Understanding University Students’ System Acceptance Behavior: The Roles of Personality Trait and Subjective Norms

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ABSTRACT

Individuals taking information system training courses can benefit from learning information systems use and thus have the ability to implement systems before graduation. Previous studies have mentioned that an individual’s system acceptance is likely to be determined by the information system, target users and context. However, studies on how personality traits and their interactions with external variables, such as training and subjective norms, to directly or indirectly influence an individual’s perception and behavior intention, are lacking. This study integrates the five-factor model and technology acceptance model to explore student information systems acceptance. Questionnaire survey is used to collect data from university students. By using PLS analysis with 331 usable questionnaires, the results indicate that training and subjective norms have positive influences on perceived usefulness. Besides, a conscientiousness personality has a positive influence on perceived usefulness. Extraversion and agreeableness moderate the influence of subjective norms on perceived usefulness, while openness to experience moderates the relationship between training and perceived usefulness. Finally, this study confirms the positive interrelationship among perceived usefulness, attitude and behavior intention. The results provide valuable information for both academicians and practitioners concerned with promoting students’ information systems acceptance.

KEYWORDS

Behavior Intention, Five Factor Personality, Perceived Usefulness, Subjective Norms, Training

INTRODUCTION

Research Motivation

With the driven of emerging technologies, firms depend on information system to execute a variety of operational, tactical, and strategic processes under an environment with an increased complexity. An individual’s acceptance of information system determines whether a firm can gain efficiency, effectiveness or productivity (Huang & Liao, 2015). Conducting training for information system implementation can be an effective way to enhance an individual’s information system acceptance and decrease resistance (García-Peñalvo, Colomo-Palacios, & Lytras, 2012; Niu, 2014).

Recently, more and more information system vendors provide specific system training programs for university teachers. For example, SAP, one of the global largest enterprise resource planning (ERP) vendors, cooperates with several famous universities in Taiwan via “seed teacher” programs. Teachers joining the programs can bridge their knowledge gaps between theory and practice through ERP systems implementation. When teachers go back to school to teach what they have learned,
students can benefit from learning ERP systems and thus are capable of implementing ERP systems before graduation. Consequently, universities are motivated to provide more ERP training courses to enhance student workplace competitiveness. Understanding students’ acceptance of information system is important, since it can not only determine whether a university allocates resources efficiently and effectively, but also help teachers design training courses to facilitate students’ learning intentions and behaviors. A student’s information system acceptance is not only concerned about information system itself, but also his/her characteristics and the interaction with other members (Islam, 2014; Moss, O’Connor, & White, 2010).

For university students, subjective norms and personality traits are important factors which may influence their information systems acceptance behavior. Subjective norms refer to social pressures an individual perceives with respect to system usage (Venkatesh & Bala, 2008). Subjective norms are relevant and important in determining successful student performance, since students are influenced by their classmates, friends, parents and elders (Park, 2009; Yueh, Huang, & Chang, 2015). However, the influence of subjective norms on students’ learning behavior is neglected in the context of educational setting (Moss et al., 2010). In addition, personality is commonly used in psychological research to explain beliefs and behavior. For university students, personality plays an especially critical role, due to their lower degree of socialization from work experience (Hampson, Andrews, Barckley, & Severson, 2006). However, most previous studies emphasized the direct effect of personality on perception and behavior intention (Barnett, Pearson, Pearson, & Kellermans, 2015; Devaraj, Easley, & Crant, 2008). Accordingly, personality may interact with external variables to directly or indirectly influence an individual’s perception and behavior intention (Svendsen, Johnsen, Almås-Sørensen, & Vittersø, 2011).

The Goal of this Paper

This study addresses the above gaps by integrating the five-factor model and technology acceptance model to explore student information systems acceptance. This study explores the influences of training and subjective norms on perceived usefulness, and in turn on attitude and behavior intention. This study further investigates the moderating role of personality, for the influences of training and subjective norms on student perceptions of the information systems. The results provide valuable information for both academicians and practitioners concerned with promoting students’ information systems acceptance.

THEORETICAL BACKGROUND

Technology Acceptance Model (TAM)

The Technology acceptance model (TAM) is the most widely applied model to explain information system acceptance behavior, because of its parsimony and wealth of empirical support (Gögüs & Özer, 2014). The TAM postulates that perceived ease of use and perceived usefulness affect behavior intention and actual usage (Davis, Bagozzi, & Warshaw, 1989). Perceived usefulness is defined as the degree to which an individual believes that using a technology or system would enhance job performance, while perceived ease of use is defined as the degree to which a person believes that using a technology or system would be effortless. The validity of TAM has been demonstrated with a long history of extensions and across a wide variety of information systems usage (Devaraj et al., 2008). For example, Gögüs and Özer (2014) applied TAM to explore accountants’ software program use intentions. Huang and Liao (2015) integrated TAM and concepts of experiential value to investigate factors that affect sustainable relationship behavior toward using augmented-reality
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