Improving Firm Performance Through a Mobile Auditing Assistance System

Wen-Lung Shiau, Department of Information Management, Ming Chuan University, Taoyuan, Taiwan

ABSTRACT

Generalized Audit Software (GAS) is often used in the current business environment. Despite the advent of mature mobile technology, designs for effective mobile information technology to support auditing tasks have not been developed. The purpose of this study is to develop a mobile auditing assistance system to support auditing tasks in an organization. A mobile auditing assistance system is implemented with five functions: auditing tasks, optimal path planning, searching assets location, scanning assets, and returning auditing tasks. Based on a cost and benefits analysis, a mobile auditing assistance system can reduce costs, increase benefits, and improve firm productivity and performance. Firms can use this approach to design their own mobile auditing assistance system. This allows auditors to perform auditing tasks independently on a real time basis and achieve the objectives of a mobile auditing assistance system.

Keywords: Computerized Assisted Auditing Technique (CAAT), Firm Performance, Generalized Audit Software (GAS), Mobile Auditing, Mobile Technology, Smart Phone

INTRODUCTION

In a competitive business environment, managers are constantly challenged to improve the productivity and performance of their companies. To meet the challenges of uncertain environments, audit standards suggest that auditors adopt information technology (IT) to assist auditing tasks (American Institute of Certified Public Accountants, 2001; 2006). IT can help improve audit efficiency by recalculating the information provided by audit clients and increasing audit effectiveness by allowing auditors to directly inspect the evidence stored in electronic forms (American Institute of Certified Public Accountants, 2006). In recent years, firms have used generalized audit softwares (GAS) to assist with their auditing tasks. Many studies have discussed new information system control, new auditing techniques, and generalized audit softwares (GAS) to help auditors improve firm effectiveness (Brazel, 2005; Chan and Vasarhelyi, 2011; Debreceny et al., 2005a; Shaik, 2005).

With the advent of mobile technology, increasing numbers of companies have become convinced of the importance of understanding this technology (Gebauer et al., 2010; Jaime, 2009). It has become especially important for companies to realize the characteristics and

DOI: 10.4018/ijeis.2014100102
advantages of mobile technology, which is the most effective medium to gather, disseminate, and use information about users and customers. The benefits of mobile technology allow users to connect to the office network while working off-site (Gebauer and Ginsburg, 2009; Perry et al., 2001). For example, users can access their databases or accounting systems to create, update, delete, search, and check information they require or want. Working off-site leads to greater flexibility for working and improves performance (Gebauer and Shaw, 2004). With the benefits of mobile technology, it is time for firms to include mobile technology in their auditing tasks. In auditing tasks, numerous firms face significant challenges in tracking the location, quantity, condition, and maintenance and depreciation status of their fixed assets. This study considers an Internet Service Provider (ABC) with huge assets that must be audited. ABC has seven branches and service centers with many types of equipment to connect to its customers, including computers, routers, channel service unit and data service unit (CSU/DSU) equipment, switches, and other devices. The asset numbers of all devices are included in an asset management system. ABC conducts biannual and annual auditing. Managers assign auditing tasks to auditors. Auditors receive a list of assets and move to asset locations, such as branches. Auditors cannot always find assets directly or in a timely fashion. If this situation occurs, an asset keeper at each branch must help auditors find all the assets on the list. With this auditing approach, ABC prints numerous assets lists, and requires a large amount of human resources and time to complete the asset auditing procedure. Using advanced mobile technology, ABC has considered developing a mobile auditing assistance system to improve productivity and performance in asset auditing.

This paper designs a viable mobile auditing assistance system by reducing tangible and intangible costs and increasing tangible and intangible benefits. The remainder of this paper is organized as follows. Section 2 describes IT auditing and mobile technology. Section 3 presents the proposed mobile auditing assistance system. Section 4 describes system validation and analysis of costs and benefits for the real case presented in this paper. Finally, Section 5 presents the conclusion and suggestions of the study.

LITERATURE REVIEW

IT Auditing

Auditing is a very important part of accounting because it ascertains the validity and reliability of information. With the complexity and effectiveness of auditing procedures, many organizations use information technology (IT) to assist auditing because IT helps firms automate business and information and audit processes (Arnold and Sutton, 2007; Askary et al., 2012; Kinney, 2005). Sufficient IT audits not only lower information acquisition and processing costs, but also ensure proper control, security, and efficient functioning. A well-known IT auditing approach is to use Computerized Assisted Auditing Techniques (CAATs), which include computer programs or software applications to improve audit efficiency (Braun and Davis, 2003). CAATs improve audit efficiency by automating manual audit checks and reducing total audit hours expended. CAATs also offer greater assurance in improving audits and require that special audit software modules be embedded at the electronic data processing (EDP) system design stage (Liang et al., 2001). However, CAATs often fall short of user expectations because they lack a common interface. Both eXtensible Markup Language (XML) and eXtensible Business Reporting Language can solve system interface problems. XML gives data meaning by tagging data. XBRL is an extension of XML that is designed for financial reporting (Rezaee and Hoffman, 2001), and is used to assure financial reporting (Plumlee and Plumlee, 2008). XML and XBRL not only provide an interface easier to use, they also have the capability of real-time online performance reporting. Further, XBRL can be used to enhance the audit trail and internal control.

Table 1 summarizes more studies related to IT auditing.
12 more pages are available in the full version of this document, which may be purchased using the "Add to Cart" button on the product's webpage:

www.igi-global.com/article/improving-firm-performance-through-a-mobile-auditing-assistance-system/119167?camid=4v1

This title is available in InfoSci-Journals, InfoSci-Journal Disciplines Business, Administration, and Management. Recommend this product to your librarian:

www.igi-global.com/e-resources/library-recommendation/?id=2

Related Content

Market of Resources as a Virtual Enterprise Integration Enabler

www.igi-global.com/chapter/market-resources-virtual-enterprise-integration/30855?camid=4v1a

Enterprise Architecture by a Small Unit in a Federated Organization

www.igi-global.com/chapter/enterprise-architecture-small-unit-federated/19433?camid=4v1a

SME Financial Management: A Risk Management Perspective

www.igi-global.com/chapter/sme-financial-management/74475?camid=4v1a
Selecting Cell Phone Service Using Hybrid Decision Making Methodology
www.igi-global.com/article/selecting-cell-phone-service-using/76899?camid=4v1a