

# B2B E-Commerce Success among Small and Medium- Sized Enterprises: A Business Network Perspective

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## ABSTRACT

*E-commerce (EC) success and related influencing factors have not been investigated properly in the context of small and medium-sized enterprises (SMEs), while these businesses possess very different characteristics as compared to large businesses. The purpose of this study is to provide a better and clearer understanding of business-to-business (B2B) EC value and success within SMEs, particularly in emerging economies. Rooted in the information system (IS) diffusion and success literature and organizational research background, this paper develops an integrative research model to assess the success of B2B EC among Iranian and Malaysian SMEs. To interpret the success of B2B EC, we viewed EC success dimensions and relevant determinants from the perspectives of all users at the business network unit level. The result of testing this model on 130 business network units revealed that in addition to technological characteristics of EC including information, system and service quality, different SME-related organizational determinants such as perceived usefulness of EC, top management support and commitment and EC knowledge are crucial for successful B2B EC among SMEs. The findings offer valuable insights to managers, EC/IS experts and policy makers responsible for assisting SMEs with successfully engaging in B2B EC.*

*Keywords:* Business Value, EC Benefits, EC Use, EC Users' Satisfaction, SMEs

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## INTRODUCTION

E-commerce (EC) can be mainly divided into business-to-business (B2B) EC and business-to-consumer (B2C) EC. Given small and medium-sized enterprise (SMEs) mainly use

EC applications to interact with their supply/business partners, distributors, wholesalers and retailers (e.g., Al-Qirim, 2007; Jennex, Amoroso & Adalakun, 2004), EC in the context of SMEs is mainly categorized as B2B EC (Ghobakhloo & Tang, 2011). In the current digital business

DOI: 10.4018/joec.2015010101

environments, SMEs are increasingly engaging in B2B EC to develop a series of competitive activities to achieve performance improvement, sustainable competitive advantage, and opportunities to secure long-term success (Ghobakhloo, Arias-Aranda & Benitez-Amado, 2011). Although information system (IS) benefits/business value is a well-established IS research topic, there has been little research on how organizations evaluate their engagement in B2B EC and the extent to which they benefit from their investments (Standing & Lin, 2007). In addition, we still do not know whether investment in EC in B2B environments creates business value for SMEs. Likewise, we do not clearly know how to evaluate the success of B2B EC within these businesses. The lack of understating on the business value of B2B EC is more problematic for SMEs in developing countries. Organizational EC in developing countries has only recently gained attention in the academic press (Ghobakhloo, Sabouri, Tang & Zulkifli, 2011; Ghobakhloo & Tang, 2013). Research on EC value is even scarcer in relation to SMEs in developing countries. Given the limited understanding of B2B EC success within SMEs, particularly in developing countries, the aim is to address this gap by examining the dimensions of B2B EC success among Iranian and Malaysian SMEs.

## **EC in Developing Countries and SME Context**

Globalization and the emergence of information and communication technologies and EC have changed economic realities for developing countries (Narula & Dunning, 2000). Scholars argue that these two trends are closely associated, each driving the other forward, and both being driven by other common forces (Kraemer, Gibbs & Dedrick, 2005). In the current globalized business environment businesses in developing countries, even SMEs, are adopting information and communication technologies to enter the global e-marketplace. SMEs in developing countries need to engage with EC to reduce transaction costs by bypassing some, if

not all, of the intermediary and facilitating linkages to the regional and global supply networks (Ghobakhloo, Arias-Aranda & Benitez-Amado, 2011). EC can provide many benefits to SMEs of developing countries, ranging from modest advantages such as reduced communication and administration costs, and improved accuracy to transformative advantages including enabling business process reengineering or supporting industry value chain integration initiatives such as just-in-time inventory, continuous replenishment, and quick response retailing (Solaymani, Sohaili & Yazdinejad, 2012).

Unfortunately, SMEs have not been successful in benefiting from EC compared to their counterparts in developed countries (Tan, Tyler & Manica, 2007; Tang & Ghobakhloo, 2013; Walsham, Robey & Sahay, 2007; Walsham & Sahay, 2006). The literature suggests that in most developing countries, benefiting from EC has been hindered by the quality, availability, and cost of accessing necessary infrastructure although they have employed a relatively well-developed, accessible and affordable infrastructure for EC (Molla & Licker, 2005a; Sila & Dobni, 2012). The readiness of businesses to govern and regulate B2B EC is an essential element of EC business value for the trust necessary to conduct e-business, but one lacking in developing countries (Molla & Licker, 2005b). Since web and communications technologies are more complex for SMEs of developing countries, these businesses must clearly understand these technologies and decide how to draw upon their functionalities to effectively benefit from B2B EC initiatives (Chatterjee, Grewal & Sambamurthy, 2002; Ghobakhloo, Arias-Aranda & Benitez-Amado, 2011; Sutanonpaiboon & Pearson, 2006).

One may question whether the findings of prior IS success studies can be generalized to an EC context. This approach may not be methodologically and theoretically feasible, particularly in B2B EC among SMEs. It is evident that in IS success studies, individuals who interact with computer and communication technologies are subjects of interest. In a B2B environment however, partners in a business

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