Abstract—With the introduction of the internet to the education life, some educational tools have been replaced by electronic versions. Internet and its associated educational tools have delivered various benefits in terms of offering access to more individuals, sharing information and experience, and saving time. Currently a wide range of digital educational tools is available for lecturers and students. One of those important tools is Electronic Portfolio which known as an online collection of learner output to display his/her progress and advancement and to view, assess, and share the accomplishments and experiences. The purpose of this study is to identify the existing factors that affect the acceptance and use of e-Portfolio. A comprehensive review on existing research on e-Portfolio acceptance and use provides excellent way to identify the factors affecting e-Portfolio users’ acceptance. Ease of use, usefulness, ownership and technological competence were the most cited factors. Based on this comprehensive literature review, the paper also sums up a few future research directions, which are useful to researchers working in this area.

Keywords – electronic portfolio; e-Portfolio; acceptance; use; higher Education

1. INTRODUCTION

The electronic portfolios utilisation in educational context have increased over the past 25 years [1]. In the 1980s, the electronic portfolio was a simple file folder just for recording evidence of progress and accomplishments, and reflections, in the computer hard drive. Portability was limited to floppy disks or optical disks to accommodate multimedia file formats such as images and video [2]. They developed with the new features over the years. One of the most popular features of the internet is the World Wide Web which allows access to a massive number of homepages composed in hypertext markup language (HTML) [3]. Therefore, this technology has been applied to the electronic portfolio as well [1]. Implementing an institute-wide e-portfolio may cause the problem of students’ low adoption and acceptance rate of the technology [67–69]. Electronic Portfolios, or e-Portfolios, considered as an extension to e-learning. They have become an important research topic in the last few years [4–7]. Recently, the impact of e-portfolio on learning performance has been understood [8]. According to some researchers, the e-Portfolio has had “the most significant effect on education since the introduction of formal schooling” [9].

A. Electronic Portfolio Definitions

The term e-Portfolio is comprehensive and there are various expressions to refer to it. Primary and secondary teachers often refer to it as “digital portfolio” or “digital learning portfolio” whereas higher education practitioners prefer to use the terms “electronic portfolio”, “e-portfolio”, or “webfolio” [10]. Currently e-Portfolios are used in many disciplines including universities, medical, nursing and also there are numerous definitions in the e-Portfolio literature. Table 1 shows the different definitions of Electronic Portfolio.

<table>
<thead>
<tr>
<th>Authors</th>
<th>Definitions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Barret (2001)</td>
<td>A purposeful collection of a student’s work that exhibits the student’s efforts, progress, and achievements in one or more areas [12]</td>
</tr>
<tr>
<td>Batson (2002)</td>
<td>A Web-based information management system that uses electronic media and services to enable the learners to build and maintain a digital repository of artifacts for demonstration of competence and reflection on their learning [13].</td>
</tr>
<tr>
<td>Author(s)</td>
<td>Definition</td>
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<td>------------------------------</td>
<td>-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
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<tr>
<td>Vancouver (2003)</td>
<td>An electronic learning record which enables an individual to store, organize and present their work and accomplishments [14].</td>
</tr>
<tr>
<td>Wheeler (2003)</td>
<td>A collection of purposefully-organized artifacts that support backward and forward reflection to augment and assess growth over time [15].</td>
</tr>
<tr>
<td>The National Learning</td>
<td>A collection of authentic and diverse evidence, drawn from a larger archive representing what a person or organization has learned over time on which the person or organization has reflected, and designed for presentation to one or more audiences for a particular rhetorical purpose [16].</td>
</tr>
<tr>
<td>Infrastructure Initiative</td>
<td></td>
</tr>
<tr>
<td>Abrami and Barrett (2005)</td>
<td>A digital container capable of storing visual and auditory content including text, images, video and sound…designed to support a variety of pedagogical processes and assessment purposes [17].</td>
</tr>
<tr>
<td>Challis (2005)</td>
<td>A comprehensive Definition [18]: Selective and structured collections of information Gathered for specific purposes and showing/evidencing one’s accomplishments and growth which are Stored digitally and managed by appropriate software Developed by using appropriate multimedia and customarily within a web environment and Retrieved from a website, or delivered by CD-ROM or by DVD</td>
</tr>
<tr>
<td>Butler (2006)</td>
<td>A collection of evidence that is gathered together to show a person’s learning journey over time and to demonstrate their abilities [19].</td>
</tr>
<tr>
<td>Cambridge (2008)</td>
<td>A digital learning container designed to support organizing learning materials and the achievement of various pedagogies [20].</td>
</tr>
<tr>
<td>European Institute for</td>
<td>A personal digital collection of information describing and illustrating a person’s learning, career, experience and achievements [21].</td>
</tr>
<tr>
<td>E-learning (2009)</td>
<td></td>
</tr>
<tr>
<td>Cambridge et al. (2009)</td>
<td>A collection of diverse evidence created in authentic activity that is brought together and re-contextualized to say something about what I know and can do (how I have grown or changed), and with an added interpretation intended for one or more specific audiences [22].</td>
</tr>
<tr>
<td>Balaban et al. (2012)</td>
<td>A personal digital record that supports formal, informal and non-formal learning and contains evidence about one’s accomplishments in the form of artifacts and reflection on learning which can be provided to whomever the owner has chosen to grant permission [23].</td>
</tr>
</tbody>
</table>

This paper adopt the definition given by Vancouver (2003) and define e-Portfolio as “An electronic learning record which enables students to store, organize and present their educational work and achievements” [14]. Although most of the definitions may discussed that e-Portfolios are used by students, other units such as administration, potential employers, lecturers, academic advisors, lifelong learners and education institutions can use e-Portfolios as well.

**B. Portfolio Processes**

According to Danielson and Abrutyn (1998), portfolio development includes five main processes[24]:

1. **Collection**: Teachers and students learn to save artifacts that represent the successes (and “growth opportunities”) in their day-to-day teaching and learning.
2. **Selection**: Teachers and students review and evaluate the artifacts they have saved, and identify those that demonstrate achievement of specific standards.
3. **Reflection**: Teachers and students become reflective practitioners, evaluating their own growth over time and their achievement of the standards, as well as the gaps in their development.
4. **Projection (or Direction)**: Teachers and students compare their reflections to the standards and performance indicators and set learning goals for the future. This is the stage that turns portfolio development into professional development and supports lifelong learning.
5. **Presentation**: Teachers and students share their portfolios with their peers. This is the stage where appropriate “public” commitments can be made to encourage collaboration and commitment to professional development and lifelong learning.

According to Barrett (2003), these processes have become faster and easier in e-Portfolio system, due to its electronic nature [25].
C. Types of e-Portfolio

Wheeler suggests that an e-Portfolio system can be well described by its purpose and goal [15]. So there are different types of portfolio based on its functions and their format, depending on the reason and goal for which it is developed [26]. Abrami and Barrett (2005) identified three general types of e-Portfolios including Process Portfolio, Showcase Portfolio and Assessment Portfolio [17].

1. **Process Portfolio**: It represents the developmental process of the student. Metaphorically it includes the personal aspects of the personal journey that students embark on. It contains written materials about their work, as well as personal reflection, tasks and activities undertaken by the students such as seminar presentation, literature notes, and communication with others [17].

2. **Showcase Portfolio**: As the name suggests, shows “learner competencies and achievements. Showcase EPs may also demonstrate workplace skills and accomplishments. Demonstration is the key concept in showcase portfolios as they illustrate what has been learned and do not merely describe what has been learned” [17].

3. **Assessment Portfolio**: It is for assessing and evaluating students’ performance and achievements. It includes a variety of assessment perspectives and types such as formative and summative assessment, tasks satisfactorily completed critical reflection and review [17].

2. ACCEPTANCE IN INFORMATION TECHNOLOGY

With the rapid growth of information technology, from the business world to the education and daily lives, the nature of tasks are changed and improved. However, all these new technologies cannot be valuable unless they are used by potential users [27]. Thus user acceptance of the information technology is considered as an important issue in IS. User acceptance of new technology is often explained as one of the most mature research areas in the information systems (IS) literature [28]. Dillon and Morris (1998) defined technology acceptance as “the demonstrable willingness within a user group to employ information technology (IT) for the tasks it was designed to support” [29]. Considerable discussions emanating from academic debate and research surround the emergence of technology acceptance [30–32].

Several models have been proposed to investigate and understand the factors and variables affecting the acceptance of the new technologies. The theoretical models that are utilized to study user acceptance, adoption, and usage behaviour include the theory of reasoned action (TRA) [37, 38], the theory of planned behaviour (TPB) [39, 40], the technology acceptance model (TAM) [37], and innovation diffusion theory [38–40]. User friendliness and user acceptance of e-portfolio systems are two of the most problematic requirements to satisfy as "users are known to quickly become frustrated and simply abandon a confusing application" [70]. An extensive e-Portfolio literature review reveals that e-Portfolio systems are widely used but still not thoroughly studied in all their different dimensions [23].

The same challenge is also exists in educational context. Although emerging educational technology usage in education has increased in recent years, technology acceptance and usage is still a problem for educational institutions [36, 45, 46]. Previous research reveals that, although institutions have made large investments in educational technology, many technologies have been underutilised or given up completely, due to limited user acceptance [43–45]. Therefore, technology acceptance is one the challenging issue in an educational context that needs to be addressed. To increase student acceptance levels, systems administrators and educators should try to recognize a wide range of student preferences, intentions, and purposes for using an e-portfolio and should then be able to integrate these factors into the development process, preferably at an early stage [17].

3. METHODOLOGY

In order to gathering the articles related to e-Portfolio literature review, some search engines were used, such as Web of Science, Scopus, EBSCOhost, Science Direct, Google Scholar and ProQuest. They were searched for two keywords of “electronic Portfolio” and “e-portfolio”. Then within the results only the articles related to the acceptance and use were reviewed based on the objective of the research. This process was done by reviewing their abstracts. After finding the suitable papers, their methods were studied to understand the way of collecting the data. The methods can be interview, questionnaire, focus group, survey and so on. Their models also examined to know which acceptance models and theories have been used. There are different acceptance models and theories such as Technology Acceptance Model (TAM), theory of reasoned action (TRA), Theory of Planned Behavior (TPB), and Expectation Confirmation Model (ECM).

The authors of the papers stated some of the factors directly as an acceptance factor, but some other factors were extracted from the papers’ content and discussions. Then based on the results of the research papers, the frequency of each factor was determined. The reason is to find out the most significant factors influencing e-Portfolio acceptance and use. In this process, the factors with similar meaning were considered in the same group (as you can see in figure 3).
4. CURRENT RESEARCH IN E-PORTFOLIO ACCEPTANCE

Based on the previous literature on the acceptance of electronic portfolio, there are a few numbers of researches working in the acceptance process of e-Portfolio. Most of the researches used “Technology Acceptance Model” to examine the factors affecting the user intention to use the e-Portfolio system and its acceptance. Some others integrated TAM with other models such as IS Success Model. The related articles are discussed below:

Dornan, Carroll and Parboosingh (2002) measured the uptake and use of an electronic learning portfolio to support reflective continuing professional development, and to characterize attitudes towards its use and obstacles to its adoption. As a result, Acceptability and use were influenced by individual learning style, resources, training and technical support, and these were often inadequate [46].

Owen G. McGrath (2005) used the TAM model, in order to anticipate the usability and usefulness ratings among several candidate iterations of e-Portfolio templates under consideration for deployment in one university setting. Based on their in-progress research, a fuller understanding of user’s technology adoption would likely require that the TAM analysis be augmented by a broader perspective on users’ activities and practices [47].

Nuli, Keengwe and Kyei-Blankson (2009) claimed that their study is necessary to help administrators identify students’ needs to ensure that they are gaining the maximum benefits from the use of electronic portfolios in their programs of study. They found that training, Technology skills and ownership of the system are the important issues that should be addressed [48].

Chau and Cheng (2010)’s study discusses the findings of a research study concerning the use of e-portfolios to develop independent learning, from the perspectives of teachers and students in a Hong Kong university. According to their findings, for e-portfolios to be widely adopted as an independent learning tool, the buy-in from teachers and students plays a crucial role. Their analysis revealed that Choice and ownership, Technological competence, Feedback, Self-improvement, awareness of the learning process are very important issues [49].

Shroff et al. (2011) analysed the Technology Acceptance Model (TAM) in order to examine students’ behavioural intention to use an electronic portfolio system, meaning how students use and appropriate it within the specific framework of a course. The results of the study indicated that students' perceived ease of use (PEOU) had a significant influence on attitude towards usage (ATU). Subsequently, perceived ease of use (PEOU) had the strongest significant influence on perceived usefulness (PU). The research further demonstrated that individual characteristics and technological factors may have a significant influence on instructors to adopt e-portfolio into their courses. Results suggest that TAM is a solid theoretical model where its validity can extend to an e-portfolio context [50].

Zainal-Abedin et al. (2011) identified the factors and reasons for the low usage of e-portfolio among the students. Data had been collected through interview, questionnaire and observation. The results showed that user awareness of system importance and its usefulness have a great influence on the level of adoption, as well as insufficient training and support and other individual, system and organizational factors [51].

Hwang et al. (2011) combined the technology acceptance model (TAM) and IS Continuance Post-Acceptance model, and try to find out what will affect the continuous usage intention. The results of this study shows: Perceived usefulness, perceived ease of use, confirmation and Satisfaction will influence continuance intention, and Confirmation has the most influence on perceived usefulness, satisfaction and continuance intention [52].

Jeng-Yi Tzeng (2011) proposed and validated a model that illustrates the relationships among prospective users’ (a) perceived value of, (b) attitude toward, and (c) intention of using an e-Portfolio system. In essence, epistemic value and functional value are correlative to the perceived usefulness in the TAM. The study has drawn three general conclusions from the findings. First, the perceived values (epistemic, functional, and contextual) have the strongest influence on behavioral intention when mediated by attitude. Second, perceived functional value serves as the prerequisite condition that mediates the influence of perceived epistemic value on attitude. Third, the perceived epistemic value and the perceived functional value should be understood against the backdrop of the perceived contextual value [53].

Garrett (2011) has done a research attempting to improve electronic portfolio software through the creation of a design model using ownership, ease of use, and social learning variables to predict user adoption. The pilot software attempts to encourage student learning by enhancing peer interaction. His portfolio design theory predicted that ownership, social learning, and ease of use are central variables in explaining students’ portfolio acceptance. Results of his hypothesis clearly indicate that these three variables can predict satisfaction with a high degree of accuracy [54].

Chen et al. (2012) investigated and analyzed the attitudes, degree of satisfaction and acceptance of e-Portfolio system users based on the Technology Acceptance Model (TAM) and Information System Success Model (ISSM). The results indicate that, among prospective users, attitude appears to have the strongest and most significant direct effect on usage intentions, while satisfaction serves as a preliminary condition to mediate the effect of the users’ attitude on intention to use. In addition, the utility users perceive in the e-portfolio system influences their attitude and intention more than it does.
their perceived ease of use. Moreover, service quality utility has a greater influence on user satisfaction and intention than does system quality and information quality[55].

Chou (2012) examined technological and vocational school teachers’ perceived e-Portfolio acceptance, computer self-efficacy, and evaluation effectiveness in Taiwan. Findings demonstrate that technological and vocational schools teachers’ e-portfolio acceptance significantly and directly influences evaluation effectiveness, and e-portfolio acceptance influences evaluation effectiveness by computer self-efficacy [56].

Konsky and Oliver (2012) reported on a study to determine how students use the iPortfolio (Institutional Electronic Portfolio) accounts and factors leading to uptake and effective use. Self-assessed competence with technology skills, factors motivating uptake, and barriers to adoption were examined using an online survey [57].

Balaban et al. (2012) developed an e-Portfolio success measurement instrument and structural model, at the individual level of analysis. The results show that System Quality has a significant positive influence on Use of e-Portfolio, that Information Quality has a positive effect on Net Benefits, that Service Quality has a significant positive effect on both Use and User Satisfaction, that Use has a significant positive effect on User Satisfaction and that User Satisfaction has a positive effect on Net Benefits [23].

Zainal-Abedin et al. (2013)’s research describes the development of an e portfolio system to promote reflective skills for engineering students in a university in Malaysia. They applied the Activity Theory as a lens to explain the reasons for the failed adoption of the e-Portfolio system [58].

The summary of the reviewing the above papers are shown in table 2. It classified their objectives, methods, models and factors identified into four different columns.

Based on the results, we conclude that TAM was the most applied acceptance model. TAM, developed by Davis (1989), is the popular model in technology acceptance. It expresses that the success of a system can be determined by measuring perceived usefulness and ease of use [37]. The second used theory was IS success Model developed by DeLone and McLean (1992). It emphasizes that system quality, service quality and information quality influence user satisfaction [60]. Moreover, the computer self-efficacy and IS-continuance model were integrated with TAM. The factors based on their frequency of citation are shown in table 3.
# TABLE 2: Existing Research in e-Portfolio Acceptance

<table>
<thead>
<tr>
<th>Authors &amp; Year</th>
<th>Objective</th>
<th>Methods</th>
<th>Models</th>
<th>Factors</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Dornant et al. (2002)</td>
<td>To measure the uptake and use of an electronic learning portfolio developed to support reflective continuing professional development (CPD), and characterize attitudes towards its use and obstacles to its adoption [46].</td>
<td>Questionnaire &amp; workshop</td>
<td></td>
<td>– Individual Learning Style – Resources – Training – Technical Support</td>
</tr>
<tr>
<td>2 Owen G. McGrath (2005)</td>
<td>To develop an approach towards combining web survey systems together with the Technology Acceptance Model (TAM), in order to anticipate the usability and usefulness ratings among several candidate iterations of e-Portfolio templates under consideration for deployment in one university setting [47].</td>
<td>Online survey TAM [37]</td>
<td></td>
<td>– Usefulness – Ease of Use</td>
</tr>
<tr>
<td>3 Ntuli et al. (2009)</td>
<td>To explored teacher candidates’ attitudes toward electronic portfolios and the differences that electronic portfolios bring to their profession [48].</td>
<td>Interview</td>
<td></td>
<td>– Ownership – Training – Technology Skills</td>
</tr>
<tr>
<td>4 Chau and Cheng (2010)</td>
<td>To examine the potential and identify the challenges of supporting e-portfolio-mediated independent learning for Chinese university students, given the dearth of systematic research in this field with focus students' and teachers' perception [49].</td>
<td>Interview</td>
<td></td>
<td>– Choice and ownership – Technological competence – Feedback – awareness</td>
</tr>
<tr>
<td>5 Shroff et al. (2011)</td>
<td>To examine students' behavioural intention to use an electronic portfolio system, meaning how students use and appropriate it within the specific framework of a course [50].</td>
<td>Questionnaire TAM (Davis 1989)</td>
<td></td>
<td>– Ease of Use – Usefulness</td>
</tr>
<tr>
<td>6 Zainal-Abidin et al. (2011)</td>
<td>To investigate the reason for the low acceptance and subsequently to suggest a post-implementation strategy to overcome this issue [51].</td>
<td>Interview and Questionnaire</td>
<td></td>
<td>– Ease of Use – Usefulness – User Friendliness – User awareness – Infrastructure reliability</td>
</tr>
<tr>
<td>7 Hwang et al. (2011)</td>
<td>To investigate students’ behavior of continuance intentions to use the double reinforcement interactive e-portfolio learning system [52].</td>
<td>Questionnaire TAM (Davis 1989) and IS Continuance Model [59]</td>
<td></td>
<td>– Ease of Use – Usefulness – Satisfaction</td>
</tr>
<tr>
<td>8 Jeng-Yi Tzeng (2011)</td>
<td>To investigate the student perceptions of the e-portfolio system and the perceptions’ association with attitude towards and intention of using the system [53].</td>
<td>Questionnaire</td>
<td></td>
<td>– Perceived value – Perceived epistemic value – Perceived functional value – Perceived contextual value</td>
</tr>
<tr>
<td></td>
<td>Authors (Year)</td>
<td>Summary</td>
<td>Method</td>
<td>Success Model(s)</td>
</tr>
<tr>
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</tr>
</tbody>
</table>
| 9 | Garrett (2011) | To improve electronic portfolio software through the creation of a new design model. It focuses upon the creation and validation of an alternative model (or mindset) for the creation of portfolio software to support higher education [54]. | Design Science | - Ownership  
- Ease of use  
- Social learning Features  
- User Satisfaction |
| 10 | Chen et al. (2012) | To investigate and analyzes the attitudes, degree of satisfaction and acceptance of e-Portfolio system users [55]. | Questionnaire TAM [37] and IS Success Model [60] | - Ease of Use  
- Usefulness  
- Information Quality  
- System Quality  
- Service Quality  
- User Satisfaction  
- User motivation  
- Computer Self-Efficacy |
| 11 | Chou (2012) | To examine technological and vocational school teachers' perceived e-portfolio acceptance, computer self-efficacy, and evaluation effectiveness in Taiwan [56]. | Survey Questionnaire TAM and Computer Self-Efficacy | - Staff commitment  
- Effort expectancy  
- Performance expectancy  
- Technology training  
- Playfulness  
- Effectiveness  
- Ease of Use  
- Usefulness |
| 12 | Konsky and Oliver (2012) | To develop a set of recommendations to enhance the uptake and effective use of the iPortfolio in order to improve learning and employability [57]. | Online survey | - Usability and use of use  
- Self-assessed technology competence  
- Prior experience |
| 13 | Balaban et al. (2012) | To develop an instrument for assessing Electronic Portfolio (e-Portfolio) success and to build a corresponding e-Portfolio success model [23]. | Questionnaire IS Success Model [60] | - Information Quality  
- System Quality  
- Service Quality  
- User Satisfaction |
| 14 | Zainal-Abedin et al. (2013) | To describe the development of an e-portfolio system to promote reflective skills for engineering students in a university in Malaysia [58]. | Interview Activity Theory | - Needed skills and knowledge  
- Awareness of the system  
- Appropriate functionality  
- User training and support  
- ICT infrastructure  
- Usefulness  
- Ease of use  
- User friendliness |
Table 3 illustrates the frequency of each factor. As the table 3 shows the most cited factors were ease of use and usefulness which are the constructs of TAM. The ICT support by university was mentioned as the critical factors as well. Moreover, user technology competence plays an important role in e-Portfolio acceptance process. User training, user satisfaction, user awareness and ownership and choice were also considered notable.

<table>
<thead>
<tr>
<th>Factors</th>
<th>Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ease of Use/ User Friendliness/ Effort expectancy/ System quality</td>
<td>14</td>
</tr>
<tr>
<td>Usefulness/ Performance expectancy/ Information quality/ Appropriate functionality/ Perceived functional value/ Perceived value/ Effectiveness</td>
<td>14</td>
</tr>
<tr>
<td>Technical Support/ Infrastructure Reliability/ ICT infrastructure / Service quality/ Perceived contextual value</td>
<td>6</td>
</tr>
<tr>
<td>Technology Skills/ Technological Competence/ Computer Self-Efficacy/ Self-assessed technology competence/ Needed skills and knowledge</td>
<td>5</td>
</tr>
<tr>
<td>Training</td>
<td>4</td>
</tr>
<tr>
<td>Satisfaction</td>
<td>4</td>
</tr>
<tr>
<td>ownership</td>
<td>3</td>
</tr>
<tr>
<td>Awareness</td>
<td>3</td>
</tr>
<tr>
<td>Playfulness/ Perceived Epistemical Value</td>
<td>2</td>
</tr>
<tr>
<td>Resources</td>
<td>1</td>
</tr>
<tr>
<td>Feedback</td>
<td>1</td>
</tr>
<tr>
<td>Social Learning Features</td>
<td>1</td>
</tr>
<tr>
<td>Individual Learning Style</td>
<td>1</td>
</tr>
<tr>
<td>User Motivation</td>
<td>1</td>
</tr>
<tr>
<td>Staff commitment</td>
<td>1</td>
</tr>
<tr>
<td>Prior experience</td>
<td>1</td>
</tr>
</tbody>
</table>

These factors can be categorized into different groups including the students, university, e-Portfolio system and lecturers. It means these groups have main role in e-Portfolio acceptance by employing each factor. The factors related to the e-Portfolio system include: ease of use and its associated terms, usefulness and its associated terms, playfulness, social learning features. Developers of the system should take these factors into their consideration during developmental process. The factors concerned with user characteristics consist of technology skills and its associated terms, satisfaction, individual learning style and prior experiences. The university can sustain the e-Portfolio acceptance and use by providing technical support and its associated terms, user training, user awareness, the ownership over the system, and offering useful resources. Finally the lecturers can assist the process of acceptance by training the students, providing awareness of the system, giving useful feedbacks on their student e-Portfolio and having commitment. User motivation also can be done by university or lectures both depending on their strategies for motivating the students.

These factors have the positive effect on the user acceptance of the e-Portfolio system. However there is other factors effectively influence the acceptance process of e-Portfolio but have not found yet in the literature.
4. CONCLUSION AND FUTURE RESEARCH

This paper provided some introduction in e-Portfolio systems. It discussed that there are variety of factors which can influence the process of acceptance and use of e-Portfolio among students. These factors are needed to be investigated and should be taken into account by system developers during the process of development and implementation. It may results in increasing the level of acceptance and use by students. After reviewing the papers on e-Portfolio acceptance and use, some significant factors were extracted from the literature. Ease of use, usefulness, technology competence, technical support and training were the most cited factors. Moreover, awareness of the system, ownership, social features and system playfulness were considered important as well. Factors affecting user behavior and acceptance are complicated and diverse. There are still other factors affecting intention to use and acceptance that have not been taken into consideration. The further research and study is recommended to find the effect of these factors on e-Portfolio acceptance and use. There are some other models of acceptance, such as Theory of Planned Behavior, innovation diffusion model, Expectation Confirmation Model. These models as well as motivational models can be included or even integrated with TAM model to enhance explanatory capacity and raise the comprehensiveness of the study.

REFERENCES


