IMPLEMENTATION OF CIDOS (E-LEARNING) AMONG DIPLOMA IN ACCOUNTANCY STUDENTS IN POLITEKNIK SULTAN ABDUL HALIM MU'ADZAM SHAH, JITRA KEDAH

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ABSTRAK

Kajian ini bertujuan untuk mengetahui sejauh mana penerimaan pelajar perakaunan Politeknik Sultan Abdul Halim Mu'adzam Shah (POLIMAS) Jitra Kedah diatas penggunaan e-pemebelajaran dalam kehidupan seharian. Kajian ini cenderung untuk mengkaji kesan kewujudan sistem Curriculum Information Document Online System (CIDOS) di dalam persekitaran pembelajaran pelajar disamping mengetahui tahap penerimaan dan penggunaan e-pembelajaran dalam proses pembelajaran dan pelajaran. Kajian ini merupakan perintis kajian yang mengkaji kesan penggunaan e-pembelajaran dalam sistem pelajaran pengajian tinggi di tahap diploma Politeknik di Malaysia. Dengan menggunakan kaedah soal selidik, seramai 100 orang pelajar Diploma Perakaunan POLIMAS telah dipilih untuk dijadikan kajian. Pelajar diminta untuk menjawab empat bahagian dalam soal selidik iaitu ciri-ciri demografi, kemudahan penggunaan, kegunaan e-pembelajaran dan sikap terhadap e-pembelajaran. Keputusan menunjukkan CIDOS diterima dikalangan pelajar tetapi memerlukan dorongan dari para pengajar untuk menjayakan pengunaan yang efektif.

Katakunci: *E-pembelajaran, Politeknik, Curriculum Information Document Online System (CIDOS).*

ABSTRACT

This study aimed to determine the acceptance of accounting students in Politeknk Sultan Abdul Halim Mu'adzam Shah (POLIMAS) Jitra Kedah on the usage of e-learning in everyday life. This study investigates the effects the system of Curriculum Information Document Online System (CIDOS) in the learning environment as well as to determine the level of acceptance and usage of e-learning in the process of learning and education. This study is a pilot study examining the effects of e-learning in tertiary education system at the level diplomas of polytechnic in Malaysia. By using the questionnaire, a total of 100 students of the Diploma in Accountancy were selected. Students are asked to answer four sections of the questionnaire on demographic characteristics, ease of use, use of e-learning and attitudes towards e-learning. Results show that CIDOS is well received among students but the systems needs encouragements from the instructors to achieve an effective utilization.

Keywords: E-learning, Politeknik, Curriculum Information Document Online System CIDOS

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CHAPTER 1

INTRODUCTION

1.1 Background of the study

Rapid and fastest growing of e-learning in educational institution has changed the way student's participation and communication style in traditional classrooms studies to change. The e-learning concept has been adopted in the higher institution especially universities and college in Malaysia. From being the traditional face to face teaching methods in classroom, to the state of art distance learning by computer technology system.

Demands from modern communities in global knowledge had established standard, timely information and the fastest connecting needed information had unites the needs to have lowered the demand for traditional education. The popularity of e-learning on university and other academic campuses has increasing through time to time and the various of distance learning technologies are fully used for teaching method in every courses in institution. With these changes of learning styles, the duties of lecturers and instructors of course also have changing to ensure this e-learning successful.

E-learning is defined as instruction delivered electronically via the Internet, Intranets or Multimedia platforms such as DVD or CD-ROM (Cappel & Hayen, 2006). Apart from that, e-learning also has been defined as the learning facilitated and supported through the fully usage of information and communication technologies (Jenkins & Hanson, 2003). Both of this definition described e-learning as a tool of learning process and it uses ICTs such as World Wide Web, internet, technology system, computer, television and others in order to achieve the learning process. The usage of e-learning or also known as online learning, have increased. It can be seen from the growing of higher institution whether it is public or private in order to attract the students through full time learning in campus or distance learning. (OUM, 2004).

In learning process, e-learning focuses on delivering the courses to students and can be developed in many ways based on standard or requirement that has been decided by management of the institution. Some of the system that has been develops is easier to "dig in" which is easier to share course materials and assessment through the system plus it can be used by full time and distance students, and the others is limited only to materials delivery through web. Students can access to the technology anywhere and anytime. They can access class notes, takes quizzes, alert on class information and communicate at any time they want.

The Ministry of Higher Education (MOHE) was established on 27 March, 2004 with the intention of developing and creating a higher education environment to encourage the establishment of centres of knowledge, and the development of competent, innovative

and ethical individuals thus fulfilling national and international aspirations. The MOHE is responsible for developing an advantageous higher education ecosystem in Public and Private Institutions of Higher Education (PIHE and PvIHE respectively), Polytechnics and Community Colleges. These institutions are the main components in the ecosystem of higher education and national training to produce thinkers, scholars, scientists, and a skilled and semi-skilled workforce. In relation to these goals, the MOHE has three departments for the management of Institutions of Higher Education which include:

- Department of Higher Education (DHE) - oversees the PIHE and PvIHE
- Department of Polytechnic Education (DPE) - oversees the Polytechnics
- Department of Community College Education (DCCE) - oversees the Community Colleges

Polytechnic education in Malaysia began with establishment of the Politeknik Ungku Omar, Ipoh in 1969 under the United Nations Development Plan. The need to provide wider access to technical education and training for the country was given prominence by the Cabinet Committee on Education in 1979 and in the First National Industrial Plan (1985-1995). In addition to decisions made by these committees, the Cabinet Committee on Training (1991) paved the way for the significant development in Polytechnic education. As a result, there was an increase in the number of Polytechnic built from 27 to 32 and these institutions were able to offer more programs of study to cater to the

demands of more semi-professionals in the engineering, commerce and service sectors.

In conjunction with the polytechnic education and training in November 2009, the announcement of the Polytechnic Transformation Plan 2010-2015 provide the road maps to develop and strengthen the system of Polytechnic. This is to give the recognition and credit to the Polytechnic Education Sector and at the same time make the Polytechnic as one of the main choices institution in the field of technical and vocational educational and training (TVET). Moreover, the plan that was deliberated and approved by the cabinet in respect with Polytechnic (Memorandum No.871/2670/2009) also aims the public perception on Polytechnic as a higher institution by increasing the quality and demands of institutions of international standards and as preferred institutions.

The Polytechnic Transformation Plan had been launched in 2011 by choosing the three main Polytechnic as a bench mark to the transformation; Politeknik Ungku Omar, Perak, Polteknik Sultan Salahuddin Abdul Aziz Shah, Selangor and Politeknik Ibrahim Sultan, Johor. There is the difference between this three premier polytechnic including the level of studies offered. In an old structured of programmed offered, Polytechnic have been offered two level studies; certificate level and diploma level. As part of the plan to make polytechnic as a quality institution, first, the three polytechnic that have been chosen, certificate level no longer be offered starting from July 2010 and was replaced by advanced diploma.

Second, the plan also addressed to increase the quantity of students. In order to accommodate future excess of student application, the Department of Polytechnic Studies decides to increase the number of Polytechnics institutions in Malaysia. This is including the build of Metro Polytechnic. There are already five Metro Polytechnic have been launched since 2011; Politenik Metro Kuala Lumpur, Politeknik Metro Kuantan, Pahang, Politeknik Metro Pasir Gudang, Johor, Politeknik Metro Tasek Gelugor, Penang, and Polteknik Metro Betong, Sarawak. The embodiment of Metro polytechnic will enhance the further study of Polytechnic system to parallels the Transformation Plan. As was said by the Minister of Higher Education, Datuk Seri Mohamed Khaled Nordin, prior to this embodiment, the goal of Polytechnic are in line with the country agenda which aim to inrease transformation competitiveness in raising the human capital versatile, dynamic and excellence in line with strategic objective of National Higher Education and Transformation and also as effort to expand capacity for education and training, thus giving positive impact on local communities and the nation

Politeknik Sultan Abdul Halim Mu'adzam (POLIMAS) Shah provides provision of Education Services in Engineering, Commerce and Information Technology for post SPM and SPM (V)students at diploma levels. Politeknik Sultan Abdul Halim Mu'adzam Shah (POLIMAS) is a comprehensive, leaner centered higher education institution that serves its local and regional learners and their communities through high-quality and flexible education and training. It is aimed to develop student's employability skill to meet the needs of a more dynamic economy, which values innovation and productivity. Programs include a global perspective that will enable graduates to make a valuable

contribution to the wider society as it changes in response to regional and international competition and demand. POLIMAS programs include a variety of Outcome-Based Education teaching approach, adding value to POLIMAS teaching and learning which cater to students seeking a quality polytechnic education and training.

The Commerce Department is one of the departments found in the POLIMAS. This department is steered by head of department and assisted by 61 lecturers specializing in their own respective areas. The department offers diploma level courses in the following areas; Diploma in Accountancy and Diploma in Marketing. The teaching approach in Commerce Department combines both the theoretical and practical aspects in the teaching and learning process aided by the use of teaching aids such as the module, LCD projector, computers and so on. All the teaching aspects are arranged systematically according to the syllabus and implemented in line with the needs of the MS ISO.

Department of Polytechnic (DoP) and institutions committed to empowering learning and teaching in accordance with the demands of transformation that requires change that combines productivity, creativity and innovation in order to boost the polytechnic as a leading Technical education Vocational dal Training (TVET) in the region. Policies and principles of e-learning Polytechnic prepared to outline the provision of academic leaders, faculty and staff support for the implementation of e-learning learning approaches as (P & P) blend of quality, flexible and collaborative. National e-Learning Policy (DePAN) Institutions of Higher Education Policy is use a guide in the implementation of e-learning and principle of the Polytechnic. Policies and principles of

effective e-learning to all academic leaders, academic and support staff in the Department of polytechnics and institutes under its control from December 2012. (Appendix 2)

1.2 Problem statement

The issues regarding factors determining the acceptance of the e-learning system is a crucial factor for the institution especially those were trying to implement the e-learning in order to make the system is successful. Effective implementation of an e-learning initiative requires that a number of issues be taken into account, including technological, pedagogical, and individual factors (Masrom, 2007).

E-learning has been integrated in many educational programs, and is one of the new learning trends that challenge the banking concept of education (i.e. assumes that the instructor or teacher owns the knowledge and deposits it into the students who attend the class). E-learning is not intended to replace the traditional classroom setting, but to provide new opportunities for interaction and communication between students and instructor or teacher.

Implementation of e-learning by POLIMAS is seen less to work and its use is still at the minimum level. This is because students only focus on traditional learning; face to face. The question that arises is to know where the level of acceptance and use of CIDOS in the learning environment. The lack of study in the area of e-learning on polytechnic

institutions makes this study useful to be used as a guidance and guideline to increase the acceptance and usage of CIDOS.

This project paper focuses on the individual users' acceptance investigation for the e-learning in Politeknik Sultan Abdul Halim Mu'adzam Shah, Jitra Kedah as an effective learning tool; e-learning or also known as CIDOS (Curriculum Information Document Online System). Hence, this study attempts to address a better understanding of what students perceived in using e-learning. This study can be used to help the Polytechnic institution especially POLIMAS to increase the level of usage towards CIDOS.

1.3 Research Question

Since e-learning in POLIMAS has just started (appendix 2), then it is worthwhile that on initial study to investigate the issues to be largely centered upon a single research question.

- Does implementation of e-learning being useful in POLIMAS

1.4 Research objective

The research objectives of this study are as follows:

1. To identify factors that make up perceived ease of use
2. To determine usefulness of CIDOS as a learning tool to Accountancy students

3. To investigate the attitude towards the acceptance of CIDOS among accounting students.

1.5 Significance of the study

The reason why this study is significant can be explained from three aspects. First, this study investigate POLIMAS accountancy students' on ease of use, usefulness and attitudes viewpoints on CIDOS, and their participation towards e-learning. Consequently, this study might offer some empirical messages for lecturers and instructors in polytechnics about conducting CIDOS as a tool in learning process. It is expected to give information and contribution to the polytechnic institution especially POLIMAS to enhance the using of CIDOS as a learning tool in the environment. Second, the results of how students use e-learning as a tool in learning process can inspire the institutions to provide appropriate ways to increase the use of CIDOS. Third, it is hoped that this study may help students and lecturers for providing the information of how they can improve CIDOS in learning environment.

CHAPTER 2

LITERATURE REVIEW

During the last few decades, the world has undergone significant changes in terms of technological advancements and the exchange of information. Advancements in information and communication technology led to distance learning becoming a focus of global attention (Pye, 1999). Electronic learning (e-learning) has become very popular on university and other academic campuses and with this advancement of instructional technology in education, both the courses and the duties of instructors are changing (Borstorff & Lowe, 2007). A nine-year survey of the research literature in training published by Tobias and Fletcher in 'Training and Retraining', commissioned by the American Psychological Society, and published in 2000, concluded that:

> *'Learners learn more using computer-based instruction than they do with conventional ways of teaching, as measured by higher post-treatment test scores.'*

According to some authors, *e-learning* or *electronic learning* is a concept that associates learning with the application of new technologies to the learning process, namely the internet, intranet, email, satellite broadcasts, audio/video tape, or Compact Disc Read-Only Memory (CD-ROM). It occurs in a range of learning situations: web-based learning, computer-based learning and virtual classrooms (Clark & Mayer, 2003). Harasim et al. (1997) observed that e-learning is a valuable addition to the teaching and

learning environment in the face-to face classroom situation. They also noted that e-learning provided a good start for instructors wishing to explore the capacities of new technology in their teaching modes. Both Bates and Harasim et al. claimed that such types of e-learning applications were mostly used in post-secondary education (Bates, 2001: 20, Harasim et al., 1995;78).

Web-based training can be applied in university settings in order to deliver instruction to students who are physically unable to attend class, or live in remote locations, or are located internationally (Boose, 2001). Specific studies from Fletcher (1999), Kulik (1994), Willett, Yamashita & Anderson (1983) confirm that learners learn more using computer-based instruction than they do through traditional classroom methods. There is an example of country that supporting ICT as an advantage in education system such as Korea. Korea takes full advantage of ICT in supporting all levels of education and human resource development, and e-learning is considered one of the important alternatives for current knowledge based society (Kim & Santiago, 2005)

Information Communication Technology (ICT) has a central role in maintaining the quality of higher education in Malaysia and it will be a basis for competitive advantage of the universities. In Malaysia, the IT agenda was initially driven by technological and scientific forces and innovations as well as the supply and demand and marketing forces and entrepreneurship (Bajunid, 2001). Formal and informal education programmes are being offered using the e-Learning mode. As an example, two of the country's universities University Tun Abdul Razak (UNITAR) and Open University (OUM) are

currently offering all degree programmes via the hybrid and blended mode, respectively. Each incorporates the use of e-Learning. In addition, a growing number of public and private universities throughout the nation are employing e-Learning methodologies either to offer academic programmes via distance or to support the full time on campus learners (OUM, 2004).

The literature related to online learning has expanded considerably in last decades (Song, Singleton, Hill, & Koh, 2004) because e-learning can be cost effective when compared to traditional learning methods, more businesses and universities are using e-learning courses to teach their employees and student (Palatto, 2002). Developers and deliverers of e-learning need more understanding of how students perceive and react to elements of e-learning along with how to most effectively apply an online e-learning approach of how students perceive and react to elements of e-learning along with the most effectively apply an e-learning approach to enhance learning (Koohang & Durante, 2003).

With the increase in the demand for higher education, many institutions in Malaysia have planned to use for e-Learning. Universities in Malaysia have responded actively to this challenge while guided by the Ministry of Higher Education's strategies to enhance the use of ICT in the e-Learning (Hassan, 2002). This phenomenon also involved all polytechnics across Malaysia. However, there are numerous barriers to the integration of instructional technology into higher education, such as technology infrastructure, faculty effort, technology satisfaction, and graduates competency (Surry, Esminger & Haab, 2005). Consequently, developers and deliverers of e-learning need more understanding

of how students perceive and react to elements of e-learning along with how to most effectively apply an e-learning approach to enhance learning (Koohang & Durante, 2003)

Many factors drive the introduction of IT teaching and administrative methods in universities. According to Bates (2000:8), these reasons include: increased student enrolments, the changing needs of learning and training; and the benefits of using new technologies in teaching and learning. The emergence of new universities with the specific task of providing electronic distance education or virtual university options has also pushed older teaching establishments to be more innovative. McCann, Christmass, Nicholson & Stuparich (1998: 2) noted that IT provides important opportunities for the more effective delivery of education and training throughout the educational system, including schools and technical training colleges.

Communications, flexibility, feedback, student and instructor roles, and the quality of course materials have been the focus of many studies on online teaching (Young, Cantrell and Shaw, 2009). Students are required to take on different roles in their learning in an online environment. They need to be more actively involved while instructors take on more of a facilitative role (Young et. El, 1999). Given this new roles, students' concern about teacher effectiveness in online courses focused on communication, nothing that timely responses from instructors were the most valued interactions (Northrup, 2002). Other researchers discovered that students prefer online courses that provide high-quality materials that offer assignments that are professionally meaningful, and that provide high-quality feedback. The students studied also noted that communication in online

courses is a crucial part in online learning. (Tricker, Rangercroft, Long & Gilroy, 2001 ; Spangle, Hodne & Schierling, 2002).

As a result, more extensive studies are done to help identify whether learners or users like to accept the use of e-learning or vice versa. In information systems research, the user's attitude toward using and the actual usage of technology are addressed in the technology acceptance model (TAMS) (Davis, 1989; Davis, Bagozzi & Warshaw, 1989). Therefore, it is necessary to conduct research that deals more extensively with learners' perception of, attitude towards, and intention to use e-learning (Park, 2009).

In particular, the relationship between e-learning within Malaysian institutions and IT strategies has emerged as an important research question. Within the institutions, the concepts discussed here help to inform the subject matter of the survey administered on students. Finally, the literature reviewed here helps to establish the importance of discussing the Malaysian e-learning experience against what is happening in other institutions around the world.

CHAPTER 3

METHOD

3.1 Introduction

The research methodology involved the administration of questionnaire on sample of accounting students diploma in POLIMAS. This section outlines the research instrument, unit of analysis, data collection method and methods of analysis.

3.2 Research Instrument

The primary instrument of the study was a structured questionnaire constructed in English and Malay that contains 20 questions subdivided into four parts. This survey is use to obtain the necessary data to answer the research questions and eventually to achieve research objectives. The questionnaire consists of four parts which are:

Part 1: Demographic Characteristics

Part 2: Ease of use

Part 3: Usefulness of e-learning

Part 4: Attitudes towards e-learning

Part 1 addresses student demographics. Part 2 addresses the ease of use in several contexts while Part 3 addressed the usefulness of e-learning and part 4 investigate the

attitude towards e-learning. Likert Scale was used for part 2, 3 and 4. Part 2 has seven statements regarding the ease of use among students. Part 3 also have seven statements regarding the usefulness of e-learning and part 4 has 7 statements regarding the attitudes towards e-learning. Likert Scale of five was used for part 2, 3 and 4 using the level of agreement of respondents and were measured on a (the lowest value of indicates 'strongly agree' and the largest value indicates 'strongly disagree'). See Appendix 1 for the sample of survey.

3.3 Unit of analysis

The unit of analysis for this study was the entire of the accounting students from first year (semester 1-2), second year (semester 3-4) and final year (semester 5-6) at POLIMAS. The sample comprises of a hundred (100) accounting students. These sample were chosen based on their experience in using CIDOS from first year till final year

3.4 Data Collection Method

The questionnaire were distributed to those sample selected. The questionnaires were collected immediately after they answered the question. The respond percentage is 100%.

3.5 Method of Data Analysis

Descriptive analysis was used to analyze the data collection. It is use to present data in a simple way. The result were reported in four parts which are; Part 1: Demographic

Characteristics, Part 2: Ease of use, Part 3: Usefulness of e-learning, Part 4: Attitudes towards e-learning plus the additional behavior that the study usage in other technologies such as, Facebook, blog, e-mail, Twitter, Dropbox and others also the result of the usage of internet in a week.

3.6 Data Collection Procedure

Curriculum Information Document Online System (CIDOS) was established by Department of Polytechnic Education, Ministry of Higher Education. POLIMAS had started implementing the use of CIDOS since 2011. Policies to use CIDOS as an e-learning tool have been issued to all academic leaders, academic and support staff in the Department of polytechnics and institutes under its control from December 2012. The major aim is to facilitate and enhance the learning and teaching experience. Using this system, instructors (or lecturers) are able post course outlines, schedules, announcement and lecturers notes on the system for students. The database in CIDOS has restricted the access to the courses only to those students that enrolled; this is similar to the intranet network. (Masrom, 2007)

The students samples were pick based on the enrollment of the course in CIDOS to this study. The subjects were drawn among the diploma of accountancy students (N=100) that were using CIDOS in theirs course. All of the students were asked to fill out a questionnaire indicating their agreement or disagreement with each of the statement on 5-point Likert-type scale with measured on a scale 1 to 5 (the lowest value of indicates

'strongly agree' and the largest value indicates 'strongly disagree'). Measurement items are shown in the appendix 1.

The sample is also collect in three phase of levels of studies in POLIMAS first year students (semester 1 & 2) second year students (semester 3 & 4) and final year students (semester 5 & 6) see Table 1. The questionnaire also carried out based on the age and gender to see the potential control purposes in data analysis. The response rate on the questionnaire were received by 100% (N=100), this is shown that the entire questionnaire that have been received were fully answered by the students.

TABLE 1: SAMPLE SELECTION PROCESS (DIPLOMA OF ACCOUNTANCY STUDENTS)

	Total students sample
First year students (semester 1 & 2)	34
Second year students (semester 3 & 4)	34
Final year students (semester 5 & 6)	33

In table 2, the descriptive analyses are carried out to see the subjects that shown the computer-user, most of the students use less than 5 hours (51%) a week on the Internet. And we can see that 91% of students spent at least an hour a week over the internet. Only

9% of students under study did not have time to use internet. We can conclude that, majority of the students has experience to use internet facilities.

TABLE 2: HOURLY INTERNET USAGE IN A WEEK

	Frequency	Percent	Cumulative Percent
no time	9	9.0	9.0
<5	51	51.0	60.0
5-9	21	21.0	81.0
10-14	11	11.0	92.0
>15	8	8.0	100.0
Total	100	100.0	

The result in Table 3 shown that two-thirds (69%) of the respondents are female, another 31% is male in line with the population in accounting students. This is because of the accounting course were dominated by female rather than male students.

TABLE 3: GENDER

	Frequency	Percent	Valid Percent	Cumulative Percent
Male	31	31.0	31.0	31.0
Female	69	69.0	69.0	100.0
Total	100	100.0	100.0	

In table 4 shows the 100 respondent's age. 39% students are under 21 years old and another 61% is more than 21 years old. This is been considered from the students enrollment in diploma study from the SPM level in school.

TABLE 4: AGE

	Frequency	Percent	Valid Percent	Cumulative Percent
(less than 21) 18-20	39	39.0	39.0	39.0
(more than 21) 21-23	61	61.0	61.0	100.0
Total	100	100.0	100.0	

3.7 Measures

The study was carried out by examine the measurement validity in terms of reliability and construct validity. The analysis of reliability was conducted to ensure the internal validity and consistency of the items use for each variable. Based on the research by Hair et al. (1998) state that the by using Cronbach Alpha as a measure of value measurement can be identified based on 0.6 to 0.7 were deemed the lower limit of acceptability. The Table 2 below shows the result of reliability of the measurement scales. All of the measurement show the score were 0.8, this can be evaluate as very good (Nunnaly, 1978). This can be concluding that the questionnaires that have been distributed are a reliable instrument.

TABLE 5: CRONBACH'S ALPHA (RELIABILITY)

Scale	**Cronbach's alpha**
Perceived ease of use	0.85
Perceived usefulness	0.85
Attitudes towards e-learning	0.89

Next, the factor analysis was carried out to identify the validity of measures adopted in this study. By using varimax rotation the analysis principal factor was performed to assess the underlying structure for eight teen items in the questionnaire. Those factor are

perceived ease of use, perceived usefulness and attitudes towards e-learning. After the rotation, the first factor shown 35.45% of the variance, the second is shown 29.46% and the third factor shown 21.05%. Table 3 below shows the items and factor loadings for the rotated factor, with loadings less than 0.60 were omitted to improve clarity. All of the factors that have been stated are 0.6 and above, means that there are showing good convergent (Chesney, 2006).

TABLE 6: FACTOR LOADINGS FOR THE ROTATED FACTORS

Scale item	*1*	*2*	*3*
EASE1	0.86		
EASE2	0.85		
EASE3	0.81		
EASE7	0.79		
USE2		0.85	
USE3		0.77	
USE5		0.64	
USE6		0.84	
ATT1			0.90
ATT4			0.90
% of variance explained	33.56	27.73	18.77
Cumulative percentages	33.56	61.30	79.74

Principal axis factoring was used varimax rotation and Kaiser normalization, N=100 Rotation converged in six iterations

Factor 1 = perceived ease of use; Factor 2 = perceived usefulness; Factor 3 = Attitude toward e-learning

CHAPTER 4

FINDINGS

4.1 Introduction

This chapter presents an overview of the student responses on the survey as well as insight into the three research objectives for this study: To study the factor of perceive ease of use in CIDOS, to study whether CIDOS is being useful to accounting students as a learning tool and to investigate the attitude towards the acceptance of CIDOS among accounting students. Its presents the results and findings from the data analysis of hundred completed questionnaires collected from survey conducted. Student responses are documented in tables, and each table reports valid percentages of replies by category. Each table represents one complete section of the survey with each question/statement in the order as presented on the survey. Section 4.2 discusses some results from statistical analysis by using descriptive analysis.

4.2 Descriptive Analysis

One of the main objectives of this study is to study the factors that influence the ease of use in CIDOS. This study also seeks to investigate the usefulness of CIDOS to accounting students as a learning tool and to investigate the attitude towards the acceptance of CIDOS among accounting students. The results of this study are reported in four parts namely in which are; Part 1: Demographic Characteristics, Part 2: Ease of use, Part 3: Usefulness of e-learning, Part 4: Attitudes towards e-learning plus the additional behavior that the study usage in other technologies such as, Facebook, blog, e-mail, Twitter, Dropbox.

4.2.1 Perceive ease of use

One of the goal in this study is to define the factors that influence perceive ease of use in CIDOS. To this end, students were given seven factor ease of use in CIDOS and asked whether they considered each to be in defining the factor in the perceive ease of use.

TABLE 7: PERCEIVE EASE OF USE

	Percentage					Mean (rank)	Std. Deviation
	1	2	3	4	5		
4. I'm always alert on news and information by my lecturers through CIDOS	16	37	38	8	1	2.4100	.88871
7. CIDOS help me to communicate with friends and lecturer in an instant	17	41	30	11	1	2.3800	.92965
6. My lecturers have used a whole of CIDOS in my learning process and it was clear and understandable	20	44	27	7	2	2.2700	.93046
5. My lecturers always update their assessment such as notes and exercises using CIDOS	24	40	28	7	1	2.2100	.92436
2. CIDOS is easy to access	21	52	21	5	1	2.1300	.83672
1. CIDOS is easy to use	21	55	20	5	0	2.1000	.77198
3. It is easy to sharing documents through CIDOS	27	39	31	3	0	2.1000	.83485

1=strongly agree, 2=agree, 3=neutral, 4=disagree, 5=strongly disagree

Table 7 present factors that influence perceives of use in CIDOS. We can see that the lowest mean between seven factor in CIDOS is the students agree that it was easy to sharing documents through CIDOS 66% (mean = 2.1) followed by the agreement factor is that CIDOS is easy to use 76% (mean = 2.1). The third factor that shows one of the highest student responses is CIDOS is easy to access 73% (mean=2.13). In respect with the finding from Masrom et al 2007, one of the factors which are e-learning is easy to use in Universiti Teknologi Malaysia is one

of the top three finding in his research. Another interesting finding in the table shown that the factor of CIDOS help me to communicate with friends and lecturer in an instant shows the highest disagreement among all factors 12%, this is the similar to finding on the use on other technologies as a tool in e-learning system. The students more interested to use other alternative technologies (social medic) in communicating with their friends in social network such as Facebook (Table 8) rather than using CIDOS (80%). Besides that, they were using e-mail as a communication tool to share documents and handouts (12%).

TABLE 8: OTHER TECHNOLOGIES USE IN LEARNING SYSTEM

	Frequency	Percent	Valid Percent	Cumulative Percent
Facebook	80	80.0	80.0	80.0
Blog	7	7.0	7.0	87.0
E-mail	12	12.0	12.0	99.0
Others	1	1.0	1.0	100.0
Total	100	100.0	100.0	

In conclusion with the factors of the highest mean, 70% of respondents agree that CIDOS is easy to access and easy to use. This might be because of the wireless facility that is provided by POLIMAS to the students and they are able to access to CIDOS at anywhere and anytime in the college and for those who have own date plan. Following with the easy to sharing documents through CIDOS there is only a slight reduction in percentage. This can be conclude that more than 60% of the students are comfortable to share the documents though CIDOS. However the

result show the highest percentage (12%) in disagreement is they did not like to communicate with friends and lecturers through CIDOS, this is because not the entire student is frequently on-line in CIDOS.

4.2.2 *Perceive of usefulness*

Perceive of usefulness, refers to the degree to which the learner believes that using the e-learning will improve his or her works performance (Masrom, 2007) . The result below shows the data gathered form the questionnaire. There are seven factors that need to be considered by the learners. But the result will be organized by the highest mean to the lowest mean. Result will then be interpreted based on the finding.

TABLE 9: PERCEIVE OF USEFULNESS

	Percentage					Mean (rank)	Std. Deviation
	1	2	3	4	5		
7.The use of language in CIDOS is not a problem for me	15	38	36	8	3	2.46	.94730
5. I have achieve my subjects through CIDOS	17	43	31	7	2	2.34	.92154
2. Using e-learning would enhance my effectiveness in e-learning	20	37	39	4	0	2.27	.82701
1. I know what is e-learning	19	44	31	6	0	2.24	.83024
3. Using e-learning would improve my course performance	20	47	37	2	0	2.15	.75712
6. I found e-learning is useful	25	46	22	5	2	2.13	.91734
4. I know about CIDOS through my lecturers.	33	44	19	4	0	1.94	.82658

1=strongly agree, 2=agree, 3=neutral, 4=disagree, 5=strongly disagree

The students have answered which of the factor that influence, in perceives of usefulness. The highest percentage on agreement is factor number four, which was "I know about CIDOS through my lecturer" 77% (mean=1.94) this is consequently affect the next factor which is factor number six, "I found e-learning is useful" 71% (mean = 2.13). The next highest percentage on agreement is factor

three "Using e-learning would improve my course performance" which state the 67% (mean= 2.15).

Apart from that the total of disagreement on all factors had stated very low percentage for entire seven factors. Surprisingly, the highest disagreement also show that factor number four is the leader which was 11% (mean= 1.94); "I know about CIDOS through my lecturer" means that CIDOS was considered told by POLIMAS lecturers respectively before they decided to using it.

In conclusion on the factors of perceive of usefulness. Lecturers play an important role to introduce the CIDOS system as the learning tool in everyday learning. Moreover, lecturer should encourage the students to continuously access CIDOS to establish the substantial usage of CIDOS among the students because the finding had stated the second factor which when the students find the e-learning is useful in their assessment and learning process plus they believe by using CIDOS, they could improve their course performance.

4.2.3 Attitudes towards e-learning

The attitudes factors is aimed to find such attitude towards using the technology determines the behavioral intention to use the technology Other studies have found records that experience in computer use is another success factor in adopting e-learning. These factors have a direct impact on students' attitude

towards e-learning (Bertea, 2009). In this study we will focus on four factors which considered as a crucial factor on attitudes towards e-learning.

TABLE 10: ATTITUDES TOWARDS E-LEARNING

	Percentage					Mean (rank)	Std. Deviation
	1	2	3	4	5		
1. The use of e-learning makes me feel like a foolish	3.0	8.0	17.0	40	32	3.9	1.03962
2. I dislike the idea use e-learning during my study	6.0	9.0	27	35	23	3.6	1.11916
4. I believe it is a good idea to use e-learning for my accounting course work	25	37	3	1	2.17	2.2	.82945
3. I will encourage my lecturers to use CIDOS as a tool in learning process	21	46	32	5	1	2.17	.91010

1=strongly agree, 2=agree, 3=neutral, 4=disagree, 5=strongly disagree

Based on the table above, there are four factors that determined the attitudes towards using an e-learning. The highest score is from the first factor, showing that the students does not feel like a foolish when using an e-learning 72% of disagreement (mean = 3.9). The next score is third factor; the students will encourage their lecturers to use CIDOS as a tool in learning process with the score of 67% of agreement (mean=2.17), following by the fourth factor, "I believe it is a good idea to use e-learning for my accounting course work" by the percentage of 62% (mean=2.2) and the last factor is contributing 58% in disagreement, showing that the students is disagree the idea of dislike the e-learning during their study

In a conclusion on the attitudes toward e-learning, the students is basically know their way when using CIDOS as a tool in learning process which can be described under the factor students know the benefits of CIDOS when using an e-learning with the majority of disagreement. In other way, they feel more confident and well diverse also believe it is a good idea to use e-learning to use the system and will encourage their lecturers to use CIDOS as a tool in learning process.

CHAPTER 5

CONCLUSION

5.1 Introduction

The objectives of this study is to study the factor of perceive ease of use, perceive of usefulness and the attitudes toward CIDOS in accounting student environment in POLIMAS. E-learning can be defined as a tool that will help to boost the learning process in different ways. There are many advantages when the institutions are decided to adopt an e-learning system including the variety of teaching method, less expensive, if there any urgent announcement the lecturer and the learners can be updated easily and e-learning can work at anytime and anywhere of location. Politeknik Sultan Abdul Halim Mu'adzam Shah (POLIMAS) is one of the institutions that receive the policies from the Department of Higher Education to implement the CIDOS starting Decembers 2012. By using e-learning, there would be an increase on the perception in the public about this higher institution and make it as one of the preferred skill institutions in the country.

5.2 Conclusion

The contribution of this study find that the using of CIDOS is friendly user and the entire sample is alert about the existence of the e-learning in POLIMAS it shows that 70% of subject under this study used CIDOS. Based on the finding, the lecturers also have an important role to encouraged students to use CIDOS. By the encouragement of using, the students or learners will be more supportive in using the system. The additional contribution on this study is, now most of the students are likely to use social network to communicate and sharing their documents with their friends such as Facebook, Twitter and e-mail. This can be solving by redirecting them to focus on using the CIDOS while surfing the internet.

As the other advantages, the use of e-learning also can increase the computerization skills among lecturers and students. The result shows that all the factors that were discussed is positively support the implementation of e-learning even though it does not fully functioning in POLIMAS. There should be an aggressive and extensive way to increase the usage of CIDOS. It does not tend to replace the traditional face to face learning, but the use CIDOS hopefully can increase the students' performance in their learning process. POLIMAS should also increase the technology facilities in order to increase the percentage of students using the CIDOS

5.3 Recommendations

As a recommendation there are the factors that should be considered in future study. First, the sample of data can be collected with other population of student; such as from the point of view of non-business students. This is to give more accurate data, explanation of possible students about the finding. Second, this study should increase the sample and population of the data. And, it is recommended using Technology Acceptance Model 3 (TAM 3) as a model to evaluate the e-learning system respectively. Last but not least, there should be a future research regarding the hourly usage on internet usage among the students, to find out what is the average time that they use in learning process as a study to find out are the usage of the internet is related in surfing the e-learning.

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