


Behavioral Intention of Women to Use E-Learning

Hasan A. Abbas, Kuwait University, Kuwait*

 <https://orcid.org/0000-0002-4613-0236>

ABSTRACT

Behavioral intention research suggests that it can effectively predicts intention to adopt information technology and emphasizes the importance of examining antecedents of such use. However, the literature also highlights that individual behavioral intentions can be affected by external factors and social influences. Current study examines the impacts of different factors (quality, social, behavioral, and innovative) on behavioral intention to use e-learning system. We designed special instruments to examine female students' behavioral intention to adopt e-learning system by extending the TPB as foundational framework. An extension of TPB is used with McLean & Delone and Innovative Theory to enhance the overall theoretical framework. Survey data collected from 699 female e-learning participants to test the study hypotheses. Findings suggested that subjective norms, self-efficacy, environment quality, and perceived innovativeness presented significant associations to behavioral intention of e-learning. Research implications and limitations are also examined and discussed.

KEYWORDS

Information Quality, Innovation Diffusion Theory, IS Success Model, Service Quality, Theory of Planned Behavior (TPB), User Satisfaction

INTRODUCTION

Research in psychology has found that predicting and describing human actions are difficult tasks. The difficulty comes from different causes that trigger human attitudes, such as physiological and environmental reasons, as well as many other factors, including political and social institutions around us. Many studies have pointed to a noticeable gap between the technical experience and background acquired by women compared to men in the field of information technology (Goswami & Dutta, 2015; Heilala et al., 2023; Yau & Cheng, 2012). According to these studies, men are more technologically tolerant and competent due to their dominance in professions. These studies and their statistics indicate that providing educational programs to overcome this issue is a challenge.

Furthermore, many theoretical frameworks have been developed to study human behavior. These frameworks are all designed to predict behavior based on different beliefs, such as the theory of reasoned action (TRA) and the theory of planned behavior (TPB) in psychology; the health belief model and the transtheoretical model (TTM) in health care; innovation resistance theory (D.

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*Corresponding Author

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Chakraborty, 2023) in e-commerce; and, in the field of information technology, theories such as the technology acceptance model (TAM) and the information systems (IS) success model in 1992 of DeLone and McLean (D&M). However, it is rare in the Middle Eastern literature to find behavioral models to examine female behavioral intention to use e-learning systems. Thus, our objective is to adopt a behavioral model through which we can examine female students' behavioral intention to use e-learning systems. The behavioral literature has shown that one of the most influential theories in the field is the TPB (Ajzen, 1991). Since its introduction, a massive number of studies in many fields and contexts have confirmed the significance of the association between intention and behavior. For this purpose, we adopted the TPB as our theoretical background.

Concepts such as personality traits and social gatherings play core roles in defining human behavior. However, the general dispositions of such factors tend to be poor predictors of behavior in specific situations (Ajzen, 2002). Accordingly, the TPB performs relatively well in those situations. However, in specific situations it is clear that extensions of the theory are needed to modify the framework to fit the application. In this study, we use the TPB because of its confirmed successes in predicting behavior in many fields. At the same time, we modify the theory to be more appropriate in the context of the adoption of e-learning by women where information technology is the foundational component of the process. The motivation to use information technology is more common in people with innovative personalities compared to those who lack this trait. According to Rogers and Shoemaker (1971), innovation is the "degree to which an individual is relatively more ready to adopt an innovation than other members of their system." Based on this statement, many studies have examined the importance of innovation to the intention of adopting information technology (Abbas et al., 2019).

Another fact that affects the motivation to use or not to use information technology is the quality standards of the system. The success model of DeLone and McLean (1992, 2003) for IS is one of the better-known theories in the field that have helped researchers to establish constructs that influence the behavior of IS users in general.

Based on this discussion, disagreement exists in the literature on which model is better for examining the behavior of women in the e-learning context. In other words, the adoption of e-learning systems by women does not get enough attention, especially in the Arab region, even though a clear gap in professional positions still exists according to workforce figures. According to a systematic literature review made by Bond et al. (2020), the research has been undertaken predominantly in the United States and the United Kingdom. This is due to many factors, but most importantly it is because less information technology (IT) is taught, and no incentives exist for women to enroll in IT fields. E-learning systems are an important turning point in women's future professional opportunities, and measuring the adoption opens the door widely to understanding their technical abilities. Our research question is what the factors are that affect behavioral intention of Arabian female students to use the e-learning systems. Therefore, our goal in this research is to develop a theoretical model of behavior to predict female students' intention to use e-learning systems.

THEORETICAL BACKGROUND

The COVID-19 pandemic presented an opportunity to educational organizations to gain enormous experience on how to adopt e-learning systems and to integrate information systems into their pedagogical environments (Abdelfattah et al., 2023; Rapanta et al., 2021). E-learning is an educational tool that aims to connect teachers with learners and to transfer teaching materials through electronic means. Wu et al. (2012) defined e-learning as "making use of technology as a mediating tool for learning through electronic devices which enable users to readily access information and interact with others online," which is similar to the definition of O'Neill (2023). These systems combine many dimensions into one, such as curriculum, instructor, learner, human-machine interaction, system quality, service quality, and information quality (Koay & Poon, 2023). For this reason, behavioral

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