Future of Small Business E–Commerce

Simpson Poon
IVE, Hong Kong and Charles Sturt University, Australia

INTRODUCTION

The use of the Internet for business purposes among small businesses started quite early in the e-commerce evolution. In the beginning, innovative and entrepreneurial owners of small businesses attempted to use rudimentary Internet tools such as electronic mail (e-mail) and file transfer protocol (FTP) to exchange messages and documents. While primitive, it fulfilled much of the business needs at the time. Even to date, e-mail and document exchange, according to some of the latest research findings, are still the most commonly used tools despite the fact that tools themselves have become more sophisticated.

There has been a plethora of research on small-business use of the Internet and e-commerce in general. Some of the earlier research can be traced back to the mid-1990s, when small-business e-commerce was in its infancy (e.g., Abell & Lim, 1996; Cronin, Overfelt, Fouchereaux, Manzvanzvike, Cha, & Sona, 1994; Fuller & Jenkins, 1995; Poon & Swatman, 1995), and when this chapter was written, articles were still being published in this area around the world. While the findings are many and varied, there are a number of highlights. Essentially, four groups of factors had been commonly found to influence the adoption of e-commerce among small businesses (see Figure 1).

(1)   Organizational factors: Demographic factors such as size and the industry sector had been found to have an influence on the level of adoption (Poon & Swatman, 1999; Thong, 1999). The information intensity of products was also found to be a determining factor influencing adoption (Hui & Chau, 2002). While there was evidence that the nature of a product did not necessarily determine e-commerce success (Poon, 2000), anecdotal evidence suggested that small businesses offering digital products or products with high information intensity seem to benefit more from e-commerce.

(2)   Technological factors: The level of IT adoption within an organization as well as along the supply chain of an organization was suggested to be good predictors of success in small-business c-commerce adoption (Mehrtens, Cragg, & Mills, 2001).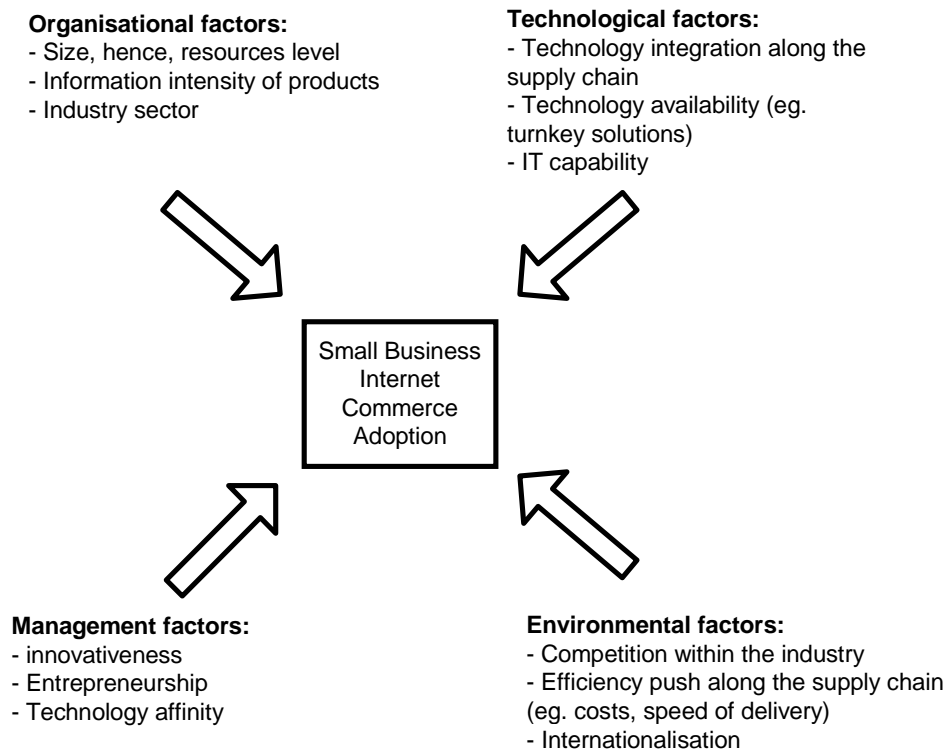 Research has shown that the technical competence of key personnel within a small firm also related to the perceived success when adopting IT (Thong, 1999).

(3)   Management factors: Studies into IT and e-commerce adoption have repeatedly identified the importance of management's involvement in facilitating adoption. Findings generally point out that the proactive attitude and actions of management, as well as the innovativeness of their strategy toward e-commerce, had led to success (Poon & Swatman, 1998; Thong, 1999). In the case of a small business, the dominant role of the owner or director means management is often the determining factor of e-commerce success.

(4)   Business-sector factors: The level of IT adoption and the expectation to use IT for interfirm activities within the industry sector a small business is in also seem to influence the level and extent of e-commerce adoption (Premkumar & Roberts, 1999; Raymond & Blili, 2001). If there is a lesson from electronic-data-interchange (EDI) adoption to be learned, it is that small businesses were often under the influence of more powerful business partners along the supply chain to adopt interorganizational technologies such as EDI. Similar patterns have been observed in c-commerce adoption cases.

BACKGROUND

Besides the well-mentioned business-to-consumer (B2C) and business-to-business (B2B) e-commerce setup, the Internet also enables small businesses to form business networks known as e-clusters. Compared to the traditional "hub-and-spokes" topology of networked organizations, involving a large organization and a number of small businesses during EDI adoption, the Internet sees the formation of e-clusters. Small businesses are known to form business clusters: a group of firms working closely together for business advantages. This phenomenon has been observed both in the East (Akizawa & Kijima, 1997), the West (Brown & Lockett, 2001), and around the world (UNIDO, 2001).

Brown and Lockett (2001) highlighted how small businesses empower such clusters using e-commerce technologies. The e-clusters formed can leverage both the synergy of the group and the technological advantages

Figure 1. Four groups of factors commonly found to influence Internet adoption among small businesses

Organisational factors:
- Size, hence, resources level
- Information intensity of products
- Industry sector

Technological factors:
- Technology integration along the supply chain
- Technology availability (eg. turnkey solutions)
- IT capability

Small Business Internet Commerce Adoption

Management factors:
- innovativeness
- Entrepreneurship
- Technology affinity

Environmental factors:
- Competition within the industry
- Efficiency push along the supply chain (eg. costs, speed of delivery)
- Internationalisation

to further enhance the agility of the whole cluster. Governments are also keen to investigate how industries, particularly those whose key products are of digital nature, can benefit from e-clustering (Sakai, 2002). E-clusters will be a key economic drive for nations that have a high percentage of small and medium-sized enterprises (SMEs). The productivity and operational efficiency among SMEs within such clusters can be enhanced through the economy of information exchange.

FUTURE TRENDS

From Competitive Advantage to Necessity

As more small businesses are using the Internet to support business activities, it is no longer an option but a key to competitiveness. For small businesses that have suppliers and/or customers who have adopted e-commerce, not being able to interact using Internet technologies is a competitive disadvantage. As such, small businesses are expecting to be e-commerce ready or risk losing out in the future. As e-commerce software and services are maturing and becoming affordable, widespread adoption is expected.

From Fragments to Clusters

For a few years, e-commerce adoption has been a fragmented process, meaning individual small businesses tried to establish a Web presence or install e-commerce software onto their systems. As efforts such as application service providers, B2B marketplaces, and industry-wide platforms are maturing, small businesses are becoming part of a supply web, a member of a B2B marketplace, or are tightly integrated into a large organization's extranet. The result is that small businesses will become part of one or more e-clusters, reflecting the nature and flows of business activities.

From Paper Based to Paperless

While clichés about a paperless office have been around for over a decade, it becomes closer to such a reality when B2C, B2B, and B2G (business to government [or public establishments]) activities are increasingly popular. In some countries, submission of information such as taxation assessments is now carried out as part of an e-government setup. Small businesses are under pressure to carry out business transactions not only with other businesses, but also with government and public organizations over the Internet.

Related Content

Information Technology Governance in Practice: A Project Management Office's Use of Early Risk Assessment as a Relational Mechanism
Hazel Taylor, Jill Palzkill Woelferand Edward Artman (2012). *International Journal of Information Technology Project Management (pp. 14-30).*
www.irma-international.org/article/information-technology-governance-practice/68849

Learning Systems Engineering
Valentina Plekhanova (2009). *Encyclopedia of Information Science and Technology, Second Edition (pp. 2404-2410).*
www.irma-international.org/chapter/learning-systems-engineering/13920

'Stream of Training' Approach in Project Management Training
David G. Vequist IVand Mark S. Teachout (2010). *Information Resources Management: Concepts, Methodologies, Tools and Applications (pp. 742-750).*
www.irma-international.org/chapter/stream-training-approach-project-management/54513

Using the Railway Mobile Terminals in the Process of Validation and Vending Tickets
Marko Horvatand Mario Zagar (2006). *Journal of Cases on Information Technology (pp. 30-44).*
www.irma-international.org/article/using-railway-mobile-terminals-process/3174

Intelligent Multi-Agent Systems
Uros Krcadinac, Milan Stankovic, Vitomir Kovanovicand Jelena Jovanovic (2009). *Encyclopedia of Information Communication Technology (pp. 464-469).*
www.irma-international.org/chapter/intelligent-multi-agent-systems/13393