

**THE EFFECTS OF BALANCE SCORECARD  
(BSC) COURSE USING E-LEARNING METHOD  
ON EMPLOYEES' JOB PERFORMANCE: A  
STUDY AMONG ASSISTANT MANAGERS IN  
TELEKOM MALAYSIA BERHAD**

**BY**

**SUHaida MOHD HAZIRY**

**Project Paper Submitted in Partial Fulfillment of the Requirement for  
the Degree of Master of Management**

**Open University Malaysia  
(2009)**

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## ABSTRACT

This study sought to examine the effects of Balance Scorecard (BSC) course using e-learning method to Assistant Managers of Telekom Malaysia Berhad, working in the marketing division. This case study was based on theory by Donald Kirkpatrick on evaluation of e-learning method. 73 of Assistant Managers from Product Marketing Division were involved in this study. The survey research method used was questionnaires, distributed to the samples through their emails. Hypotheses were tested at the .05 significance level, using Pearson Correlation and Linear Regression Analyses. The participants have positive reactions towards the BSC e-learning course, with 58.9% responded in moderate level. Before enrolling to the e-learning course, 84.9% of the participants had low level of knowledge about Balance Scorecard, with mean score of 26.1918. None of them had high level of knowledge on BSC before attending the e-learning course. After completing the course, 78.1% of the participants had increased their knowledge on BSC to medium level. The mean score was 42.2941. t-test done showed that there was a significant difference of participants' level of knowledge before and after completing the e-learning course ( $t = 50.328, p < 0.05$ ). Correlation analysis showed that there was a high correlation between overall reactions and participants' job performance,  $r = .974, p < 0.01$ . Correlation analysis also showed that there was a high correlation between participants' knowledge acquisition and their job performance,  $r = .809, p < 0.01$ . Regression analysis showed that impact, course module and facilities explained 88.2% of the variance in participants' knowledge acquisition after course completion. (Adjusted R square = .882). The significant beta coefficient showed that all sub-categories of participants' reactions (course module, facilities, impact) were significant at 0.05. Facilities had the highest significant impact on participants' knowledge acquisition after course completion ( $\beta = .878$ ). Another regression analysis showed that knowledge after course completion explained 64.9% of the variance in participants' job performance (Adjusted R square = .649). The significant impact of knowledge after course on job performance was .809 ( $\beta = .809, p < 0.05$ ).

## APPROVAL

### PROJECT PAPER/CASE STUDY SUBMISSION FORM

Name of Student: SUHAIDA BT MOHD HAZIRY  
Matriculation No.: CGS 00044602

Director  
Centre for Graduate Studies  
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- (I) Chapter 1: Introduction
- (II) Chapter 2: Literature Review
- (III) Chapter 3: Research Methodology
- (IV) Chapter 4: Data Analysis & Results
- (V) Chapter 5: Discussion
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## LIST OF ABBREVIATIONS

<b>TM</b>	<b>Telekom Malaysia Bhd</b>
<b>R&amp;D</b>	<b>Research &amp; Development</b>
<b>MMU</b>	<b>Multimedia University</b>
<b>MMC</b>	<b>Multimedia College</b>
<b>MAPS</b>	<b>Managing Performance Appraisal System</b>
<b>BSC</b>	<b>Balance Scorecard</b>
<b>KPI</b>	<b>Key Performance Indicator</b>
<b>PCT</b>	<b>Personal Computer Technology</b>
<b>SME</b>	<b>Small &amp; Medium Enterprise</b>
<b>CSL</b>	<b>Computer-Supported Learning</b>
<b>IQ</b>	<b>Innovation Quotient</b>
<b>UTAUT</b>	<b>Unified Theory Of Adoption And Use Of Information Technology</b>
<b>OTJ</b>	<b>On-The-Job</b>
<b>AM</b>	<b>Assistant Manager</b>
<b><u>M</u></b>	<b>Mean Score</b>
<b><u>SD</u></b>	<b>Standard Deviation</b>
<b>N</b>	<b>Sample size</b>
<b>ANOVA</b>	<b>Analysis Of Variance</b>
<b>CSO</b>	<b>Customer Service Officers</b>

# CHAPTER 1

## INTRODUCTION

### 1.1 Introduction

Telekom Malaysia Berhad (TM) is Malaysia's Number One provider of information communication technologies. Besides Malaysia, TM has operations and financial interests in nine Asian countries, namely Sri Lanka, Bangladesh, Pakistan, India, Iran, Indonesia, Singapore, Cambodia and Thailand. TM has made important and beneficial developments in education and research and development because knowledge is key and a prime driver in nation's progress to meet the challenges of the 21<sup>st</sup> Century. TM has TM Research & Development Sdn Bhd, that represents the R&D activities in TM, Multimedia University (MMU), Malaysia's first private university, TM Smart School, incorporated to develop and implement the Malaysian Smart School, one of the country's MSC flagship applications, Multimedia College (MMC), the training arm of TM, and Yayasan TM, a charity foundation to further improve the education of students and professionals alike. TM's employees have the opportunities to gain more knowledge and skills from short courses provided by

part-time or full-time courses offered by MMU. Courses are offered through face-to-face learning or electronic learning (e-learning).

TM has the ability to handle online course requests by its employees. The requests can be made through TM official training portals, Multimedia College Training Reservation and Information System, TRIS (<http://mmc.tm.com.my/tris>) and TM E-learning Hub (<http://mmc.tm.com.my/lms/home.cfm>). Both portals offer instructor-based and online (e-learning) courses. E-learning courses are selected by TM's Human Resource Development (HRD) team based on employees' competencies. These courses are being made compulsory by the management because the objective is to enhance employees' skills and knowledge and enable them to perform better at work. Employees are being given duration to complete the courses, and being monitored by the HRD team. The results will be included in their Managing Performance Appraisal System (MAPS). One of the courses is the Balance Score Card (BSC) training, to learn and use a tool that translates TM's mission and strategy into a comprehensive set of objectives and performance measures that provides the framework for a strategic measurement and management system. A BSC consists of objective statements, measures, targets and initiatives.

E-learning is facilitated by MMC, and duration to complete the courses varies from one to six months. There are courses that are fully conducted via the web. All instructions, including user ID and password to access the system is given to employees via TM E-learning Hub. One of the courses conducted using

Another method is the BSC training. Another method is employees are invited for a pre-training session, whereby they will meet the course instructor and be given ID and password to access the system. Employees are being given chances to have some trial sessions before marks are taken for the course. Pre-training sessions usually takes only half of the day. Employees are then given ample time to complete the course on their own. An example of the course using this method is ISO 9001:2000 Standard. For both methods, marks will be taken and employees must repeat the courses if they failed. Completeness of the courses with flying colors is one of the Key Performance Indicators (KPIs) in their performance appraisal and must be taken seriously.

**Why e-learning?** For more than 40 years computers has been used to enhance learning in schools, universities and companies. The internet has been used as a vehicle for e-learning. It provides the depth, the infrastructure and the economy to enhance the learning environment. Now with the existing of World Wide Web, learning technology has been derived towards global solution. The goal of having e-learning in an organization is to drive excellent business results. Corporate performance can be enhanced through alignment of training and business strategy (Beamish, Armisted, Watkinson, et al., 2002). According to Gale (2002), the value of e-learning comes when it is linked to achieving a company's goals.

From observations, e-learning results the employees to have better job performance, produced more sales and achieved higher quality of customer

son (Lee, Borland). Analysis done by Waldir Arevalo De Azevedo Filho (2006); most companies have built an e-learning infrastructure and extended it across the enterprise. At this point, companies can use e-learning technologies in various ways to gain competitive advantages. E-learning can generate revenue, make relationships more productive with partners, suppliers and customers and support key processes, such as compliance. To gain these benefits, however, the training department, IT organization and business units must jointly manage the business initiatives that e-learning supports. Training is no longer a stand-alone function.

## 1.2 Research Problems

This study had identified a few problems occurred during the e-learning courses conducted to Assistant Managers of Telekom Malaysia Bhd:

### 1) Are the employees really interested in doing the online courses?

The e-learning modules were developed by external vendors, who have less working experience in the company. The systems, especially those in the market, were not designed based on the existing environment in the company. The company's norm and culture might have conflicts with the courses and resulted less interest in the employees taking it.



Furthermore, not all employees can benefit from the content of the courses because they might not be using the knowledge in the daily working environment.

2) Do the employees really learn from what they do in the e-learning courses?

No employees would like to have negative remarks in their performance appraisal just because they did not complete the e-learning courses with flying colors. They would not consider whether they really learn and understand what was being taught in the courses.

3) If the employees are learning from the e-learning courses, how much do they learn?

Employees who had been exposed to e-learning courses should be able to answer whether they understand the courses and use it in their daily working environment.

4) To what extent do e-learning courses influence job performance of Assistant Managers in Telekom Malaysia Berhad?

Employees should show the differences in their performance before and after taking the e-learning courses.

### 1.3) Purpose

The purpose of this project paper is to examine the effects of e-learning on employees' job performance. This study was conducted among the Assistant Managers of Telekom Malaysia Berhad.

### 1.4 Objectives

This project paper has five main objectives to achieve, which are:

- 1) To identify the reactions of employees towards e-learning.  
Participants should be able to identify whether they like or dislike the type of learning, compared to normal training which requires face-to-face sessions with tutors and attending classes.
- 2) To examine the employees' knowledge acquisitions on Balance Scorecard (BSC) before and after completing the e-learning course.
- 3) To examine the relationship between employees' reactions towards e-learning and their job performance.

- 4) To examine the relationship between employees' knowledge acquisition after completing the e-learning course and their job performance.
- 5) To identify the effects of the BSC course using e-learning method on participants' job performance.

**Hypotheses for the study:**

- H1:** There is a significant difference of participants' level of knowledge before and after completing the e-learning course.
- H2:** There is a significant relationship between reactions towards the e-learning course and job performance.
- H3:** There is a significant relationship between knowledge acquisition after completing e-learning course and job performance.
- H4:** Participants' reactions are giving effects towards employees' job performance
- H5:** Knowledge on BSC acquired through e-learning method influences participants' job performance.

## 1.5 Significance of Study

The study is contributing to three entities:

### 1) Contribution to TM's employees

The contribution is specifically to the Assistant Managers of Telekom Malaysia Berhad. The result would enhance the human development and fully utilize them. It contributes some facts and figures on the e-learning course that had been conducted and improved the planned courses, to get more benefits from the courses and the employees. It is also inline with Malaysia's Government aspiration in developing human potential which are technology savvy.

### 2) Contribution to Telekom Malaysia Berhad

The contribution is specifically in development in human resources to enhance the organization. The result would assist TM's Human Resource Development (HRD)'s personnel in improving the current system to obtain better results.

### 3) Contribution to body of knowledge (Human Resource Development discipline)

E-learning is becoming a leading delivery method in workplace-learning settings across organizations of various sectors and of varying sizes (Kramer, 2007). This study would value-added the findings and researches done previously on the similar content and environment and had some improvements from the existing information. One of the researches done regarding e-learning and job performance is a dissertation by Heidi Kramer, *Measuring the Effect of E-Learning on Job Performance*, 2007. The research was to measure the alignment of IT e-learning with corporate and departmental strategies. This study was an extended research of what previously had been done, and focused on the job performance of Assistant Managers of Telekom Malaysia Berhad.

## 1.6 Definition of terms

### (i) E-learning

Before anyone called it e-learning, in late 1997, learning guru Elliott Masie said, "Online learning is the use of network technology to design, deliver, select, administer, and extend learning". In 1998, Jay Cross wrote, "e-learning is learning on Internet Time, the convergence of learning and networks. E-learning is a vision of what corporate training can become. E-learning is a vision of what corporate training can become. E-learning to traditional training as e-business is

... as usual." In 1990, Cisco wrote, "e-learning is Internet-enabled  
... Components can include content delivery in multiple formats,  
... of the learning experience, and a networked community of  
... content developers and experts."

In 2002, Ignor suggested that e-Learning refers to learning that is  
... or enabled via electronic technology. It encompasses learning  
... via a range of technologies such as: the Internet, electronic distribution  
... technologies and basic PC technologies (PCT) (Moffett and AcAdam, 2003).  
... Previous works about the influence of technologies on small to medium-sized  
... enterprises (SMEs) (Harrison et al., 1997; Lind et al., 2000; Martin and Matlay,  
... 2001; Benamati and Lederer, 2001) have considered the feed-forward and the  
... feedback as parallel processes, they have not used their time to evaluate how  
... the creative destruction has improved by using technological systems, or, which  
... or these processes (i.e. feedback or the creative destruction) must be  
... considered as a prior step in the creation of intellectual capital by technological  
... systems.

E-learning is the short form for electronic learning. It is defined as  
... education and training delivered by an instructor or self-paced from a curriculum  
... database stored on the enterprise local area network (Berry 2000). It refers to  
... anything delivered, enabled or mediated by electronic technology for the explicit  
... purpose of learning (Hicks 2000). It offers the possibility of learning from

information delivered to us electronically (Honey 2001). It is web-based personalized learning experience and provides measurable results (Rich 2001). The broadest definition refers to any distance-learning mode other than a correspondence course with printed material (Mantyla 2001). The clearest definition is found in the book E-learning: Strategies for Delivering Knowledge in the Digital Age where the author says e-learning refers to the use of Internet technologies to deliver a broad array of solutions that enhance knowledge and performance. Solutions are networked, which means instant updating, retrieval, distribution and delivery to computers users at standard Internet technology (Rosenberg, 2001, p.28-29).

(ii) Job Performance

The Job Performance Measurement / Enlistment Standards (JPM) Project defines a job as "a formally specified set of interrelated tasks performed by individuals in carrying out duty assignments" (internal memorandum, October 10, 1983). Each task in turn can be broken down into a series of steps to be executed, so that job performance consists of a prescribed set of observable acts or behaviors. Job performance is then defined as "those behaviors manifested while carrying out job tasks."

Campbell et al (1996) believe performance to be synonymous with behavior. Performance can be observed and includes those "behaviors that are relevant to the organization's goals and that can be scaled (measured) in terms of each individual's proficiency (that is, level of contribution)" (p. 261). They do not consider performance to be the consequence or result of action. Campbell et al. (1996) also state that only those behaviors that are under the control of the individual should be evaluated.

The definition of job performance is best to be re-conceptualize as "contextual performance" which is defined as contributing to the organization effectiveness, working well with others, following organizational rules and supporting organizational objectives (Treadway et al., 2005).

(iii) Operational definition

a. e-learning

In Telekom Malaysia Berhad, e-learning courses are courses offered through e-catalogs of professional skills and career development training in a variety of mediums, such as virtual-classes, web-based training and videos and a wide range of subject areas. E-learning courses allow employees to create personal learning plans, where they can track their learning history, review information about pending and past learning enrollments. Employees



can access the e-catalog and enroll for any courses through their PCs at their offices. There is no client software installation needed in order to start the courses. However, in order for the courses to run smoothly in client machine, Microsoft Internet Explorer 4.0 and above is recommended as the browser platform. Employees need to self-register to the system before enrolling to any course. The system will store all the information in database and System Administrators are allowed to configure the system to allow users to access the system with or without going through the approval process.

**b. Employees job performance**

In Telekom Malaysia Berhad, employees' performance is evaluated in their Managing Performance Appraisal System (MAPS), which will be done on yearly basis. Twenty percent (20%) of the overall marks of MAPS comes from the 360° performance appraisal. In this study, the job performance will be based on evaluation by the Managers, which are the supervisors of the Assistant Managers. Supervisors will give evaluation on Assistant Managers before and after the e-learning courses and results will be more significant to the study. Specific results are needed to evaluate effect of e-learning on each employee. MAPS and 360° evaluation results have the effect of overall Key Performance Indicators (KPIs) on employees' job performance.