

Chapter 19

A Model for Mobile Learning Service Quality in University Environment

Nabeel Farouq Al-Mushasha
Jerash Private University, Jordan

Shahizan Hassan
Universiti Utara Malaysia, Malaysia

ABSTRACT

It is generally known that accessibility and mobility are the main barriers for effective implementation of electronic learning. However, the advent of mobile technology could be a potential solution to remove the barriers. Nevertheless, there is a lack of research that addresses the issue of mobile learning service quality in a university environment. This study aims to propose a service quality model for m-learning in a university environment. A questionnaire survey was conducted which measured ten dependent variables and three independent variables. The dependent variables were meant to measure service quality, information quality, and system quality. The dependent variables were meant to measure the causal relationship between overall learners' perceived service quality, learner satisfaction, and learner behavioral intention to use the service in future. The findings revealed that the factors that lead to service quality of m-learning in a university environment were interface design, reliability, trust, content usefulness, content adequacy, ease of use, accessibility, and interactivity. The findings also indicates that there are causal relationships between learner satisfaction with overall service quality, and learner satisfaction with learner behavioral intention.

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INTRODUCTION

This rapid diffusion of the Internet and its deployment in learning, as well as on-line courses delivery is represented by Electronic Learning (e-learning). However e-learning much depends on the availability of a wired network connection to the Internet, there is still a limitation to this service among students and corporate professionals who are constantly on the move (Dye, 2003). In order to overcome such a limitation, there is an inclination to make use of wireless networking technologies which can provide potential learning at anytime and anywhere. Su et al. (2005) explain that according to the mobile learning theory, mobile learning learners can employ wireless network and mobile learning device to get simplicity, suitability and immediacy of mobile learning in a proper time and accessing appropriate learning content. Similar to other wired technologies; mobile wireless technologies have first been used in industry sectors such as business. The movement of mobile wireless technologies in education is a trend, and it is now becoming the newest technology in higher education (Al-Mushasha & Shahizan, 2007; Levine, 2002; McKenzie, 2001; McGhee & Kozma, 2001).

According to Grohmann et al. (2005), studies in m-learning can be divided into two main categories, which are technology and services. Research in m-learning technologies cover issues such as: small keyboards and screens, limited battery life, unreliable network connections and cellular systems. Meanwhile studies in m-learning services mostly focus on providing students access to learning resources, student support services and critical institution services. With the advent of mobile computing, institutes of higher learning have the opportunity to revitalize the process of teaching and learning via mobile learning. And due to this advancement the students of all academic levels (primary, secondary, college, and university) have developed much more sophisticated expectations, demands and study patterns than ever

before (Al-Mushasha & Shahizan, 2007). Since mobile learning contents are delivered via wired or wireless Internet, they are information-oriented products and services (Kim & Ong, 2005). Thus each service sector should have service quality criteria that specifically fit its features and characteristics (Dedeke, 2003).

It has been well known that service quality, customer satisfaction and customer behavioral intention are becoming the most important factors for successful business competition for either manufacturers or service providers (Bolton & Drew, 1991; Parasurman, 1994; Parasurman et al., 1988, 1991; Zeithaml et al., 1996). Researchers in the field of ICT service-quality have proposed five dimensions for measuring the quality of ICT service which are: (1) Tangibles such as facilities, equipment, and personnel appearance; (2) Reliability in terms of ability to perform the promised service dependently and accurately; (3) Responsiveness in terms of willingness to help end users and provide prompt service, (4) Assurance represented in knowledge and courtesy of employees and their ability to inspire trust and confidence; and (5) Empathy such as caring and the individualized attention the service provider gives to the end users (Berry et al., 1994; Jiang et al., 2000; Kettinger & Lee, 1995; 1997; Kim & Ong, 2005; Pitt et al., 1995). From the customers' perspective, understanding customer satisfaction with service providers is useful in helping organizations assess current and potential ICT service providers.

The previous research on ICT service quality could be applied to the understanding of m-learning service quality. M-learning users do not just want a mobile device, rather, they seek the system that satisfies their mobile learning services and above all they demand for service quality that leads to their satisfaction as well as, behavioral intention to use the service in future (Kim & Ong, 2005). Nevertheless, there is a lack of research in the area of mobile learning service quality therefore; there is a need for a study that examines the

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