAN KERJA KERTAS PROJEK  
(Certification of Project Paper)

Saya, mengaku bertandatangan, memperakuan bahawa  
(I, the undersigned, certified that)
MARJAN BINTI MOHD NOOR (808849)

Calon untuk ijazah Sarjana  
(Candidate for the degree of)  MASTER OF SCIENCE (INTERNATIONAL ACCOUNTING)

telah mengemukakan kertas projek yang bertajuk  
(has presented his/her project paper of the following title)

THE ASSOCIATION BETWEEN IT RELATED TRAININGS  
AND IT INVESTMENTS IN MALAYSIA

Seperti yang tercatat di muka surat tajuk dan kulit kertas projek  
(as it appears on the title page and front cover of the project paper)

Bahawa kertas projek tersebut boleh diterima dari segi bentuk serta kandungan dan meliputi bidang ilmu dengan memuaskan.  
(that the project paper acceptable in the form and content and that a satisfactory knowledge of the field is covered by the project paper).

Nama Penyelia  
(Name of Supervisor)  :  DR. MOHD 'ATEF BIN MD. YUSOF

Tandatangan  
(Signature)  :  

Tarikh  
(Date)  :  28 MAY 2012
PERMISSION TO USE

In presenting this project paper in partial fulfillment of the requirements for a postgraduate degree from Universiti Utara Malaysia, I agree that the University Library make a freely available for inspection. I further agree that permission for copying of this project paper in any manner, in whole or in part, for scholarly purpose may be granted by my supervisor(s) or, in their absence by the Dean of Othman Yeop Abdullah Graduate School of Business. It is understood that any copying or publication or use of this project paper or parts thereof for financial gain shall not be given to me and to Universiti Utara Malaysia for any scholarly use which may be made of any material from my project paper.

Request for permission to copy or make other use of materials in this project paper, in whole or in part should be addressed to:

Dean of Othman Yeop Abdullah Graduate School of Business
Universiti Utara Malaysia
06010 UUM Sintok
Kedah Darul Aman
DISCLAIMER

The author is responsible for the accuracy of all opinion, technical comment, factual report, data, figures, illustrations and photographs in this dissertation. The author bears full responsibility for the checking whether submitted is subject to copyright or ownership right. University Utara Malaysia (UUM) does not accept any liability for the accuracy of such comment, report and other technical and factual information and the copyright or ownership rights claim.

The author declares that this dissertation is original and her own except those literatures, quotations, explanations and summarizations which are duly identified and recognized. The author hereby granted the copyright of this dissertation to College of Business, University Utara Malaysia (UUM) for publishing if necessary.

Date: ___________________ Student Signature: ___________________
This study aims to examine whether there are associations between IT related trainings and IT investment in the Malaysian technology-based companies. This study uses two types of IT related trainings namely intermediate IT trainings, advanced IT trainings, which have never been tested with IT investments in previous studies. The data were collected via annual reports in 2010 from 104 technology-based companies listed in Bursa Malaysia. Univariate and multivariate such as independent sample test and linear regression were utilized to analyze the data. Results from univariate test show that IT based companies are actively involved in IT investments compared to engineering based companies. Result for intermediate IT trainings from linear regression shows, non-significant but result for advanced IT trainings is significant but with a weak association. Thus, result for second hypothesis it is partially supported, but weak association with IT investments. From the same regression, result for third hypothesis also can be concluded that advanced IT trainings are significant but weak association with IT investments.

Keywords: ICT, IT, Information Technology, Investment, Training
ACKNOWLEDGMENT

Alhamdulillah, all praise is due to Allah S.W.T, the Most Gracious and the Most Merciful, who has taught me what I knew not. I thank to Allah SWT for the blessing and guidance given to me.

I would like to express my deepest appreciation to my supervisor, Dr. Mohd. 'Atef Md Yusof, En. Md. Suhaime Md. Salleh as an assistant supervisor, and En. Fathilatul Zakimi Abd Hamid as my examiner for all the advice, guidance and motivation given throughout this thesis. Their frankness and constructive ideas help me a lot in the course of my project and without their great experience and vast knowledge, this thesis could not be completed within the time frame.

I want to whole heartedly give my appreciations to my beloved mothers, Selamah Binti Abdullah and Ku Manis Bt Ku Ismail, and husband, Wan Kamarul Hazim Bin Wan Ya, and daughter Wan Nur Hannan Farisah, for giving me unlimited supports and motivation and of course their prayers. To a number of friends and family, I am eternally grateful for their care and support. Your helps and cooperation will never be forgotten.

Thank you
# TABLE OF CONTENTS

PERMISSION TO USE  ii  
DISCLAIMER  iii  
ABSTRACT  iv  
ACKNOWLEDGMENT  v  
TABLE OF CONTENTS  vi  
LIST OF TABLES  viii  
LIST OF ABBREVIATIONS  ix

---

## CHAPTER 1: INTRODUCTION

1.1 Background of the Study  1  
1.2 Problem Statement  4  
1.3 Research Question  6  
1.4 Research Objective  6  
1.5 Significance of the Study  7  
1.6 Limitation of the Study  8  
1.7 Organization of the Chapter  9

## CHAPTER 2: LITERATURE REVIEW

2.1 Concept of Information Technology  10  
2.2 Definition of Training  11  
2.3 Definition of IT Trainings  12  
2.4 The Association Between IT Related Trainings and IT Investments  14
# LIST OF TABLES

<table>
<thead>
<tr>
<th>TABLE</th>
<th>TITLE</th>
<th>PAGE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Table 3.1</td>
<td>Classification of Listed Companies of Malaysian Public Listed Companies in 2010</td>
<td>33</td>
</tr>
<tr>
<td>Table 3.2</td>
<td>Classifications of Malaysian Technology Companies</td>
<td>34</td>
</tr>
<tr>
<td>Table 3.3</td>
<td>Types of IT Trainings</td>
<td>36</td>
</tr>
<tr>
<td>Table 3.4</td>
<td>Types of Variables</td>
<td>37</td>
</tr>
<tr>
<td>Table 4.1</td>
<td>Descriptive Statistics of Dependent and Independent Variables</td>
<td>40</td>
</tr>
<tr>
<td>Table 4.2</td>
<td>T-Test of Two Sample Assuming Unequal Variances</td>
<td>43</td>
</tr>
<tr>
<td>Table 4.3</td>
<td>Correlation Between the Variables in the Year 2010</td>
<td>44</td>
</tr>
<tr>
<td>Table 4.4</td>
<td>Summary Output of Linear Regression for the Year 2010</td>
<td>47</td>
</tr>
<tr>
<td>Table 4.5</td>
<td>Summary of Findings</td>
<td>48</td>
</tr>
</tbody>
</table>
LIST OF ABBREVIATIONS

<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>NCIA (IT)</td>
<td>Net Cash Investing Activity in IT</td>
</tr>
<tr>
<td>TA</td>
<td>Total Assets</td>
</tr>
<tr>
<td>ROA</td>
<td>Return on Assets</td>
</tr>
<tr>
<td>SUB (IT)</td>
<td>IT Subsidiaries</td>
</tr>
<tr>
<td>IIT</td>
<td>Intermediate IT Training</td>
</tr>
<tr>
<td>AIT</td>
<td>Advanced IT Training</td>
</tr>
<tr>
<td>IIT RATIO</td>
<td>Intermediate IT Training Ratio</td>
</tr>
<tr>
<td>AIT RATIO</td>
<td>Advanced IT Training Ratio</td>
</tr>
</tbody>
</table>
CHAPTER ONE

INTRODUCTION

1.1 Background of the Study

The purpose of this study is to examine the association between IT related trainings and IT investments. IT is very important to many business organizations, as in organizations. Survival and ability to achieve the goals of business strategy is difficult if the execution is not supported by an extensive use of information technology in today’s environment. Due to that situation, many organizations decided to make investments in IT since it may contribute a lot of benefits to the company in the long run. This statement is supported by several literatures by saying that there are some reasons why organizations in particular invested in IT (Strassman, 1990; Brynjolffsson, 1993, 1994; Ashrafi and Murtaza, 2008). Apart of a need to create wealth for organization, improve output levels in production and service delivery, IT investments also opens up opportunities to them to produce quality products and services and to control communication activities in order to achieve their customer satisfaction. Business organizations invest in information technology because they are necessities of doing business and these necessities are driven by industry level changes (i.e. rapid changes information and stiff competition). Besides that,
The contents of the thesis is for internal user only
References


of Hospitality & Tourism Management, Virginia Polytechnic Institute and State University.


