Chapter III
The Technology Acceptance Model (TAM) and the Continuance Intention of Using WebCT:
A Case of College Students in Estonia

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ABSTRACT

In this study, we investigate the influence of two external influences i.e., Ease of finding and Computer anxiety on the technology acceptance model (TAM) and the continuance intention of using a popular course management system (CMS): WebCT. The study used a sample of 72 students that have experience using the software. The students came from four local higher education institutions. In order to study nature of the relationships among the constructs, eight (8) hypotheses were formulated and tested using a structural equation modeling technique: Partial Least Squares (PLS). The predictive power of the model was adequate and the study found support for seven of eight hypotheses. Regarding the impact of the antecedents on continuance intention in the use of technology, the results offer the following insights: when computer anxiety is low, students are able to use the system without much difficulty, and are likely to continue to use CMS in the future. Similarly, students will continue the tool as long as they find it easy to navigate. Perhaps due to contextual factors, the data did not support the relationship between Perceived usefulness and Usage. This particular finding is at variance with the TAM's results and viewpoint. The study's implications for research and practice are succinctly outlined.

INTRODUCTION

Higher learning institutions across the world have started adopting a type of information and communication technology (ICT), generally referred to as course management systems (CMS) to improve pedagogy (Limayem et al.; 2003; Tavangarian et al., 2004; Ifinedo, 2006; 2007a; Ngai et al., 2007). CMS are used in the management of asynchronous academic environments (Tavangarian et al., 2004). Examples of CMS include Blackboard, Learning Space, and WebCT (the example used in this study). In brief, the technology or tools enable students to learn at their own speed, give and receive feedback from peers and instructors alike. Further, it provides a wide variety of learning and teaching opportunities, such as course content and syllabi tools, student progress tracking, group project organization, student self-evaluation, email, and on-line chat. Morss (1999) studied the relevance of WebCT in higher learning settings noting that students generally have favourable attitudes towards the tool. This is due to the fact that WebCT is easy to use and requires little or no technical background (see Ifinedo, 2006; 2007a).

Virtually, hundreds of universities around the globe have adopted WebCT to enhance their e-learning platforms (Tavangarian et al., 2004: Ifinedo, 2005b; 2006; 2007b; Ngai et al., 2007). The same is true for higher learning institutions in Estonia, where CMS, including WebCT, have been adopted to facilitate web-based learning or e-learning (Ifinedo, 2005a). Estonia is an emerging country in Eastern Europe where ICT use at all the levels of education has been supported and encouraged (the Tiger Leap Foundation, 1997, Estonian eUniversity, 2004a). To that end, Estonian colleges were chosen as a model to test the efficacy of web-based learning using CMS. Researchers (e.g., Morss, 1999; Limayem et al.; 2003; Tavangarian e et al., 2004; Ngai et al., 2007) have studied the acceptance of CMS among college students in developed countries. Results suggest that the acceptance and success with such tools are high. Unfortunately, a search of relevant literature shows little or no empirical studies exist in which the Estonian student's perspectives have been discussed. Success in the use and acceptance of these technologies among students in developed countries does not necessarily represent the attitudes of students from other regions of the world (Brown, 2007). Conflicting results could be due to cultural and socio-economic differences (Straub et al., 1995; Gefen and Straub, 2000). It is hoped that by studying the perceptions of Estonian student intent to continue the use of WebCT, policy makers and e-learning project administrators in the country will benefit from the results of this study.

This current effort complements other research in Estonia examining e-learning project success assessment. For example, Ifinedo (2005a) reports the risks of implementing e-learning projects from the information systems (IS) project managers' point of view. The Estonian eUniversity (2004b) conducted a survey to determine the needs of e-studies and e-learning environments among teachers in the country. In both studies, the views of students' were not sought. Indeed, Keller and Cernerud (2002) note that the discourse of ICT use in pedagogy tends to focus on how faculty members use such technologies, with little or no attention paid to students' perspectives on these issues. They argue that by researching students' views, we stand to increase our knowledge in the success of this learning environment. More importantly, e-learning project managers and other policy makers in Estonia, as elsewhere, are beginning to realize that as new ICT are introduced, if administrators are not educated in the success of these learning strategies, a valuable resource may be lost (Davis, 1989; **Straub et al., 1995;** Gefen and Straub, 2000; Lee et al., 2003; Estonian eUniversity, 2004b). The notion of acceptance in this chapter refers to "the demonstrable willing-

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