

A Theoretical Approach to the Competitive Advantage Moderating Effects of Strategies; Innovation and IT

S.W.G.K. Bulankulama¹, Ali Khatibi²

¹Doctoral Student, School of Graduate Studies, Management and Science University, Malaysia, Senior Lecturer, Rajarata University of Sri Lanka

²Professor, Faculty of business and professional studies, Management and Science University, Malaysia

Abstract: *Competitive advantage is one of the important targets for an establishment of long-run survival in any type of business process. Because, the provision of organizational performance, first of all, is based on the financial performance to work with the internal, individual and external factors in an organization. Because, the company's success is depends on the collaboration of these factors. The role of motivation about the productivity and the efficiency is a topic which has been studied and debated for years in which measurement of competitive advantage vary from financial performance to customer satisfaction while updating day by day. In this study, by the theoretical approach to competitive advantage it was attempted to emphasize the theories explaining competitive advantage, measurement of competitive advantage and the importance of the competitive advantages and also what the relationship between competitive advantage, innovation and IT.*

Keywords: Competitive advantages, Strategies, innovation, IT, Measurement of competitive advantage

1. Introduction

Establishments of competitive advantages in an organization price, quality, time and flexibility are its strength gain a high financial performance. It can be only so possible for the organization who accumulate the internal, individual and external factors with communication by online or offline customer relations. When the organization likes the innovation it made and feels itself as a valuable product and services in enterprise, it point up to prove additional beneficial attitudes for the enterprise. Establishments for their own benefit cannot ignore this positive atmosphere resulting from innovation. Establishments of competitive advantage should organize with innovative activities, to encourage a sense of financial performance for their organization. The production and service process would create the competitive advantage as if it were doing the most important duty in the enterprise, establishing an innovation.

2. Objective of the study

The objective of this paper is to explain the theoretical approach to the competitive advantage effect on innovation so that a future study can explore the moderating effect of innovation and Information technology how to affects to the relationship between exogenous variables of an organization and competitive advantage.

3. Problem Statement

Literature review as well as previous studies of competitive advantage reveals that this subject is not yet wholly explained nor deeply verified to study the relationship between competitive advantages and innovations. This difficulty is evident when organizations tend to define the innovation as a right strategic factor to possess competitive advantage. Accordingly, the current study focuses on a

theoretical problem where management disability is widely evident in observing the relationship between the innovation and competitive advantage.

4. Theories explaining competitive advantage

The concept of competitive advantages has been defined in many ways. However, the most-used definition of competitive advantage in organizational research is that of Porter recognized competitive advantage as a strategic goal that is a dependent variable it can be established through the good performance (Read and Difillipi, 1990:90). Kotler defined competitive advantage as an organizational capability to perform in one or many ways that competitors find difficult to reproduce now and in the future (Kotler, 1997:53; Kotler, 2000). Barney (1991) suggested some resources of competitive advantages, such as financial resources, physical resources, human resources, technological resources, reputation and organizational resources. Hence, competitive advantage is a relative quality that organizations maintain to possess through which organizations can exceed their rivals' performance, and achieve long-run benefits through the cost leadership, differentiation, and niche strategies (Porter, 1985). A brief review and categorizations of factors influencing for competitive advantages in an organization have revealed a number of organizational characteristics as potential determinants of the adoption process which include individual factors, environmental factors, technological factors, organizational factors (Azevedo, 2007), strategies, business size, and type of industry, information intensity, organizational culture and technological maturity (Caldeira and Ward, 2003).

Grant model, 2005 also facilitate to use the strategy to achieve the competitive advantages. Greater interest to most managers is the development of a strategy aimed at

establishing a profitable and sustainable position (Turban et al, 2006). To establish such a position, a company needs to develop a strategy of performing activities differently from a competitor in which Innovation is one of the strategies. Turban et al, (2006) cited 11 strategies for achieving competitive advantage.

5. Relationship between competitive advantage and innovation

5.1 Innovation as a moderator variable

Innovation is associated with competitive advantage in both growing and mature markets. Innovation, unlike most other business practices can change the competitive balance in mature markets (Brown, 1992). Firms are seeking the proper innovation it helps firms to achieve competitive advantages by enabling rapid and cost effective responses to specific customer requests. Innovation can occur within services, processes or any business system. Strategic innovation is considered as the basis for competitive advantages (Grant, 2005); it is recognized as a source of competitive advantage (Porter, 1980). According to Roger (1995), innovation is an idea, practice, or object that is perceived as new by an individual or other unit of adoption.

Resources are the owned or controlled by a firm that can be used for implement strategies (Barney, 1991). In order to the strategic factor can use in an organization for competitive advantages. Information technology is extensive through innovation. Strategically, IT tools should be employed within firm in order to achieve pre-determined business strategy. Hence, IT can use as a strategy to enhance the competitive advantages while it is implementing as a moderator variable in a model for competitive advantage.

Firms need to have strategic responses in order to facilitate the innovation process. Firms are also experiencing the internationalization of technology competition, globalization of manufacturing and increasingly sophisticated customers need and a greater integration of technologies. These challenges have forced organizations to develop innovative strategies and processes. It is very important for firms to seek ways of adding value through innovation in order to create a better performance. To implement the proper innovation in organizations including rational process, IT utilization, and communication, it will create the effective logistics function that results in superior operational performance and superior financial performance such as delivery performance, cost reductions, customer satisfaction, operational income, net income, and sales growth. It will finally in turn lead logistics firms to superior competitive advantages

5.2 Information Technology as a moderator variable

Information technology has long been recognized for its potential role in contributing to competitive advantage for firms (Baraney,1991). There is no doubt that the proper implementation of information communication technology system (ICTS) can be a significant source of competitive advantage to firms. It is beneficial to the logistics industry since its dependence on information for efficient operations. Logistics information communication technology system can

be a significant source of competitive advantage to firms. Ghobakhloo, 2012 proposed a framework of IT adoption influencing factors in an organization in which IT adoption implemented as a mediator variable in the developed model.

Successful use of information technology (IT) can improve performance of competitive advantage in an organization (Bharadwaj, 2000). According to Nguyen (2009), many businesses adopt new IT simply continue with firms which have implemented the technologies. According to Bharadwaj's (2000), IT capabilities means "the ability of the firm to mobilize and organize IT-based resources integrated with other firm's resources and capabilities."

6. Measurement of Competitive advantage

Organizations mainly care about customers' needs and wants and transform such needs and wants into targeted areas which are competitive dimensions. These dimensions focus on and show great interest in, while providing services and products to meet market demand and it will be help to achieve competitive advantage in organization in which competitive dimensions are **cost, quality, time, and flexibility** (Krajewski and Ritzman, 1999:33).

- **Cost**

Organizations must make some kind of negotiation between the cost and the characteristics of their products and services. In general, most organizations choose to cut total cost by reducing fixed costs and employee compensation rates, applying continuous control on raw materials, and by achieving higher levels of productivity (Dilworth, 1992:50).

- **Quality**

Quality can be achieved two ways which are adopt product design to its function (Adam and Ebert, 1996:47), and the quality of consistency which stands for the organizational capability to transform inputs to conformable outputs (Hill, 1993:35) or outputs in accordance to the specific design characteristics, and the focus on quality will be reflected in competitive advantage and profitability of the organization.

- **Time**

Organizations can consider the time factor to compete among each others. Delivery time can be a source of competitive advantage when organizations try to reduce the period of time between receiving and accepting customer orders and requirements of products or services to customers (Stonebrake and Leong, 1994: 53). The speed of product development also refers to the time factor; that is the time period between product idea generation till achieving the final design or production (Evans, 1993:120).

- **Flexibility**

Flexibility also can be defined as the ability to adapt with production capacity to changes in the environment or market demands (Evans, 1993:120). Flexibility further defined as the **ability of the organization to trace changes in consumers' needs, tastes and expectations** as a result carry out changes in product designs.

- **Net income**

The net income may also be considered the company's profit, or what the company gets to keep after all accounts are settled. Richey et al. (2005) examined financial and

managerial resources as antecedents to reverse logistics innovation. These resources, combined with the technological resources, were argued to be crucial resources in the development of logistics innovation.

- **Operational income**

Operational income are an internal performance measurement driver as the organizations focus on reducing costs and finding ways such as using technology to reduce costs in innovative ways (Gunasekaran and Ngai, 2003). Capability can make major contribution toward the achievement of better performance and competitive advantage that lead to operational income.

- **Sales growth**

Sakchutchawan *et al.*, (2011) stated that they either wanted to lower operating costs or gain higher sales growth in the long run, as a result of innovating. According to the study of Lu and Yang, (2006), they found that successful logistics firms in Taiwan recognize that consistently providing better logistics value to customers is critical to long-term sales growth operational income. In order to that sales growth is the increase in sales over a specific period, using the performance of a new firm or new product.

7. The Importance of Innovation and IT for Competitive Advantage Studies

This study is intended to providing an obvious understanding of relation between innovation, IT and competitive advantages success. Additionally, this study also examines the moderating effects of innovation and IT for competitive advantage success.

The results provide useful contributions and implications to CEO, marketing managers of any type of businesses. This study indicates that IT and innovation has positive effect on competitive advantages. Moreover, IT capability can help firm obtain great success. Thus, firms should more concentrate on creating resources and capability that can improve innovative strategy to achieved operation performance and success.

IT and innovation may occur from the simultaneous effects of individual, internal, external and technological factors in an organization, but there is a link between innovation and live factors. Industry communities, most people spend most of their time at work area. Hence, the quality of innovation is shaped by the farm of production, consumption and sharing which are base of economical actions? In this study, it is focused on the production side of the industrial organization. In industry community, the work life is very different from pre-industry. Hence, subject has many sides as national, economy, development, social peace, syndicate....etc, for this work, the main important thing is high performance of organization its mean satisfaction of people who spend most of their times in organizations. The workers spend most of their times and efforts at work. In our age, the success at work is regarded as an important criterion to be happy. The use of time, ability and knowledge, interaction with other people, showing of personal abilities and developing of them are important for innovation. The scale of work satisfaction of people and objects which effect this satisfaction are significant for the productivity and belonging of workers to their management. Happiness of people in work life is the

same thing with the success of organizational life. That will be effect to the innovations.

8. Conclusion

The biggest objective of competitive advantage is performance that are coming out of bio-psycho-social actions collaborating with internal, individual and external factors with strategies in an organization. These performances change into behavior in work environment and give important clues to find out and increase work power. The workers who have positive attitudes against their job are much more successful to create the innovations. As known, the theories, which give importance to "organization" in any type of business, are more accepted nowadays. The effects of organization on production and services is understood and seen clearly. The supply of effectiveness and productivity of organization are just possible if the workers are willing and highly motivated on their works for innovation. In encouraging of the workers and making them satisfied those who are not pleased with their works, the means of motivation are highly important for innovation. Competitive advantage is a tangible or intangible sense which comes out of organizational climate, culture, and identification of managements which is bound to manager's fair behaviors. In the birth of this identical, not only the quantitative but also the qualitative as mentioned in this paper has a big and important role.

References

- [1] Adam, E. and Ebert, R.(1996), *Productions and Operations Management: Concept, Models, and Behavior*, 5th ed, Prentice Hall, Eaglewood Cliffs, N.J.
- [2] Azevedo G, Susana; Ferreira, Jo~ao and Leit~ao, (2007), *The Role of Logistics' Information and Communication Technologies in Promoting Competitive Advantages of the Firm*, Online at <http://mpr.aub.uni-muenchen.de/1359/MPPRA Paper No. 1359>.
- [3] Barney, J. (1991). *Firm Resources and Sustained Competitive Advantage*, *Journal of Management*, Vol. 17, No. 1, p99-120.
- [4] Berawi, M, (2004). *Quality Revolution: Leading the Innovation and Competitive Advantage*. *International Journal of Quality and Reliability Management*, 21(4), 425-438.
- [5] Bharadwaj, A. S. (2000). *A resource-based perspective on information technology capability and firm performance: an empirical investigation*. *MIS Quarterly*, 24(1), 169-196.
- [6] Brown, R., 1992. *Managing the 'S'Curve of innovation*. *Journal of Consumer Marketing*, 9: 61-72
- [7] Caldeira, M. M., and Ward, J. M. (2003), *Using resource-based theory to interpret the successful adoption and use of information systems and technology in manufacturing small and medium-sized enterprises*. *European Journal of Information Systems*, 12(2), 127-141
- [8] Daniel, E., 1999. *Provisional of Electronic banking in the UK and the Republic of Ireland* *Int. Journal of Bank Marketing*, 17:72-82.

- [9] Dilworth, James B.(1992), Operations Management: Design, Planning and control for manufacturing and services, McGraw-Hill, NY.
- [10] Evans, D. (2008), Social media marketing: An hour a day. Indiana: Wiley Publishing Inc
- [11] Ghobakhloo M, Hong T.S, Sabouri M.S., Zulkifli N.(2012), Strategies for Successful Information Technology Adoption in Small and Medium-sized Enterprises, information, 3, 36-67, www.mdpi.com/journal/information.
- [12] Grant R.M. (2005), Contemporary Strategy Analysis, Wiley-Blackwell.
- [13] Gunasekaran, A. and Ngai, E. (2003). The Successful Management of a Small Logistics Company, International Journal of Physical Distribution & Logistics Management. 33 (9), 825-842.
- [14] Hemmatfar M, Salehi M, Marziyeh Bayat M.(2010), Competitive Advantages and Strategic Information Systems, International Journal of Business and Management Vol. 5, No. 7; www.ccsenet.org/ijbm
- [15] Hill, C. (2005). International business. New York: McGraw-Hill, (Chapter 15).
- [16] Krajewski, Lee J.;Ritzaman Larry P.(1996), Operations Management, Strategy and Analysis, 4th ed. Addison-Wesley, USA.
- [17] Kotler, P., (2000), Marketing Management Analysis, Planning and Control. 5th Edn. Prentice- Hall, Englewood Cliffs, New Jersey.
- [18] Lin C. Y. (2006). Influencing Factors on the Innovation in Logistics Technologies for Logistics Service Providers in Taiwan. *Journal of American Academy of Business*. 9 (2), 257-264.
- [19] Lu, C. &Yang, C. (2006).Evaluating Key Logistics Capabilities for International Distribution Center Operations in Taiwan.*Transportation Journal*. 1(12), 10-27.
- [20] Mentzer, John T., Min, S.& Bobbitt, L.M. (2004).Toward a Unified Theory of Logistics.*International Journal of Physical Distribution and Logistics Management*. 34(8), 606-627.
- [21] Nguyen, T.U.H.(2009), Information technology adoption in SMEs: An integrated framework. *Int. J.Entrep. Behav. Res.*, 15, 162–186.
- [22] Porter, M. K. (1980). Competitive Strategy (Techniques for Analyzing Industries and Competitors). New York/USA: The free press.
- [23] Read, Richard;Defillipi, Robert, J.(1990), Casual Ambiguity Barriers Limitation and Sustainable Competitive Advantage, *Academy of Management Review*.
- [24] Rogers, E. F. (1983). Diffusion of Innovations, 2nd ed. New York/USA: NY, Free Press.
- [25] Sakchutchawan S.et al,2011,Innovation and Competitive Advantage:Model and Implementation for Global Logistics, *International Business Research*, Vol. 4, No. 3; www.ccsenet.org/lib
- [26] Stonebrake, Peter W.;Leong G. Keony(1994), Operations Strategy: Focusing on Competitive Excellence, Allyin and Bacon, USA.
- [27] Teece, D. J. (1996). Firm organization, Industrial Structure, and Technological Innovation.*Journal of Economic Behavior and Organization*. 31(2), 193-224.