CHAPTER ONE
INTRODUCTION

1.1 Background of the Study

There is an increasing demand around the world for learning. However, many people live in locations where education or training is not available for them. Under such conditions, they will be forced to leave their home and work in order to attend classes (Dodd, Kirby, Seifert & Sharpe, 2009; Fletcher, Nicholas & Davis, 2015). Another category of people who need to pursue learning on a continuous basis is the working people. As they are working on a full-time basis, they require a flexible educational system that caters to their learning needs while at the same time fulfilling their personal commitments such as family responsibilities. In fact, such group of workers is faced with the decision between learning, leaving their homes and their jobs to gain access to education. These working adults may learn for their career enhancement as they are motivated by being promoted or being paid higher salary based on the additional academic qualifications they have obtained (Asaari & Karia, 2005).

Educational institutions all over the world are seeking to fill the demands for education particularly, the working adults. One of the significant solutions is by taking advantage of the various communication technologies available today. The rapid growth of information technologies has influenced the way in which education is being delivered (Dodd et al., 2009). Further, due to the exponential growth of Information and

Communication Technology (ICT), electronic learning or e-learning has emerged as the new paradigm in modern education (Olaniran, 2006). The concept of e-learning, in the widest meaning towards openness was also emphasized by Anderson and Elloumi (2011). ICT refers to any device or system that allows the storage, retrieval, manipulation, transmission and receipt of digital information, for examples, personal computers, digital television, email and robots. Information technology is an enormously vibrant field that emerged at the end of the last century as our society experienced a fundamental change from an industrial society to an information society.

The advantages of e-learning include freeing interactions between learners and instructors, or between learners and learners from limitations of time and space through the asynchronous and synchronous learning network model (Olaniran, 2006). The new technology such as e-learning offers great potential to those who work full time and have the desire to further their study on a part-time basis. In the past, those who want to study may have to leave their jobs because they have to attend classes. Now, with the advent of e-learning, not only individuals can keep their jobs but also they further their study at any institutions that offer education with the use of ICT tools.

E-learning is not only useful for such group of individuals; it is also beneficial for the educational institutions that offer such services where adults are working. The benefits of e-learning include providing learning opportunities to citizens at a reduced cost and increased access to learning for disadvantaged citizens due to geographical barriers (Jihad & Sondos, 2006). Furthermore, the participants of e-learning will not be

constrained by locations or time, because learning is determined by their own pace. In addition, e-learning has the potential to provide a high quality education and training which leads to the production of competitive workforce and increase the level of literacy among citizens (Engelbrecht, 2003). Alexander (2001) summed up the benefits of e-learning in terms of improving the quality of learning, improving access to education and training, reducing the costs of education and improving the cost-effectiveness of education.

In relation to this, Abdullah, Koren, Muniapan and Rathakrishnan (2008) revealed four main factors that drive e-learning. These factors are: fulfilling the need for increased flexibility, the need for geographical independence, the many opportunities offered by web-based environment for enriching learning process and the rapidly changing nature of knowledge. Some researchers argued that to ensure success and usage of e-learning, the issues that promote the effective use of the technologies including pedagogical, individual and technological factors need to be understood (Jebeile & Reeve, 2003). Additionally, Ndubisi (2004) highlighted that the investment in the infrastructure, content development and IT staff training may not be sufficient to ensure a successful use and adoption of e-learning. Also, many researchers have highlighted that, understanding the factors that drive the adoption of e-learning is important for the adoption of e-learning (Pituch & Lee, 2006; Selim, 2007). Nevertheless, only few empirical researches that have attempted to build a theoretical frameworks or conceptual framework to describe and explain e-learning adoption by adult workers (Fletcher et al. 2015).

There is a need for a theoretical or conceptual framework that can be used to identify the factors that affect the adult workers' adoption of e-learning. Thus, the reasons lead to the inconsistency of adult learners' adoption, the issue that is left unanswered. Hence, it is necessary to find what constitutes the adoption and acceptance of e-learning among this group (Masrom, 2007; Thi, 2013). Predominantly, when a new system is introduced, a greater understanding of the factors affecting its adoption will lead to an improvement of training, education, implementation and acceptance. Likewise, careful consideration of the factors affecting e-learning adoption is important to ensure that user satisfaction is obtained and investments warranted (Vitartas et al. 2007).

The significance of identifying the factors that influence the e-learning adoption become more urgent as it helps the government and educational institutions to improve the existing practices of teaching and learning. E-learning helps to create a flexible and interactive e-learning environment (Adwan, Adwan & Smedley, 2013). Further, past studies have also identified several factors that influenced the e-learning environment in general (Papp, 2000; Ndubisi, 2004; Selim, 2007; Chang & Tung, 2008; Tucker, 2012; Osubor & Chiemeke, 2015). These factors are related to the technological factors, organizational environment and to the individual's behavior and culture.

Johnson, Gueutal and Falbe (2009) highlighted that organizations played a key role in promoting continuous learning through e-learning. They added that it is imperative to understand the drivers and inhibitors of e-learning as this subject is relatively new compared with the conventional classroom learning. Furthermore, Nedelko (2008) emphasized the importance of personal characteristics of participants on

the uptake of e-learning. Also, it should be noted that the empirical studies on understanding the antecedents of e-learning is limited, and the literature review indicates that e-learning adoption in educational systems has only been extensively examined in developed countries, such as the Australia, Canada, USA and UK.

It was argued that e-learning and participants' success in e-learning process depend on multiple interdependent factors other than the technology and/or organizational factors such as course materials, and participants' personal characteristics (Wools, 2002; Lee, 2007). However, most of the previous studies in the context of e-learning adoption focused on technological factors (e.g. Roffe, 2002; Wang & Liu, 2003; Mohd et al., 2011; Samah et al., 2011; Aggorowati, Iriawan & Gautama, 2012), or at the best, the technological and organizational factors (Macpherson et al., 2005; Nwabufo et al, 2012), while the participants' personal attributes and their interest and institutional forces in the enrolment in e-learning process have been neglected in the literature (e.g. Nedelko, 2008; Learning Online, 2008; Tucker, 2012; Osubor & Chiemeke, 2015). As such, it becomes important to identify the personal factors with institutional forces that drive adult learners' attitude towards adopting e-learning (Jan, Lu & Chou, 2012).

Volery and Lord (2000) also highlighted the drive for adoption of e-learning which include: rapid expansion of the Internet as a potential course delivery platform, increasing interest in lifelong learning, the need to improve access to higher education for the masses and also current budget restrictions due to the increasing costs of delivering conventional education.

Governments around the world had acknowledged the importance of education to enhance their human capital in the era of globalization. Likewise, the Jordanian government has also acknowledged the importance of e-learning as it offers solutions to the challenges that currently impede learning in Jordan (MoHE, 2013). Nevertheless, universities in Jordan are facing many problems in delivering their educational programs. These problems are mainly related to costs, availability of facilities and shortage of professors (Abbad et al., 2009; Dirani & Yoon, 2009).

In other words, Jordan was the first country among all Arab countries to adopt e-learning in year 2002 (MoHE, 2013). The initial effort started in 1999 when the Ministry of Higher Education of Jordan launched a USD 65 million development program for the Kingdom's public universities. A significant part of the initial phase was to establish information technology infrastructure and to provide the universities with thousands of new computers (McGregor, 2004). The objective for the development and implementation of e-learning in Jordan is to promote lifelong learning and fulfill the demand for continuous professional development in Jordan (MoHE, 2009). E-learning in Arab region including Jordan is a new approach for learning and teaching. In this context, the Arab Open University (AOU) was the first university in Jordan to adopt distance learning on a widespread basis and plays a critical role in e-learning development. In fact, AOUJ is the only university in Jordan that provides distance learning programs (Dirani & Yoon, 2009; Adwan et al., 2013).

To this end, this study is based on individual's decision of innovation adoption, in adopting a particular technology. The intention is on the adoption of e-learning among individuals (adult workers) that is being determined by e-learning technology itself. It was argued that e-learning adoption is not only an IT acceptance, but also an adoption of new innovative educational services which are different from the traditional ones. Thus, the research is concerned with the adoption of e-learning in Jordan's education sector specifically by adult workers. Its main aim is to characterize and measure working adults' e-learning adoption, investigate the factors (technological, organizational, personal factors and institutional forces) that influence e-learning adoption and examine e-learning outcome in terms of academic study and job performance.

1.1.1 Research Motivation and Justification

The motivations and justification for carrying-out this study include:

a) The higher education and universities in Jordan are the most important sectors in the country. In relation, this study receives special encouragements from the leaderships of higher education as well as the King and the governments in Jordan.

b) The significance of using technologies in the educational systems around the world and the increasing competition among the higher education institutions creates the needs to find solutions to increase the adoption of e-learning in universities to improve the quality of the educational system.

c) Adoption of e-learning among universities in teaching and learning process is a sufficient topic and the fact that there are conflicting evidences about the variables relating to adoption of e-learning among adult workers in the context of developing countries.

d) The limitations of previous studies in developing countries in explaining the e-learning adoption behavior in the Arab countries such as Jordan, up to the researcher knowledge there is a lack of empirical research in the Arab world.

e) The expected contribution of this study from two levels. (i) Theoretical level which means the study attempts to extend the theory from previous adoption theories. (ii) Practical level which implicates that the successful practice of the study will be published to all universities in Jordan.

1.2 **Problem Statement**

As alternative to the traditional learning, e-learning helps overcome the challenges faced by traditional learning. Meanwhile, new technologies such as web-based authoring tools offer flexible educational process (El-Seoud, Al-Khasawneh & Awajan, 2007). Thus, e-learning adoption is imperative for institutions and students, particularly, for adult workers. Meanwhile, in business sector, e-learning adoption is rising as companies now understand the value of e-learning technologies to provide cost-effective on-line learning for employees (Chiu & Wang, 2008; Karaali, Gumussoy & Calisir, 2011). Thus,

examining the potential influencing factors of employees' perceptions of specific e-learning use, is important (Šumak, Hericˇko & Pušnik, 2011; Wu et al., 2012).

Adults working full-time are online education's largest audience since it provides them with the convenience and flexibility in advancing their education and career (Mashal, Kaddo & Abu Musa, 2008). Adult workers learn for various reasons: to learn new skills to stay employable, upgrade knowledge and increase earning power (Lee, Hsieh & Maa, 2011; Wu, Xu & Ge, 2012), and many work full-time and study part-time. As such, the benefits of e-learning as a flexible tool for adult workers that allow more freedom of time and mobility need to be explored (Waight & Stewart, 2005).

Factors influencing e-learning adoption from the perspective of students, lecturers and educational institutions have been explored by many scholars (e.g. Lau, 2009; Wang, Zhu, Chen & Yan, 2009; Osubor & Chiemeke, 2015). However, only few studies had examined the rate and impact of e-learning adoption among working adults, and the factors that influence their adoption (Karaali, Gumussoy & Calisir; 2011; Wu et al., 2012). Prior e-learning studies have been focusing on students' e-learning adoption in general, while few adult workers have been overloaded (Duan He, Feng, Li & Fu; 2010; Chen, 2010; Al-adwan & Smedley, 2012; Frimpon, 2012).

The approach of measuring e-learning adoption in the previous studies has basically relied on two contexts: adopted or not adopted. In fact, these studies were emphasizing only upon one perspective in examining the e-learning adoption (e.g. Šumak *et al.*, 2011; Zakaria, Watson & Edwards, 2012).). As noted by Fichman (2000) this is a

relatively thin measure to represent technology adoption. Some researchers (e.g. Thi et al., 2013; Banday, 2014) argued that success and usage of Learning Management System (LMS) depend on the understanding on the issues that promote the technologies' effective use including quality benchmark, pedagogy, content and technological infrastructure. Meanwhile, only few comprehensive studies which characterize e-learning adoption and examine e-learning adoption behavior (Liao & Lu, 2008). Further, the type of e-learning applications adopted by adult workers and their usage that reflects their adoption patterns is barely scrutinized. Thus, this study will examine adoption by emphasizing both the range of e-learning applications adopted and the extent of usage to understand the overall illustration of adult workers' e-learning adoption.

The successful e-learning programmes are based on the understanding of what influence students to adopt such initiative, and the successful implementation of any technology depends on factors related to users' attitudes and opinions (Hernandez et al., 2011; Johar, 2014). Previous scholars such as Sumak et al. (2011), Eke (2011), Frimpon, (2012) and Wu *et al.* (2012) show that due to lack of thorough research, understanding of what drives e-learning among students, particularly the adult workers in developing countries, is limited.

Past studies (e.g. Dirani & Yoon 2009; Duan et al., 2010) have explained the role of technology (TAM & DOI) in e-learning adoption. TAM has some limitations because it is parsimonious when compared with other model such as DOI model (Hu, Clark & Ma, 2003). Furthermore, some authors argued that using one theoretical model to identify factors that influence e-learning adoption is insufficient (e.g. Liu *et al.,* 2009). Further,

studies that identify the organizational and technological factors that determine e-learning adoption are lacking. Thus, organizational factors are inevitable when considering e-learning adoption's sustainability (Netteland, 2009). According to Khasawneh and Ibrahim (2008) and Dirani and Yoon (2009) organization and individual's e-learning adoption is still low in developing countries including the Arab countries. Further, most past studies ignored the personal and social environmental factors which influence e-learning adoption and only few attempted to examine relationship between e-learning adoption and the actual e-learning outcomes among adult learners in terms of study and job (Tsai, Shih & Feng, 2008; Halawi, Pires & Mccarthy, 2009; Chen, 2010). Owing to the enormous e-learning outcomes, both organizations and employees are motivated to adopt e-learning (Jan et al., 2012). The decision makers could use these factors to guide their future strategic implementation of e-learning for adult workers. A few studies have investigated the most significantly influencing factors such as technological, organizational personal attributes and social environmental on e-learning adoption among adult workers. Correspondingly, this study will focus on four major factors: organizational, technological, personal, institutional forces, e-learning adoption and e-learning impact in terms of study and job outcomes.

In Jordan, the government had launched various programmes to promote the e-learning adoption. However, research on e-learning adoption in Jordan is generally limited. Khasawneh and Ibrahim (2008), Dirani and Yoon (2009) and Al-hawari and Al-halabi (2010) emphasized on the need to conduct more studies in developing countries to bridge the gap and obtain a better understanding about e-learning adoption among working adults. In other words, there is a weakness in e-learning implementation in

Jordan's government universities. Only few e-learning studies conducted in Jordan (Dirani and Yoon, 2009). With little empirical evidence in the case of Jordanian initiatives, there is a need to examine such factors that influence the adoption of e-learning (Abbad and Nahlik, 2009; Adwan et al. 2013). Identifying the major factors affecting students' adoption of an e-learning in the Jordanian Universities has received little attention (Dirani and Yoon 2009; Adwan et al. 2013).

Thus, the Ministry of Higher Education in Jordan needs to have some guidelines to ensure the successful and efficient implementation of e-learning in higher learning institutions (Altarawneh, 2011). In case of Jordan as developing country, till now, there is little published evidence on what is the extent of e-learning uptake among working adults in Jordan? What are the technological, organizational, personal factors and institutional forces that influence the uptake of e-learning among working adults in Jordan? And, how e-learning adoption impact on adult learners and their job performance?

1.3 Research Questions

This study is aimed to provide answers to the following research questions:

a. What is the extent of e-learning adoption among working adults in Jordan?
b. What are the most important applications that are commonly adopted in e-learning among working adults in Jordan?
c. What are the factors influencing the adoption of e-learning among working adults in Jordan in terms of:
    i. Technological,
    ii. Organizational,
    iii. Personal factors
    iv. Institutional forces
d. How does e-learning adoption impact the adult learners' study and their job?

1.4 Research Objectives

The following research objectives are derived to provide answers to the research questions:

a. To determine the extent of e-learning adoption among working adults in Jordan.
b. To determine the most important applications that are commonly adopted in e-learning among working adults in Jordan

c. To identify the technological, Organizational, personal factors and institutional forces that influences the adoption of e-learning among working adults in Jordan.
d. To examine the impact of e-learning adoption on adult learners' study and their job.

1.5 Significance of the Study

In general, Ngai, Poon and Chan (2007) and Abbad, Morris and Nahlik (2009) highlighted that empirical studies on understanding the antecedents of e-learning are limited and the literature review indicates that e-learning adoption in educational systems has extensively been examined in different countries, such as Australia, Canada, USA and UK. Filling this gap is one of the reasons for conducting a study in this subject area.

Numerous studies have also identified the implementation of e-learning in terms of usage. These studies mainly viewed usage in terms of a dichotomous outcome, such as adopted or not adopted (e.g. Hung, Chen, Lee & Taiwan, 2009; Duan, He et al., 2010; Šumak et al., 2011; Zakaria, Watson & Edwards, 2012). As noted by Fichman (2000) this is a relatively thin measure to represent technology adoption. Therefore, this study aims to examine e-learning adoption by emphasizing both the type of e-learning applications and the extent of usage to illustrate of the adoption of e-learning.

From the managerial perspectives, the purpose of this study is to explore and investigate the factors that influence the uptake of e-learning among working adults in Jordan. Based on that, this study would provide input to the government of Jordan and

the educational institutions for future policy planning purposes in their effort to enhance the adoption of e-learning in the country. The findings of this study will contribute to the Arab Open University in Jordan in order to improve their e-learning system. Further, this study could improve the development of e-learning applications for adult workers who work fulltime and study part-time, and also extend our knowledge and understanding about e-learning especially in Jordan, as there are very few studies that were conducted in this area in the context of Jordan.

On the other side, this study will enrich the libraries in the Arab world with information about e-learning adoption and provide new information for other developing countries that may have a situation similar to that in Jordan. Also, it is hoped that the study will help researchers to open the door for further investigations in carrying out more comprehensive studies in e-learning adoption to be able to improve its effective use, help researchers plan for more professional training and encourage adult workers to use e-learning, and develop the framework for implementing e-learning adoption in Higher Education (HE). Furthermore, this study will assist in providing recommendations to improve the current state of the use of e-learning by adult workers and provide some suggestions for more studies in this field, and on the other side, provide new web sites with more information about e-learning adoption, and the level of adoption of adult workers with the use of e-learning in Jordan's public and private universities. This study provides more knowledge that may be of value to other researchers in other developing countries. In addition, based on the results of this study, other research can be conducted in various parts of the world to compare and contrast the outcomes with Jordan.

The significance of investigating the antecedent factors of e-learning adoption was highlighted by Abbad et al., (2009). They pointed out that the investigation on factors that contribute to the success of e-learning adoption is needed as many educational institutions around the world are facing challenges in adopting and implementing e-learning. In addition, Abbad et al. (2009) and Duan et al. (2010) emphasized that being aware of the factors that are associated to e-learning adoption, strategies can be employed to minimize some of the inherent barriers as well as to enhance the strengths.

In the same Lee (2010) and line, Duan et al. (2010) argued that being able to understand the factors that influence e-learning adoption and intention to adopt would help e-learning providers to offer courses that are more likely to be accepted by future e-learners. Successful implementation of e-learning system and adoption by the students require a clearer understanding of the factors that positively or negatively influence adult learners to adopt such e-initiative (Saade & Bahli, 2005). With this in mind and with limited empirical studies especially in the context of Jordan, this study needs to be conducted.

Beside organizational and technological factors, the institutional forces and personal attributes factors are investigated in the present study as important antecedent factors that drive adult worker to enroll in any e-learning program. As the literature review indicates, most of the studies conducted in the developing countries were focusing on the technological factors while ignoring the institutional forces and personal factors

(Andersson & Grönlund, 2009; Jan, 2012). Thus, this study hopes to narrow the gap in the literature regarding the influence of such factor especially in the context of Jordan's e-learning initiative. Based on these premises, this research has the potential to provide a good starting point which links the organizational, technological, and individual factors that are perceived to influence e-learning adoption.

Additionally, the literature of the current study has indicated that Bloom's taxonomy has been the most powerful and comprehensive taxonomy in the area of e-learning (Halawi et al., 2009). Therefore, Bloom's model will be used in the current study in order to evaluate the learning outcomes. Consequently, DeLone and McLean's (2003) model impact in terms of individual outcomes within organization will be used in the current study in order to evaluate the performance of adult workers. This study aims to identify the factors influencing the adult workers and the impact of each on e-learning, and aims to bridge the gap of the knowledge due to the lack of studies on this group of population namely the working adults in Jordan.

1.6 Scope of the Study

The scope of the present study is limited to the use of ICTs to improve the quality and flexibility of learning for adult workers in Jordan. The various kinds of ICT products available and having relevance to education, such as teleconferencing, email, libraries, audio conferencing, television lessons, radio broadcasts, interactive radio counseling, interactive voice response system, audiocassettes and CD ROMs etc have been used in education for different purposes.

More specifically, e-learning in the present study is operationalised as the type of learning that enables access to higher education to those who are unable to attend on-campus learning for whatever reasons (distance learning). Though e-learning applications (e-mail, online library, online test, online assessment, live audio, live videoconferencing, live chat, online courses material, online grades and online registration) offer flexible and qualitative learning for all students, the focus of the current study is on the adult workers who work full time and study on a part time basis at Arab Open University in Jordan.

E-learning is a new initiative applied by several educational institutions in Jordan. However, the Arab Open University in Jordan (AOUJ) will be the focus of this research as it offers a distance learning program for those who are unable to attend on-campus learning due to different barriers. The students who enrolled in AOUJ programmes are the target population (adult workers) as they unable to attend classes due to family and work commitments.

However, e-learning can take many forms and is often associated with the environment on which the course is based. E-learning can take place in either an asynchronous or a synchronous setting. An asynchronous environment is characterized by the delay in the communication time between learners and instructors. On the other hand, a synchronous communication environment takes place in real time in which learners and instructors are all communicating simultaneously, but not necessarily in the same location (Jolliffe, Ritter, & Stevens, 2001). Moreover, e-learning applications can differ in the levels of collaboration that they incorporate.

1.7 Operational Definitions

This section explores some of the definitions related the study such as definition of adoption, e-learning, relative advantage, compatibility, complexity, service quality, system quality, information quality, top management support, organizational culture, organizational structure, social contact, social stimulation, professional advancement, external expectations, cognitive interest, coercive pressures, normative pressures, mimetic pressures and outcomes of e-learning that are used in the context of this study

adoption. According to Rogers (1995) adoption is defined as the relative rapidly with which an innovation is adopted by members of a social system.

E-Learning. Begicevic and Divjak, (2006) defined e-learning as a type of learning supported by (ICT) that improves quality of teaching and learning. The use of ICTs to improve the quality and flexibility of learning for all students including adult workers, giving access to higher education to those who are unable to attend on-campus learning for whatever reason, in this case, it is part of distance learning (MacKeogh & Fox, 2009). Furthermore, it is supported by the mechanisms of modern communication, computer networks, and multiple modes of voice and picture, the drawings, and electronic libraries, as well as Internet portals, either remote or in the classroom.

Relative advantage. It refers to the degree to which an innovation is perceived as better than the idea it supersedes (Rogers, 1995).

Compatibility. It refers to the degree to which an innovation is perceived as being consistent with the existing values, past experiences, and media of potential adopters (Rogers, 1995).

Complexity. It refers to the degree to which an innovation is perceived as difficult to understand and use (Rogers, 1995).

Service quality. It refers to the service quality of the support that system users receive from the IS department and IT support personnel (DeLone & McLean, 2003).

System quality. It is the individual perception of a system's performance (DeLone & McLean, 2003).

Information quality. It refers to measures of system output, namely the quality of the information that the system produces primarily in the form of reports (DeLone & McLean, 2003).

Top management support. According to Guns (1996) top management support is defined as a responsible for helping to create a stimulating, nurturing and supportive environment for fast learning.

Organization culture. It refers to the underlying system of shared beliefs, attitudes and values which are reflected in the way the organization operates (Conyers & Kaul, 1990).

Organizational structure. Glautier & Underdown, (2001) Defined organizational structure is the formal system of task and reporting relationships that controls, coordinates and motivates employees so that they cooperate to achieve an organization's goals.

Social contact. It involves the desire among participants to raise better relations with other citizens or peers. In other words, this factor is connected to social status and

the need for consolidation search or development in that certain status (Boshier & Collins, 1983).

Social stimulation. It related to the desire among participants to get relief from boring situations, and to avoid the confusion of daily life. It also involves timed escape from other heavy responsibilities (Boshier & Collins, 1983).

Professional advancement. It involves the participants' desire to gain higher salary from their careers, to ensure professional progression, to search about better working atmosphere and to obtain respect from their counter parts high status in career (Boshier & Collins, 1983).

External expectations. It involve the participants' expose in learning such activities that are in lines with the adoption of someone's instructions or the recommendations of certain authority, for instance manager, friends, community workers, religious head or counselor (Boshier & Collins, 1983).

Cognitive interest. It relates to the participation intention to obtain a specified knowledge due to their lack of understanding of some issues in that particular realm. They might be exposed in learning certain knowledge for their own good or to obtain personal entertainment out of the learning procedures (Boshier & Collins, 1983).

Coercive pressures. It defined as both formal and informal pressures exerted on social actors to adopt the same attitudes, behaviors and practices, because they feel pressured to do so by more powerful actors (DiMaggio & Powell, 1983; Scott, 2001).

Normative pressures. It associated with the professionalization of fields and disciplines, occur when social actors voluntarily, but unconsciously, replicate other actors' same beliefs, attitudes, behaviors and practices (DiMaggio & Powell, 1983; Scott, 2001).

Mimetic pressures. It actors to seek examples of established behaviors and practices to follow through voluntarily and consciously copying the same behaviors and

practices of other high-status and successful actors, due to the belief that action taken by successful actors will be more likely to get positive outcomes (DiMaggio & Powell, 1983; Scott, 2001).

Outcomes. The outcomes for this study were examined in two perspectives, namely outcome from adult workers in terms of Academic study using Bloom's learning outcome and outcome from adult workers in terms of job performance using DeLone & McLean's model (Bloom, 1956; DeLone & McLean 1992).

1.8 Structure of the Thesis

The thesis is organized into five chapters. The first chapter provides an overview of the study. The second chapter reviewed the literatures related to the field of study namely e-learning adoption as well as the development of the research framework. The third chapter presents a description of the methodology employed in this study, justifications and rational of the research design. Chapter 4 presents the data analysis. The fifth and sixth chapters discusses the findings of the study based on the analysis output as well as key managerial and theoretical implications of the study findings.