E-business and SMEs Competitive Advantage

Farida F. Tallud

University of Saint Louis
farida.tallud@yahoo.com

Abstract: Nowadays, ‘e’ is gaining momentum and most of the things if not everything is getting digitally enabled (Srikanth, V. & Dhanapal, R. 2011) thus, it becomes very important to determine the competitive advantage of firms using e-business. The aim of adopting e-business is to improve the firm’s competing ability, since businesses are being competition focus (Xiaoming M., 2010). Increasing global competition has led businesses to consider e-business strategies. E-business technologies present unique opportunities and challenges for businesses, and Small & Medium Enterprises (SMEs) are no exception (Elragal, A. and Abouseif, H., 2011).

The study focuses on how SMEs gained competitive advantage through e-business. The study covers activities of SMEs concerning e-business such as purchasing inventories, supplies machines and equipments through the internet and communicating with suppliers which allows them to create cost advantage and product differentiation that will increase their sales and in turn their profits. In this research, profitability, quality and price of products/services offered will be used for measuring SMEs competitiveness. This study will also correlate the business-related characteristics of SMEs with their competitive advantage. Descriptive correlational research design was used in the study. Questionnaire was used to collect data from the SMEs in Region 2.

The study revealed that SMEs who are into e-business are competitive in terms of price, product quality, and profitability. The type of business is significantly and positively correlated with SMEs competitive advantage in terms of product. Further analysis using t-test reveals that those SMEs that are into trading are most likely gain competitive advantage in terms of product than those in the service sector. Nonetheless, business existence, business classification, and internet experience are not significantly correlated with SMEs competitive advantage in terms of price, product and profitability. SMEs, therefore, must be constantly and fully alive on new ideas, new practices and new opportunities in order to create a competitive advantage.

Key Words: E-business; SMEs competitive advantage; Product; Price; Profitability

1. Background of the Study

Getting online is much cheaper than most businesses think and it is opening a whole new world of opportunity for attracting customers (Titman, 2012). The use of the Internet is increasing worldwide (Santana, L. 2010), therefore, it is imperative to determine the competitive advantage of SMEs who are engaged in e-business in terms of their profitability, quality, and price of products offered. The Internet, as the most significant technological phenomenon today, provides competitive opportunities to firms (Othman, et.al, 2010), businesses of all sizes have the opportunity to build competitive advantage (Paulo et.al.). The firm’s competitive advantage is not only affected by the environment, but also depends on competitive strategy it involved. The competition strategy is the strategic choice that can influence firm’s performance (Yan, S., 2010).

Small firms should use innovation strategy to obtain competitive advantage in rapidly changing environment. The adoption of new technologies,
quality products and other organizational strategy related factors are also revealed to have important influence on superior performance of firms (Tang et al., 2007). Business firms should rely heavily on developing competitive strategy in order to have competitive advantage in the industry (Strauss, E., and Raymond, 2003). E-business has become an important consideration because businesses can get items quickly without bargaining on price or quality and can order amazing variety of products (Yomnak, 2007). It is the conduct of business on the Internet, not only buying and selling but also servicing customers and collaborating with business partners. Many companies are rethinking their businesses in terms of the Internet and its new culture and capabilities. Companies are using the Web to buy parts and supplies from other companies, to collaborate on sales promotions, and to do joint research. Exploiting the convenience, availability, and world-wide reach of the Internet (Rouse, M., 2005).

Competitive advantage is an outstanding characteristic that makes a firm more desirable to consumers than competitors which include superior quality, lower price and better customer service (Clark, W., 2006). This can be measured by their sales volume, business growth and sustainable growth. The study focuses on how SMEs gained competitive advantage through e-business. The study focused on the competitive advantage of SMEs in Region 2 through e-business. Specifically, it aims to answer the following questions: Do SMEs gain competitive advantage in terms of price, product quality and profitability? Do business-related characteristics of SMEs relate with their competitive advantage?

The study is conducted to increase SMEs awareness on how to gain competitive advantages through e-business. As growing industries, this will help them to enhance their business potentials and capabilities in order to compete in the global market. This will be an avenue for them to conceptualize effective e-business strategies to capture greater percentage of the market. E-business technologies present unique opportunities and challenges for Small & Medium Enterprises and this will lead them in realizing their organizational mission and objectives.

This can be a basis of reviewing their existing business strategies to achieve sustained competitive advantage by continually adapting to changes in the external trends and events. This will increase their awareness on the relevance of e-business operations and give them insights on the proper application to their business that will highlight their future development.

2. METHODOLOGY

Descriptive correlational research design was used in the study. Questionnaire was used to collect data from the SMEs in Region 2. A panel of experts examined the initial questionnaire for content validity. To test its reliability, pilot testing was done. Twenty SME owners/managers were randomly chosen as respondents prior to data collection. The data gathered was treated using the reliability analysis test (Cronbach Alpa) with a result of 0.932. Omissions and modifications were made to some of the items on the questionnaire based on the feedback of the samples. Most of the items in the final version of the questionnaire were measured on a 5-point Likert-scale ranging from 1 (strongly disagree) to 5 (strongly agree).

Participants were 129 SMEs in Region 2 who browsed, reviewed and purchased products or services online. SMEs that placed orders and paid their orders online, through banks and cash on delivery were considered as respondents. The respondents of the study were the owners/managers of SMEs who are into service and trading business. They were chosen based on the list of registered SMEs from 2007 – 2011 provided by the DTI. The SME respondents should have an asset size of P300,000 and above.

A purposive sampling procedure was used in the study. Questionnaires were personally distributed by the researcher in the three major component cities in the region namely Tuguegarao, Cauayan and Santiago. For the data analysis, mean and median was used to determine the competitive advantage of SMEs in terms of price, quality and profitability. T-test and Pearson's correlation analysis were utilized in determining the relationship of the SMEs business characteristics and their competitive advantage.

3. RESULTS AND DISCUSSION

Table 1. Competitive Advantage of SMEs through E-business

<table>
<thead>
<tr>
<th>Area</th>
<th>Mean</th>
<th>Median</th>
<th>Interpretation</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Presented at the DLSU Research Congress 2014
De La Salle University, Manila, Philippines
March 6-8, 2014
The table shows that SMEs who are into e-business are competitive in terms of price, product quality, and profitability. This means that SMEs can able to offer their products at lower price and offer more brands and bestelling products which yield an increase in their sales and profit.

The study revealed that in terms of price, SMEs were competitive because they consistently offer their products/services at a lower price. They were able to position their products/services at a different price ranges in response to their competitors and able to manage price changes/fluctuations. In addition, they were able to give special discounts to their customers and incorporate added value to their products/services. Through E-business, it allows them to save time and cost for delivery and transportation. These findings are affirmed in the study of (Afzal, H., 2007) that e-business leads to lower search costs and will lead to seek more suppliers to keep prices down. In addition, (Farhoomand and Lovelock, 2001), with the use of email and online ordering systems, it is easier, faster and cheaper for businesses to communicate with their suppliers situated anywhere in the world. This allows them to reduce their prices and pass the savings on to their customers. SMEs have to focus on low prices to gain the competitive advantage (Evans, P., and Wurster, T. 2000). Many companies are using e-business with the aim of cutting marketing costs, thus, reducing price of their products and services in order to stay ahead in highly competitive markets (Yörük, D., et.al. 2011).

Through e-business, carrying costs will decrease: thus, improve cash flow, and more dependable supplier schedules (Afzal, H., 2007). This would result in reduced costs including cost of goods, storage space, service, and insurance, negotiate better payment terms, take advantage of discounts, enter more long term contracts, improve the analysis of pricing changes (Ferguson, N., 2010). It makes each transaction more cost effective than a brick-and-mortar business (Afzal, H. 2007). Likewise, E-business transaction has less burden of cost on the business, making each transaction more cost effective than a brick-and-mortar business, which leads to more cost effective product and service delivery in comparison with traditional shopping (Lorette, K., 2013). Anent to this, (Chang, J., 2007) found that the Internet makes it easier for SMEs to compare prices as compared to visiting different physical storefronts, which is costly and time consuming. They are able to find lower prices using the Internet due to the wider reach of information and are able to obtain lower prices when buying online. They are able to buy direct from a manufacturer’s or wholesaler’s website using the Internet. As more manufacturers and wholesalers cut off retail intermediaries to sell direct to consumers via the Internet, costs are lowered and hence they are able to offer lower prices. In the study of (Anand, P., 1998) he emphasized that e-business allows business to have accurate pricing, delivery and product information to enrich the customer’s buying experience. Moreover, firms are able to access a larger number of suppliers worldwide, thereby enjoying better prices, better quality and better delivery (Croom and Johnson, 2003).

Effective order handling and sales gained from e-business helps SMEs to save a lot of time and human effort compared to making orders through telephone. It allows the multiple concurrences of orders made via internet (Mustafa, Z. and Mohd Khairiruddin, H., 2004). E-Business adoption will change the productivity level of SMEs and able to compete globally. It can improved business processes and reduced transaction costs (Middleton, C. & Hazra, U. 2001).

As reflected in the study, SMEs are competitive in terms of product because they were able to satisfy the expectations of their customers by offering a wider range of goods/services including new trends/fashion, better brands or models/services that suits the needs and desires of their customers. They were able to offer best-selling items/services, better quality of products/services, and keep inventory in stock. The findings are supported by the findings of (SEO Advantage, Inc. 2013) that through e-business, they were able to offer more brands, hard-to-find brands, and imported brands than most of the other stores. In addition, (Ferguson, N., 2010) found that E-business can maximize product availability, despite shifting demand, by enabling faster analysis and recognition of demand trends. Firms can access to more information to help them make decisions in providing better and broader range of products and services to customers. This will be more cost effective for them to track and analyze the buying patterns of their customers, and in turn tailor the business to

<table>
<thead>
<tr>
<th>Price</th>
<th>27.008</th>
<th>18.0</th>
<th>Competitive</th>
</tr>
</thead>
<tbody>
<tr>
<td>Product</td>
<td>26.85</td>
<td>18.0</td>
<td>Competitive</td>
</tr>
<tr>
<td>Quality</td>
<td>35.28</td>
<td>24</td>
<td>Competitive</td>
</tr>
</tbody>
</table>

Presented at the DLSU Research Congress 2014
De La Salle University, Manila, Philippines
March 6-8, 2014
better suit their needs and expectations (Small Biz Connect, 2012).

As indicated in the study of (Sharma and Krishnan 2002), Internet store can provide a larger inventory of products and sizes, and can virtually guarantee the availability of any type and size of merchandise, quality product/customer service, and better product selection. SMEs have more choices in suppliers and reduce purchasing of unauthorized products from unqualified suppliers which benefit them in finding and retaining customers, by delivering better quality of products (Anand, P., 1998). E-business improved efficiency and productivity, acquisition of new products and improved customer service (Henbury, C., 2001).

The result of the study also disclosed that SMEs are competitive in term of profitability because they were able to sell greater volume of products/services, which leads in achieving their target return on investment and ultimately maximize their profits. They were able to maintain and improve market share, therefore, upgrade their facilities and equipment, and improve the compensation and benefits of their employees. The study also revealed that they were able to meet and prevent competition and adopt new promotional strategies to attract more customers. The studies of (Dubelaar et al., 2005; Scupola, 2009; Lunati, M., et. al. 2000) pointed out that the main purpose of using the web is to increase sales, profits (Vlachos et al. 2006) and decrease costs in negotiating a purchase-and-sale transaction and can increase profits (Koon Ang S., & Husain, W., 2012). Online channels can increase in sales due to increasing penetration of the Internet worldwide (Schubert, P. et. al., 2011). Moreover, (Christensen and Methlie 2003) found that e-business had a significant positive impact on sales, profits, and return on investments. The results showed that companies reported increase in sales, profits, and return on investment. These findings indicate that the major benefits of e-business are increased sales, business efficiency, competitive advantage, increased automation of processes and retained and increased customer base (Kuzic, J., et. al., 2001).

An increase in profit is the most desired outcome among SMEs to conduct e-business (Koon Ang S., & Husain, W. 2012). Most businesses use the web because it provides the opportunity for increased profits (through higher sales or lower costs) and thus enhanced sustainability of the firm (Barkley, D. et. al., 2005). Although many studies confirmed that e-business solutions have a positive impact on various business processes, e-business benefits do not necessarily lead to the increased profits and/or sales, thus the association of e-business value with the competitive advantage should be made with caution (Pilinkienie, V., Kurschus, R., & Auskalnyte, G. (2013).

Internet based technologies, according to (Anand, P., 1998) can expand markets to increase revenues and strengthen customer relationships. This leads to a larger volume of ordering, creating a higher revenue stream at a marginally low cost per transaction. Web-based purchasing systems have the unique ability to reduce waste in the purchasing process, and thereby improving customers’ overall profitability and competitiveness. Firms were able to access a wider range of markets and experienced increase in sales (Abid A., et. al., 2011). E-business improved customer service, thus, increased sales (Henbury, C., 2001). Additionally, due to large and often steep competition, SMEs have to work hard to gain a competitive advantage and obtain a strong market share. For many businesses who want to compete in a larger or even global arena, pursuing a competitive advantage is a primary goal and technology can help (Lorette, K., 2013).

Through e-business, they can significantly reduce the effort for data-processing using paper-based trend, increase business data accuracy and may even discover new business models or partners (Chen, L., 2009), and thus provides the opportunity to increase profits and enhanced sustainability (Barkley, D Markley, D. Lamie, D. 2005). If SMEs are to retain a high position relative to its competitors it is vital that the competitive advantage is sustainable over the long term. This means SMEs find a way to create value for the customers that no other competitor has found or can duplicate easily. One of the best ways to do this is by intelligent adoption of the technological advances. Early adoption of these technologies can give an SME a competitive advantage that is sustainable (Goessl, L., 2001). Opening an e-business keeps the business in touch with what’s current and levels the playing field and gives SMEs the resources needed to compete in today’s increasingly digital marketplace (Tan, G., 2012).

Table 2. Relationship of Business Characteristics and Competitive Advantage of SMEs through e-business

<table>
<thead>
<tr>
<th>Business Characteristics</th>
<th>Price</th>
<th>Product</th>
<th>Profitability</th>
</tr>
</thead>
<tbody>
<tr>
<td>(Presented at the DLSU Research Congress 2014 De La Salle University, Manila, Philippines March 6-8, 2014)</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
EBM-1-003

Presented at the DLSU Research Congress 2014
De La Salle University, Manila, Philippines
March 6-8, 2014

<table>
<thead>
<tr>
<th>Business Existence</th>
<th>-0.01</th>
<th>0.026</th>
<th>0.074</th>
</tr>
</thead>
<tbody>
<tr>
<td>Business Classification</td>
<td>0.089</td>
<td>0.064</td>
<td>0.010</td>
</tr>
<tr>
<td>Business Type</td>
<td>0.036</td>
<td>0.194*</td>
<td>-0.046</td>
</tr>
<tr>
<td>Length of Internet Experience</td>
<td>0.088</td>
<td>-0.021</td>
<td>0.011</td>
</tr>
</tbody>
</table>

*Correlation is significant at the 0.05 level (2-tailed).

As reflected in the table, the type of business is significantly and positively correlated with SMEs competitive advantage in terms of product. The result indicates that SMEs competitive advantage in terms of product is largely depend on the business they are into. Further, analysis using t-test reveals that those SMEs that are into trading are most likely to gain competitive advantage in terms of product than those in the service sector. Nonetheless, business existence, business classification, and internet experience are not significantly correlated with SMEs competitive advantage.

The result indicates that the internet is an important tool for trading business to look for suppliers that can provide them wider range of goods/services including new trends/fashion, quality brands, and sizes that suits the needs and desires of their customers. Consequently, this provides them best-selling items, better quality of products/services, and keeps inventory in stock. Trading businesses who participated in the study believed that online purchasing will improve their overall performance, since they are into general merchandise, dry goods and apparel/accessories, motor/vehicle parts, office/school supplies, communication/technology and housewares/appliances. Nevertheless, SMEs that are in the service business seems to have lesser competitive advantage considering that the items purchased online are electronics/gadgets which is diffusely affecting the services being offered.

Adoption of e-business has a significant impact to product/service (Afzal, H. 2007) and there is a strong correlation between procurement and adoption of e-business (Mansor, N. & Abidin, A.F.A. 2010). Hence, SMEs are able to access a larger number of suppliers worldwide, thereby enjoying better quality and better delivery (Croom and Johnson, 2003). E-business is a viable strategy for a wide variety of products and sizes (Barkley, D Markley, D. Lamie, D. 2005). Accordingly, firms need to compete on the basis of product innovation and higher quality which must be delivered at the lowest costs possible (Presutti, 2003).

Result of the study revealed that the years in business, the size of the business (micro, small or medium) as well as their internet experience do not influence their competitive advantage. The study of (Mansor, N. & Abidin, A.F.A. 2010) confirmed that there is no significant difference regardless of the business classification as to the application of e-business which is similar to the findings of (Afzal, H. 2007), that business size is insignificant to the adoption of e-business. On the other hand Bayle (2003), found that young firms are more eager to adopt new technologies and information systems in order to perform better than existing firms and (Afzal, H., 2007) found that firm characteristics is a significant factor to consider in e-business. In addition, Fallon and Moran (2000), Akkeren and Cavaye (1999), Thatcher and Foster (2002), and Crespi et. al (2004) found that the size of the SMEs which was defined as the number of employees is significant factors to consider in e-business. Moreover, (Hsu, P, et. al., 2006) also found that firms’ size has consistently been found to be positively related to adoption of e-business and companies using e-business realize dramatic returns through sale increase.

4. CONCLUSIONS

Effective management of e-business can be a powerful source of competitive advantage. It makes SMEs compare prices and products across suppliers without visiting different physical storefronts, which is costly and time consuming. They are able to buy direct from a manufacturer’s or wholesaler’s website, thus, cut off retail intermediaries, which leads to a lower cost to keep prices down. With this, they were able to position their products/services at a different price ranges in response to their competitors, able to manage price changes/fluuctuations, and able to give special discounts to their customers and incorporate added value to their products/services. SMEs need to focus on affordable prices to gain competitive advantage.

Through e-business, SMEs have more choices of suppliers that can provide larger inventory of products, brands and sizes which may not be available in physical storefronts. SMEs can able to view detailed product information and compare quality of products that suits the needs and
expectations of their customers. SMEs believed that with e-business they were able to offer best-selling items, better quality of products/services, and able to keep inventory in stock.

SMEs were able to sell greater volume of products/services through e-business, which leads in maximizing their profits and achieving their target return on investment. Hence, they were able to upgrade their facilities and equipment, maintain and improve market share, meet and prevent competition, improve the compensation and benefits of their employees, and adopt new promotional strategies to attract more customers. This helps them respond to customer needs and build good supplier relations, and thereby increase overall profitability and competitiveness.

The strategic use of e-business is a key performance enhancement factor for SMEs, enabling them to attain competitive advantage. If SMEs wants to attain a high position in the market, it is important for them to create value for the customers that no other competitor has found or can easily duplicate, and that is through e-business. In order to remain competitive in business today, SMEs must be constantly and fully alive on new ideas, new practices and new opportunities.

5. ACKNOWLEDGMENTS

The researcher sincerely expresses her deep appreciation to the following persons who helped her in accomplishing this study.

Dr. Delilah B. Valencia, for her invaluable support; Dr. James Emmanuel James P. Pattaguan, for his advice and encouragement; Dr. Nelia Z. Cauilan, Dr. Pyrene T. Quilang, Dr. Rovel Siazon, and Mrs. Mary Jean Mendezabal for their technical assistance and suggestions to improve this study; Dr. Angela Abiqui, my adviser, for her guidance and suggestions and above all to the Almighty God for giving me wisdom, courage and strength to pursue this study.

6. REFERENCES


Bayle, Luis Dalman (2003), The Internet’s Influences on Industrial Buying Behavior in Small and Medium-sized Enterprises. Lulea University of Technology.


Fallon M. and Moran, P., (2000). Information communications technology (ICT) and Manufacturing SMEs. Small business and enterprise development conference University of Manchester


Goessl, L. (2011) How the SME can gain competitive advantage through technology www.helium.com


Kuzic, J., Fisher, J. Scollarly, A. Electronic commerce benefits, challenges and success factors in the Australian Banking and finance industry

Lorette, K. (2013). The Advantages of E-Business, Houston Chronicle P.O. Box 4260 Houston, Texas 77210-4260

Lunati, M. et.al. (2000). Enhancing the competitiveness of SMEs in the global economy: strategies and policies. Conference for Ministers responsible for SMEs and Industry Ministers Bologna, Italy


SEO Advantage, Inc. (2013). Why Would Someone Want to Buy From Your Website


