
Computerized Accounting Information System in Nepalese SMEs

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ABSTRACT

The conversion from a manual accounting system to a computerized accounting system blended accounting with information technology in recent decades. In the area of accounting and finance, the use of computer software enables SMEs quick reporting and easy processing and storage of financial information. To address the issue of whether Nepalese SMEs ready to adopt CAIS, this study aimed to examine the factors that influence Nepalese SMEs to adopt CAIS.

Keywords: Computerized accounting information system, decision maker's context, technological context, organizational context, environmental context, information technology.

1. Introduction

Accounting is the innovation of human beings to manage the economic life of the people in society, social science rather than natural science, unconsciously developed from the socio-economic and political needs of the society by tracking down the historical and current events in business and economics. Accounting being man-made system, need of mankind, not rigid as laws of natural science (Sehgal & Sehgal, 2008; Osmond, 2011). Accounting is several centuries old and that Luca Pacioli, an Italian friar from San Sepulcro, is the father of accounting. Accounting systems are responsible for recording, analyzing, monitoring and evaluating the financial condition of companies, preparation of documents necessary for tax purposes, providing information support to many other organizational functions such as production, marketing, human resource management and strategic planning (Amidu, Effah, & Abor, 2011). The evolution of computer technology has completely transformed accounting systems. Computerized accounting system based on information theory is a method or scheme by which financial information on business transactions are recorded, organized, summarized, analyzed, interpreted and communicated to stakeholders through the use of computers and computer-based systems such as accounting packages (Marivic, 2009).

There is no universally accepted definition of small businesses. The definition varies across countries and industries. However, the most common measures used include the number of employees, annual turnover, industry, ownership, and value of fixed assets (Agyei-Mensah, 2011). This study intend to examine the factors that influence the Nepalese SMEs to adopt IT in their accounting processes since effective financial management could easily be obtained today with the help of related IT such as computerized accounting information systems (CAIS), which increases competitive advantages

2. Literature Review

2.1 Theories used in IT/ IS adoption

Liang et al., (2010)- Information technology is regarding IT adoption; many theoretical models have been used to examine the adoption of IT/IS innovations such as Technology Acceptance Model (TAM) (Vance et al., 2008; Grandon and Pearson, 2004; Igarria et al., 1997), Theory of Planned Behavior (TPB) (Grandon et al., 2011; Harrison et al., 1997), Combined TAM and TPB (Riemenschneider et al. 2003; Chatzoglou et al., 2010); TAM2 (Venkatesh 2000), Diffusion of Innovation Theory (DOI) (PremKumar 2003), Resource-Based View (RBV) (Ramanathan et al., 2012; Jacks et al., 2011; Mehrrens et al. 2001), Stage Theory (Poon &Swatman, 1999), and Unified Theory of Acceptance and Use of Technology (UTAUT)(Kijisanayotin et al., 2009; Fowzia&Nasrin, 2011; Anderson &Schwager, 2003).

2.2 Technological-Organizational Environmental (TOE) framework

Tornatzky and Fleischer (1990) are credited with being the first to develop the TOE framework to study the adoption of technological innovations. Tornatzky and Fleischer (1990) developed a framework for organizational adoption based on the Contingency Theory of Organizations (Arpaci et al., 2012). According to Arpaci et al. (2012), the former theory postulates that an effective organization should have a structure that is consistent with its environmental needs. The effectiveness of an organization is based upon its fitness towards both internal and external factors. Therefore, they developed the TOE framework to determine what factors influence a firm's adoption decision. Mehrtens et al. (2001) adopt the TOE framework for investigating the adoption of the internet in SMEs. Lertwongsatien & Wongpinunwatana (2003) show the suitability of the TOE framework for studying the e-commerce adoption study in Thailand SMEs.

2.3 Diffusion of Innovation Theory (DOI)

DOI provides insights into the innovation or technological factors that influence the adoption of innovation (Rogers, 1995). Originally, innovation characteristics in DOI were presented in the context of the innovation adoption at the individual level, however, Rogers (1995) argued that the characteristics of innovations could also be applied to the innovation adoption models at the organizational level (Picoto et al., 2012; Hameed & Counsell, 2012). DOI is used in many studies to study innovation adoption issues by firms (Tan et al., 2009; Ramdani et al., 2009; Ramdani & Kawalek, 2007; Hussin & Noor, 2005; Seyal & Rahman, 2003; PremKumar & Roberts, 1999; Thong, 1999).

2.4 Computerized Accounting System

Accounting Software is a class of computer programs that perform accounting operations. It is application software that records and processes accounting transactions within functional modules such as accounts payable, accounts receivable, payroll, and trial balance. Thus, these software packages allow the whole accounting system to be run on a computer hence the name Computerized Accounting System. CAS is an accounting information system that processes the financial transactions and events as per Generally Accepted Accounting Principles (GAAP) to produce reports as per user requirements. The primary purpose of an accounting information system (AIS) is the collection and recording of data and information regarding events that have an economic impact upon organizations and the maintenance, processing, and communication of such information to internal and external stakeholders (Stefanou, 2006).

2.5 Accounting Theories

Accounting theory is that branch of accounting which consists of the systematic statement of principles and methodology, as distinct from practice (Most (1982). Accounting is what accountants do; therefore, a theory of accounting may be extracted from the practices of accountants. They are of the view that the roots of accounting theory are decision theory, measurement theory, and information theory (Glautier and Underdown, 1976).

Accounting discipline deals with the measurement of economic activities affecting inflow and outflow of economic resources to develop useful information for decision making. Accounting can be defined as The process of identifying, measuring, and communicating economic information to permit informed judgments and decisions by the users of that information (Wood & Sangster, 2013). There are 3 main levels of accounting theory; namely (a) structured or syntactical theories, (b) interpretational or semantically theories, and (c) Behavioral or Pragmatic theories (Hendriksen, 1992). Hendriksen further observed that a useful frame of reference is to classify theories according to prediction levels. According to him, these levels are structural, interpretational, and behavioral.

3. Methodology and Methods

Many studies exist on computerized accounting information systems. CAIS is also regarded as e-accounting by many researchers. Empirical studies on the intention of CAIS in SMEs of developing countries are scarce. This study adopts and extends the CAIS adoption model presented by Thong (1999). The study also integrates prior studies on CAIS in examining the intention of CAIS adaptation by SMEs. Past knowledge was used to recognize the relevant independent as well as dependent variables of the study.

3.1 CAIS Intention: The dependent variable

CAIS Intention is measured by four indicators (Willingness, fund management, supplier management, and employee development). All those indicators were measured by the following four items with 7 point answering scales (1= Strongly Disagree, 2 = Disagree, 3 = Somewhat disagree, 4= Neutral, 5= Somewhat agree, 6= Agree, 7= Strongly Agree.)

3.2 Decision Maker's context

IT adoption depends largely on the functional, and/or emotional feelings of decision-makers, which reflect their attitudes, perceptions, and motivations towards IT adoption (Awa et al. (2011).

H1: Decision maker's context assist to predict the intention of CAIS adoption among SMEs.

3.3 Technological context

Teo et al., (2004)-technological context refers to the innovation that is to be adopted by the organization. Its main focus is on how technology characteristics themselves can influence the adoption process (Chau & Tam, 1997).

H2: Technological context assist to predict the intention of CAIS adoption among SMEs.

3.4 organizational context

organizational adoption of technological innovation can be influenced by the organizational context. The organizational context refers to the characteristics and resources of the organization (Tan & Felix, 2010). Diffusion of Innovation Theory (DOI) in organizations suggests that organizational resource availability positively influences organizational adoption of innovations.

H3: Organizational context assist to predict the intention of CAIS adoption among SMEs.

3.5 Environmental Context

The environmental context is the area in which the firm does business (Tornatzky&Fleischer, 1990) or in other words concerns the surroundings of the organization, looking at how external influences affect the motivations or barriers to adopting an innovation (Teo&Ranganathan, 2004).

H4: Environmental context assist to predict the intention of CAIS adoption among SMEs.

3.6 Research Model

Components of computerized accounting information system: Decision-maker context, Technological context, Organizational context, and Environmental context in Nepalese SMEs are analyzed. This study surveys over 510 SEM owner-managers of Chitwan, Nepal. The dependent variable CAIS Intention was measured with four items. The proposed research model is given in figure 1.

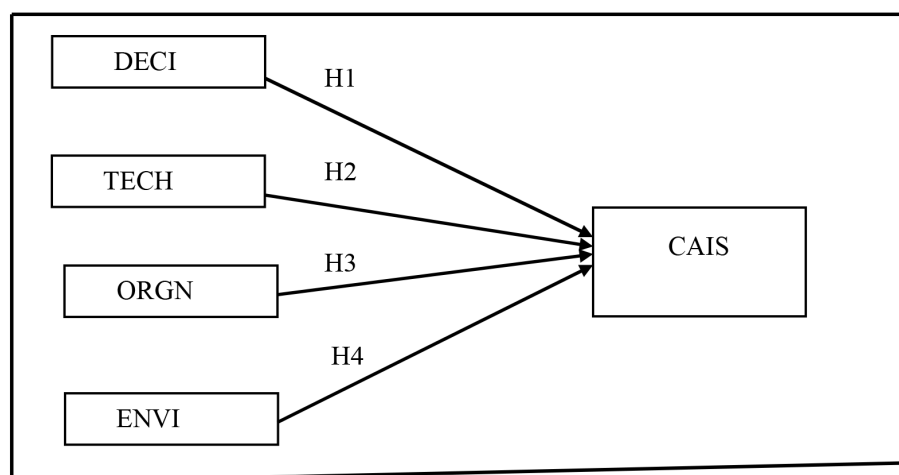


Figure 1: Research model (adopted & modified from Wan & Azwadi, 2013)

4. Discussion and conclusions

The objective of the study was twofold. First, it provides an overview of the computerized accounting information system. Second, it builds on existing literature in the computerized accounting system (CAIS). This study aimed to examine the factors that influence the SMEs of Nepal to adopt IT in their accounting processes since effective financial management could easily be obtained today with the help of related IT such as computerized accounting information systems (CAIS), which increases competitive advantages. The framework was based on the TOE framework (Tornatzky & Fleischer, 1990) and DOI theory (Rogers, 1995). Prior researchers suggested to combine the TOE framework with other theories (Awa et al., 2011; Henderson et al., 2012; Chong & Chan, 2012; Alatawi et al., 2012).

The results of this study find a positive significant relationship between Decision Maker's context and CAIS intention. Adoption of CAIS depends on decision-makers level of IT knowledge, their attitude, and commitment to information technology, perception of decision-makers towards the advantages, compatibility, and complexity of new technology. IT adoption depends largely on the functional, and/or emotional feelings of decision-makers, which reflect their attitudes, perceptions, and motivations towards IT adoption (Awa et al., 2011). Firms where the CEO is familiar with computers and is involved in computerization, computer operations are more successful (DeLone, 1988). Failure to implement technological innovation was due to the lack of top management's commitment and support (Yang et al., 2012; Varukolu and ParkPoaps, 2009).

The study revealed that there is a positive significant relationship between technological context organizational context, environmental context, and CAIS intention. Intention to adopt CAIS is affected by the technological context of the SME. Relative advantages of CAIS over manual system, compatibility, and complexity of CAIS are the predictors of technological context. This finding is consistent with the findings compatibility, relative advantage and complexity have consistent associations with innovation behaviors in the study of Innovation characteristics and innovation adoption-implementation by Tornatzky & Klein, 1982, PremKumar and Roberts (1999) in their study Adoption of new information technologies in rural small businesses found that organizations adopt the innovation technology because they perceive a relative advantage of the technology compared to traditional methods. Organizational readiness, employees' IT level, and satisfaction with manual system describes the organizational context of the firm regarding CAIS adaptation.

Environmental context mainly external environment: competition, government influence, and suppliers support describe the environmental context of the firm. In this empirical study environmental context was found as the strongest predictor of CAIS intention than other predictors. This finding is in line with Alatawi et al., (2012), the decision to adopt IT is depending on the owner-manager and internal organizational need, the actions and decisions of owner-manager would be affected by external environment and they make policy decision accordingly therefore, the adoption of IT can be the result of pressure exerted on the enterprise by its environment, government regulation can have a favorable or negative impact on organizations, depending on whether its policy encourages or discourages innovation, Ramdani et al., (2009) one of the important aspects of the IT adoption process is the assistance of external support such as IT/IS vendors, with increasing support from the third party, firms are more willing to adopt IS innovations, Nguyen (2009) quality advice from IT professional such as IT vendors is always useful for management or owner-manager as many of them do not have sufficient experience or understanding of IT, Ifinedo (2012) stressed that vendor support should be considered in the planning process and implementation of IT adoption, Yang et al. (2012) also supported the crucial role of external vendor for the implementation of IT innovations, especially when the organization is unfamiliar with the technology, Proudlock et al. (1999), the employment of such external support can overcome knowledge gaps and guide firms in implementing appropriate IT, Thong, 1999 & Yoon, 2009), This study focused on the intention of CAIS among Nepalese SMEs. Researchers may also consider mediating and moderators like owner/managers' age, education, software characteristics such as software adequacy, software security. which can be added in the model. It would be interesting to expand the research in this area linking Cloud computing as a service industry.

5. Implications

This study contributes to the existing literature in the following ways. First, the study responds to the call for additional empirical research in CAIS. Second, CAIS is attracting a large number of SMEs and more Nepalese

SMEs are expected to use this technology in the future. Third Findings explore the dimensions of CAIS in the context of SMEs which blends accounting knowledge with information technology.

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