

FACTORS ASSOCIATED WITH PERCEIVED EFFECTIVENESS OF TECHNOLOGY IN FACILITATING WORKPLACE LEARNING

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FACTORS ASSOCIATED WITH PERCEIVED EFFECTIVENESS OF TECHNOLOGY IN FACILITATING WORKPLACE LEARNING

FOO GAIK HOON

This project is submitted in partial fulfilment of the requirements for a Bachelor of Science with Honours (Human Resource Development)

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ABSTRACT

This study is aimed at determining the perceptions of employees toward the effectiveness of technology and the factors associate with the perception towards the technology effectiveness in facilitating workplace learning. This study was conducted in a private organization in Penang that is IJM Corporation Berhad. A survey methodology was used in collecting the data and 112 employees that use Internet were selected as the sample in this study. Statistical analysis such as frequency, percentage, Pearson Correlation and Linear Regression Analysis were used to analyze the data. This study reveals that 59.8% of the respondents perceived highly the effectiveness of technology in facilitating workplace learning. The findings also reveal significant relationships between perceived effectiveness of technology in facilitating workplace learning and perceived usefulness (r = 0.773, p = 0.000), perceived ease-of-use (r = 0.000) 0.7763, p = 0.000), social pressure (r = 0.782, p = 0.000) and self-efficacy (r = 0.816, p = 0.000). Linear Regression Analysis also shows that self-efficacy is the most dominant factor that influences the employees' perception. Based on the findings of this study, it can be concluded that the Internet in facilitating workplace learning was perceived as effective, well accepted and appreciated by the employees using it. Apart from this, employee's self-efficacy needs to be given greater attention in assuring Internet usage effectiveness. It is recommended that the human resource practitioner and employees put more effort to increase the employees' motivation and confidence level before urging them to use technology to facilitate workplace learning.

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ABSTRAK

FAKTOR-FAKTOR YANG BERKAITAN DENGAN PERSEPSI KEBERKESANAN TEKNOLOGI DALAM MEMUDAHKAN PEMBELAJARAN DI TEMPAT KERJA

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Kajian ini bertujuan untuk mengenal pasti persepsi pekerja-pekerja terhadap keberkesanan teknologi dan juga faktor-faktor yang mempengaruhi persepsi pekerjapekerja terhadap keberkesanan teknologi dalam memudahkan pembelajaran di tempat kerja. Kajian ini telah dijalankan di salah satu organisasi peribadi di Pulau Pinang iaitu IJM Corporation Berhad. Kaedah soal selidik telah digunakan untuk mengumpul data kajian ini. Seramai 112 orang pekerja yang menggunakan Internet telah dipilih menjadi sampel kajian ini. Analisa statistik seperti frekuensi, peratusan, Korelasi Pearson dan Analisis Regresi Linear digunakan untuk menganalisa data. Hasil dapatan kajian mendapati bahawa sebanyak 59.8% responden mempunyai persepsi yang tinggi terhadap keberkesanan teknologi dalam memudahkan pembelajaran di tempat kerja. Hasil dapatan kajian juga menunjukkan terdapat signifikan korelasi antara persepsi responden terhadap keberkesanan teknologi dalam memudahkan pembelajaran di tempat kerja dengan merasai berguna (r =0.773, p = 0.000), merasai senang diguna (r = 0.7763, p = 0.000), tekanan sosial (r= 0.782, p = 0.000) dan "self-efficacy" (r = 0.816, p = 0.000). Hasil analisa Analisis Regresi Linear telah menunjukkan bahawa "self-efficacy" merupakan faktor yang paling dominan dalam mempengaruhi persepsi pekerja. Berdasarkan hasil dapatan kajian, dapat disimpulkan bahawa Internet dalam memudahkan pembelajaran di tempat kerja dilihat sebagai berkesan, iaitu diterima, disukai dan dihargai oleh para pekerja yang menggunakan Internet. Selain daripada itu, adalah dicadangkan agar Bahagian Pembangunan Sumber Manusia dan pekerja sendiri untuk memberi lebih usaha untuk meningkatkan motivasi dan tahap keyakinan pekerja sebelum mendesak mereka untuk menggunakan Internet dalam memudahkan pembelajaran di tempat kerja.

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CHAPTER 1 INTRODUCTION

1.1 Introduction

The emergence of information communication technology has dramatically changed the way human learn, the way work is performed, the way human communicates, and even the way human thinks in this information era. According to Morris, Goodman and Brading (2007) the take-up and use of computers and of the Internet in particular are increasing rapidly. It is estimated that there are 1.1 billion Internet users worldwide (Internet World Stats, 2007).

Internet provides immense amount of information with the use of computers (Kripanont, 2006), wireless hand phones and it is used for learning, email communication, general information, product information, entertainment and games, stock shares, finding jobs, for banking purposes (Blaszczynski, 2006), and teleconference especially for the international organization.

Internet is important these days due to the reason that working and learning can only be accomplished with the support and guidance of Internet. (Marquardt & Kearsley, 1998). Furthermore, internet is now considered as necessary tools in business and communication tools (Blaszczynski, 2006) to facilitate workplace learning not only in international business firms, but also

those firms that operates locally, small and medium size business.

Networks and relationships between companies from all around the world are increasing in importance and are used for investment, trading and research and development purpose. Thus Internet would be the best tool to dramatically offer the possibility to stimulate learning at the workplace, independent of time and place, and tuned to individual needs.

As we can see for ourselves, there are numerous firms that are involved in international business from the beginning or shortly thereafter (McDougall. 1994).

Therefore, new ICT, particularly the Internet is providing organizations with new ways to conduct business and most importantly, to facilitate learning (Freed &

Derfler, 1999; Slater, 2000; OECD, 2001).

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The ideas of workplace learning and Internet usage may need to be seen as compatible elements in the overall. Workplace learning and the use of Internet must lock arms and stride into the future. This means that a close alliance must develop between the human dimensions of organizational communication and information technology.

To ensure workplace learning takes place in the organization, it is imperative that employees understand the importance of Internet usage in facilitating learning. In this study, the researcher will attempt to study about the perception of employees towards Internet usage in facilitating workplace learning.

1.2 **Background of the Study**

In this 21st century, most of the information we acquire is easily obtained using the World Wide Web (WWW) or also known as the Internet through the use of computers, laptops, Personal Digital Assistant (PDA) and even hand phones that can be connected to the high speed data communication networks (i.e. Internet, Wide Area Networks (WANs), Local Area Networks (LANs) and

wireless) (Kripanont, 2006). With the emergence of this technology, learning can take place regardless of time and place and it is more flexible. Organizations nowadays have been investing a large amount of money in Information technology to gain competitive advantage. Besides, Information Technology is not only found in the workplace, but also in the home and in the public areas (Martin et al., 2002) such as cyber cafes.

Furthermore, Information Technology (IT) facilitates organizational activities and processes such as training, and learning. Therefore, it is vital that

every employee is equipped with the knowledge and skills about IT related to the organization and their field. According to Fary (1984), most jobs in the 21st century will require some use of computers together with communication networks, where those unable to use them will be at the losing side.

The Internet, an important feature of IT is the most important and useful technology for individuals, organization and even countries for communication and obtaining information. The Internet connects millions of computers and users from all over the world together at a minimum cost and provides fast and interesting services (Davison, Burgess & Tatnall, 2004 as cited in Kripanont,

2006). Therefore, we often heard people saying the world is getting smaller via the Internet.

Although the usage of the Internet is gaining popularity and growing at an accelerating rate, however, in developing countries, there are still many people who still do not have the chance to use computer, not even to say access the

Internet. Moreover, in Malaysia, the penetration rate is only 52.7% (Internet World Stats 2007b) which is much lower than the penetration rate of the world. It also cannot be compared with the Internet penetration rate of the U.S. (69.7%) (Internet World Stats 2007d), Australia (71.9%) (Internet World Stats 2007a) and other South East Asia countries, such as Singapore (66.3%) (Internet World Stats 2007b).

In IJM Corporation Berhad (Penang), it is vital for all its employees to use the Internet more in performing their work as IJM believes in harnessing the latest tools and technologies to create products and build structures which are relevant to the needs of people and business where speed, efficiency and the highest quality standard are to be achieved. However, Internet usage for facilitating workplace learning as perceived by the employees was unknown to the organization.

Utilizing the theories/ models of Technology Acceptance as a theoretical

base to investigate the factors that influence their perception towards Internet usage could form an understanding of how to increase the use of Internet in workplace learning. The model of technology acceptance is anticipated to have the ability to explain and predict usage of technology and to provide useful information for top management to understand the factors of usage behaviors in order to proactively design ways to employees who are less inclined to use the Internet in their work.

This study is focused on the employees' perception towards Internet usage in facilitating workplace learning that is conducted on the executive and non

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executive staff at IJM Corporation Berhad (Penang).

1.3 Statement of Problem

Regardless of the many research done in developed countries regarding information technology, however, not much research has been given to the developing regions of the world that have much to gain from the Internet and IT (e.g., Hasan & Ditsa, 1998) even though technology use might be influenced by

cultures (Veiga et al., 2001).

Furthermore, pondered are whether theories/ models of technology acceptance that has being developed, and modified mostly in United States can be used in other culture such as Malaysia. According to Ticehurst and Veal (2000), culture can also influence the outcomes of the research. Most studies has been conducted in developed countries especially United States, however, the findings of the research might not be applicable to organizations in other countries, especially South East Asia countries (i.e., Malaysia).

In addition, there has been no literature evidence regarding Internet usage

in the context of Properties and Construction Sector with employees as subjects and the Internet as the technology context.

Thus this study would like to provide answers to the following question:

- 1. How do employees perceived Internet usage in facilitating workplace learning?
- 2. What are the factors that influence their perception?

1.4 **Objectives of the study**

The general objective of this study is to determine the perception of employees towards Internet usage in facilitating workplace learning, and the factors that influence their perception.

1.41 Specific objectives

Specifically, the objectives of this study are as follows:

- 1. To determine the perception of employees toward Internet usage in facilitating workplace learning.
- 2. To determine the relationship between perceived ease of use and perceived effectiveness of Internet usage in facilitating workplace learning.
- 3. To determine the relationship between perceived usefulness and perceived

effectiveness of Internet usage in facilitating workplace learning.

- 4. To determine the relationship between social pressure and perceived effectiveness of Internet usage in facilitating workplace learning.
- 5. To determine the relationship between self efficacy and perceived

effectiveness of Internet usage in facilitating workplace learning.

6. To determine the dominant factor(s) that influences the perceived effectiveness of Internet usage in facilitating workplace learning.

1.5 Conceptual Framework

The independent variables in this study are employees' perceived ease-ofuse, perceived usefulness, social pressure and self - efficacy. On the other hand, the dependent variable is the employees' perception towards effectiveness of technology in facilitating workplace learning. The relationships between the independent variables and dependent variables are examined in this study. Figure

1.1 shows the conceptual framework.

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Independent variables

Dependent variables

Factors influencing perception

Perceived ease-of-use

Perceive usefulness

Social pressure

Employee's perception towards Effectiveness of Technology in Facilitating



Workplace Learning.

Figure 1.1 Conceptual Framework of the study

1.6 **Statement of Hypotheses**

In this study, the researcher would like to test the following hypotheses.

 H_01 : There is no significant relationship between perceived usefulness and perceived effectiveness of Internet usage in facilitating workplace learning.

- H_02 : There is no significant relationship between perceived ease-of-use and perceived effectiveness of Internet usage in facilitating workplace learning.
- H_03 : There is no significant relationship between social pressure and perceived effectiveness of Internet usage in facilitating workplace learning.
- H_04 : There is no significant relationship between self-efficacy and perceived effectiveness of Internet usage in facilitating workplace learning.

 H_05 : There is no one factor that is dominant in influencing the employees' perception towards the effectiveness of technology in facilitating workplace learning.

1.7 Significance of the Study

This study has several implications and it will be discussed in term of theoretical and practical implications.

Theoretical implication of this study is that the Internet Acceptance Model

provides an understanding about the relationship of variables and usage behavior and improves the view of how usage behavior relates to behavior intention.

On the other hand, the practical implication of this study is that the findings will provide significant benefits not only for the employees within IJM Corporation Berhad (Penang), but also to IJM Corporation Berhad itself if they utilize this knowledge.

This study is also hope to determine the factors that will lead to effective facilitation of workplace learning with the use of Internet technology. A better

understanding of the various factors, which would increase or inhibit the use of

Internet technology in learning, is very important to those who are involved in the field of human resource development.

In this study, we will know to what extent the Internet technology usage in facilitating workplace learning in organization. It is also hoped to determine the factors that will lead to worker's job performance improvement and also worker's productivity.

1.8 Definition of Terms

For the purpose of this study, the following operational definitions are used.

1.8.1 Learning

In this study, learning refers to the process through which employees acquires knowledge, and develop skills with the help of Internet technology.

1.8.2 Workplace Learning

In this study, workplace learning refers to the process whereby employees' learning process takes place while working as a side benefit of being at a workplace – in an organization.

1.8.3 Internet Technology

In this study, Internet refers to publicly available computer network consisting of a worldwide network of computer networks that use the Transmission Control Protocol (TCP)/ Internet Protocol (IP) network protocols to

facilitate data transmission and exchange used to facilitate workplace learning.

1.8.4 Perceived Technology Effectiveness

Perceived technology effectiveness in this study refers to the employees' thought, feelings and opinion towards effectiveness of Internet technology usage in facilitating workplace learning. It also refers to their intention to use Internet Technology to facilitate workplace learning.

1.8.5 Internet usage in facilitating workplace learning

In this study, Internet usage in facilitating workplace learning explains the degree of Internet usage in facilitating workplace learning that would bring a meaning on the employee' perception towards the whole workplace learning process.

1.8.6 Perceived Usefulness (PU)

Perceived ease-of-use in this study is defined as the degree to which a person or employee believes that using a particular system or using Internet would be free of effort.

1.8.7 Perceived ease-of-use (PEOU)

In this study, perceived usefulness is defined as the degree to which a person or en employee believes that using Internet would enhance his or her job performance and facilitate learning in the workplace.

1.8.8 Social Pressure (SP)

Social pressure or social influence in this study refers to the degree to which the employee perceives that other important persons believe he or she

should use the system or Internet.

1.8.9 Self-efficacy (SE)

Self – efficacy in this study refers to the employees' self – confidence in his or her ability to perform a behavior, which is to use Internet in workplace learning.

1.9 Limitation of the study

There are several limitations in this study. The primary limitation is that this research only focuses on four factors (i.e., perceived usefulness, perceived ease-of-use, social pressure, and self-efficacy) whereas there were other factors such as facilitating conditions, and demographic factors (e.g., age, gender) that can influence the perceived effectiveness of technology in facilitating workplace learning.

Secondly, all the respondents in this study are from the properties and construction sector and in Penang only. Additional studies need to be done in order to generalize researcher's findings using respondents from other sectors and domains.

Second, some level of 'Hawthorne effect' (e.g. Adair, 1984; Franke, 1980; Jones, 1990; Schlaifer, 1980 as cited in Cheung & Huang, 2005) may exist because the survey measure employee's perceptions and attitudes.

Third, the frankness and sincerity on the part of the respondent also will come into questions while answering the questionnaires as they may give responses which are bias to their situation.

1.10 Summary

This chapter aims at providing an introduction on topic to be studied and discussing on the background, statement of problems, objectives and conceptual framework of the study. The independent variables and dependent variable are identified to give a better idea on the topic. Besides, hypotheses are formulated, and important terms are defined. Significance and limitation of the study are also described for better understanding.