EVALUATION OF E-CMS USING TAM: FOCUSING ON LECTURER ACCEPTANCE

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Abstract: Characteristic of modern academic institutions is the utilization of information technology (IT) in the educational activities, including implementation of electronic course management systems (e-CMS). It provides various roles that support institutions staffs to achieve effective and efficient way of teaching. There are several factors that affect e-CMS' implementation, for instance support from university, the characteristics of the specific e-CMS application, and the acceptance of users. The acceptance of lecturers as one of e-CMS' main user is critical to determine the acceleration of the e-CMS implementation. The objective of this paper is to evaluate e-CMS implementation in Petra Christian University (PCU) by focusing on lecturers' acceptance of e-CMS. The Technology Acceptance Model (TAM) framework utilized for the evaluation process. The study found that perceived usefulness is the major concern of Petra Christian University's (PCU) lecturers in their attitude and acceptance to use e-CMS. The Partial Least Squares (PLS) analysis employed to analyze the structural model in this research.

Keywords: e-CMS, Acceptance, Perceived Usefulness, TAM, and PLS

Introduction

Nowadays, due to the lack of high levels of system user acceptance, implementing an information system strategy can be both costly and unsuccessful. The information system such as e-CMS, which is a web-based course management system, developed to support the traditional face-to-face teaching learning process.

Petra Christian University (PCU) is a private university in Indonesia with core competencies as International Standards University, IT-Based Campus, and excellence, effectiveness & efficiency of learning process. In order to sustain and support these competencies, PCU increasingly explore the potential uses of e-CMS technology. PCU has been developing and implementing e-CMS since 2000. e-CMS are used by lecturers to provide course, news and FAQ; upload class materials; manage online quizzes and grades; and do online discussion among members of the class. It is important to identify and evaluate lecturers' attitude and acceptance toward the e-CMS implementation, whether or not the e-CMS really help the lecturers in managing their courses. Therefore, the focus of this research is to identify the variables affecting lecturers' acceptance in e-CMS implementation.

The evaluation of e-CMS implementation is based on Technology Acceptance Model (TAM). The model is focused on one independent variable (perceived ease of use) and two intervening variables (perceived of usefulness and attitude) to determine the acceptance of e-CMS.

Literature Review

Electronic Course Management System (e-CMS) is one of e-Learning systems used to deliver learning content via internet. Colleges and universities widely use e-CMS to organize and distribute course content, administer learning exercises or quizzes and track student progress. It is used to support face-to-face instruction. E-CMS applications run on a web or network server and can employ an open source CMS such as Moodle. The users of the system are lecturers, students and university's administrator.

Stacey and Gerbic (2008), Awidi (2008) and Ragan (2007) suggest some factors affecting the successfulness of e-CMS. The first is institutional support, such as organizational preparations; sufficient support for pedagogy, collaboration and technical functions; good communication and feedback channels to all users; and controlling the quality of CMS's life cycle. The second is fairness and reliability of the system to all users. Institution must assess the users' acceptability and user-friendly systems, and certify the system can run accurately at the first time and all the time. The third is validity and practicability of the system in all situations. Institution must ensure that users can access what the system claims to provide and determine the extent of training and all resources required to use the system properly.

Technology Acceptance Model (TAM) was theorized and tested by Davis (1989) as model to understand user acceptance of new information system technology. Base on the logic of the Theory of Reasoned Action (TRA), TAM postulate the causal linkages amongst two key variables—*perceived usefulness* and *perceived ease of use*—and users' attitude, behavioral intentions, and actual system adoption and use (Park, 2010). According to Davis (1989), perceived usefulness (PU) is "*the degree to which a person believes that using a particular system would enhance his or her job performance*." While, perceived ease of use (PEOU) defined as "*the degree to which a person believes that using a particular system would be free of effort*."

The capability of TAM as a model to measure users acceptance of technology has been tested with numerous studies, in various technology, field and location, for example: word processors (Davis, Bagozzi, & Warshaw 1989), medical record system in Australia (Handy, Whiddett & Hunter, 2001), internet banking in

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