IT-Supported Business Performance and E-Commerce Application in SMEs

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ABSTRACT

As E-commerce is developing in China, using E-commerce becomes more important to small and medium enterprise (SMEs). The small business has several advantages, including low cost and the ability to begin on a part-time basis. E-business technology can strengthen these advantages. In this paper, the authors introduce the ECRM and E-business strategy in enterprise and use VAR model to analyze how E-Business Application affects business performance in emerging countries like China. The results show that E-business application can improve the sales performance of small business, and E-business is an important factor to success.

Keywords: Business Process, E-Commerce, Electronic Customer Relationship Management (ECRM), Knowledge, Service-Oriented Architecture (SOA), Small and Medium Enterprises (SMEs), Vector Auto Regression (VAR) Model

INTRODUCTION

With the development of information technology, E-business becomes the core competition of Small and medium enterprises in recent years (Gabriel, 2007). E-business provides a new sales channel that can not consider business time and location, also online shopping will reduce the cost compared with traditional business. Electronic business is an internet business, may be defined as the application of information and communication technologies (ICT) in support of all the activities of business (Drew, 2003). E-commerce focuses on the use of ICT to enable the external activities and relationships of the business with individuals, groups and other businesses. E-business also promotes the development in small and medium enterprise (SMEs), as SMEs didn’t have the scale competition advantage, E-business will become the core competition that can help SMEs get several advantages as lowest cost, differentiated services, and more convenient and efficient service (Kontinen, 2011). According to the China statistical data the E-commerce market overall trade scale is 8.1 trillion RMB ($1.3 trillion) in 2012, up 27.9%. E-commerce has a huge potential in the retail market, also more small and medium enterprises begin to build their own online sales website.

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The legal definition of “SMEs” varies by country and by industry, SMEs means a small business that having fewer than 500 employees for manufacturing businesses and less than $7 million in annual receipts for most non-manufacturing businesses. Hans Jansson (2012) pointed that the small business has several advantages as low cost and can be started on a part-time basis, small business is also well suited to internet marketing because it can easily serve specialized niches, independence is another advantage of owning a small business, as E-business can further strengthen the advantages of small business, so that it would be important for SMEs to adopt E-business strategy.

E-business software solutions allow the integration of intra and inter firm business processes; it involves business processes spanning the entire value chain: electronic purchasing and supply chain management, processing orders electronically, handling customer service, and cooperating with business partners (Ahmed, 2008). Special technical standards for e-business facilitate the exchange of data between companies. In this paper, we introduce the ERP and E-business strategy in SMEs, and use VAR model to make an empirical study of how E-business application will effect on the small business performance.

**LITERATURE REVIEW**

Sylvie Feindt and Judith Jeffcoate (2002) focused on the baby gazelles of the Internet economy, and demonstrated links between critical success factors. In this paper, the author highlights the competitive advantage deriving from the application of a certain critical success factor that is E-commerce. Murray E. Jennex (2004) research the key infrastructure factors affecting the success of small companies in developing economies, the result shows that workers’ skills, client interface, and technical infrastructure are the most important factors to the success of a B2B E-commerce relationship. Christina A. Fader (2002) provided a model that identifies a number of unique factors that should be considered when estimating the optimal level of investment into an e-commerce initiative, and pointed out there are several constraints for SMEs to adopt E-commerce such as lack expertise in digital marketing and sales, insufficient resources required for ideal levels of investment and other creative cost and risk. Elie Elia and Louis-A (2007) presented empirical data from an electronic survey conducted among 96 manufacturing SMEs to investigate e-commerce initiatives and their related benefits. The research findings point to four main profiles of manufacturing SMEs with different e-commerce focuses.

As the E-business is becoming more and more important to small and medium sized enterprises (SMEs), many researchers focused on the marketing strategy of E-commerce and give out some suggestions in using e-business technology. Patrizia Fariselli (1999) explored three issues as globalisation; SMEs and e-commerce, then pointed that there are important synergies between e-commerce (virtual) networks and (real) production networks. A. J. Davies, A. J. Garcia-Sierra (1999) pointed out that electronic commerce has been accepted as a bona fide business practice in the commercial world, and monitored and researched the usage patterns and find out the effect of these technologies not only on the smaller companies independently, but also on their customers, suppliers and collaborators. Erik Wierstra, Gabriele Kulenkampff (2001) assessed the impacts of basic elements of business strategies on the relative competitive position of selected types of ISPs, and find out that the incumbent telcos have a relatively strong starting point in the ISP market, while small regional ISPs have a weak starting point.

Margi Levy, Philip Powell (2002) analyzed two alternative models as the Focus-Dominance model and stages of growth models as applied to SMEs, the results can be used to support the Focus-Dominance model. Ernesto Montaldo and Roberto Sacile (2003) presented a new approach of an agent-based architecture applied to an existing workflow management system in order to manage new functionalities. Lucia Piscitello and Francesca Sgobbi (2004) explored how SMEs located in industrial districts explore e-business as a means to face the
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