Chapter 3.8
Application Service Providers

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INTRODUCTION

Technological changes within the last decade have dramatically changed the business climate. The use of Internet by firms has lead to global production, consumption, and competition. Electronic commerce, or e-commerce, "is a modern business methodology that addresses the needs of organizations, merchants, and consumers to cut costs while improving the quality of goods and services and increasing the speed of service delivery" (Kalakota & Whinston, 1996, p. 1). The benefits of e-commerce include cost savings, direct and quick interaction with the (potential) customer, competitive advantage through business intelligence, digital production sales and distribution, collaborative development with partners, new product development, direct sales, marketing and advertising, publicity, customer service and enhanced customer relationship, and communication.

Small businesses play an important role in the nation's economy. They are the fastest growing segment of all business types. The importance of small businesses to the U.S. economy can be gauged from the following statistics provided by U.S. Small Business Administration (SBA):

- Small businesses represent 99.7% of all employers, employ 50% of all private sector employees and account for 44.3% of total U.S. private payroll;
- Small businesses generate 60 to 80% of net new jobs annually; and
- Small businesses are employers of 39% of high-tech workers.

Researchers have argued that the use of Internet has created a level playing field whereby a small business can compete effectively against larger competitors. Studies have shown that larger firms have made significant progress in e-commerce.

But, the same cannot be said of small businesses. In a 2001 report, SBA noted that less than 2% of Internet use is directed at e-commerce. The lack of progress in e-commerce adoption by small businesses has been cited in several studies (Mathiyalakan, 2002, 2004).

Small businesses face numerous e-commerce technology adoption barriers and as a result the pace of adoption has been slow. In addition to capital and access to latest technology, employees' knowledge, expertise, and experience is an important determinant of technology adoption (Kwon & Zmud, 1987; Rogers, 1983). To overcome the technological and skill limitations identified above, several strategic options are available for small businesses. These include the use of external consultants, outsourcing, and the use of ASP amongst others. The focus of this article is on examining issues related to the use of ASP by small businesses. This article is organized in terms of five sections. After this introduction, we provide a background to ASP. Thereafter, we identify and discuss issues that are pertinent to the use of ASP by small business. This is followed by a discussion on future trends and our concluding remarks.

BACKGROUND TO APPLICATION SERVICE PROVIDERS

The roots of ASP go back to the concept of "time sharing." A review of literature on ASP definition (see Table 1) indicates that there exists a multitude of definitions of ASP. Although all researchers agree that ASP provide software applications and services exist, a consensus does not exist on other key features of ASP. Although some have stressed that ASP is akin to a rental agency (ASPstreet. com, 2005; Bennett & Timbrell, 2000), others advocate a broader and management oriented role (Deloitte Research, 1999; Webopedia.com). A common theme across many of the definitions is the use of the Internet to distribute the software applications (ASPstreet.com, 2005; Bennett & Timbrell, 2000, p. 196; Brian, 2005; Kern et al., 2002) who reviewed other definitions of ASP in an attempt to distinguish them from outsourcing note "it is difficult to distinguish a modern ASP from the 1963 Payroll Bureau Service provided by Ross Perot's Electronic Data Systems to Frito Lay and Blue Cross."

The ASP uses the Internet to make applications available to firms. It is essentially delivers and

Table 1. Definitions of ASP

Source	Definition
Benett and Timbrell (2000)	A form of selective outsourcing where a third-party organization rents generally available packaged software applications and related services.
Kern, Kreijger, Willcocks (2002)	These are service firms that provide on contractual basis, rental based or 'pay-as you-use' access to centrally managed applications made available to multiple users from a shared data centre over the Internet or other networks.
Smith and Kumar (2004)	A single point of contact for all telecommunications, hardware, software, and consulting services necessary to deploy, run, and maintain hosted applications remotely.
ASPstreet.com	Offer individuals or enterprises access to software applications and related support services over the internet.
Brian (2005)	Companies that supply software applications and /or software-related services over the Internet.
Deloitte Research	A service firm that deploys, hosts, and manages application solutions for rent to businesses residential customers.
Information Technology Association of America	An Application Service Provider, or ASP, is any company that delivers and manages applications and computer services to subscribers/clients remotely via the Internet or a private network.
Webopedia.com	A third-party entity that manages and distributes software-based services and solutions to customers across a wide area network from a central data center.

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