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E-readiness of website acceptance and implementation in SMEs

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ABSTRACT

This study aims to make a deep exploration into e-readiness from the viewpoints of technology, management, organization, and environment in order to understand how these dimensions affect the acceptance intention and degree of implementation of a corporate website. A mail survey was conducted. A total of 753 questionnaires were distributed and collected from SMEs' senior executives, generating 163 usable replies with a total response rate of 21.65%. The structural equation modeling (SEM) technique and partial least squares (PLS) software were used to conduct a path analysis for related variables in the research model. Results of the data analysis show that (1) the variables that have a significant positive effect on the intention to accept a corporate website in SMEs are an awareness of corporate website, enterprise resources, technological resources, government e-readiness, market force e-readiness, and supporting industries e-readiness and (2) the variables that have a significant effect on the degree of corporate website implementation in SMEs are an awareness of corporate website, senior executive commitment, corporate website governance, human resources, technological resources, government e-readiness, and market force e-readiness. Through the empirical results, this study provides contributions for SME managers and researchers.

1. Introduction

E-readiness is generically determined by whether an organization or a country is ready to adopt information technology (IT) and its relevant applications to create competitive advantages in the market (Mutula & Van Brakel, 2006b; Park, Choi, & Bok, 2013). In recent years, e-readiness has been an important area for assessing the potential for IT adoption. The competitiveness of business enterprises is closely associated with e-readiness for leveraging information and communication technologies (ICTs) to effectively identify, collect, organize, process, and disseminate information for competition (Mutula & Van Brakel, 2006a).

E-commerce has gradually evolved into a term denoting the approach for information delivery and data sharing between businesses or between businesses and customers. Grandon and Pearson (2004) considered that the adoption of e-commerce activities could help a large enterprise in making a greater profit; likewise it can help small and medium-sized enterprises (SMEs) in gaining significant benefits through extending the business territory and strengthening customer relationships. The modern e-commerce strategy for gaining competitive advantage is to provide a corporate website or social networking website for customers with online inquiries about products and services, and the use of electronic transmission technology in order to allow a two-way communication with them and to facilitate their internal operations (Dong, Cheng, & Wu, 2014; Hung, McQueen, Ku, & Chang, 2012b; Schlosser, White, & Lloyd, 2006). Past studies suggest that implementing a corporate website can integrate e-commerce activities formally and seamlessly into a company better than a social networking one (Hung, Chang, & Lee, 2012a; Hung et al., 2012b; Maswera, Dawson, & Edwards, 2008). It can also overcome disadvantages, break through barriers, and remove the boundary between the business region and the global market. Apparently, the implementation of such a website can create many advantages for the operation of enterprises, especially SMEs.

Compared to larger-sized enterprises, fewer SMEs have become involved in e-commerce operations through a corporate website. Also, the research regarding the implementation of e-commerce initiatives has focused more on larger enterprises than on SMEs (Gemino, Mackay, & Reich, 2006). Those that have their own website have made more profit and been more efficient than those without one (Hung et al., 2012a; Hung et al., 2012b). Additionally, prior literature has mentioned that implementing a corporate

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website can provide benefits such as penetrating into a new market, ensuring the effectiveness of their operation, increasing trading channels, and improving service quality. However the most valuable benefit is that it can transform an SME into a worldwide enterprise (Alonso-Mendo, Fitzgerald, & Frias-Martinez, 2009). Apart from creating, delivering and accumulating business value (Mavromoustakos & Andreou, 2007), a corporate website can also, to a moderate extent, overcome the difficulties arising from their small scale and resources shortage. Therefore, in order to strengthen their industrial profile, SMEs should consider implementing a formal corporate website since such interactive application should provide more innovative and transforming opportunities for them, and further help them move away from the traditional operational scope to compete with larger enterprises. However, for SMEs, the lack of sufficient internal resources, external environmental pressure, and an incomplete internal system restrict them from developing a sound corporate website.

Prior studies have explored and categorized the factors affecting information system implementation and adoption in e-business (Benbasat & Barki, 2007; Eikebrokk & Olsen, 2007; Mutula & Van Brakel, 2006a,b; Van Huy, Rowe, Truex, & Huynh, 2012); yet, no one has been able to concretely establish a universal model for it. Despite the fact that a significant number of articles have focused on the organization's intention for IT or website acceptance, little attention has been paid to the situation in SMEs and very few researchers have studied the implementation degree of a website. SMEs are recognized as a critical business sector in the industrial world and have also been acknowledged as making a significant contribution to a country's economic development (Van Huy et al., 2012). Conducting research on the e-readiness of website acceptance and implementation in SMEs can help fill the knowledge gap and facilitate companies in designing, implementing, and monitoring such websites.

The purpose of this research is to develop a conceptual e-readiness framework including the critical factors that influence website acceptance and the degree of website implementation of SMEs. Two research questions are proposed in order to gain a better understanding: (1) What e-readiness factors can affect corporate website acceptance in SMEs? (2) What e-readiness factors can affect the degree of corporate website implementation in SMEs? Since SMEs are playing a key role in the global economic world, answering these questions is worthy of further exploration.

2. Literature review

2.1. E-readiness

E-readiness is about evaluating the degree of readiness to use ICTs for fostering welfare or gaining profits in a country or an organization. The original concept of e-readiness was constructed to assess the digital divide between developed and developing countries (Mutula & Van Brakel, 2006b). The definition of e-readiness, first given by The Computer System Policy Project (CSPP) in 1998, was that of the ability of a country to access high-speed networks in a competitive marketplace, the degree of application of ICT in a government organization or enterprise, and the level of privacy protection and provision of online security mechanisms in a network environment. E-readiness has been an important concept for assessing IT application ability.

Scholars have indicated that e-readiness can represent any purpose, with any kind of background, pertaining to different people, events, or things. They have defined an organization's e-readiness as the important factors affecting the acceptance of electronic data interchange (EDI) and e-commerce (Iacovou, Benbasat, & Dexter, 1995; Kuan & Chau, 2001; Molla & Licker, 2005). Apart from using it to observe a country's e-readiness level, numerous studies have attempted to use this approach, from a micro point of view, to examine the e-commerce readiness level for organizations. Thus, how to apply it to evaluating the exploitation of the potential of national-level or organizational-level e-commerce has been a core issue for discussion (Dutta, Lanvin, & Paua, 2004; Mutula & Van Brakel, 2006b).

A number of studies focusing on e-readiness have appeared in the literature; for example, Molla and Licker (2005) presented an e-readiness model for e-commerce implementation in developing countries; it mainly adopted the perceived organizational e-readiness (POER) and perceived environmental e-readiness (PEER) as its evaluation criteria. The results indicated that the readiness of technology adoption, the readiness of finance, the support from management, and the perception of risk are the key factors for an organization to determine the utilization of EDI or e-commerce. Based on their research model, Tan, Tyler, and Manica (2007) targeted 134 SMEs in China to investigate the acceptance of e-commerce. Ruikar, Anumba, and Carrillo (2006) studied the evaluation mechanism of e-readiness; their purpose was to evaluate the e-readiness of small-sized construction corporations, and their criteria came from the outcomes of reviewing the situations of management, employment, procedure, and technology within these corporations. Fathian, Akhavan, and Hoorali (2008) applied e-readiness in assessing ICT usage for non-profit SMEs in Iran. Overall, the significance of it is determined by whether an organization or a country is ready to apply IT and its relevant applications to create competitive advantages in the market.

2.2. Corporate website and IT acceptance

Both the corporate website and EDI are considered as inter-organizational information systems, and they are also the medium for an organization to communicate with related parties and, to perform business transaction processes with the assistance of electronic equipment. Hung et al. (2012a) and Hung et al. (2012b) noted that a corporate website is one of the important basic applications for e-commerce, and some of its most commonly utilized functions are internal operational support, intra- and inter-business communication, customer interaction, and potential client contact.

Unlike social networking websites, the corporate website is considered as an inter-organizational information system for an organization to communicate with related parties. From the perspective of the business process and services, corporate websites support various kinds of business transactions and play a crucial role in promoting most electronic marketing activities (Hung et al., 2012a; Hung et al., 2012b). Nonetheless, the activities of social networks are focused on building social relationships among people who share personal interests, activities, events, or real-life connections via online platforms such as Facebook, Twitter, Google+, and MySpace (Dong et al., 2014). Scholars have indicated that a corporate website is an essential medium for a company to communicate with clients or related parties. Through the use of such a website, the major communication purposes include business information exchange, relationship maintenance, and business transaction guidance (Ho, Kuo, & Lin, 2012; Hung et al., 2012a; Hung et al., 2012b; Zwass, 1996).

In terms of IT acceptance, scholars have argued that corporate website acceptance stands for the degree of an organization's willingness to use Internet technology to manage the interaction between its business and its customers (Gemino et al., 2006). In prior studies, many theories pertaining to the influencing factors of IT acceptance have been built. For instance, Davis, Bagozzi, and Warshaw (1989) presented a technology acceptance model (TAM) to explain and predict the acceptance of users by analyzing