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To be(lieve) or not to be(lieve). That is the question. In this month's excellent column, Professors Cynthia K. Riemenschneider and Vicki McKinney explore what small business executives believe about ecommerce on the Web. They examine the advantages and disadvantages of Web-based commerce, the influence of others regarding the adoption of ecommerce, and the obstacles that present or hinder adoption. This column should be of interest to anyone developing a strategic plan for a small business.

Exploring Beliefs Regarding e-Commerce: What Do Small Business Executives Think?

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The Web has opened the door to new opportunity for many small businesses, yet other small businesses continue to debate the opportunity. Survival is tough for small businesses especially when the economy is suffering. In today's world, survival has dictated the Internet be part of the overall business strategy (Ware, 2002). In 2000, 3.4 million non-residential small business headquarters were operating online, in addition to 7.4 million small business branch offices (CIO, 2000). Yet, many small businesses hesitate to adopt Web-based ecommerce. With success stories and dot com failures abundant, what motivates a small business executive to invest in Web-based ecommerce? Who influences small business executives to pursue or reject the opportunities available through Web-based ecommerce?

An elicitation study of 27 small business executives who had not adopted Web-based ecommerce was conducted followed by a paper survey. The elicitation study was conducted over the telephone and consisted of a series of open-ended questions. The paper survey included the information gained from the elicitation study and was targeted to small businesses with between 20 and 500 employees. Of the 184 usable responses, 99 companies indicated they had already adopted Web-based ecommerce with 85 companies not having adopted Web-based ecommerce. The industries cited most frequently included banks/financial services, construction, health care,

manufacturing, printing/publishing, and metals.

We found adopting companies employed an average of 175 employees, while the average firm size for the non-adopters was 135 employees. Early adopters of Web-based ecommerce in small businesses tend to be firms employing more people, thus indicating the need of resources since larger businesses generally have more resources from a financial and workforce standpoint than do smaller businesses. The additional workforce brings additional knowledge into the firm that possibly represents the needed expertise for adopting Web-based ecommerce.

Advantages vs. Disadvantages of Web-based Ecommerce

In the elicitation study, we asked the executives what would be the advantages and disadvantages of utilizing Web-based ecommerce. These advantages and disadvantages represent the behavioral beliefs underlying the small business executive's attitude (Ajzen & Fishbein, 1980). Surprisingly, some of the 27 executives indicated there was nothing for their company to gain from utilizing Web-based ecommerce. One executive commented, "That's something we'll never do."

However, executives who realized the opportunities available from a Web-presence indicated four advantages: enhancing the distribution of information, improving information accessibility, improving com-

munication, and increasing the speed with which the company accomplished tasks. Several specific comments from the executives regarding the advantages were “communication with vendors could be enhanced,” Web-based ecommerce would allow them to “streamline information to customers,” and Web-based ecommerce could facilitate “building relationships with vendors.” These advantages reflect the fast pace of the small business environment and the need to disseminate information.

When discussing the disadvantages of Web-based ecommerce, again some of the executives indicated they did not know the disadvantages. This may reflect a limited exposure to the topic since one manager commented, “I haven’t looked into this,” but later added, “I could see us sending back and forth accounting data and production data.” The acknowledged disadvantages by the executives included the high costs associated with the set up and maintenance, the reduction of personal contact firms have with their customers, the lack of security regarding important information, and the possibility of competitors accessing the firm’s technical information. Among the specific comments were the following: that Web-based ecommerce could lend itself to “potential exposure to security problems” as well as offer “no personal contact with the client.” The lack of security associated with the Web was a predominate concern of the non-adopting executives.

The survey results indicated that small business executives agreed with the advantages identified for small businesses. They also agreed that Web-based ecommerce would involve high costs to set up and maintain the system. However, the executives did not feel Web-based ecommerce exposed the company’s technical data to the competition nor did it limit the personal contact a company had with their customers. The security concern regarding important information expressed during the elicitation was not a relevant concern of the executives surveyed.

Of interest is the fact that adopters and non-adopters of Web-based ecommerce differ on several beliefs. The adopters of Web-based ecommerce feel ecommerce has improved communication as well as the distribution and accessibility of information. The executives also indicated their

company’s business cycle was faster. Non-adopters indicated less confidence in the above benefits occurring.

Influence of Others

From the elicitation study, several groups—internal and external to the business—were identified as possibly influencing the executives’ intentions to adopt Web-based ecommerce. These groups included suppliers/vendors, customer/clients, IS group, other departments within the company, and executives. Based on the survey results, all of these groups were found to positively influence these small business executives. As expected, these groups have more influence over adopters of Web-based ecommerce than non-adopters.

Obstacles

Another source of influence on the executives’ behavior was their beliefs concerning the cost associated with Web-based ecommerce, security considerations, and resources needed to train their employees. Unlike large corporations, small businesses do not have large budgets with which to operate, so all the above were viewed as obstacles by the executives when considering whether or not to adopt Web-based ecommerce.

These perceived obstacles were stronger for the adopters of Web-based ecommerce. Thus one might speculate that the inhibitors of cost, security, and training continue to be issues the *adopters* must address regarding their ongoing use of Web-based ecommerce. Nambisan and Wang (1999) identified three categories of knowledge barriers that may inhibit companies from adopting Web technology. These include project-related knowledge barriers, application-related knowledge barriers and technology-related knowledge barriers. Examples of each of these barriers would change depending on the level of adoption. It should be noted that some barriers are present only at certain levels, while other barriers are present at all levels and increase in intensity as a company moves through the levels of adoption. Security risk would be an example of a barrier that may be present at all levels but increases in intensity at the second and third levels. It is possible that the adopters in this study are progressing through the different levels of

adoption and the intensity of security, training, and cost is increasing as they progress to higher levels.

In regards to their competition, the executives were asked whether using Web-based ecommerce would help them catch up with the competition, push them ahead of the competition, or just help them to keep pace with the competition. As seen in the table below, the adopters and non-adopters share similar perceptions of their competitive position. The majority of the executives believe that Web-based ecommerce allows a small business to keep pace or push ahead of the competition. This belief may reflect the Web’s ability to equalize the competitive arena because the Internet hides the size of the company.

Perceived Relation to Competition	Adopters	Non-adopters
Catch up	3%	4%
Push ahead	44%	42%
Keep Pace	38%	31%
No response	15%	23%

To Adopt or Not to Adopt?

Looking ahead, non-adopting executives were asked how likely their firm would be to use Web-based ecommerce in the near future. Of the 85 non-adopters, 57% agreed that their firm would use Web-based ecommerce in the future, while 42% of the executives indicate no plans for using Web-based ecommerce. Of these same executives, 40% were certain their organization did have plans for Web-based ecommerce in the future, while 44% were certain their organization did *not* have plans for adopting ecommerce. So, even though the non-adopters were planning to use Web-based ecommerce in the future, many of these small businesses did not have plans in place for migrating to ecommerce.

The 99 adopting executives were polled to see if they intended to increase their usage of Web-based ecommerce. An overwhelming majority (86%) of the executives agreed that their company would increase their use of ecommerce. When asked if they intended to completely switch over to Web-based ecommerce, only 24% indicated plans to switch to an ecommerce-

only business format. The majority (49%) of the respondents indicated plans to continue with a predominately traditional business format. So while the adopters indicated strongly that they would increase their use of Web-based ecommerce, small business executives are not intending to migrate towards being totally dependent on Web-based ecommerce.

Conclusions

The decision to adopt or not adopt Web-based ecommerce is a major strategic decision for small businesses. The barriers perceived by small business executives considering adopting Web-based ecommerce are not unlike the obstacles perceived by international ecommerce experts (Hammond, 2001). The common awareness and addressing of ecommerce deterrents as well as technological advances have non-adopters planning to incorporate Web-based ecommerce in their company's strategic plan, while small businesses already

use ecommerce plan to increase their Web-based business. By incorporating ecommerce into their overall business plan, companies expand their business horizons. Not only do small businesses have access to new resources via the Internet, but new markets have access to small businesses.

For more details regarding this study, see the *Journal of Computer Information Systems*, Winter 2001-2002, 42(2), pp. 101-107.

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