Enhancing the Application of Technology to Accounting Education at Vietnamese Universities in Economic Fields

Pham QUANG HUY

University of Economics, Ho Chi Minh City, Vietnam
pquanghuy@ueh.edu.vn

Mai Thi HOANG MINH

University of Economics, Ho Chi Minh City, Vietnam
hminh09@gmail.com

ABSTRACT

Purpose – *There is no doubt that the field of information technology is essential in today's world and makes many changes to every aspect of society, including the field of education. In Vietnam, a developing country, the application of high-tech has played an important role for social advancement. However, more than five years after Vietnam joined the World Trade Organization as a member of the international board, there is still quite limited utilisation of technology in education. Moreover, the request information technology is still mainly used in the universities of technical education. In addition, according to previous research, there is no Vietnamese study investigating the usage of technology in universities in the economics fields, especially in the area of accounting. For the above reasons, this paper aims to propose some types of technology that could be used in universities of economics in the near future by reviewing the literature from Vietnam as well as from other countries.*

Design/Methodology/Approach – *Using a mixed research method, the paper will utilise figures supplied by Vietnamese official bodies and, by means of a questionnaire will ask officers for statistics and clear evidence.*

Findings – *The application of technology is not only for universities of technical education, but also for universities of economics and accounting departments. The paper provides a general picture about some fields of accounting.*

Research limitations/implications – *The paper is limited to a general statistical description. Further studies could be undertaken in other countries and in other fields of economics.*

Originality/Value – *The paper contributes a new view about the application of technology to the accounting area in the economics university in Vietnam.*

Keywords: *accounting, economics, university, technology*

INTRODUCTION

Technology and economics have a close relationship. Technology has greatly improved the accounting industry over the past several decades. As personal computers have become standard office equipment, companies now use accounting software instead of paper ledgers and loose-leaf binders. Companies have also been able to customise their technology needs to their business operations, eliminating unnecessary tasks in the accounting processes (Anderson, 2008). In addition to increased productivity, companies have developed faster financial reporting and centralised accounting operations.

Accounting technology has increased company productivity by the use of internal mathematical checks and automatic account balancing features to limit input errors. This helps accountants to focus on verifying the accuracy and validity of financial information, rather than rebalancing the numbers to determine mathematical errors. Accounting software also allows accountants to select various accounts and journals for reports, limiting the amount of time spent digging through countless pages of handwritten data (Keengwe, Onchwari & Wachira, 2008). Additionally, input errors can usually be corrected quickly and easily, allowing more time to be spent on other accounting tasks.

Historically, many accounting departments have spent weeks closing out each accounting period, especially quarterly or year-end periods. Lengthy closing periods have delayed the publishing of financial statements, which are critical for managers to review and assess business operations. Modern technology has improved closing periods from weeks to days in many businesses, allowing accountants more time to assess the accuracy of financial information prior to releasing them for management review (Mawson, 2002). Producing financial statements more quickly also helps companies respond faster to economic challenges, which is an essential component in today's competitive market. Larger companies may also have more divisions or regional business locations, requiring these financial statements to be prepared prior to the final corporate statements being prepared (Patricia, 2009).

Many of the accounting software packages in today's technological market can be used over a company intranet or server-based computing network. This allows multiple users or locations to access the accounting information from various parts of a company (Fleer & Jane, 1999). Companies are able to create centralised accounting operations, using a local, regional or national office setup. Centralised accounting ensures that financial information is secure and handled by reliable, trustworthy individuals (Roschelle, et al., 2000). It can also save labour costs by allowing accountants in the centralised office to access financial information remotely through the company intranet, bypassing the need for information to be sent to the home accounting office.

TECHNOLOGY: CONCEPTS AND CLASSIFICATION

General view about the technology

Teachers often experience difficulty in defining technology education. It can be said that technology is the modification of the natural environment in order to satisfy people's perceived needs and wants. Technological literacy is the ability to use, manage, assess and understand technology. Technology education is the study of technology, which provides an opportunity for students to learn about the processes and knowledge related to technology needed to solve problems and extend human capabilities. On the other hand, technology can be defined as a creative, purposeful activity aimed at meeting the needs and opportunities through the development of products, systems or environments. Knowledge, skills and resources are combined to help solve practical problems (Napper, 1999). Technological practice takes place within, and is influenced by social contexts.

With some of the above terminology, the difference between *Technology Education* and *Educational Technology* should be clarified. Technology Education refers to Technological Studies, where lecturers teach about technology and which is taught as a school subject and whose main goal is technological literacy for everyone (Australian Government Department of the Environment and Heritage, 2005). Educational Technology, also known as Information Technology, refers to the process of teaching with technology. Its ultimate goal is to improve the process of teaching and learning.

Why use technology?

All universities and schools should use technology as part of the teaching process because it provides many advantages for enhancing learning activities for students. The benefits of technology are undeniable and include the ability to access a diverse range of information quickly (Australian Government Department of the Environment and Heritage, 2005). Without technology, work would be less effective or unsuccessful, and it is an essential part of life for students, teachers, engineers, government officials, or even farmers. Each person has their own approach, but the objective is to help them work more effectively. The following reasons are mentioned for using technology in schools:

- Interactivity: REAL interactivity, not just communication.
- Content delivery/revision: identifying important points.
- Managing learning and resources: keeping it all in the one place.
- Collaboration: student/student; across universities, faculties, campuses, industry etc.
- Communication: students/tutors/lecturers/others.
- Sense of connection: especially useful when not as many F2F lectures held, or for distance education.
- Variety of teaching and learning preferences: Students can manipulate information easily to create their own learning notes.

- Formative and summative assessment: marked by computer.

Types of technology used in education

According to Fleer & Sukroo (1995), there are five common types of technology which are used all over the world, as following:

[1] Simple technologies, such as toothpicks, carpet and such things.
[2] Advanced technologies, for example computers.
[3] Culturally specific technologies, for example the technology associated with making a hangi.
[4] Technological processes, such as keeping an aquarium of tropical fish.
[5] Life-support technologies, for example the baby's bottle.

In case of technology used for teaching in economics, according to education statistics (2012), there are three types technology which can be applied to the schools environment. In particular:

[1] 32 percent technology used for Process
[2] 40 percent technology used for Knowledge
[3] 28 percent technology used for Skill

ECONOMICS AND ACCOUNTING

Worldwide, economics is widely considered to be an important field. There are many sectors in the economy which should be improved. Among these areas, there is a strong emphasis on accounting because it contains all information about operation of the entities. Hence, when trainers teach accounting, technological skills are needed because exact figures and reports are necessary. After graduation in accounting, students use such techniques widely in their future careers.

Background

Accounting is a service activity. Its function is to provide quantitative information, primarily financial in nature, about economic entities that is intended to be useful in making economic decisions—in making reasoned choices among alternative courses of action. On the other hand, accounting is the principal way of organising and reporting financial information. It has been called the "language of business". Accounting and information systems comprise the functional area of business responsible for providing information to the other areas to enable them to do their jobs and for reporting the results to interested parties. To that end, an accounting system is used to identify, analyse, measure, record, summarise, and communicate relevant economic information to interested parties.

Based on the concepts of accounting, it is known that accounting information is used in making decisions about how to allocate scarce resources. Although accountants place much emphasis on reporting what has already occurred, this

past information is intended to be useful in making economic decisions about the future. So, accounting is an information system that supplies information that benefits related users, i.e. internal users and external users. For such a task, universities teaching an accounting major should apply technology into their activities because accounting information systems are composed of six main components, including: people, procedures and instructions, data, software, information technology infrastructure, internal controls and security measures.

Benefits for accounting training using technology and information systems

A big advantage of computer-based accounting information systems is that they automate and streamline reporting. Financial reporting is a major tool for organisations to summarise and use timely information for decision-making. The accounting information system pulls data from a centralised database, processes and transforms it and ultimately generates a summary of that data as information that can thus be easily consumed and analysed by business analysts, managers or other decision makers. These systems must ensure that the reports are timely so that decision-makers are not acting on old, irrelevant information but, rather, able to act quickly and effectively based on report results. Consolidation is one of the greatest hallmarks of reporting as people do not have to look through an enormous number of transactions. Besides that, accounting information system should provide its users with timely information. This information helps users and business owners with strategic planning, budgets and other valuable sales information. Payroll, bank reconciliations and creating spreadsheets are some of the tasks an accounting information system should be capable of handling.

Goals for enhancing education through technology

Universities have been institutions that support students for the future using the best tools of today via technology, which can increase equity and access to educational opportunities as well as increasing the effect and reach of great teaching. Technology can help re-examine how education is transferred making learning more student-centred and recognising teachers as education designers. It can lower expenses and increase efficiency and productivity.

- Improve student academic achievement through use of technology in schools.
- Assist all students in becoming technologically literate.
- Encourage effective integration of technology with teacher training and curriculum development to establish successful instructional methods.
- Assist official bodies in implementing a comprehensive system or a unique process that effectively uses technology in schools to improve academic outcomes for students.
- Encourage the establishment or expansion of initiatives that are designed to increase access to technology.
- Support effective educational technology infrastructures that expand access of technology to students and teachers.

- Make initiatives that enable school personnel and administrators to integrate technology effectively into curriculum and instruction.
- Boost efforts to use technology enhance communication among students, parents, and school personnel.
- Support rigorous evaluation of programs, particularly regarding the impact of these programs on student academic achievement.

USING TECHNOLOGY IN THE ECONOMICS AND ACCOUNTING FIELDS IN VIETNAM

To give useful solutions for using technology at Vietnamese universities and education environments, a survey was conducted to examine the difficulties when focusing on technology in schools. The subjects surveyed are trainers, lecturers and officers in universities and colleges. The results indicated reasons for difficulties that occur in the training procedures, as shown in Table 1.

Table 1: Reasons for difficulties in using technology

Reasons	Rate
Ability to use English and other foreign languages	18.96%
Preference for using traditional ways of teaching	29.58%
Guidance in the use of technology	15.80%
Level of update technology in Vietnam	11.66%
Price of software and hardware	9.91%
A lot of technology and technological transfer	6.45%
Others	7.64%

When asked about the types of technology they wanted to use in classroom activities the results highlighted the following.

Table 2: Types of technology desired in schools

Types of technology	Information system	Rate
Process	Software	74.60%
	Hardware	25.40%
Knowledge	Software	51.20%
	Hardware	48.80%
Skill	Software	63.30%
	Hardware	36.70%

Based on the data of the above survey, some solutions may be considered applicable for improving the usage of technology in Vietnamese universities.

- Enhancing the acquisition of new technology from developed or developing countries which transfer to the Vietnamese education system.
- Boosting relationships with international organisations to receive support from their systems.
- Increasing the use of software in universities supported by written materials to guide trainers and lecturers.
- Offering foreign language related to academic technological terminology.
- Selecting software packages that are suitably priced according to budget constraints.
- Establish a program and a roadmap to improve the application of technology for training, and monitoring such processes.
- Evaluate new and updated technologies in line with global trends.

CONCLUSION

Technological innovations affect all aspects of our lives, both personal and professional. Technology affords teachers and learners the opportunity to enhance their knowledge and computer skills. It is likely that every home will be equipped with a computer and internet access, and there will be students who stay at home to receive their education, even in kindergarten. Teachers will be trained to effectively operate modern word processors (Word), spreadsheets (Excel), presentation devices (PowerPoint), and various software packages geared toward teaching aids. Higher order technology will impact on teachers as well. Website development software, methods of searching or evaluating websites, graphing calculator usage, and other specific technological devices will be addressed, and teachers will become proficient in using these tools. The education process will shift toward students, who will use technology centres for specific classes or will integrate their usage into existing classes. A system will be developed to allow students access to such technology centres at all times, even after school and on weekends, depending on the availability of staffing. This research demonstrates that using technology is very significant and is vital for continued improvements in Vietnam, not least for economics and accounting education.

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