

Competitive Performance of Small Firms Using the Internet in Northeastern Thailand

Surasak Wonginchan and Buapun Promphakping
Faculty of Humanities and Social Science, Khon Kaen University, Khon Kaen, Thailand

Abstract: This study aims to study competitive performance indicators of small firms using the internet in Northeastern Thailand. The most amount small firms in Northeastern Thailand are important to the economy as a whole lot of local, regional, national and global level. The statistics of usage from the National Statistics Office during 2012-2014 were studied and the data of qualitative research was collected by having in-depth interviews with 35 small firms. A selection criterion is the firm with 1-9 employees having installed the broadband internet and operated for more than 1 year. After analyzing the content of collected data, the results, from both theoretical and phenomena, revealed that competitive performance of small firms in Northeastern Thailand included asset, process and performance. These include so-called APP, asset included employees, money, materials, location, knowledge and experience. The process included ability to manage employees and money to maintain good quality of products and services and to have good relation both internal and external. The performance included products and services, return of an investment, regular employment, regular customers and opportunity to have income from supplemental business.

Key words: Internet broadband, competitive performance, APP, small firms, Northeastern Thailand, materials

INTRODUCTION

Small firms are a business unit which plays an important role in the domestic business system to drive the country into the global competition, leading to business wealth (Banks, 2013) for both developed and developing countries. In developed countries, there are 90% of small firms (Schaper and Volery, 2007) and in developing countries, for example, Thailand has 95% of small firms with 1-9 employees (Anonymous, 2012). American and Thai small firms are similarly remarkable (Paulson, 2004). From the data of small firms have 60-70% of employment and accounted for 50% of GDP (Anonymous, 2008). For instance, the United States has 50% of employment or 38% of GDP while Thailand has 60% of employment or 50% of GDP. It can be seen from the data that small firms are crucial for both innovation aspect and economic growth.

Small firms in Northeastern Thailand account for 28.84% (Anonymous, 2012). In fact, there is information showing that income from researchers in the industrial sector tends to be higher than that of the agricultural sector (Le Novere *et al.*, 2009) and the researcher's education is likely to change to higher education degree (Rigg *et al.*, 2014). This is an advantage of firms in the Northeastern region where the number of researchers and land is enough for operating businesses. It is obvious

that small firms operated in the Northeast have suitable environment for running businesses similarly to other regions but it, also has a chance to enhance competitive performance from human resources which has been changed positively.

Competitive performance of small firms partly comes from changes in Information and Communications Technology (ICT) (Kossai and Piget, 2014). The difference or the spread of new ICT will affect economic growth and development substantially (Freeman and Soete, 1997). Information technology used by most small firms is the internet (Poon and Swatman, 1997) which is a resource enabling firms to create new businesses and services, get into new markets and increase added value for their customers. Meanwhile, the customers receive profits from using services, making trade and transportation cost lower and easily sold in social network (Srinuan and Bohlin, 2013). Moreover, more evidence has proved that the internet has an impact on competitive performance of firms, for example, in the United States studies have shown that ICT influences an increase of labor productivity by 5% (Atrostic and Nguyen, 2004) in Finland the growth of products changes between 8% and 18% (Maliranta and Nurmi, 2004) in Canada there is a rise of products and market share (Baldwin and Gu, 2004) and in England, positive importance with labors and factors of production is found (Schaper and Vallery, 2004). The

relation between the internet usage and competitive performance depends on basic resources (Barney, 2001) and different abilities of entrepreneurs to use the internet help bring sustainable competitive performance (Zheng *et al.*, 2006). However, several studies found that there are more factors affecting competitive performance of firms, for instance, employee's skills impact customer service (Khatri *et al.*, 2010) and satisfaction of customers who will recommend the service to others (Cohen and Olsen, 2013).

Competitive performance of firms is ability to compete in the entrepreneur level in which a balance competition occurs, for instance, processes of strategic management, operations management, human resource management and technology management (Ajitabh and Momaya, 2004) which can measure 3 aspects of competitive performance: assets include trademark, reputation, cultural system, human resource and technology, processes include strategy, innovation, quality, ability to adapt or flexibility, power to persuade, application program, relation in management, challenge in design and application, market and production and performance includes customer's satisfaction, creative product value, market share, product, development of new products, low capital and price and ability to gain profits (Tarafdar and Gordon, 2007).

It can be stated that small firms which use the internet in the Northeast are important part to strengthen the

local regional, national and global economic systems (Ashurst *et al.*, 2012). Initially, it is necessary to have competitive performance indicators of firms, so that, every related sector is able to determine the way to support and encourage small firms in the Northeast to increase their competitive performance and achieve the greatest benefit of the domestic economic system, staying strong sustainably.

MATERIALS AND METHODS

The idea of considering constructing the competitive performance indicators of small firms comes from the fact that the researchers have studied the factors affecting competitive performance of small firms in order to explore advantages and information for the firms to make their decision during competitive condition in the current the customers suggest the service to others (Cohen and Olsen, 2013) when the employees are in good service environment, they tend to provide good service to the customers, leading to more profits and growth in market share (Heskett *et al.*, 1994) and external surroundings of small firms. However, all the details mentioned earlier can be categorized into conceptual frameworks in order to study and discover the competitive performance indicators of small firms in Northeastern Thailand as shown in Fig. 1 (Wu and Chiu, 2015).

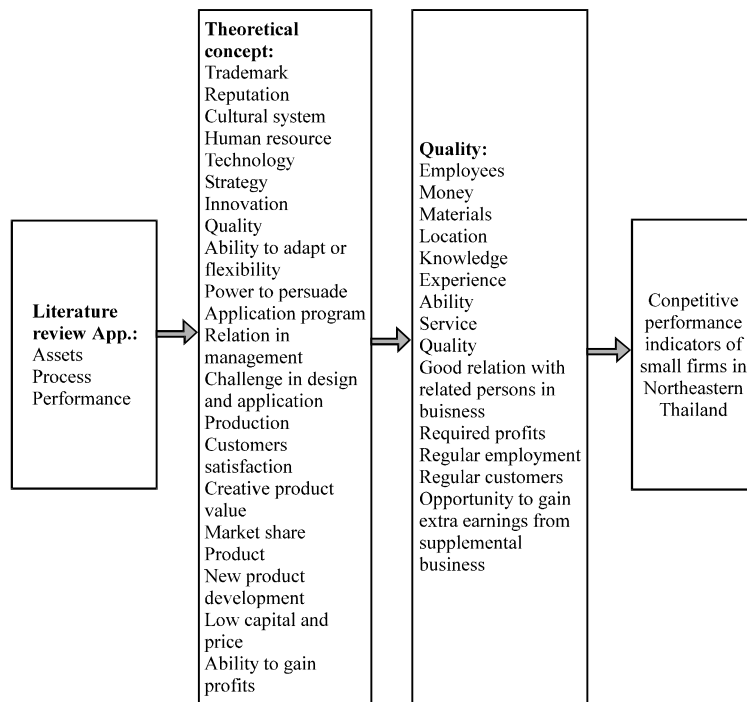


Fig. 1: Conceptual frameworks

Figure 1 shows the qualitative research to construct the competitive performance indicators of small firms in the Northeast of Thailand according to the theoretical concept of entrepreneur competition ability (Ajitabh and Momaya, 2004) including 3 aspects: assets, process and performance. The target subjects of the research were the small firms in the Northeast of Thailand using the broadband internet and having 1-9 employees. The statistics of usage from the National Statistics Office during 2012 were basic data in selecting research samples and 35 small firms were chosen by having in-depth interviews following the concept of semi-structured interview. The questions were divided into 3 parts, including general information of small firms, the year of starting business or period of juristic person registration, the number of employees in the current year, a type of business and geographic features, external surroundings affecting competitive performance of small firms which contain customers, business network, competitors and government and 3 components of competitive performance of small firms in the Northeast consisting of assets, process and performance in order to be synthesized as the competitive performance indicators.

RESULTS AND DISCUSSION

The researchers analyzed the data from the interviews by categorizing the contents into types of business, so as to be easily understood. After that, the differences and similarities of the same type of business and different types of business were analyzed. Also, the consistency of contents was verified by comparing the data in the same type of business group both in the same and different areas. The detailed factors affecting competitive performance of small firms and components of competitive performance of small firms in the Northeast were as follows:

Factors affecting competitive performance of small firms **Characteristics of small firms**

Types of business: Most of them are offering products and services and emphasizing both selling products and services at the same time. For example, consumer goods shops-they even include product delivery in addition to selling or Spa service business which not only offers massage service but also sells additional lotion for better healthy massage. On the other hand, a few of other business types are found for instance, production. Since they are small firms and need to have process of management to control production, so, their human resource and technology are limited. These result in fewer small firms operating their own production, though

there are some concerning specializing skills such as a firm producing fireworks which needs high safety.

Period of business: From the collected data regarding period of business operation, the research subjects have started their business for more than 1 year or most of them have been in business for more than 3 years. This information indicates the ability to start operating a business.

The total number of current employees: The research subjects are small firms with 1-9 current employees and although there has been a decline or an increase of employees, they still have 1-9 researchers each including the employer. Another important fact found is that most of these employees are relatives of their employers because kinship gives reliability and prevents corruption. The reason is that, they are small firms with enough circulating fund, if there is corruption, their business will be affected significantly.

The internet usage is related to business operation: Small firms use the internet in numerous activities. First, the internet is used as additional service besides their products and services offered this helps increase added value, for example, accommodations with the good internet free of charge will be a good choice for customers. Second, the internet is a channel to communicate with customers. Nowadays, customers tend to have higher expectation that they can always contact entrepreneurs at their convenience. For instance, they can place an order or make a complaint concerning errors in purchased products and services 24 h with written evidence to avoid mistakes. Third, the internet is used to search for information such as investigation of price comparison with competitors, quality, customer's needs and purchases and sales. Forth, the internet is a tool to advertise products and services promptly, widely and limitlessly. Also with a budget, it allows small firms to advertise similarly to large firms. Fifth, the internet is a tool connecting other devices to enhance business operation such as watching online security cameras.

External surroundings of small firms: Target customer groups are those with whom small firms are quite familiar and to whom they often sell their products, known as "regular customers". For example, cooked to order restaurants know that their customers are researchers whose offices are close to their restaurants. They are familiar with one another and likely to come regularly or recommend new customers. Also, such customers as sick people who need to purchase specific products or

services will choose to buy some medicine from the pharmacist they familiar with. Moreover, there are customers who sell and buy goods or services dependently within the community. For instance, one buys products from another and vice versa, customers of a drinking shop buy some food from a restaurant while customers of the restaurant buy some drinks and they can sit at any shops or customers of a shop are advised to rent apartments near the shops. When customers are satisfied with products and services from small firms, the results are as follows: they recommend the products and services by word of mouth, they will come back and buy the same products or others, the small firms will receive good advice and suggestion for improving drawbacks from their customers and the firms receive good will and good reputation rated by customers.

Business network: the study found that small firms have built a relation from being employees of the firms or from having expertise in products and services. Then, they have an opportunity to cooperate until they reach the relation of entrepreneurs with similar activities, cooperation and help. These finally result in both formal and informal networks.

A business competition among small firms is to compete with their own ability to run their businesses. In other words, they are able to operate their businesses in the condition that the same or similar types of businesses are competing-this allows them to know their strength and opportunity. From the data collected, the strategies used in the business competition by small firms include clear indication of target customer groups, sales promotion and more selling channels added, capital and price control, excellent products and services offered, appropriate choice of firm location and network of the same or similar types of products.

From the observation, it is found that most small firms have some characteristics in common. First, they tend not to disclose their financial status or real income and expenditure because they are worried that the information will be taken to the government officials. Thus, when it comes to these issues, it is difficult to get genuine information. Second, the firms are of business types rarely operated in the area or the products and services are provided by few firms. Third, they do not have a fixed pattern of management-it can be changed easily any time.

Competitive performance of small firms: From the qualitative research in order to construct the competitive performance indicators of small firms in Northeastern Thailand, the topics are as follows:

Ability to run a business: smalls firms that can operate businesses should possess these qualifications, including different strategies, quality of products and services, honesty for customers, more contact channels added and strategies to reduce corruption in the firms.

A business competition among small firms is to compete with their own ability to run their businesses. In other words, they are able to operate their businesses in the condition that the same or similar types of businesses are competing-this allows them to know their strength and opportunity. From the data collected, the strategies used in the business competition by small firms include clear indication of target customer groups, sales promotion and more selling channels added, capital and price control, excellent products and services offered, appropriate choice of firm location and network of the same or similar types of products.

For competitive performance of small firms, it is their aim to create sustainability in business following these important strategies: to maintain income, expenses and profits in a satisfying level to manage capital appropriately to maintain the standard of products and services to create financial stability to add more types of business, not to have more debts to operate the firms according to their own ability in a particular period of time and to avoid a business competition.

Marketing ability: The small firm's average number of customers depends on appropriateness of business type. However, the goal is apparent, running their businesses to gain profits and enhance competitive performance sustainably. Their marketing strategies include more regular customers than casual ones, suitable location for purchasing need, an increase in sales rate to achieve the highest in accordance with quantity of products, more additional services for added value of former products and services, sales control according to the market standard and more advertising channels added continuously.

Financial ability: Small firms have high flexibility in making their decision on finance. In business investment, most financing comes from their saving money or that of family as well as relatives. Some firms borrow some money from financial institutions. However with the financial institution's conditions which are not open to small firms, a payback period for them is not long and not complicated and the average profit is between the satisfying and high levels. If it is lower than expected, small firms will find new strategies or add more new types of products in order to gain more satisfying profits and able to continue operating their businesses.

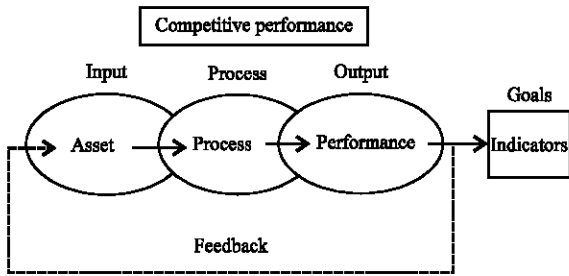


Fig. 2: Sequences of constructing competitive performance indicators

Construction of competitive performance indicators of small firms: For the construction of competitive performance indicators of small firms in the Northeast from the theoretical concepts and qualitative research, the researchers can define competitive performance as ability of asset, process and performance of small firms to operate the business sustainably. The components are as follows: asset means having enough resource to run a business to achieve the small firm’s needs. They are employees, money, materials, location, knowledge and experience.

Process means using asset to run a business according to their ability. This includes ability to manage employees and money to provide products and services to have good relation with related business partners and to maintain good quality of products and services.

Performance means achieving the small firm’s needs in operating a business according to their ability. This consists of receiving required return, having regular employment, regular customers and opportunity to have income from supplemental business (Fig. 2).

CONCLUSION

From the results of the research concerning construction of competitive performance indicators of small firms in Northeastern Thailand, it can be stated that the competitive performance indicators can explain measurement according to the competitive performance theory of firms (Ajitabh and Momaya, 2004). This can be developed as a research tool to explore an approach to enhance competitive performance of small firms in different contexts afterwards.

From Fig. 2, the theory of systems thinking can be applied to explain the method of constructing competitive indicators of small firms with 3 components. To start with enough assets are supplied (Input) for running a business successfully. Then, a management process (Process) uses assets to operate a business according to its ability. After that, there is the required result (output). These

sequences remain so that, they can be considered again (Feedback) and operated continuously. Finally, important components will be considered in each sequence in order to construct competitive performance indicators (goals).

Competitive performance indicators of small firms can be developed strategically to measure competitive performance of local and national firms since small firms in the local level affect the competition in the industry and national levels (Shideler and Badasyan, 2012). In order to make this research more complete, the researchers suggest studying the methods for enhancing competitive performance of small firms to explain the meanings and results of indicator construction, making it more precise.

Three important issues to be studied include factors to run a business of small firms, external factors of business operation for small firms and related factors concerning business operation of small firms. These will reflect the factors affecting competitive performance better. Also, they with the indicators studied and mentioned earlier, help develop methods for enhancing competitive performance of small firms in different contexts. They help confirm the concept of competitive performance in a bigger picture.

ACKNOWLEDGEMENTS

This research belongs to Faculty of Humanities and Social Science, KhonKaen University. We are so grateful to the committee of department of Development Science, Faculty of Humanities and Social Science, KhonKaen University who gave suggestions in conducting the research and Research Group on Wellbeing and Sustainable Development (WeSD) for financial support in publication of the research study both in Thailand and Indonesia. We also have to express our appreciation to the small firms for their willingness to be samples of this study.

REFERENCES

Ajitabh, A. and K.S. Momaya, 2004. Competitiveness of firms: Review of theory, frameworks and models. *Singapore Manage. Rev.*, 26: 45-61.

Anonymous, 2008. *Measuring entrepreneurship: A digest of indicators* Paris: OECD statistics directorate. Organization for Economic Co-operation and Development (OECD), Paris, France.

Anonymous, 2012. *Explore the use of information and communications technology in the business*. National Statistics Office (NSO), Quezon City, Philippines.

- Ashurst, C., A. Freer, J. Ekdahl and C. Gibbons, 2012. Exploring IT-enabled Innovation: A new paradigm? *Int. J. Inform. Manage.*, 32: 326-336.
- Atrostic, B.K. and S. Nguyen, 2004. IT, productivity and growth in enterprises: Evidence from new international micro data. U.S. Census Bureau, Suitland, Maryland.
- Baldwin, J.R. and W. Gu, 2004. Trade liberalization: Export-market participation, productivity growth and innovation. *Oxford Rev. Econ. Policy*, 20: 372-392.
- Banks, G.P., 2013. Exploring small-business change and strategic adaptation in an evolving economic paradigm. Ph.D Thesis, Walden University, Minneapolis, Minnesota.
- Barney, J.B., 2001. Resource-based theories of competitive advantage: A ten-year retrospective on the resource-based view. *J. Manage.*, 27: 643-650.
- Cohen, J.F. and K. Olsen, 2013. The impacts of complementary information technology resources on the service-profit chain and competitive performance of South African hospitality firms. *Int. J. Hospitality Manage.*, 37: 245-254.
- Freeman, C. and L. Soete, 1997. *The Economics of Industrial Innovation*. 3rd Edn., MIT Press, Cambridge, Massachusetts, Pages: 471.
- Heskett, J.L., T.O. Jones, G.W. Loveman, W.E. Sasser and L.A. Schlesinger, 1994. Putting the service-profit chain to work. *Harvard Bus. Rev.*, 72: 164-174.
- Khatri, N., A. Baveja, N.M. Agrawal and G.D. Brown, 2010. HR and IT capabilities and complementarities in knowledge-intensive services. *Intl. J. Hum. Resour. Manage.*, 21: 2889-2909.
- Kossai, M. and P. Piget, 2014. Adoption of information and communication technology and firm profitability: Empirical evidence from Tunisian SMEs. *J. High Technol. Manage. Res.*, 25: 9-20.
- Le Novere, N., M. Hucka, H. Mi, S. Moodie and F. Schreiber *et al.*, 2009. The systems biology graphical notation. *Nat. Biotechnol.*, 27: 735-741.
- Maliranta, M. and S. Nurmi, 2004. Analyzing entrepreneurship with the Finnish Linked Employer-Employee Data (FLEED): Matching and qualitative properties of the data (No. 920). Master Thesis, The Research Institute of the Finnish Economy (ETLA), Helsinki, Finland.
- Paulson, A.L., 2004. Entrepreneurship and financial constraints in Thailand. Master Thesis, University of Chicago, Chicago, Illinois, USA.
- Poon, S. and P.M.C. Swatman, 1997. Small business use of the Internet: Findings from Australian case studies. *Intl. Marketing Rev.*, 14: 385-402.
- Rigg, J., B. Promphaking and A.L. Mare, 2014. Personalizing the middle-income trap: An inter-generational migrant view from rural Thailand. *World Dev.*, 59: 184-198.
- Schaper, M. and T. Volery, 2007. *Entrepreneurship and Small Business*. 2nd Edn., John Wiley & Sons, Hoboken, New Jersey, USA., ISBN:9780470810828, Pages: 496.
- Schaper, M. and T. Vollery, 2004. *Entrepreneurship and Small Business: A Pacific Rim Perspective*. John Wiley and Sons Ltd., New York.
- Shideler, D. and N. Badasyan, 2012. Are SMEs falling behind the digital marketing development?. Master Thesis, Jyväskylä University, Jyväskylä, Finland.
- Srinuan, C. and E. Bohlin, 2013. Analysis of fixed broadband access and use in Thailand: Drivers and barriers. *Telecommun. Policy*, 37: 615-625.
- Tarafdar, M. and S.R. Gordon, 2007. Understanding the influence of information systems competencies on process innovation: A resource-based view. *J. Strategic Inf. Syst.*, 16: 353-392.
- Wu, L. and M.L. Chiu, 2015. Organizational applications of IT innovation and firm's competitive performance: A resource-based view and the innovation diffusion approach. *J. Eng. Technol. Manage.*, 35: 25-44.
- Zheng, J., E. Bakker, L. Knight and H. Gilhespy, 2006. A strategic case for E-adoption in healthcare supply chains. *Intl. J. Inf. Manage.*, 26: 290-301.