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An influence of Learning Orientation, Entrepreneurial Orientation, and Market Orientation on Innovation Capabilities

Junphen Wannarak

*Faculty of Business Administration and Information Technology,
Rajamangala University of Technology Suvarnabhumi, Samchuk 72130, Thailand
jwannaraksu@gmail.com*

Abstract: *Innovation capabilities are very important for current business because it relates to the ability of an organization that lead to new process, new product or new idea of an organization. Furthermore, it has an important role to influence the creation of a competitive advantage. The aim of this paper is to assess an influence of learning orientation, entrepreneurial orientation and market orientation on innovation capabilities. Samples used in this study were the Entrepreneurial/ manager of car garages in Thailand. Samples were recruited with various sampling methods and we had got 387 samples. Questionnaire was applied to collect data. Statistics used in data analysis were percentage, mean score and standard deviation. Regression analysis was used to test the hypothesis with statistical significance level of 0.05. The results showed an influence of learning orientation, entrepreneurial orientation and market orientation on innovation capabilities. The research also suggested that car garage entrepreneurs in Thailand should focus on 1) learning orientation including a focus on the commitment to learn about people in the organization, the openness and creating a shared vision. 2) entrepreneurial orientation included innovation, taking risk and proactive action, and 3) market orientation included customer orientation, competitive orientation and inter-functioning coordination. These are factors that influenced innovation capabilities that lead to more sales and profit. Furthermore, it had an important role to influence the creation of a competitive advantage for car garages in Thailand. Since the government sectors did not emphasize on this business, there were, therefore, very few researches about this business. This research, thus, was the pilot project to study about its factors and influences.*

Keywords: *learning orientation, entrepreneurial orientation, market orientation and innovation capabilities*

1. INTRODUCTION

Service business was a significant part to promote Thailand economic development. Though there had been political changes in Thailand for a decade which hindered the

country's economy and reduced production, service business was increased. This showed that service business sector was interesting to be promoted for international competition. Many developed countries like the USA, England and Japan could developed service businesses as international business, and it made other countries interested in this business more. It was particularly important for Thailand being one of the Asian Economic Countries by 2558 B.E. in which every country could freely do the business with member countries. It was, therefore, interesting to follow how Thailand would prepare and adjust itself to cope up with the upcoming changes.

Garage business in Thailand was an interesting business which was proved by increasing demand of car each year, along with "The first car policy" of the government to stimulate economy that increased numbers of car rapidly. New car owners preferred using service provided by the automobile manufacturers and most five-year up car owners were targeted customers for car garages.

Further to demand of car garage, numbers of car garage tended to be highly increased by 265 garages each year. In 2554 B.E., there were 6, 627 garages [1] and the ratio between a garage and over five-year car was 1:1, 553 which meant a car garage could service 1, 553 over five-year cars per year.

Further to market value of garage business, there was not exact data but the study of compensation payment by Insurance Business Association during January to May, 2013 (first six months) showed 25, 119, 942, 000 baht of payment [2] which was assumed market value of garage business alliance of car insurance companies.

Automobile industry tended to expand continuously and the trend was highly increased this year, many companies, therefore, changed their strategy to respond the government's first car policy and influenced other related car businesses expanded such as car parts and assemblies, car paint, body and car garage.

Though car garage was an interesting business at the present time, things to consider included future trend of the business. We would have to prepare ourselves to compete with other countries in Asian and obtain competitive advantages. Further to our literature review, we had found many factors led to competitive advantages and one of these was innovation.

Different countries were highly interested in innovation as the major factor led to competitive advantage. Further to resource based theory, innovation was different from innovation capabilities. [3] Innovation meant a resource that required organizations to have their innovation capabilities. [4] Innovation capability was, therefore, a potential to generate new process, new product and new idea [5] enabled business to meet its customers' needs that were always changed. Any business with innovation capabilities, therefore, had more competitive advantage.

There were many interesting factors to create innovation capabilities among car garages in Thailand. We had reviewed literature and found that entrepreneurial, learning and market orientations would increase their innovation capabilities.

The aim of this paper was, therefore, to assess influence of learning, entrepreneurial and market orientations on innovation capabilities.

2. LITERATURE REVIEW

This study based on resource based theory which assumed resource as the critical factor influencing business operation, the internal factor that was controllable and better developed by the business. Werenerfelt (1984) [6] had divided resources into tangible and intangible resources. Fahy & Smithee, (1990) [7] had added entrepreneurial utilizing capability that referred to the capability of working team resource. [8] This capability included individual, team or organization capabilities to meet all needs rapidly, on time and qualitatively such as the ability of administration, production, marketing and innovation. [9]

2.1 INNOVATION CAPABILITIES

Innovation capability was an important influencing factor for business operation and it meant the ability led to new production, product and idea. [6] Hult et al (2004) [10] also pointed out that innovation capability was different from innovation in term of innovation derived from the ability to generate new idea or innovation was the result of innovation capability. Creating new things like new product or process in an organization from the existing resources, therefore, would make the organization earn sustainable competitive advantage.

Lawson and Samson (2001) [11] had defined innovation capability as the ability to continuously modify knowledge into new product, process or system in order to generate profit for the business and concerned persons. The definition

was similar to Koc (2007)'s [12] that defined it as continuous improvement of overall business ability, resource, survey and utilization new opportunity to develop new product that could meet different needs in the market. Ngo and O'Cass (2009), [13] meanwhile, proposed that it was the integration of different process to obtain business knowledge, skill and resource to generate technical innovative activities (such as product, service or process technologies) and non-technical innovative activities (such as management, administration and marketing). Organization's innovation capability was very important for the business since it generated new product, service and process which were different from the competitor and attracted customers and business performance.[10] [14] [15] Besides, further to literature review, we had found that service innovation also led to creating sustainable competitive advantage [16]

2.2 ENTREPRENEURIAL ORIENTATION

Entrepreneurship was first defined by Joseph Shumpter in 1910. It was believed that it led to the discovery and integration of new product production factors and economic society. Entrepreneurial orientation was first proposed by Miller and Friesen, 1982 as a process and creation of interesting activities that led to new business entry [4] which entrepreneurial value would increase new business opportunity of the existing business and renew motionless business continuously. Entrepreneur characteristic was determined by his personality which was developed into entrepreneurial orientation. Kreiser et al (2002) [17] defined three characteristics of a good entrepreneur as innovativeness orientation (the ability to create product and process), risk taking orientation and proactiveness orientation Literature review had showed that entrepreneurship influenced innovation capability [18] [19][20][21][22] that led to the hypothesis of

H1: Learning orientation influenced innovation capabilities

2.3 MARKET ORIENTATION

Narver and Slater (1990) [23] pointed out that market orientation was the integration of important components like customer and competitor orientations related to collecting data about the customers and competitors in the targeted market. The data would then be distributed in the organization to apply the data in order to come up with a better value. In addition, the organization was subject to prevent the competitor from proposing better value to the customer. It required long term investment to maintain the better value and maximize existing resource utilization in order to survive, grow and generate profit. Market orientation, therefore, was the organization culture focused on profit generating, better value maintenance, and it was the behavioral norm to learn different needs of the customer, satisfy them promptly for a better value, determine and respond to the targeted market effectively in term of organization culture. Market orientation was, therefore,

difficult to be noticed, understood and imitated by the competitor which was the organization's competitive advantage [24]

Literature review showed that market orientation related directly and positively to innovation capability [10] [14] [18] [25] [26] and led to the hypothesis that;

H2: Entrepreneurial Orientation influenced innovation capabilities.

2.4 LEARNING ORIENTATION

Learning organization concept was developed theoretically and has been applied since 1980's and it was widely interested when Peter Senge (1990) [27] wrote "The Fifth Discipline; The Art&Practice of the Learning Organization" which revealed that in globalization world, competitive advantages derived on the organization's ability to learn and respond to the environment faster than its competitor [28]

Nasution et al (2011) [29] defined it as focusing on learning as the cultural characteristic focusing on improving insights, knowledge and understanding that would develop operation and value provided to the customer.Calantone et al (2002)

defined it as focus on learning as a creative activity and application of organizational knowledge to elevate its ability to compete. Rhee et al (2010), meanwhile, defined it as focus on learning as arranged organizational culture dealing with the ability influencing its behavior.

Calantone et al (2002)defined learning into four aspects as commitment to learning, shared vision, open-mindedness and intra-organizational knowledge sharing. Rhee et al (2010) and Peng (2008) [30] defined learning differently as facilitated leadership and decentralized strategic planning and based on Calantone et al (2002) study which was suitable for the current study.Literature review showed that learning orientation directly and positively related to innovation [11] [14] [18] [26] [31] and led to the hypothesis that;

H3: Market Orientation influenced innovation capabilities.

3. CONCEPTUAL FRAMEWORK

Literature review showed that influencing factors towards innovation capability included learning, entrepreneurial and market orientations which could be explained their relationship as the following;

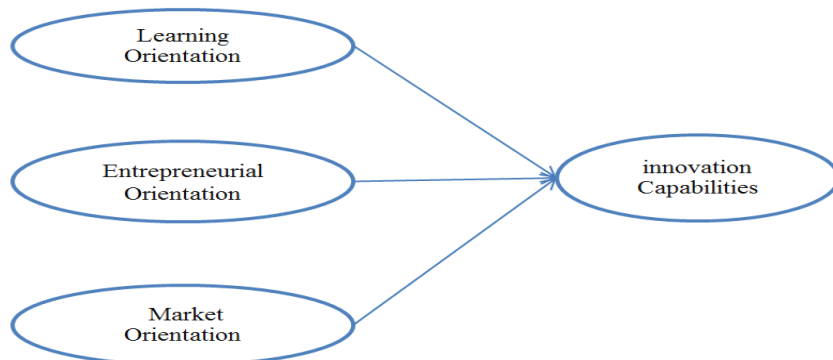


Fig.1. Research framework

4. METHODOLOGY

The aim of this paper was to assess an influence of learning, entrepreneurial and market orientation towards innovation capabilities. Population included entrepreneurs or managers of car garage listed by Department of Industry that running the business more than 10 years. Samples were recruited with multi-stage random sampling in order to collect data from targeted population, survey questionnaire was developed by different steps. Firstly, the qualitative research was to study the circumstance, problem and reason of garages in Thailand and collect data by insight interview with 5 entrepreneurs, 6 major business owners, 2 medium enterprise owners and small enterprise owners. Content analysis was done to determine reason factors influencing their innovation capability. Secondly, after determining reason factors influencing innovation capability based on qualitative research, literature review and determining

operating definition of different variables, questionnaire was designed based on the previous studies by Pratana et al (2011), Nasution et al., (2011), Peng (2008), Hult et al., (2004) and Calantone et al., (2002). Survey composed of 3 parts including 1) demographic factors included gender, age, and income level, 2) subjective factors included learning, entrepreneurial and market orientation, and 3) subjective factors included innovation capabilities. In order to measure the highly significant features, it was important to analyze effect of learning, entrepreneurial and market orientations on innovation capabilities. We used 8 item 5-point Likert measurement scale with 400 item questionnaire with 387 out of 400 entrepreneurs or managers of car garage listed by Department of Industry. Response rate was 96.75%. We used Cronbach's alpha to evaluate the reliability of learning, entrepreneurial and market orientation, and innovation capabilities scale. The Cronbach's alpha value showed 0.803 that was appropriate for this study.

5. RESULTS

Among 387 samples, most were male (75.2 %), age between 41-50 years old (46.30%), bachelor graduated (69.8%), being the supervisor/manager (66.9%) Further to the learning orientation, we had found they were highly

organizational, market and entrepreneurial learning oriented, and they had good innovation capability.

Hypothesis testing revealed supportive factors toward the ability to utilize existing resources influenced the ability to use innovative resources among garages in Thailand as shown below;

TABLE 1: The average, standard deviation and Pearson correlation coefficients and regression analysis of supportive factors towards the ability to utilize resources and the ability to use innovative resources among garages in Thailand

Variables	Mean	S.D.	1	2	3	4
1. Learning Orientation	3.15	0.82	1			
2. Entrepreneurial Orientation	3.26	0.82	0.760**	1		
3. Market Orientation	3.25	0.87	0.710**	0.680**	1	
4. Innovation Capabilities	3.23	0.77	0.720**	0.690**	0.663**	1

Notes: ** $p < .01$

Studied variables in table 1 were fair with entrepreneurial orientation ranked the highest at 3.26 followed by market, innovation and learning orientations with 3.25, 3.23 and 3.15 mean average respectively. Three variables including learning, entrepreneurial and market orientations positively and significantly related to innovation capabilities at 0.01

with Pearson’s correlation coefficient at 0.720, 0.690 and 0.663 respectively.

Supportive factors for the ability to use innovative resources of garages in Thailand in multiple regression analysis included learning, entrepreneurial and market orientations were showed in Table 2.

TABLE 2. Multiple regression analysis of supportive factors influencing the ability to use innovative resources among different garages in Thailand.

Variables	Unstandardized Coefficients		Standardized Coefficients	T	Sig.	Collinearity Statistics	
	B	Std. Error	Beta			Tolerance	VIF
Constant	0.691	0.111		6.200	0.000**		
Learning Orientation	0.336	0.052	0.357	6.506	0.000**	0.354	2.826
Entrepreneurial Orientation	0.247	0.050	0.260	4.931	0.000**	0.383	2.613
Market Orientation	0.208	0.044	0.232	4.769	0.000**	0.449	2.226

R2 = 0.591, F = 184.632, Sig. = 0.000

Notes: ** $p < .01$

In table 2, we had found that VIF of all variables was less than 4 and tolerance was more than 0.2 which meant every factor had no multicollinearity with the variables including learning, entrepreneurial and market orientations and we could forecast the ability to utilize innovative resources of garages in Thailand at 59.1 mean average (R2 = 0.591), and the remaining 40.9% was influenced by other variables. F value of the model was 184.632 with 0.000 significance value and less than 0.05 which referred that there was at least a factor influencing the ability to utilize innovative resources of garages in Thailand and written as below equation;

$$\text{Innovation Capabilities} = 0.691 + 0.336 \text{ (Learning Orientation)} + 0.247 \text{ (Entrepreneurial Orientation)} + 0.208 \text{ (Market Orientation)}$$

Standardized equation was the following; Innovation Capabilities

$$= 0.357 \text{ (Learning Orientation)} + 0.260 \text{ (Entrepreneurial Orientation)} + 0.232 \text{ (Market Orientation)}$$

Above equations could be described as every variable correspondingly influenced the ability to utilize innovative resources of garages in Thailand. Highest influencing factor was learning orientation with 0.247 standard regression coefficient (β), followed by entrepreneurial orientation with 0.247 standard regression coefficient (β) and market orientation with 0.232 standard regression coefficient (β) which could be interpreted as the following;

One score increased in learning orientation would influence the ability to utilize innovative resources of garages in Thailand for 0.357 when other variables were stable.

One score increased in entrepreneurial orientation would influence the ability to utilize innovative resources of garages in Thailand for 0.260 when other variables were stable.

One score increased in market orientation would influence the ability to utilize innovative resources of garages in Thailand for 0.232 when other variables were stable.

6. CONCLUSIONS AND DISCUSSION

This study aimed to investigate the relationship of learning, entrepreneurial and market orientations with innovation capabilities of garages in Thailand and it was found that these orientations influenced innovation capabilities which complied with our hypothesis and be explained as the following;

1. When personnel in the garage were self-determined, open-minded and had shared learning vision, it would be possible to increase innovative resource utilization possibly due to having different problems with the customer every day. Personnel in the organization, therefore, should be self-determined by learning new knowledge about garage business in order to earn competitive advantage and survive in the world of competition. Learning, therefore, should be organization culture. Next, they should be open-minded that was hearing different opinion, opening for new cooperation, thinking outside the box, learning about new things, creating organization culture and sharing vision. Sharing target, agreement, determination and direction of business would lead to better innovative resource utilization in the organization. For example, always providing new product and better than the competitor to the customer, developing new innovation to solve customer's problem, providing various product and service, willing to create new method to serve customer's need and generating new innovative working process that could reduce working process by implementing IT or social networks to serve the customer better. Our findings were conformed with studies by Hult et al, (2004); Lee & Tsai, (2005); Rhee et al, (2010); A. Fernandez-Mesa J. Alegre., (2015); and H. Reijonen et al., (2015)
2. Personnel in the organization possessed entrepreneurship that was having innovation, risk taking and proactive action that could improve innovation capabilities of the organization possibly because increasing the organization's innovation possibilities required personnel to be creative, have innovative idea, apply new technology, have risk taking characteristics including willing to take risk

responsibility and reach the goal, think and take action before the competitor, dare to handle the result of changes and respond customer's need promptly and faster than the competitor. These would improve innovative product such as creating new product or service faster than the competitor, creating innovation to solve customer's problem, creating various product and service or new method to serve the customer's need. Besides, it also required shorter, faster and more modern working process or procedure by applying IT and social networks. These findings complied with the studies by Rhee et al, (2010); Tajeddini, (2010); K.J. Trainor et al.(2011); A. O'Cass, L.V. Ngo (2012); E.T.G.; Wang et al. (2013)

3. When personnel in the organization focused on market orientation based on customers, they were determined to serve customer's need, create value added continuously, understand customer's need better than the competitor and be well-prepared to serve the customer. These orientation focused on internal cooperation like treating customer well and fair, trying to keep customer's data, having shared and suitable working plan, aware customer's satisfaction, focus on competition by learning and sharing competitor's data among different departments, trying to create competitive advantage and increasing the ability to create innovative product such as always providing new product or service faster than the competitor, creating new innovation to solve the customer's problem and serve the need, having various product and service and be eager to create new method to serve the customer's need along with reducing and shortening working process and procedure by applying IT and social networks. These findings complied with the studies by Hult et al, (2004); Lee&Tsai. (2005); Rhee et al, (2010); E. Fraj et al., (2015); A. Fernandez-Mesa, J. Alegre., (2015)

We would recommend based on our research findings as following;

1. Garage business would survive and be successful by creating learning factors like having self-determined personnel, having shared vision of learning new things to strengthen the business' competitive advantage, creating learning organization culture by being open-minded, thinking outside the box, having shared vision in order to create learning organization continuously.
2. Entrepreneurship of personnel in the organization included 1. Innovative characteristics including creating new idea to solve customer's problem, applying technology to reach the goal properly and fast. 2) risk taking included having more methods to solve customer's problem than the competitor, seeing risk as a chance by obtaining good and sufficient information, and 3) proactive actions meant always

providing customer satisfaction faster than the competitor.

3. Market orientation was the final factor of innovation capability that meant the ability to serve customer's need more than the competitor. Customer's need, therefore, was the cause of innovation. Furthermore, competitor orientation was learning competitors' information like their value, organization culture and marketing strategy would prepare the business to deal with the competition and generate new innovation. Internal cooperation, meanwhile, created organization's ability to serve customer's need and satisfaction promptly and creatively led to innovation suitable for the organization and created competitive advantage.

The future research should examine the impact of other variables such as cluster, green and relationship orientations of innovation Capability or investigate about the influence of innovation capability towards the organization like firm performance, competitive advantage and sustainable competitive advantage. In addition, future study should also explore other businesses such as spa or small hotel.

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