
Assessing Sustainable Competitive Advantage in Relation with Intellectual Capital, Knowledge Management and Innovativeness in Women-Owned SMEs in Malaysia

Che Asniza Osman, Rohana Ngah

*Malaysian Academy of SME and Entrepreneurship Development,
Faculty of Business and Management,
Universiti Teknologi MARA, Selangor, Malaysia*

Abstract - Small Medium Enterprises (SMEs) play an important role in contributing the economic growth of most nations. As the global economy slows down, entrepreneurship role becomes increasingly important to drive the pecuniary and societal well-being. In 2012, Global Entrepreneurship Monitor (GEM), reported an estimation of 126 million women have started or running new businesses in around 67 countries around the world. In addition, about 98 million women are operating established businesses. Study showed that women seem to face difficulties in moving from one phase to another to withstand the entrepreneurship process thus; they are rated lower in terms of starting venture comparing to men. This paper provides a conceptual discussion on the role of intellectual capital, knowledge management, and innovativeness in sustaining competitive advantage of women owners of SMEs. The variables investigated eventually attempts to establish and test an integrated framework for intellectual capital.

Keywords - Sustainable Competitive Advantage, Intellectual Capital, Knowledge Management, Innovativeness, Women-Owned SMEs.

ARTICLE INFO

Received 15 October 2016

Received in revised form 20 December 2016

Accepted 20 December 2016

Published 30 December 2016

I. Introduction

The role of small and medium enterprises (SMEs) is very crucial in establishing the development of a country (Jasra, et.al, 2011). In Malaysia, SMEs accounted for 99.2% or 518,996 of total business establishments. Large companies comprise 0.8% or 4,136 of all establishments in the country. The SMEs, on an overall, contributed about 33% of the country's annual gross domestic product (GDP) (SME Annual Report, 2013/2014) and provided 61.5% employment of the labor force or about 5.6 million job opportunities. According to Edinburgh Group Report (2014), the contribution of SMEs to economic fundamentals varies across countries which are categorized by three main categories namely low-income countries (16%), middle-income countries (39%) and high-income countries (51%). Report by the Department of Statistics in Malaysia (2015) showed that

the contribution of SMEs to overall Malaysian GDP is only 36.3%. As Malaysia is setting to be a high-income nation by the year 2020, new strategies and approaches need to be undertaken to increase SMEs performance.

In the last few decades, Malaysia saw a tremendous grow in the participation of SMEs which are seen to be playing an important role for the nation's economic development (Abd Aziz and Mahmood, 2011; Idar and Mahmood, 2011). Interestingly, a large portion of SMEs are owned by women (Alam, Mohd Jani and Omar, 2011). According to Mahmood & Hanafi (2012), women-owned SMEs are facing huge pressures as the country assimilates more into the world economy. Both internal and external factors affect the business environment, such as globalization, demographic and social change, financial support as well as entrepreneurship, level of technology deployed, technological innovation and innovation ability.

The knowledge-based economy has taken over the traditional economy due to the explosive era of knowledge. Knowledge resources are a new venture to capitalize competition in the knowledge-based economy. It raises the importance of knowledge. Intellectual capital can be traced through knowledge development, which is either knowledge management or innovation. Exploiting intellectual capital as a competitive advantage has been proven in large organizations but exploring intellectual capital in SMEs is still in its infancy. Knowledge resources are said to be in abundance in SMEs' systems. Maximizing on their intellectual capital such as human capital, close-networking, close and efficient communication system, SMEs should capitalize upon these opportunities as their competitive advantage. Pursuing the stream of importance of knowledge and capital, this study attempts to establish an integrated framework for intellectual capital. There are very few intellectual capital studies on SMEs and most of these studies adopted dimensions which were developed either for large organization or by foreign researcher.

Opportunity identification is considered a distinctive issue in entrepreneurship research, offering entrepreneurial capability and a foundation of competitive advantage (DeTienne and Chandler, 2007; Jamali, 2009). In order to grab these opportunities, women-owned SMEs have to reconstruct their existing strategies to achieve sustainability competitive advantage of their business. However, GEM (2012) reported that growth projections amongst women entrepreneurs are constantly lower as compared to male counterparts and furthermore, it was found that women seem to face difficulties moving from one phase to another to withstand the entrepreneurship process. Thus, looking at the important role of women-owned SMEs in contributing to the entrepreneurial success to an economy that is vastly under studied as mentioned by Bruin, Brush and Welter, (2006), this paper explores the sustainable competitive advantage of women-owned SMEs and the dimensions that influenced their businesses.

This study aims to develop dimensions of Malaysian SMEs' intellectual capital that relate to sustainable competitive advantage. While previous studies linked intellectual capital with organizational performance, this study perhaps is the first model to include sustainable competitive advantage in the framework. Additionally, it seeks to address the elements of knowledge management and innovativeness which are important in knowledge-based economy as well as in the entrepreneurship area. The research questions to be established are:

RQ 1: What are the factors influencing sustainable competitive advantage of women-owned SMEs?

RQ 2: Is there a relationship between intellectual capital, knowledge management, innovativeness and the sustainable competitive advantage of women-owned SMEs?

RQ 3: What are the influences of knowledge management and innovativeness in the relationship between intellectual capital and sustainability competitive advantage of women -owned SMEs?

II. Review of Literature

Sustainable Competitive Advantage

Competition has forced SMEs to position their competitive advantage (Hana, 2013). Business sustainability includes environmental, financial and social concerns for firms to make decisions. Kotler (2000) defined competitive advantage (CA) as the capability of the organisation to carry out its activities in ways others cannot imitate. Features of sustainable companies comprise creating long term financial value, know how activities influence environment and act towards reducing negative impacts, care about their stakeholders as well as to understand employees, community and customers that are related to each other. According to Barney (1991), sustainable competitive advantage arises when a firm's resources that are valuable (the resources that help the firm create valuable products and services), rare (competitors do not have access to them), inimitable

(competitors cannot easily replicate them) and appropriate (the firm owns them and can exploit them at will). In the other words, a firm that differs from its competitors and remains outstanding to their consumers would gain sustainable competitive advantage (Gonzalez-Loureiro and Dorrego, 2012; Khan, 2014). Acquiring and preserving sustainable competitive advantage and superior performance are a function of the resources and capabilities brought to the competition (Aaker, 1989; Barney, 1995, Bontis et al, 2010). Papula and Volna (2013) emphasize that the source of CA is an intangible asset comprising human capital, structural capital, relational capital, and customer capital. According to Coyne (1986), sustainable competitive advantage is when the company is able to maintain the durability of its attractive attribute gap for a certain period of time. As long as competitors cannot fill the gap, the company has a sustainable competitive advantage.

Intellectual capital

Intellectual capital is defined as an intellectual material – knowledge, information, intellectual property, experience – that can be put to use to create wealth (Stewart, 2000). Bontis (1998) defines intellectual capital as the pursuit of the effective use of knowledge (the finished product) as opposed to information (the raw material). Cohen and Kaimenakis (2007) sums up intellectual capital as intangible resources that contain knowledge and create value that can be used by the firm to accomplish its goals, if it is managed efficiently and properly, leading to a sustainable competitive advantage (Ipek et al., 2009; Gonzales et al., 2013). Intellectual capital can be located in its people, its structures and its customers or relationship. From the perspective of the flow approach of intellectual capital, knowledge resources are flowing through its people, structure and relationship to create value. Generally, intellectual capital consists of three types of capitals which are human capital, structural capital and relational/customer capital – which are defined differently by different authors. Stewart (1997) explains that human capital is the accumulated capabilities of the individuals responsible for providing customer solutions. Structural capital refers to the capabilities of the organization to meet market requirements and customer capital refers to the extent and intensity of the organizations' relationships with customers. The three types of capital are interrelated – each positively or negatively affecting the other. Intellectual capital has many benefits to an organization in terms of business performance (Bontis et al. 2000), product improvement (Zhen et al. 1999), competitiveness and innovation (Carneiro, 2000), competitive advantage (Anell and Wilson, 2002), driver of stock return (Hurwitz et al., 2002) and future financial indicators (Chen et al., 2005) as compiled by Tan et al., (2008). Intellectual capital being static should be in the same model with dynamic processes. Without dynamic processes, the intellectual capital is merely a static stock of assets (Hussi, 2004). The flow process needs a mechanism to represent the basic operations of knowledge which is knowledge management and innovativeness towards sustainable competitive advantage (Nghah et al., 2016)

Knowledge Management

Spender (2006) views an organization as a dynamic, knowledge-based activity system, maintaining that it is an organization's knowledge and ability to generate knowledge that forms competitive advantage. Knowledge management (KM) is becoming increasingly important as organizations realize that sustainable competitive advantage centers on effective management of their vast and varied knowledge assets (Kulkarni and Louis, 2003; Wiig, 2003; Davenport et al., 1998). Knowledge management is largely concerned with the exploitation and development of the knowledge assets of an organization with a view to furthering the organization's objectives (Davenport and Prusak, 2000). Generally, knowledge management comprises knowledge acquisition, knowledge accumulation, knowledge creation, knowledge dissemination and knowledge protection (Gold et al, 2001). The goals of KM are the leveraging and improvement of the organization's knowledge assets to effectuate better knowledge practices, improved organizational behaviors, better decisions and improved organizational performance (King, 2009). More and more organizations are realizing the importance of knowledge management (KM) in order for them to remain active in a dynamic business environment and many of them have invested lots of money in various KM initiatives (Pee and Kankanhalli, 2009). In order for organizations to remain competitive, it needs to adapt themselves to the new changes and developments (Alipour et al., 2011). It is crucial for the organization to transform from a focus on knowledge management to a focus on developing a learning culture (Chinowsky and Carrillo, 2007). KM is aimed at getting people to innovate, collaborate and make correct decisions efficiently; in short, it is aimed at getting people to act by focusing on high-quality knowledge (June, 2005 as cited by Ho, 2008).

Innovativeness

Innovativeness is most frequently used as a measure of the degree of 'newness' of an innovation (Garcia and Calantone, 2002). A new product is very subjective; new to the world, new to the adopting unit, new to industry, new to the market, and new to the consumer. From a macro perspective, 'innovativeness' is the paradigm shift in the science and technology and/or market structure in an industry. From a micro perspective, 'innovativeness' is the capacity of a new innovation to influence the firms' existing marketing resources, technological resources, skills, knowledge capabilities or strategy. A new innovation in a developing country might be considered obsolete in a developed country (Darroch, 2003). Subramaniam and Nilakanta (1996) pointed out that when innovativeness is measured in multidimensional constructs, it shows a significant different effect on the outcomes. Companies have to be entrepreneurial and innovative (Hitt et al., 2005). Innovations are critical to a company's efforts to differentiate their goods and services from competitors in ways that create additional or new value for customers (Katilla and Ahuja, 2002). Innovation is always regarded as being a part of the strategic competitiveness of an organization that allows it to be competitive.

III. Conclusion

Entrepreneurship is important to a nation's industrial success as it brings about innovation, new start-ups and job creation. The perceived importance of entrepreneurship in Malaysia's economy is proven by the sheer amount and variety of supporting mechanisms and policies that exists for entrepreneurs including funding, physical infrastructure and business advisory services. Perhaps the greatest example of the importance the public sector places on entrepreneurship is the creation of a 'New Economic Model' (NEM) for Malaysia where the government has made entrepreneurship the key driver of the economy for the next 10 years with special emphasis on innovation and the entrepreneurial drive of its citizens in the Economic Transformation Programme (ETP). In 2012, the government allocated RM1 billion for the development of SMEs (Malaysian Budget, 2012).

Many studies suggest using the findings of intellectual capital, knowledge management, innovation and sustainable competitive advantage in advanced countries to explain innovative behaviour in less developed countries which is likely to be inappropriate (Nghah et al., 2016). As sustainable competitive advantage is a key success or survival for SMEs, women entrepreneurs should be more resourceful in managing its knowledge and searching for innovation source. There are many researches on intellectual capital of SMEs but it seems that different studies have highlighted different types of intellectual capitals which prompt this research to identify the characteristics of women-owned SMEs. It is hoped that the results of this study may be able to help aspiring women entrepreneurs to overcome their challenges they face. While on the other hand, the results may also assist government policy makers to make use of these findings to tailor initiatives and programs for women entrepreneurs. The next step is to undertake an empirical study to validate this conceptual discussion.

References

- Aaker, D. (1989). "Managing assets and Skills: the key to a sustainable competitive Advantage", *California Management Review*, 31(2), pp 91-106.
- Abd Aziz, S. and Mahmood, R. (2011) "The relationship between business model and performance of manufacturing small and medium enterprises in Malaysia". *African Journal of Business Management*, 5(22), pp. 8918-8932
- Alam, S. S., Mohd Jani, M. F. and Omar N. A. (2011) "An Empirical Study of Success Factors of Women Entrepreneurs in Southern Region in Malaysia", *International Journal of Economics and Finance*, vol. 3 no. 2
- Alipour, F., Idris, K., Ismail, I.A., Ulli, J.A. and Karimi, R. (2011) "Learning organization and organizational performance: Mediation role of intrapreneurship", *European Journal of Social Sciences*, 21(4), pp. 547 – 555
- Anell, B.I. and Wilson T. L. (2002) "Prescripts: Creating competitive advantage in the knowledge economy", *Competitiveness Review: An International Business Journal*, Vol. 12 No. 1, pp. 26 – 37
-

- Barney, J. B. (1995) "Looking inside competitive advantage". *Academy of Management Executive*, 9 (4), pp. 49-61
- Bontis, N. (1998). Intellectual Capital: an exploratory study that develops measures and models. *Management Decision*. 36 (2), pp 63-76.
- Bontis, N., Keow, W. C. C. and Richardson, S. (2000) "Intellectual capital and business performance in Malaysian Industries", *Journal of Intellectual Capital*, 1(1), pp. 85-100
- Bontis, N., Isaac, R. G., Herremans, I. M. and Kline, T. J. B. (2010) "Intellectual capital management: pathways to wealth creation", *Journal of Intellectual Capital*, 10(1), pp 81-92. doi: 10.1108/14691930910922914
- Carneiro, A. (2000) "How does knowledge management influence innovation and competitiveness?", *Journal of Knowledge Management*, Vol. 4 No. 2, pp.87 – 98
- Chen, M.C., Cheng, S.J. and Hwang, Y. (2005) "An empirical investigation of the relationship between intellectual capital and firms' market value and financial performance", *Journal of Intellectual Capital*, vol. 6, no. 2, pp. 159-176
- Chinowsky, P., and Carrillo, P. (2007) "Knowledge management to learning organization connection", *Journal of Management in Engineering*, 23(3), pp 122-130. Retrieved from <https://dspace.lboro.ac.uk/2134/4227>
- Cohen, S. and Kaimenakis, N. (2007) "Intellectual capital and corporate performance in knowledge-intensive SMEs", *The Learning Organization*, 14 (3), pp. 241-262
- Coyne, K. P. (1986) "Sustainable Competitive Advantage: What It Is, What It Isn't", *Business Horizons*, No.29, pp. 54-61
- Darroch, J. (2005). "Knowledge management, innovation and firm performance", *Journal of Knowledge Management*, 9(3), pp.101-115
- Davenport, T., De Long, D. and Beers, M. (1998) "Successful knowledge management Projects", *Sloan Management Review*, vol. 39 no. 2, pp. 43-57
- Davenport, T.H. and Prusak, L. (2000) *Working Knowledge: How organizations manage what they know*. Boston, Harvard Business School Press.
- De Bruin, A., Brush, C.G. and Welter, F. (2006) "Introduction to the special issue: Towards Building Cumulative Knowledge on Women Entrepreneurship", *Entrepreneurship Theory and Practice*. 30(5), pp. 585-593
- Department of Statistics Malaysia 2015, Small and Medium Enterprise 2015, Retrieved from: <https://www.statistics.gov.my> Accessed on: 15 December, 2016.
- DeTienne, D. R. and Chandler, G.N. (2007) "The role of gender in opportunity identification", *Entrepreneurship Theory and Practice*, 31(3), pp. 365-386
- Edinburgh Group (2014) "Growing the global economy through SMEs: The G20 SME conference 2014", Retrieved from: <http://theconversation.com/> Accessed on: 15 December, 2016
- Garcia, R. and Calantone, R. J. (2002) "A critical look at technological innovation typology and innovativeness terminology: literature review", *The Journal of Product Innovation Management*, 19, pp. 110 – 132
- GEM (2012), *Global Entrepreneurship Monitor 2012 Global Report*, A Global Perspective on Entrepreneurship 2012: Gender Differences, pp.30.
- Gold, A. H., Malhotra, A. and Segars, A. H. (2001) "Knowledge management: An organizational capabilities perspective", *Journal of Management Information System*, 18(1), pp. 185-214
- González-Loureiro, M. and Dorrego, P.F. (2012). Intellectual capital and system of innovation: What really matters at innovative SMEs. *Journal Intangible Capital*. 8(2), pp 239-274.
- Gonzalez_L. M. and F-Jardon, C. M. (2013) "Human Capital as Source for Sustained Competitive Advantages in SMEs: A Core Competencies Approach", *Economia. Seria Management*, 16(2), pp. 256-275
- Gurteen, D. (1998) "Knowledge, creativity and innovation", *Journal of Knowledge Management*, 2(1), pp. 5-14
- Hana, U. (2013) "Competitive advantage achievement through innovation and knowledge", *Journal of Competitiveness*, 5 (1), pp. 82-96
- Hitt, M.A., Li, H. and Worthington, W.J. (2005) "Emerging markets as learning laboratories: Learning behaviors of local firms and foreign entrants in different institutional contexts", *Management and Organization Review*. 1(3), pp. 353–380
- Ho, L-A. (2008) "What affects organizational performance? The linking of learning and knowledge management", *Industrial Management & Data Systems*, Vol. 108 No. 9, 2008 pp. 1234-1254, Emerald Group Publishing Limited.
- Hurwitsz, J., Lines, S., Montgomery, B. and Schmidt, J. (2002) "The linkage between management practices, intangibles performance and stock returns", *Journal of Intellectual Capital*, Vol. 3 No.1, pp.51 – 6
-

- Hussi, T. (2004) "Reconfiguring knowledge management- combining intellectual capital, intangible assets and knowledge creation", *Journal of Knowledge Management*, vol. 8 no. 2, pp. 36-52
- Idar, R. and Mahmood, R. (2011) "Entrepreneurial and market orientation relationship to performance: The SME perspective", *Interdisciplinary Review of Economic and Management*. 1(2), pp. 1-8
- Ipek, K.L., Salih Zeki, I., and Hüseyin, I. (2009) "The relationship between firm intellectual capital and the competitive advantage", *Journal of Global Strategic Management*. 6, pp. 181-208
- Jamali, D. (2009) "Constraints and opportunities facing women entrepreneurs in developing countries: A relational perspective", *Gender in Management: An International Journal*, 24(4), pp. 232 – 251
- Jasra, J. V., Hunjra, A.I., Ur Rahman II, A., Azam, R.I. and Khan, M.A. (2011) "Determinants of Business Success of Small and Medium Enterprises", *International Journal of Business and Social Science*, Vol. 2. No. 20
- Katila, R.A. and Ahuja, G. (2002) "Something old, something new: a longitudinal study of search behavior and new product introduction", *Academy Management Journal*, 45, pp. 1183–1194
- Khan, M. W. J. (2014) "Identifying the Components and Importance of Intellectual Capital in Knowledge-Intensive Organizations", *Business and Economic Research*. 4(2), pp. 297. doi: 10.5296/ber.v4i2.6594
- King, R. (2009) *Knowledge Management and Organisational Learning: Annals of Information System*, Springer Dordrecht Heidelberg London New York.
- Kotler, P. (2000). *Marketing Management* (10th Edition). New York, Prentice Hall.
- Kulkarni, U., and St. Louis, R. (2003) "Organizational self- assessment of knowledge management maturity", Paper presented at the Ninth Americas Conference on Information Systems (AMCIS), August 4-6, Tampa, Florida, USA.
- Mahmood, R. and Hanafi, N. (2012) "Learning Orientation and Business Performance of Women-Owned SMEs in Malaysia: the Mediating Effect of Competitive Advantage", *British Journal of Arts and Social Sciences ISSN: 2046-9578*, Vol.11 No.II (2013), pp. 150-161
- Ngah, R., Salleh, Z., Abd Wahab, I., Azman, N.A. (2016) "Intellectual capital, knowledge management and sustainable competitive on SMEs in Malaysia". *13th International Conference on Intellectual Capital, Knowledge Management & Organisational Learning* 14-15 October 2016, Ithaca, New York, USA
- Papula, J. and Volná, J. (2013) "Core Competence for Sustainable Competitive Advantage". *Multidisciplinary Academic Research*, Praha: MAC Prague consulting, ISBN 978-80-905442-2-2
- Pee, L. G. and Kankanhali, A. (2009) "Knowledge Management Capability: A Resource Based Comparison of Public and Private Organizations", *International Conference on Information Systems (ICIS) 2009 Proceedings*. Paper 47
- Schaper, M. and Volery, T. (2007) *Entrepreneurship and Small and Business*, John Wiley and Sons. Melbourne. UNDP, 2007.
- SME Annual Report, 2013/2014, Retrieved From: <http://www.smecorp.gov.my/> Accessed on: 15 December, 2016
- Spender, J.C. (2006) "Getting value from knowledge management", *The TQM Magazine*, 18(3), pp. 238-254
- Stewart, T. (1997), *Intellectual Capital: The New Wealth of Organisations*, Currency, New York.
- Stewart, T. A. (2000). *Intellectual Capital: The New Wealth of Organizations*. London, Nicholas Brealey Publishing.
- Subramaniam, A. and Nilakanta, S. (1996) "Organizational innovativeness: exploring the relationship between organizational determinants of innovation, types of innovation and measures of firm performance", *OMEGA*, 24(6), pp. 631-647
- Tan, H.P., Plowman, D. and Hancock, P. (2008) "The evolving research on intellectual capital", *Journal of Intellectual Capital*, vol. 9 no. 4, pp. 585-608
- Wiig, K.M. (2003) "Knowledge Management has many facets" [internet]. Knowledge Research Institute. Retrieved from: www.krii.com Accessed on: 21 March, 2009
- Zhen, D., Lev, B. and Narin, F. (1999) "Science and technology as predictors of stock performance", *Financial Analysts Journal*, Vol. 55 No. 3, pp. 20-32
-