

E-Business Adoption in SME– Models and Determinants: A Comparative Review of UK and KSA

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INTRODUCTION

E-business, M-commerce has become a key driver in the way companies across the globe conduct business. For Small and Medium Enterprises (SMEs), it is a gateway to global markets and a fast track to overtake rivalries and competitors. The internet, compounded with the latest technology – cloud computing, big data processing architecture, wireless communication and smart devices, provide great potential for SMEs in creating new business, new products and services, and new ways of working. Research into how technology has been adopted and what factors affected the adoption have been reported in many studies and several adoption models have been generated since the 1980s (Davis, Bagozzi, & Warshaw, 1989; Delone & Mclean, 2004; Molla & Licker, 2005a; E. M. Rogers, 2003). For e-Business and m-commerce, it appears that there are more studies of adoption and influencing factors from consumer perspectives than there are from organisational perspectives, particularly for SMEs.

SMEs are considered slow in adopting e-Commerce because of unique characteristics of SMEs including limited resources and the lack of IT infrastructure (G. Lee & Xia, 2006; J. Lee, 2001; Mak & Johnston, 1999), a small management team, strong owner influence, multi-functional management, limited ability to obtain financing and a lack of control over the business environment. In addition, SMEs rely on an environment in which structures and processes must remain simple, flexible and adaptable (Carmichael, Turgoose, Gray, Todd, & Nadin, 2000). Firm and managerial factors are merged due to the high locus of control exerted by the key decision makers (Boone, De Brabander, & Hellemans, 2000).

SMEs adoption of Internet technology is also affected by external factors – government policy, ICT infrastructure, industry, stakeholders and customer influences (Xu, & al. 2006). As a result, the level of adoption by SMEs varies from country to country, region to region and sector to sector. It tends to be that in developed countries such as the UK and USA, the development and use of e-business is in a sophisticated form with continuous innovations and adoption (Molla & Licker, 2005b), whereas in developing countries, there appears obstacles that affect the adoption and implementation of e-Commerce (Al-Harby, 2006; Al-Hudhaif & Alkubeyyer, 2011; Al-Qirim, 2010; Alam, 2009; Alam, Ali, & Jani,

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2011; Kabanda & Brown, 2010; Mbamba, 2006; Molla & Licker, 2005b; Wymer & Regan, 2005; Yu, Lu, & Dong, 2010).

There is a gap in research to examine the pattern and dynamic trend of e-commerce adoption for SMEs and the underlining reasons, particularly from a multi-national perspective. This study attempts to fill the gap by comparing a study of SME e-Business adoption conducted by the author in the UK in 2006, and a more recent study of SME e-commerce adoption conducted in KSA. The adoption level and the influential forces are generated from each of the studies, and the results are compared to identify common and unique factors affecting the adoption. The rest of the chapter is organised as follows: the next section reviews the theoretical models related to e-Business adoption, and the models selected to underpin the two studies, this is followed by an introduction of the methods used to conduct the two studies. The results are presented with discussion, and conclusions with implications are drawn in the last section.

LITERATURE REVIEW- E-BUSINESS ADOPTION MODELS

The term “e-business” and “e-Commerce” and “Internet commerce” are often used interchangeably. In this paper, e-business refers to the incorporation of Internet technologies into an entire enterprise’s operations and management and beyond. E-commerce refers to essentially online transactions involving buying and selling. M-commerce is an extension of e-Commerce that transactions - buying, selling and payment are made using mobile devices.

E-Business Adoption Ladder

With increasing attention to e-business application, a number of e-business growth / adoption models have been developed, (Allcock, Webber, & Yeates, 1999; DTI, 2001; Prananto, McKay, & Marshall, 2003; Stone, 2003); Martin and Matlay (2003) suggest that there are different levels of e-business in SMEs, known as ‘e-adoption’. In the UK benchmarking study report, E-business adoption is defined as incremental tiers or steps and can be represented in the form of an ‘e-adoption ladder’ with each stage increasing in level of sophistication as depicted in Figure 1.

The first stage is email simply for electronic communication, and this is progressed to the next stage where static webpages are used for messaging and online marketing. The e-commerce stage involves on-line interaction between a business and its customers, or a business and its suppliers, for the placement of an order and online payment processing. The e-business stage allows integration of the supply chain. The final stage enables open information sharing between customers, suppliers and partners, based on which existing business processes are radically transformed or new business models are formed. The adoption ladder emphasizes e-business technology adoption along with organizational change. The final three stages require advanced technology and a wide range of specialist business skills and expertise in areas such as management, strategy and marketing. Criticisms of the adoption ladder concentrate on the linear progression and technology sophistication aspects.

Diffusion of Innovations (DOI)

Diffusion of innovations is a theory based on how, why, and at what rate new ideas and technology spread through cultures. It has been defined as “the process by which an innovation is communicated through certain channels over time among the members of a social system” (E. Rogers, 1983; 1995).

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