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Effects of Technology Readiness Towards Acceptance of Mandatory Web-Based Attendance System

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Abstract

This study explores the effect of technology readiness on a mandatory web-based system. Using technology readiness indicators, this study sought to understand the effect of optimism on the perceived ease of use and perceived usefulness, effect of innovativeness on the perceived ease of use and perceived usefulness, the effect of discomfort on the perceived ease of use and perceived usefulness, the effect of insecurity on the perceived ease of use and perceived usefulness, and the effect of perceived ease of use and perceived usefulness towards behavior intention in using technology. This study uses 368 respondents and the responses were analyzed using Partial Least Square (PLS) approach with the help of software Smart PLS 3.2.0. The result shows interested finding, only two variables (optimism and innovativeness) were supported while the rest were rejected.

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Keywords: Technology readiness; Perceived Usefulness; Erceived Ease of Use; Mandatory Web-Based Attendance System

1. Introduction

Advances in information technology which are growing rapidly have penetrated into various fields, such as information technology in education. An example of activity in the educational system which can be implemented using information technology is the management of lecture attendance. Students' lecture attendance is a system for recording attendance of students in certain classes.

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State universities in Indonesia have a tendency to develop a web-based attendance system for managing lecture attendance. The implementation of this system is mandatory; it means that the lecturers and students as users are forced to use the system to handle the lecture attendance. In a mandatory system, the use or adoption of information systems becomes unavoidable. The main issue in adopting of information systems is not on the mandatory use of the system but the readiness of the users themselves.

Parasuraman [1] develops the Technology Readiness Index (TRI) which refers to the tendency of people to follow and use new technologies to achieve the goal. TRI measures the readiness of individuals to use new technologies and has four dimensions: optimism, innovativeness, discomfort and insecurity. Theory of Acceptance Model (TAM) research developed by Davis [2] states that the use of the system is influenced by behavioral intention which is affected by user beliefs, namely perceived of usefulness and perceived ease of use. Both researchers provide a bridge between the user contract and their readiness towards perceived usefulness of the system and the sustainable interest. In the mandatory system, users' perception of the usefulness and sustainability of use of a system will be neglected. This study tried to combine the TAM and TRI to understand the effect of technology readiness towards the perceived usefulness, perceived ease of use, and behavioral intention of mandatory online lecture attendance system.

Based on the discussion above, this research proposes these following questions: 1). What is the effect of technology readiness on perceived of usefulness in the Mandatory Web-Based Attendance System? 2). What is the effect of technology readiness on perceived ease of use in the Mandatory Web-Based Attendance System? 3). What is the effect of perceived usefulness on behavioral intention in the Mandatory Web-Based Attendance System? 4). What is the effect of perceived ease of use and perceived usefulness on behavioral intention in the Mandatory Web-Based Attendance System? This Research can extend TAM model using TRI concept. This study is needed to give better picture on TAM and TRI in the context of adopting mandatory system.

2. Literature review

2.1. Web-based attendance system

Web-based attendance system is a web-based system used to manage the presence of students in a class room. To implement it, the computer systems are required to be equipped with a barcode reader. Web base attendance system works in steps. First, the lecturers have to scan the barcode which has been printed and owned by each of them. Then, the system will automatically manage the schedules and the rooms which have been entered in the system. After lecturer scans the barcode as its id, each student can report their attendance using barcoded ID found on the student ID card. When the class is finished, the lecturer needs to re-scan their barcode. It is necessarily done to end the class on that schedule officially.

2.2. Technology acceptance model

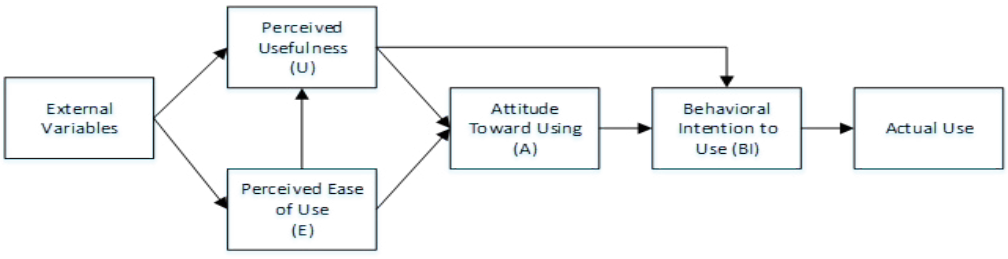

Fig. 1. Technology Acceptance Model [4]

Technology Acceptance Model (TAM), an adaptation of Theory of Reasoned Action (TRA), states that the use of the system is affected by behavioral intention. The intention is influenced by user beliefs which consist of the perceived usefulness and perceived ease of use of the system. Initially, TAM incorporates variable of attitude (attitude

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