DETERMINANTS FOR SMALL BUSINESS WEBSITE STRUCTURES: AN EXPLORATORY STUDY

Tim Klaus
Texas A&M University – Corpus Christi
6300 Ocean Dr., Unit 5808
Corpus Christi, TX 78412
Tim.Klaus@tamucc.edu
(361) 825-2379

Chuleeporn Changchit
Texas A&M University – Corpus Christi
6300 Ocean Dr., Unit 5808
Corpus Christi, TX 78412
Chuleeporn.Changchit@tamucc.edu
(361) 825-5832

ABSTRACT

This study aims at exploring the factors related to the implementation of E-commerce websites by small business owners. Many small businesses consider website development crucial to promotion and advertising, but hesitate to adopt a full-fledged E-commerce website due to a variety of factors including cost, knowledge, support issues, and lack of customer use. Through a survey to small businesses, this study examines E-commerce websites as it pertains to small businesses. For companies with only a web presence, as well as for companies with an E-commerce website, the top two reasons for an E-commerce website identified by respondents are to increase the profit of the company and to increase the market size.

KEYWORDS

Electronic Commerce, E-Commerce, Small Business, Website Presence

INTRODUCTION

Electronic commerce (E-commerce) is becoming increasingly more important to businesses. E-commerce sales continue to grow at a rapid rate, with the U.S. Census Bureau reporting that in 2011, E-commerce sales rose to $194 billion, a 16% increase from 2010 (Yu, 2012). E-commerce sales in the United States are projected to be $270 billion by 2015 (The Economist, 2012). There has been much publicity concerning E-commerce largely due to the perception that it affects the way business is done by bricks and mortar companies. E-commerce can change the way an organization accomplishes its processes. It can abolish time and distance barriers; accelerate business processes; improve communications with customers, suppliers and employees and create new promotional opportunities that might not have been possible before E-commerce.

Although Internet usage and on-line marketing are not new, they continue to grow as social media and search engine companies accumulate more information about customers in order to create more targeted advertisements. How a business uses the Internet to entice and retain its customers are major concerns. These concerns are intrinsically related to a consumer's level of trust when providing personal and financial data to a site. Many consumers' concerns are based on the approach taken by some e-vendors to use public Internet access when interacting with

customers (Rose et al. 1999). Potential customers may feel that this means of access lacks reliability (Rose et al. 1999), which inevitably induces a loss of control and confidence, generating an obstacle to the adoption of E-commerce (Pavlou & Fygenson, 2006).

Various terms are used to describe electronic business including E-business, E-commerce, E-infrastructure, and even the "new economy." Many firms around the world are using the Internet to facilitate an increasing portion of their businesses. Some of the activities now performed electronically include placing and filling orders, tracking orders, electronic funds transfers (EFT) and banking services, and electronic mail (e-mail). Some companies are using this medium for employee training and conferencing with branch offices all over the world. With Internet capabilities, E-commerce can be beneficial to companies by eliminating time differences and distances, gaining information parity, improving supply chain management, and equalizing worldwide marketing for smaller businesses. It is a powerful global tool that increases access to worldwide markets and aides businesses in building up name recognition that otherwise would be impossible using traditional means of marketing (Levenburg, Schwarz, & Motwani, 2005).

The marketing of E-commerce websites continues to grow with the level of E-commerce sales. This phenomenon has made E-commerce websites one of the most important marketing channels for many companies, regardless of their size. As such, online marketing has become, and will continue to develop into, a full and complete business model for some companies. Internet firms such as Amazon.com, eBay, Yahoo!, and Zappos have already proven this type of business model can be very successful. E-commerce marketers strive to have carefully placed ads on websites viewed by their target market. By better understanding their customers and providing a suitable web experience, this business model can be more successfully accomplished. Research has shown that marketers can persuade a potential customers' decision making process when a favorable web-experience is offered (Constantinides, 2004).

Small businesses are an important part of E-commerce. Small businesses provide a significant level of economic growth and are an important part of the economy. The United States Small Business Administration reports that small businesses have generated 65% of new jobs over the past 17 years (SBA, 2011). However, their work processes are often quite different than large companies and their methods of decision-making can vary greatly (Harris, Aebischer, and Klaus, 2007).

This study focuses on small businesses and seeks to understand the reasons and decision-making processes that small businesses go through when considering investing in an E-Commerce website. The impact of E-commerce on small businesses, as well as the development of and reasons for E-commerce, are explored. This includes the expected benefits, positive results obtained, negative aspects, how these firms plan to improve, and the critical factors for the company's adoption decision of E-Commerce website.

LITERATURE REVIEW

Although definitions of small business tend to range from under 15 employees to under 500 employees, we are defining it in this paper as under 50 employees for several reasons: 1) It is consistent with how some U.S. government statistics break down small versus large firms

(Gibson, 2010); 2) it is the definition the European Union uses for a small business (European Commission, 2005); and 3) since we are studying E-commerce decision-making, we think that E-commerce-related decision making by companies employing several hundred employees will be very different from companies employing under 50 and so we do not want to combine them.

Small businesses, as diverse as manufacturing companies and pawn shops, sell items on the Internet, sometimes selling more than their bricks-and-mortar locations (Black, 2005). Researchers identify that small businesses move towards the online experience not with the full intention of conducting the electronic commerce activity, but with the main purpose to build a website in search of an alternative means to advertise and promote their business (Grandon & Pearson, 2004). Training, security, niche market offerings, vision, business type, and government support were all found to have a positive influence on E-commerce adoption (Chiliya, Chikandiwa, and Afolabi, 2011).

Lip-Sam and Hock-Eam (2011) identified external support, such as IT vendors and consultants, a significant factor influencing E-commerce adoption by small businesses. By contrast, large corporations with their historical and traditional ways of doing business, such as Motorola, Sears, and IBM, now consider E-commerce to play a major role in their business strategy (Adler, 2002). These types of businesses consider E-commerce an effective means of interacting with their customers, thereby allowing them to compete globally against other large companies (Kartiwi & MacGregor, 2007). The barriers that limit small businesses from truly taking advantage of E-commerce lie in the managerial and financial resources required, along with the low level of E-commerce expertise (Kartiwi & MacGregor, 2007).

In fact, with just the use of the Internet, small businesses have begun to see the true benefits of being connected; small businesses that make use of the Internet have grown 46% quicker than other businesses not using this tool (Khiang & Chye, 2002; Scupola, 2003). One of the reasons for this is that the Internet can be a "great equalizer" – small businesses with minimal startup costs can now sometimes compete effectively against large, well-established companies (The Small Business Authority, 2012). Sutanonpaiboon and Pearson (2006) conducted research in Thailand showing that both adopters and non-adopters of E-commerce perceived its strategic importance based on its ability to increase the availability of their products or services to customers, generate new business opportunities, reach new customers, and improve customer transaction completion time.

Researchers suggest that a high level of trust can stimulate and meet consumers' expectations in transactions by eliminating the uncertainties and the perceived risks (McKnight & Chervany, 2001). The uncertainty and risk barriers can be broken as long as businesses, in the promotion of a stronger E-commerce linkage with customers, increase the level of trust. In order to do so, E-commerce must take into consideration a customer's online experience; by simply developing web sites that are useful, secure, and believable in relation to privacy (Chen & Barnes, 2007). Today, websites must make use of proper techniques or useful content in order to, not just promote their products or services, but to persuade consumers to feel that they are taken care of and therefore reduce their concerns; higher perceived security and privacy are strongly related with the promise of safeguarding personal information (Chen and Barnes 2007). If a customer has accepted a compatible innovation, such as home shopping or banking by telephone, then

adoption of E-commerce is more likely to occur (Eastin, 2002). Kania (2001) indicates that in many cases a customer's familiarity with a certain business or brand can generate a higher level of trust, unless the person already has a negative perception of a particular brand.

Information and services available on the Internet are increasing. Information includes, but is not limited to, real time stock quotes, news headlines, sports scores, weather forecasts, entertainment information, government information, travel, and auctions (Changchit and Vokurka, 2004). User-friendliness and near universal availability are the characteristics that make the Internet such a potent medium. This, in turn, has made the Internet a medium of E-commerce.

Customers who have access to computers can now research products easily and in a fraction of the time that was required in the past. Further, ordinary customers, not just the technologically savvy ones, are making on-line purchases because of the ease of using the Internet (Grewal et al., 2003). However, a considerable gap exists between the practice of Internet-based marketing and sound, theory-based insights and principles for guiding that practice.

Many companies have rapidly embraced Internet technology. Business-to-consumer (B2C) E-commerce has also grown phenomenally. Consumers have rapidly adopted the Internet for a variety of purposes including information search, paying bills, banking and online shopping. The global reach of the Internet has made it an important marketing and trading medium for many enterprises. From a customer's stand point, B2C E-commerce is the online relationship defined by the exchange between consumers and vendors (Pavlou & Fygenson, 2006). The increase in B2C commerce has made several firms search for new ways to understand online shopping behavior in order to attract and retain customers. This relationship consists of more than a mere marketing campaign from vendors to users (Koufaris, 2002), instead it is a relationship that requires the full understanding of the customer's needs as IT users.

RESEARCH METHODOLOGY

The primary objectives of this research are to (1) study small businesses that have implemented E-commerce websites to determine the critical factors that led them to the adoption and (2) provide guidance to firms that are considering future implementation of E-commerce websites, by helping them make more informed decisions on website investment. Survey questions were designed to determine the importance of various factors concerning website characteristics and reasons for website adoption. The survey was created as a web form.

The online survey was setup in a manner to give different questions to three groups of small business respondents. The three groups are: 1) a firm with an E-commerce website which allows for customers to purchase through the website; 2) a firm with a web presence but not permitting customers to order on-line; and 3) a firm with no current website. Based on how the respondent answered a question about the current web presence of their company, the survey provided the appropriate questions. Respondents that indicated that their company had no current website had the least amount of questions to answer, since details could not be solicited about the website. The web presence and E-commerce groups of respondents had more

questions to answer as there were questions asking about the website structure, reasons for the website, methods of promoting the website, and other issues regarding websites.

A list was obtained which had contact information for one executive within each of the 15,000 companies. Most of the companies on the list were small businesses. An email was sent to each of the 15,000 email addresses introducing the study and asking if the potential respondent would respond to the short survey and included a link to the web form. A second email was sent to the same group a week later as a reminder to complete the survey. Of the 15,000 email addresses, approximately 1,300 were returned as non-valid email addresses. There were a total of 281 responses from the data collection, but since 23 responses did not complete the survey fully, only 258 were considered valid responses. Thus, the response rate of 258 valid responses out of 13,700 valid email addresses is approximately 2%. From the 258 valid responses, 195 subjects indicated they are a small business (less than 50 employees) and thus only these 195 responses were used for the data analysis.

DATA ANALYSIS AND DISCUSSION

As mentioned in the Research Methodology section, the 195 respondents from small businesses were divided into three groups: 1) E-commerce website which allows website ordering; 2) web presence but not selling online; and 3) no current website. These groups were independently analyzed.

Group 1: E-Commerce Website

Fifty-nine (59) of the 195 small business respondents indicated that they have a website that allows customers to order online. All of these respondents answered "Yes" to the question "In your opinion, was it a good decision to implement the company's website?" Regarding the positive aspects of the ecommerce site, increasing customer satisfaction, increasing market size, improving efficiency, and improving effectiveness were all rated high. The only potentially positive aspect rated as neutral (5.20) was that it did not necessarily increase the level of employee satisfaction. Thus, it makes sense that all the respondents indicated that it was a good decision to implement the website.
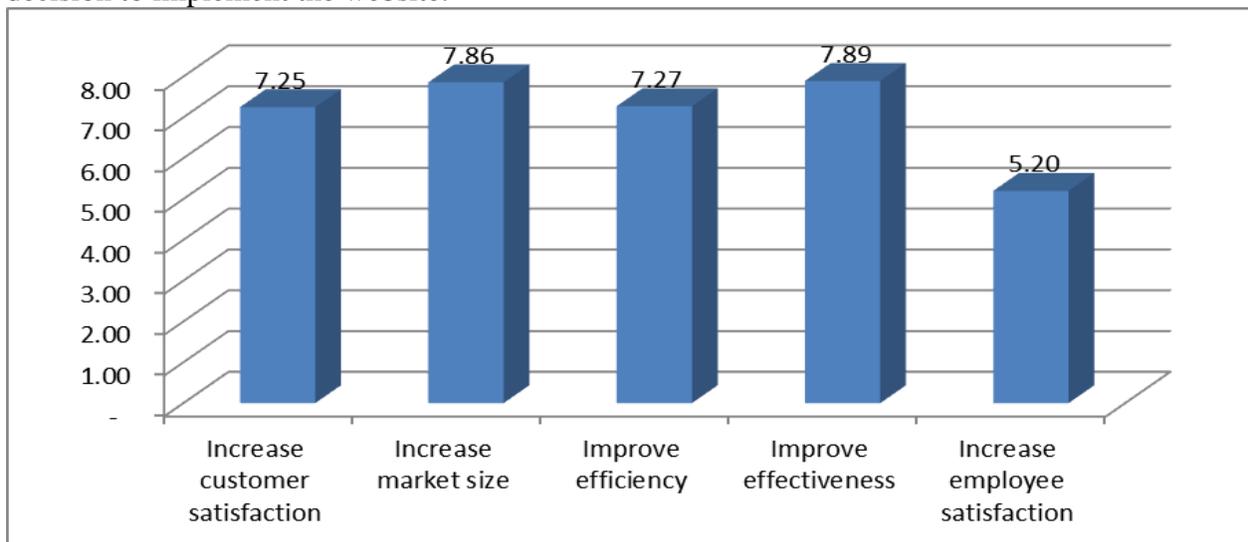
Figure 1: Positive Aspects of the Ecommerce Website

In regards to Figure 2, all the responses of potentially negative aspects of an E-commerce website were rated very low, with the highest rated at 1.22. As this was on a scale from 0 (Not at all) to 10 (Extensively), this indicates that these issues tend to only be minimally present with the E-commerce website. Thus, potential negative issues in implementing an E-commerce website, such as "Lack of top management support" or "Costs are greater than benefits" tend not to be present for these small businesses.
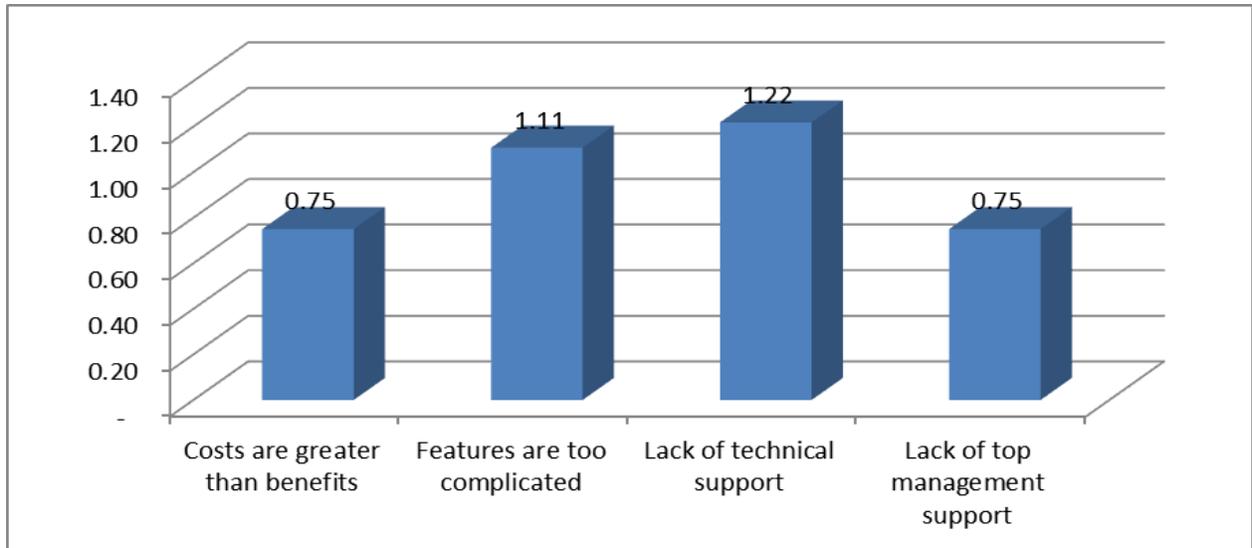

Figure 2: Negative Aspects of the Ecommerce site

Another item asked to this group is: "Please rate the importance of the following reasons for having a website." Their responses are shown in Figure 3 below. For small businesses, the lowest rated reason for an E-commerce website was to do it just because others were doing it.
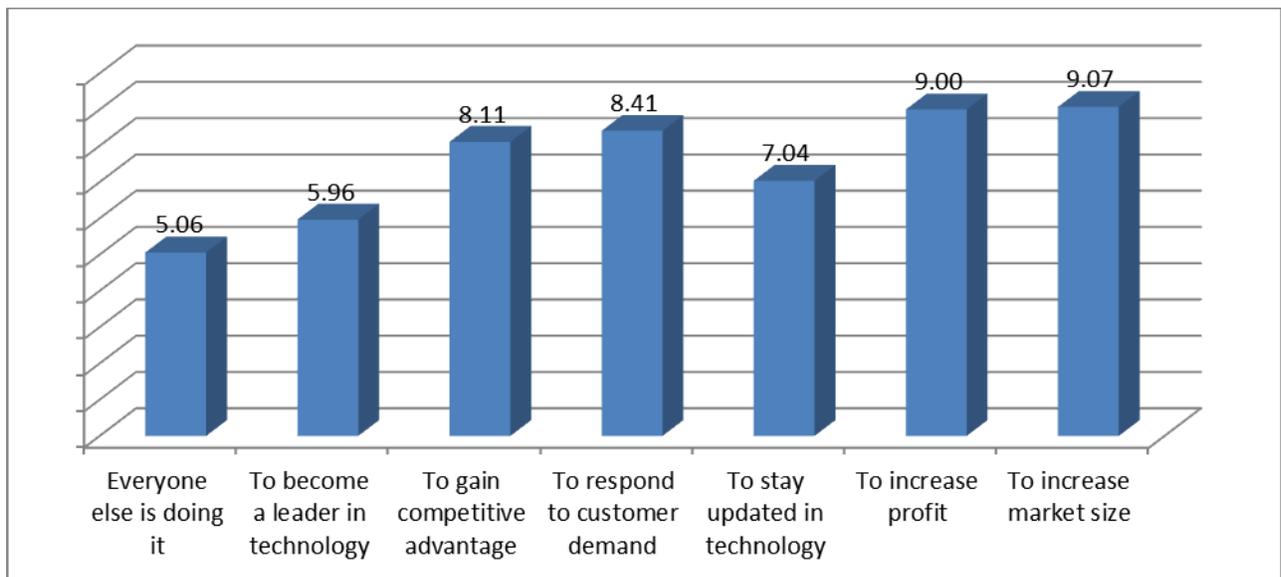

Figure 3: Reasons for having an Ecommerce site

On the other hand, the major driving forces for the E-commerce website were that it increases market size (9.07), increases profit (9.00), and to better respond to customer demand (8.41). This demonstrates that small business owners were primarily creating E-commerce websites due to the business needs.

Group 2: Web Presence Only (No selling through website)

One hundred and thirty one (131) subjects responded on the questionnaire that they have a website, but do not allow customers to place an order through the website. Some of these companies were service organizations. In fact, 58 of these respondents stated that the company did not have a physical store before having the website.

The first area examined for this group is: "Why does your company not allow customers to order from the website?" The responses are shown in the Table 1 below. The most important reason was because the respondents thought that the industry was not suitable for selling things through a website. This makes sense as many businesses that provide services would only be able to provide the service onsite rather than serving the customer through a website. The second highest rated reason was because of a lack of technical support, suggesting that the business may be too small to justify hiring someone to take care of the technical aspects of maintaining a website. As many E-commerce hosting sites provide technical support to their business customers, this suggests that small business owners may not understand the quality of support they may be able to obtain from some of the E-commerce hosting sites.

Table 1: Reasons for not having an E-commerce website

Reasons why the company does not allow customers to order from the website	Frequency
The company is in an industry which typically does not permit customers to order online	55
Lack of technical support	23
The cost of implementing it is too high	18
Lack of personnel support	16
The target customers do not possess knowledge about ordering from the website	8
Lack of top management support	2

We also asked this group: "Are there plans at your company for allowing customers to order from the website in the future?" Sixty-four (64) subjects of the 131 respondents in this group answered "No" to this question. As explained in the previous paragraph, this may be due to the industry of the company that is not conducive to online ordering.

The second area examined for this group is the importance of various factors in convincing the company to have an E-commerce website: "On a scale of 1 to 10, please rate how important you think each of the following factors would be if you are trying to convince your company to implement an E-commerce website". The responses are shown in Figure 5 below. It is

interesting to note that the top two important factors, increase profit (7.43) and increase market size (7.31), are the same top two factors that the respondents that had an E-commerce website identified. In fact, this whole chart is very similar to Figure 3, even though the group 2 respondents did not have an E-commerce website.
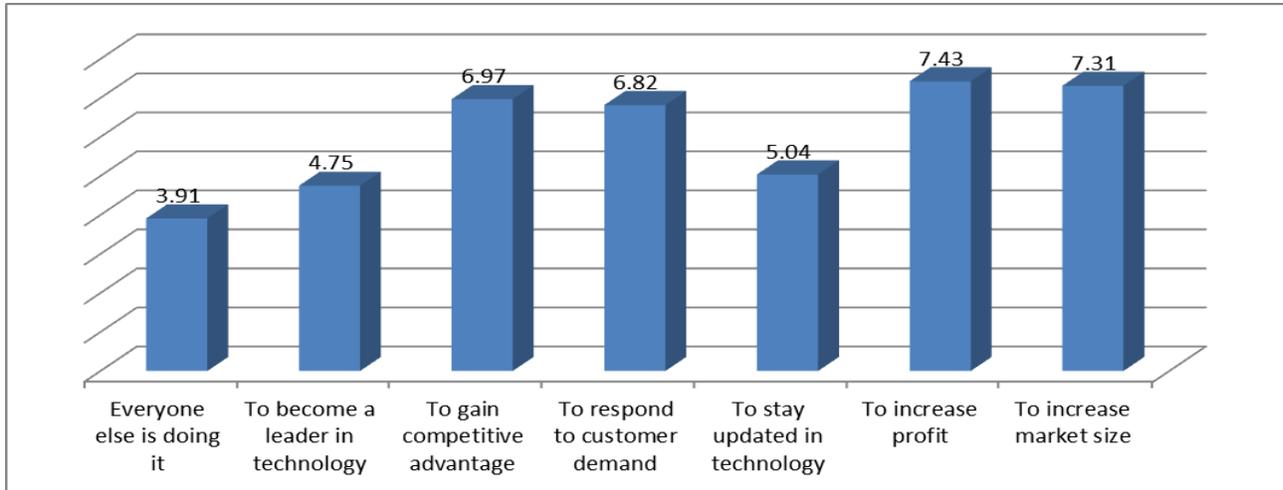

Figure 5: Factors for implementing an E-commerce Website

Group 3: No Website

Only five (5) respondents out of the 195 responses from small businesses indicated that they currently do not have a website. All five of these respondents stated that they plan to have a website in the near future. Although this study does not focus on companies that do not currently have a website, the following question was asked to respondents without a website: "On a scale of 1 to 10, how important do you think each of the following factors would be if you are trying to convince your company to implement an E-commerce website?" Their responses are shown in Figure 6 below. This chart displays quite different responses for this group, than similar charts for groups 1 and 2, shown in Figures 3 and 5. This may be due to random variance in this small group of five respondents. However, it is interesting to note that this group selected "To become a leader in technology" and "To stay updated in technology" as the top reasons for convincing their respective companies to have an E-commerce website rather than to increase profit or some other reason. Perhaps this group believes that there is value in their industries of being a technology leader and having more up-to-date technology than others in their industries.
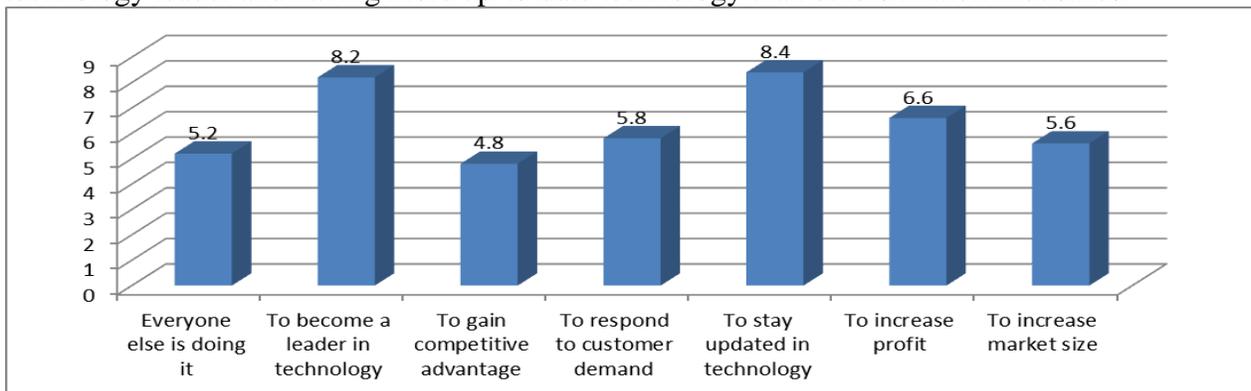
Figure 6: Reasons for creating an E-commerce Website

CONCLUSION

The companies examined in this study with an E-commerce website have identified many different benefits to their organizations. E-commerce can change the way an organization does business. It can abolish time and distance barriers; accelerate business processes; improve communications with customers, suppliers and employees and create new promotional opportunities that might not have been possible before E-commerce. This study has investigated factors underlying E-commerce adoption by small businesses. The research findings include website considerations, benefits, challenges, and suggested improvements.

As mentioned in the introduction, there continues to be a rapid growth of E-commerce. Some small businesses have been content with just a web presence, but others have seen the value in E-commerce to increase the profit of the company and to increase the market size. Some customers view the availability of E-commerce as a sign of technological awareness, as long as the site is well-designed and there is value not only in increasing sales through a website, but also in changing customer perceptions and building brand recognition.

This study contributes to the E-commerce literature by highlighting motivations of small business owners as they consider implementing E-commerce solutions. Increasing customer satisfaction and market size, as well as improving efficiency and effectiveness, were rated high as reasons for small businesses to have a website. The study also suggests that factors such as lack of management support and cost being greater than benefits were not detrimental to the decision to implement an E-commerce solution. Additional factors motivating small businesses to use E-commerce websites include the ability to better respond to customer demand and increased profits as a result of E-commerce.

While some research exists on small and medium enterprises using E-commerce in developing countries, further research is needed concerning the motivational factors influencing small businesses to install an E-commerce solution. In addition, more studies on the use of E-commerce in a variety of small business industries would facilitate the understanding of the reasons for which small businesses adopt E-commerce solutions. It would also be interesting to conduct a longitudinal study on the changing perceptions small businesses owners have of E-commerce from the idea stage through the post-implementation stages.

REFERENCES

Available upon request