

# Chapter 18

## Factors that Contribute to Continued Use of E–Training among Healthcare Professionals

**Nilsa I. I. Elias**  
Capella University, USA

**Terry W. Walker**  
Capella University, USA

### ABSTRACT

*The use of e-training in healthcare has experienced considerable growth. The results of this study provide insights regarding the importance of technology compatibility attributes to behavioral intentions to continue the use of e-training by healthcare professionals. A model based on the technology acceptance literature has been used. The model adds the construct of healthcare practice compatibility to the Technology Acceptance Model as a predictor of behavioral intention to continued use of e-training by healthcare professionals. Using Partial Least Squares Structural Equation Modeling (PLS-SEM), findings suggest that perceived practice compatibility, perceived workflow compatibility, and perceived task compatibility in e-training are essential to healthcare professionals' intent to continue use of e-training. The parsimonious model in this study is a more predictive model than the basic TAM model in explaining users' intentions to continue use of e-training.*

### INTRODUCTION

Though E-training has played a significant role in healthcare professionals' training and development, there is extensive evidence of numerous cases of underuse, resistance, workarounds, overrides, sabotage, and even abandonment of e-training (Bhattacharjee, 2001; Bhattacharjee & Hikmet, 2007; Holden & Karsh, 2010; Pai & Huang, 2011; Kamalzadeh Takhti, Abdul Rahman, & Abedini, 2013). Prior research studies have provided insight into participation in e-training; however, limited research exists on intention for continued use of e-training by healthcare professionals.

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The ability to identify, predict, and manage employee acceptance and continued use of technology facilitates implementation efforts. The continued use of technology by users is essential to the success of healthcare IT (Schaper & Pervan, 2007a). Increased interest in the use of e-training by healthcare professionals has elevated the importance of theories that predict and explain e-training acceptance and use.

A fundamental approach to e-training in the workplace is practice compatibility: The concept that practice compatibility plays a significant role as a determinant of behavioral intention to continued use of e-training and that healthcare professionals need e-training technology that is perceived as being both useful and easy to use. Despite the large volume of research in technology acceptance and use, very little research has been conducted in the healthcare industry regarding factors specific to predicting and explaining healthcare professionals' continued use of e-training, which are thus not well understood. In this study, healthcare professionals in the U.S.A. were surveyed about their perceptions on the use of e-training for continuing education and professional development for the purpose of discerning how e-training technology might be revised to increase usage and user acceptance.

## **BACKGROUND**

### **E-Training in Healthcare Organizations**

The use of web-based tools, repositories, and environments have become popular delivery methods for workplace training (Arbaugh et al., 2009). In 2012, the Association for Talent Development reported that approximately 77% of American corporations were delivering training via technology, or e-training. E-training, which is anywhere, any-time instruction, delivered over the Internet or a corporate intranet to browser-equipped learners, provides a way to deliver specialized content, monitor employee participation, and assess performance and completion of courses required by an employer for the professional development of employees in an efficient and cost-effective manner.

Continued and mandatory training is a critical component for the development, maintenance, and improvement of healthcare practice and competence among healthcare professionals. E-training technology that fits within the general practice context defines roles and how healthcare practitioners understand their job functions, the clinical needs of patients, and standards for their professional activities (Cain & Haque, 2008; Chau & Hu, 2002; Tulu et al., 2006). In fact, research has demonstrated that e-training has a positive impact on healthcare delivery, reduces clinical errors, increases patient safety, and reduces expenses (Hung et al., 2009; Schaper & Pervan, 2007; Aggelidis & Chatzoglou, 2009).

Kim and Malhotra (2005) explained that the initial acceptance and adoption of an information system (IS) is an important indicator of system success; however, positive outcomes would be produced only if the technology is used. Research that investigates beyond the initial adoption or acceptance of technology has generally looked at IS continuance (Bhattacharjee, 2001; Bhattacharjee and Barfar, 2011). The goal of post-adoption research is to understand both “how” and “why” individuals use certain technologies to their fullest potential in the work place (Chin et al., 2008). The focus of IS continuance research—though grounded in the concepts and constructs of the Technology Acceptance Model (TAM) and the Unified Theory of Acceptance and Use of Technology (UTAUT)—has moved beyond the adoption stage of system use to look at the post-adoptive behaviors associated with information technology-enabled systems (Jasperson et al., 2005).

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