

# The Study of ICT Innovation in Accounting Education

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## 1. INTRODUCTION

We live in the age of information and also needs to it for decision making. There are several fields that provide information such as Information and Communication Technology (ICT), Accounting. In this paper, we investigate ICT Innovation in Accounting Education that helps to prepare and present useful financial information to users.

## 2. INFORMATION AND COMMUNICATION TECHNOLOGY (ICT) AND ACCOUNTING EDUCATION

ICT has created significant benefits for accounting. ICT networks and computer systems have shortened the lead time needed by accountants to prepare and present financial information to management and stakeholders. Not only ICT has shortened the lead time required to present financial information, but it also has improved the overall efficiency, accuracy of the information and training accounting for students.<sup>1</sup>

ICT has created better opportunities to training accounting that help students in understand and also have shortened the lead time required to training. There are researchers that indicate profound impact ICT on training accounting such as:

Bennett and Bennett (2003) that investigated the impacts of perceived characteristics of ICT on faculty members' willingness to integrate it in their teaching. They found out that the most important factor which impedes the use of technology in higher education is not the lack of technological facilities or financial funds, but faculty members' reluctance and their disbelief in the use of technology.<sup>2</sup>

Medlin (2001) investigated different variables which are likely to affect teachers' decisions on making use of electronic

technologies throughout the teaching process. He indicated that the personal motivation is an important factor which forces faculty members to improve their teaching methods and contribute to the learning of students by technological means.<sup>3</sup>

Ma, Andersson, and Streith (2005) studied the impact of ICT on training accounting and they found out that:<sup>4</sup>

- 1) The student teachers' perceived usefulness of computer technology had a direct significant effect on their intention to use it.
- 2) The student teachers' perceived ease of use had only an indirect significant effect on intention to use; however.
- 3) The student teachers' subjective norm that is the possible influence of external expectations did not have any direct or indirect significant effect on their intention to use computer technology.

Li (2004) studied the relation between ICT and Education at China Agricultural University (CAU), in which he concluded that CAU faculty tended to agree with the existence of the five attributes of WBDE (relative advantage, compatibility, complexity, trainability, and observability).<sup>5</sup>

The researchers show independent variables that have impotent role in ICT such as relative advantage, compatibility, ease of use, result and demonstrability.

*Relative advantage-* Relative advantage is degree which an innovation is perceived as being better than the idea it

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<sup>1</sup> -eHow.com/impact of ICT on accounting

<sup>2</sup> - Bennett, J., & Bennett, L. (2003). A review of factors that influence the diffusion of innovation when structuring a faculty training program. Internet and Higher Education, 6, 53–63.

<sup>3</sup> - Medlin, B. D. (2001). The Factors that May Influence a Faculty Member's Decision to Adopt Electronic Technologies in Instruction, doctoral dissertation, Virginia Polytechnic Institute and State University.

<sup>4</sup> - Ma, W. W., Andersson, R., & Streith, K-O. (2005). Examining user acceptance of computer technology: An empirical study of student teachers. Journal of Computer Assisted Learning, 21, 387–395.

<sup>5</sup> - Li, Y. (2004). Faculty Perceptions About Attributes and Barriers Impacting Diffusion of Web-Based Distance Education (WBDE) at the China Agricultural University, doctoral dissertation, Texas A&M University, USA.

supersedes. It is often expressed in terms of economic profitability, productivity, convenience, satisfaction and so on. Some researches have referred relative advantage of an innovation as its perceived usefulness, that is "the degree to which the user's subjective probability that using a specific system will enhance his or her productivity".<sup>6</sup>

*Compatibility*- Compatibility is degree to which an innovation is perceived as consistent with the existing values, past experiences and needs of potential adopters. Some researchers have stated that an innovation can be compatible or incompatible with cultural values, believably values, previously introduced ideas and client needs for the innovation.<sup>7</sup>

*Ease of use* - Ease of User is degree to which an innovation is perceived as relatively easy to understand and use. Researchers have observed that technology users perceive a technology as user-friendly if it is easy to learn, become skillful, flexible and is controllable.<sup>8</sup>

### 3. THE WEB AS AN INNOVATION IN ACCOUNTING EDUCATION

In generally, innovation refers to the creation of better or more effective products, processes, technologies, ideas that affect companies, markets, governments, individuals and students. Innovation generally signifies a substantial change compared to entirely new or incremental changes. Innovation can use in various contexts such as IT and Education.<sup>9</sup>

The various researches have been provided that indicate profound impact ICT on student learning and also have showed role of innovation in ICT and Accounting Education. Some of these researches are:

Khaled Dwhawy and ... (2005) investigated the use of IT in Teaching Accounting in Egypt. They have indicated that their acceptance of the new tools in training such as CD is highly dependent on the perceived ease of use and perceived usefulness of the tool. They suggested that there is a need for more to be done to enhance understanding of teaching accounting in developing nations in general, especially through the use of information technology.<sup>10</sup>

Pugalee and Robinson (1998) suggested that technology applications have been found to improve student's motivation to learn and to expand their self-confidence. With specific reference to the Web, they suggested that the Internet can provide students with a learning environment that is compatible with the way they prefer to learn.<sup>11</sup>

Lebeile.S and Abeysekera (2010) investigated The Spread of ICT Innovation in Accounting Education and they have tested various dimensions ICT Innovation in major university of Sydney with independent variables. Their results proved to be significant in relation to all four independent variables: relative advantage, compatibility, ease of use, result and demonstrability.<sup>12</sup>

### 4. OBJECTIVE OF STUDY

An understanding of accounting concepts for students has depended to method of training. Usage IT in Accounting Education can help to it. Therefore, Objective of this study helps to Accounting Education on the base of ICT Innovation.

### 5. HYPOTHESES OF STUDY

The main hypothesis is that "The Innovation attributes of relative advantage, compatibility and ease of use will be associated with accounting student's intention for future use of WEBLEARN for learning purpose."

This hypothesis divided to three Sub-hypotheses that investigate various dimensions ICT Innovation. Those are:

1. Relative advantage (of ICT) is positively correlated with ICT adoption in WEBLEARN.
2. Compatibility (of ICT) is positively correlated with ICT Adoption in WEBLEARN.
3. Ease of use (of ICT) is positively correlated with ICT adoption in WEBLEARN.

### 6. METHODOLOGY OF THE STUDY

Data of study gathered from an anonymous questionnaire administered to 30 students in an accounting unit at a major college in pune university, India at 2010. Then, we classify data on the base of *relative advantage*, *compatibility*, and *ease of* and after that we tested it in SAS software by using mean, standard division, T-test, Adjusted R2 and P-value.

<sup>6</sup> - Kotler, P. (1991). Marketing management :analysis, planning implementation, and control. NJ: Prentice-Hall.

<sup>7</sup> - Sentamu, F.X. (2001). Information technology, organizational culture and the performance of National Water and Sewerage Corporation. Unpublished master (of Business Adm.) dissertation, Makerere University, Kampala, Uganda.

<sup>8</sup> - Rogers, E.M. (2003). The diffusion of innovations (5th ed.). NY: Free Press.

<sup>9</sup> - Wikipedia, the free encyclopedia.mht

<sup>10</sup> - Khaled Dwhawy, E. Tooma and S.Kamel, 2005, The use of IT in Teaching Accounting in Egypt, The American University in Cairo, Communications of the IIMA, Volume.5, Issue.3.

<sup>11</sup> - Pugalee D.K and Robinson.R, 1998, A study of the impact of teacher training in using internet resource for mathematics and science instruction, Journal of Research on Computing in Education, Issue.31, Page.78-88.

<sup>12</sup> - Lebeile.S and Abeysekera, 2010, The Spread of ICT Innovation in Accounting Education, International Journal of Teaching and Learning in Higher Education, Volume.22, Number.2, Page. 158-168.

## 7. ANALYSIS OF RESULTING

The result of research indicate that ICT Innovation have significant impact on training accounting to students. The use ICT can help students that learn concepts, assumption and standards of accounting to ease way and quickly. The WEBLEARN used by students is to be effectiveness as a learning tool for topic cost of goods soled for students. This paper indicates that students who used WEBLEARN have suitable comprehension about cost of goods soled than traditional tools.

The qualitative data indicate mixed feelings regarding the Relative advantage, Compatibility and Ease of use as components of WEBLEARN for cost of goods soled. Many student comments relating to the Relative advantage, Compatibility and Ease of use were effectiveness in learning. The majority of students' responses were highly positive.

Table show that P-value less than  $\alpha=0.05$  and also T-test more than 1.96. Hence statistical tests confirm result of study.

### Descriptive Statistics

| Variable           | T-test | P-value |
|--------------------|--------|---------|
| Relative advantage | 4.85   | .0004   |
| Compatibility      | 7.43   | .00008  |
| Ease of use        | 5.23   | .0001   |

N=50

## 8. CONCLUSION AND SUGGESTION OF THE STUDY

This study test impact of ICT Innovation on Accounting Education and find out that IT can play important role in training accounting and help students and lecturers until achieve to their objectives. Innovation in IT causes that trainings tools have profound impact on students. Future research could also investigate other applications of technology in educational.

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