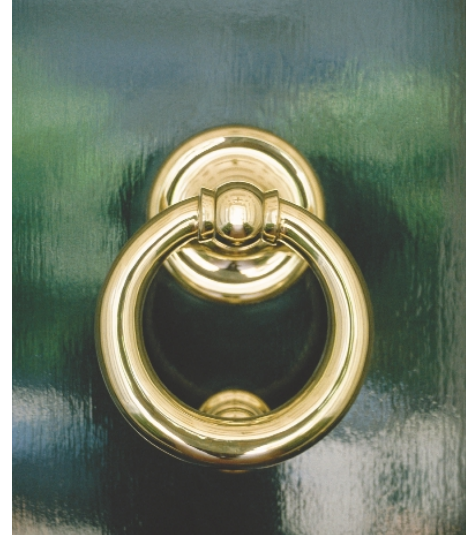


Implementing an IT system often raises fears of massive reengineering and huge consulting fees. Can an application service provider come to the rescue?

Anjana Susarla, Anitesh Barua, and Andrew B. Whinston



Myths about Outsourcing to Application Service Providers

The business community's general perception is that despite a lot of initial excitement and expectations, the ASP model does not appear to have contributed significant value to user organizations

("Caution: ASPs Ahead," *CIO*, 15 Jan 2001). Despite these barriers, data indicates that the strengths of the ASP business model—Web delivery, rapid access to new technology, and improved technical support—are tangible and can deliver real value to users. The basic premise behind ASPs (see the "ASP Basics" sidebar) appears to be delivering value in some areas.

Which applications are organizations outsourcing to ASPs? What did they hope to gain? And what are the critical success factors for organizations using ASPs? To assess these issues, we cosponsored a study with Momentum Research Group to assess organizational attitudes and adoption metrics for ASPs. We hired Market Vision Research to conduct an extensive survey of more than 800 medium-sized businesses. Our survey garnered 256 usable responses from businesses regarding their use of ASPs.

ASP Basics

An application service provider is a company that delivers remotely hosted information-processing applications to other companies over a wide area network (WAN) or the Internet. These services may include financial and accounting applications, Web-hosting applications, and customer relationship management. ASPs offer off-the-shelf solutions with customization, quickly incorporating cutting-edge IT processes into business operations. ASPs also save users the costs of adapting to technologies, including

- retraining the workforce,
- reconfiguring business processes to match new IT capabilities, and
- aligning IT with organizational strategy.

Moreover, a single ASP that hosts back-end applications for several organizations distributes the learning-curve cost: A host of organizations can benefit from the ASP's experience with technology without reinventing the wheel.

WHICH APPLICATIONS TO OUTSOURCE

As shown in Figure 1, the applications that businesses typically outsource include those for Web hosting, e-mail and messaging, finance and accounting, e-commerce, productivity, enterprise, //What are enterprise applications? Do you mean "personal productivity" apps, like word processing and spreadsheets?// and supply chain management. The easiest applications to outsource are Web hosting and e-mail because they do not

depend on integration with other functional applications. Not surprisingly, these applications are also the most popular.

Other applications, such as enterprise and supply chain management, are more complicated in an ASP-based implementation because they are interdependent with other information systems. The recent spurt of interest in ASPs and the host of industry conferences on the emerging ASP market (such as the Strategic Sourcing Conference, <http://www.gartner.com>) are no doubt fueled by the promise ASPs offer.

Customers, however, can be wary of outsourcing to an ASP. Popular perceptions of ASPs contend that companies may not be willing to trade internal control and customizability for the ASP model's speed and cost advantages.

Naysayers contend that the ASP model underestimates the resistance from various stakeholders in the organization, potential technological incompatibility, and integration problems. However, there are also the ASP enthusiasts who predict a radical reorganization in IT: No longer will IT vendors sell to clients and promote large implementation efforts. Instead, companies will outsource critical IT applications to ASPs in specific functional and industry areas.

COMMON MYTHS ABOUT ASP ADOPTION

We investigated what companies thought they would gain by using an ASP. Surprisingly, our results clearly indicate that the factors motivating companies to use an ASP have not been well understood. Our study pinpointed several common misconceptions about ASPs.

Myth 1: ASPs are mainly for saving cost

A common misconception is that an ASP's main benefit is cost savings. In contrast, the companies we surveyed listed several other strategic benefits that they expected to get from an ASP. Table 1 lists the benefits; rather than have respondent choose from a list—which might tend to bias results—we asked them to write in their own responses.

For example, companies told us that they valued the rapid implementation ASPs can provide. According to 51 percent of survey respondents, it takes less than one month to get applications fully running after the sales cycle completes.

Myth 2: ASPs only benefit companies with little existing infrastructure

In reality, existing IT infrastructure is complementary with services that ASPs can provide. For example, the ASP can host customer relationship management applications,

Figure 1. Applications that companies are outsourcing to ASPs.

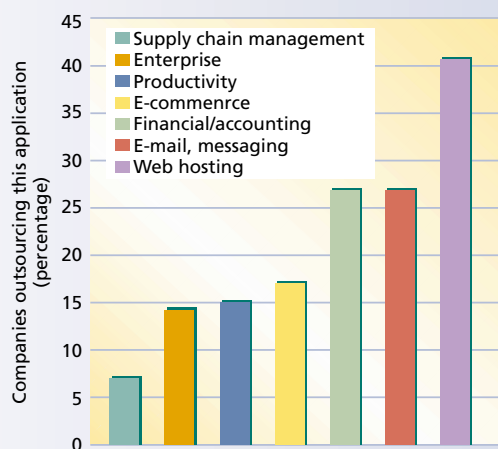


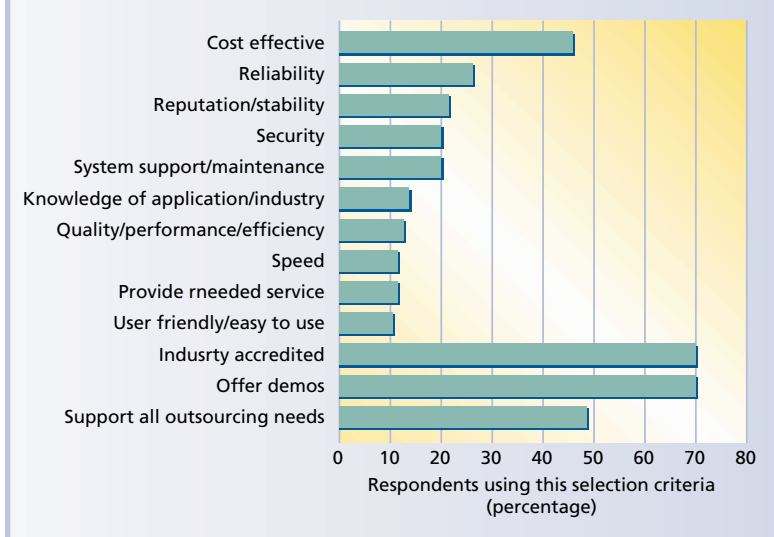
Table 1. Reasons companies gave for using ASPs.

Reasons for using an ASP	Respondents giving this reason (percentage)
Access to best technology	77
Improved IT support	73
Rapid implementation of IT	73
Access to top IT talent	71
Integration of information	71
Minimization of upgrade cycles	70
Increased system uptime	67
Best business processes	66
Low costs	64

but the company will reap benefits only if its internal processes are geared toward using the information from the CRM solution (Anitesh Barua and colleagues, "Making E-Business Pay: Eight Key Drivers for Operational Excellence," *IT Professional*, Nov.-Dec. 2000). Such a process calls for integrated information systems capabilities in an organization; such integration requires a good IT infrastructure.

Some confusion and the degree of dissent between ASP critics and advocates seem to be mirrored in discussions about the typical profile of companies who want to adopt ASPs. Are ASPs right for small or big companies? ASP critics point out that for big companies ASPs interfere with organizational processes. Advocates counter that the ASP

Figure 2. Criteria for selecting an ASP.



model offers a viable alternative to large companies in particular situations. For example, large companies can have divisions with little hardware and software infrastructure. In this case, ASPs offer a viable alternative to expensive installation of onsite servers and PCs. The applications can be hosted at the administrative center, and the various divisions can run applications through the Internet or a private network (Christa Anderson, "Supporting In-house and ASP server based computing—What's the difference?" *Windows Magazine*, 17 Jan. 2001).

Myth 3: ASPs don't have to provide interoperability

Many reasoned that ASPs were only for stand-alone applications managed over the Internet, so ASP companies didn't have to bother with providing interoperable ASP services. What happens, however, is that ASPs require standards such as XML to repackage and transfer information from the ASP server to the organization's database for decision making. In the absence of such interoperability, the users must invest substantially in integrating the information from ASP-hosted applications and other applications running within the organization. The burden of such integration could well render the ASP model unattractive.

Myth 4: Companies don't have to consider how ASPs deliver services

In the past, some companies assumed that using the Internet implied a certain stability to ASP operations. But the opposite is true: Internet dependence implies that ASP pricing is sensitive to volume changes and bandwidth prices. Companies must monitor systems to measure these effects. Moreover, ASP contracts must be sensitive to these

performance risks and incorporate clauses guaranteeing the availability of IT resources.

Myth 5: Only companies doing business over the Internet need ASPs

Even if most of its business has little to do with the Internet, many businesses could use Web-hosting solutions. Companies increasingly realize the benefits of initiatives such as collaborative commerce. As manufacturers discover the importance of keeping supply chain information flowing, (Mark Leon, "Pick Up the Process," *InfoWorld*, 24 Apr 2001) they will scramble to implement Web initiatives. Such work could benefit from the ASP model.

Also as customer service and CRM efforts become increasingly more visible within organizations (Gary Lemke, *Motive Momentum*, vol. 5, no. 3, 2001), the size of the pie for hosted applications will only increase.

CRITICAL FACTORS FOR ASP OUTSOURCING SUCCESS

The companies we surveyed pointed out several factors for ASP outsourcing success.

Recognize that ASP outsourcing isn't typically customized

In other types of outsourcing—such as offshore project development, software project outsourcing, and facilities management—the user organization works with the service provider to develop software requirements that are customized to its specific needs.

Unlike implementations for enterprise resource planning, ASP implementations don't take years to complete. The whole point of an ASP is to get you up and running quickly, but the downside is that ASPs don't customize implementations to user specifications. This situation calls for a clear process definition stage—before implementation—when you can seamlessly integrate ASP competencies into the organization's IT competencies.

Make ASPs guarantee performance

An ASP that offers off-the-shelf-application management requires far more dependence on the Internet infrastructure than in-house management. This dependence in turn implies that neither the client nor the ASP can control several factors, such as high traffic volume and network congestion on the network. The ASP's application response time, scalability, and security are all critical to ensure that it can deliver value to users. For this reason, it's imperative to write sound service level agreements.

SLAs commit the service provider to a set level of performance and availability, according to agreed-upon criteria. Typical criteria are data security and availability, application up time, and service reliability. If the service provider fails to meet these commitments, it should incur penalties. The important fact to understand is that because ASPs host the application, the software vendor cannot be held accountable for any snags in the system. A system of accountability ensuring that “the buck stops” with the ASP is thus essential.

Think carefully about selection criteria

Our survey reveals that, across the board, users don’t have a consensus about which factors are important in selecting an ASP. When queried about whether there is a common set of criteria used to evaluate an ASP, 75 percent answered no. Respondents listed a range of criteria they used to select an ASP, as shown in Figure 2. The survey asked, “Do you have a common set of criteria for evaluating and selecting application service providers? If yes, please list them.”

Recognize progressive ASPs

Progressive ASPs will make strategic changes to keep ahead of the ball game. If you’re shopping for an ASP, consider whether the one you’re evaluating

- invests in higher capabilities (the ASP’s expertise in the functional application area or the vertical industry segment that it caters to),
- recognizes the danger of overdependence on software vendors,
- has a proven track record,
- has customer support that gives clients feedback when an application does not function,
- strives for clear metrics and transparency in financial terms and SLAs, and
- establishes third-party agreement for performance monitoring.

Our study indicated that a significant number of respondents believed ASPs offer a fast-track way of implementing IT projects. However, 80 percent also favored internal implementation for core IT projects, which suggests that other factors still present a substantial barrier to ASP adoption. Nevertheless, companies are outsourcing some core applications—such as supply chain management and e-commerce—and several noncore applications. This outsourcing implies that companies perceive a significant benefit to ASP adoption.

The message for users is unambiguous: To succeed, understand how Internet outsourcing works for your company, benchmark against successful ASP adopters, and establish a common criterion for evaluating an ASP. ■

Anjana Susarla is a doctoral student in the Department of Management Science and Information Systems at the University of Texas at Austin. She is also a research associate at the Center for Research in Electronic Commerce at the University of Texas at Austin. Contact her at anjana@mail.utexas.edu.

Anitesh Barua is an associate professor in the Department of Management Science and Information Systems and an associate director of the Center for Research in Electronic Commerce at the University of Texas at Austin. Contact him at barua@mail.utexas.edu.

Andrew B. Whinston is the Hugh Roy Cullen Professor of Information Systems, Economics, Computer Science, and Library and Information Sciences at the University of Texas at Austin. He is also the director of the Center for Research in Electronic Commerce at the University of Texas at Austin. Contact him at abw@uts.cc.utexas.edu.