Study on E-Commerce Adoption in SMEs Under the Institutional Perspective: The Case of Saudi Arabia

Almaaf Bader Ali A, Nanjing University of Aeronautics and Astronautics, Nanjing, China
Jian-Jun Miao, Nanjing University of Aeronautics and Astronautics, Nanjing, China
Quang Dung Tran, National University of Civil Engineering, Hanoi, Vietnam

ABSTRACT

This article investigates and discusses the institutional factors influencing decisions of e-commerce adoption in Saudi small and medium enterprises (SMEs) from the temporal view. This article has been conducted in two phases: a full survey in 2013 and the follow-up targeted interviews in 2016. The analysis results demonstrated that there is a clear difference between initial e-commerce adoption and institutionalization in SMEs in terms of institutional predictors. When e-commerce was at its infant stage, governmental support and well-defined legal and regulations system were instrumental and served as mainly institutional forces to encourage firms to adopt e-commerce. As time went on and e-commerce became more business-driven, these effects became less important, even insignificant; instead of these, perceived market forces and perceived social awareness of e-commerce emerges as critical contributions to push SMEs to engage in e-commerce more sophisticatedly.

KEYWORDS
Adoption, B2B E-Commerce, Institutional Factors, Saudi Arabia, SMEs

INTRODUCTION

The literature on e-commerce empirically reveals that e-commerce adoption brings potentially benefits to SMEs (Tran et al., 2013). E-commerce in general bridges the physical and time-dependent distance between suppliers and customers, enhances the efficiency and flexibility of production and operation, reduces market entry barriers, and increases the competitiveness of markets. However, its adoption by SMEs remains limited. For example, a previous survey found that 36% of small businesses established web sites primarily to advertise and promote their business, compared to 9% who established one to sell or market online. Similarly, a survey of 444 SMEs found that many SMEs were reluctant to conduct transactions on line; more than 80% were only using the Internet to communicate (via e-mail) and gather business information (Zhu, 2008). Al-Qirim (2008) found that the main barriers or concerns inhibiting SMEs from adopting e-commerce are: non-adopted customers/suppliers, violated privacy and security issues, lack of expertise or personnel, lack of belief that online marketing would be effective, high costs, and technical limitations of hardware or software.

Although the King of Saudi Arabia (KSA) has the largest and fastest growth of Information Communication Technology (ICT) marketplaces in the Arab region, the diffusion and the rate of B2B e-commerce sophistication in SMEs are actually very low, and not parallel with the remarkable development of the e-business infrastructure (AlGhamdi et al., 2012). The challenge for policy-makers...
is therefore to better understand the e-commerce phenomenon and to ensure that the opportunity and potential offered by e-commerce is taken and realized in SMEs. There has been a long-standing debate and different approaches on how an enabling environment should be created and shaped to foster e-commerce adoption and diffusion. Additionally, the existing literature is lacking studies to focus on investigation of various determinants of decisions of e-commerce adoption at the different levels. Tran et al. (2014) and Molla & Licker (2005) provided empirical evidence showing that the determinants of initial adoption of e-commerce are very different from those of institutionalization of the technology. The experience of the initial adoption of e-commerce is also found not to have any significant effect on the decision of subsequent implementation of the technology.

Therefore, the purpose of the study is to investigate institutional factors affecting decisions of e-commerce adoption in Saudi SMEs from the temporal view. To address this objective, a conceptual model was developed based on the institutional perspective. This study has been conducted in Saudi Arabia in two phases. Phase I was in 2013 with a full survey and phase II was in 2016 with the follow-up targeted interviews. Data collected was analyzed to investigate whether determinants of e-commerce adoption in SMEs are different at maturity levels and change over time.

THE THEORETICAL BACKGROUND

The conceptual research framework was developed based on the institutional theory (Figure 1). The institutional theory provides a rich, complex view of organizations; organizations are open systems and the institutional context is a major source of influence on organizational behavior. Accordingly, in order to understand individual and organizational behavior, it must be located in a social and institutional context, and this context both regularizes behaviors and provides opportunity for agency and change. Institutional theory posits that pressures from industrial, political, legal and cultural systems, and expectations from society define what is socially acceptable and expected organizational behavior, which pressures organizations to look and act the same. In viewing institutions more widely as varied social constructs, including cultural beliefs, new institutionalism has moved away from its formal legal historical roots and become a more explanatory discipline in economics and social sciences. Contemporary institutional theory focuses on developing a sociological view of institutions - the way they interact and the way they affect society (Scott, 2005).

There is substantial evidence in economics that firms in different institutional environments react differently to similar challenges and that companies can perform efficiently if they receive the institutional support (Gosain, 2004). The limited studies of IT adoption and diffusion in the last decade have also suggested that a supportive institutional environment and a variety of nurturing policies from governments are especially indispensable for technological innovation. Therefore, this study considered five independent institutional constructs: perceived government supports, perceived legal and regulatory system, perceived market forces, and perceived social awareness of e-commerce.

The dependent variables, e-commerce initial adoption, and intention for e-commerce institutionalization are posited as the primary constructs of SMEs’ adoption of e-commerce at different levels. Based on the literature, the level of e-commerce adoption should be considered through the sophistication in terms of management, function, technology, and information, and the usage degree of e-commerce innovation by enterprises. In other words, the level of e-commerce adoption is a product of sophistication level by usage degree. Since the first stages of e-commerce adoption process is very simple while its last stages are much more sophisticated and complicated in terms of technology and management, consequently, the first stages are also very different from the last stages in terms of demand of technology infrastructure, management, and other resources. In order to effectively implement e-commerce at the more sophisticated level, one certain enterprise needs to reach a much higher e-readiness in terms of both external and internal environments. In this study, instead of studying the process of e-commerce adoption on many different stages, it investigated determinants of e-commerce adoption at two key levels, namely initial adoption versus institutionalization.
Working for the Collective: A Comparative Analysis of Communist Subbotniks and American Charities
[www.igi-global.com/chapter/working-for-the-collective/164747?camid=4v1a](www.igi-global.com/chapter/working-for-the-collective/164747?camid=4v1a)

The Use of Social Networks in Achieving e-Democracy in the Arab Spring Countries