Entrepreneurial Competencies and Networks in the Construction Industry

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Abstract

The construction industry plays an important role in the economic growth and in the long-term national development. However, some studies have shown that the failure rate and bankruptcies among the construction firms are high. One of the critical issues facing the construction industry in Malaysia is to ensure that the industry can attain and able to sustain the anticipated growth. This research attempts to empirically examine the significance of the entrepreneurial competencies and entrepreneurial networks on entrepreneurial success of small size contractors in Malaysia. It adapts the quantitative approach and carried out in the state of Selangor where stratified random sampling was adapted. Questionnaires were conducted as means of collecting data. Based on the total number of population of G1 to G3, the sample size is 368 respondents. Quantitative research revealed that personal competency has the highest effect on the success of the construction firms (β =.231), and social network (β =.223). Hence, the study's empirical findings provide a basis recommendations for small size construction firms to enhance their competencies and for the policy makers to design and formulate entrepreneurship support programs for small size construction firms.

Keywords: Entrepreneurial competencies, Entrepreneurial networks, Construction firms, Entrepreneurship

INTRODUCTION

Small and medium enterprises (SMEs) have been recognized as being one of the driver of growth for many countries (Abdullah, 1999; Johan, 2007), including Malaysia (Aris, 2006). Regardless of the categories and sectors, these SMEs contributed to the Malaysian economy tremendously which includes; creation of jobs opportunities; contribution of output such as services and products; developing a pool of semi-skilled and skilled workers; provide opportunities for technological development; offer an excellent ground for entrepreneurial and managerial talent (SMIDEC, 2005). In 2013, the performance of SMEs remained encouraging with the GDP growth of SMEs picking up further to 6.3%. The growth not only exceeded the 6 percent growth recorded by SMEs in 2012, but also the overall economic growth of the

country of 4.7 percent in 2013. Going forward, SME growth is expected to sustain at 5.5 - 6.5 percent in 2015.

Meanwhile, various ministries and agencies are also implementing a total of 154 SME programmes in 2014. The government emphasized on the productivity and innovationled growth in order to achieve the long-term goals of the nation. Focus is also given to strengthening of SMEs in the services sector, which is expected to evolve into becoming the future growth engine. Numerous business support programs that were made available by the government in the form of financial and non-financial supports. Every SME was also encouraged to embark in the innovation and trainings programs to ensure a higher degree of creativity and competency in creating higher value products, thus sustaining growth. Small firms cannot ignore these important factors. In Malaysia, Construction Industry Development Board (CIDB) provides compulsory training programs throughout the year and firms are required to send their workers to these training programs to gain points. These points are important in order for the firms to be registered as contractors.

The construction industry plays an important role in economic growth and in long-term national development. Government tends to use their investments in construction to introduce changes in the national economies (Hillebrandt, 2000). This is evident in many of the 'stimulus packages' which were launched in a number of industrialized countries to address the global economic and financial crisis in year 2008 – 2009. The link between the national income and the construction industry in the context of economic development has been the subject of many studies in recent decades (Ofori, 1990). In these studies, the classical approach in the economic growth theory, in which capital formation (particularly physical infrastructure) is the main engine of economic growth and development, has been validated.

RESEARCH PROBLEM

There is an increasing number of construction firms in the recent years, particularly in the rural areas, which are involves in a high-risk and competitive business. This is due to the low barriers of entry which lessens the restriction of registering as a contractor (CIDB, 2006). Construction Industry Development Board or CIDB (2008) reported a high percentage of contractors (52 percent) under grade G1, which

is the smallest company's grade. Nonetheless, despite the large number of G1 contractors, the rate of bankruptcies and failures remained high. During the 1970 to 1980s period, small and local firms initiated the construction boom where it propelled the economic growth of the country.

These firms expanded at different levels of growth and success. Within 3 to 5 years, these firms' progress were stagnated and only one third of the firms managed to sustain their businesses (Yin, 2006; CIDB, 2008). In the recent years, many big scale projects have been completed and government prudence in the expenditure, local projects cannot sustain the 69,490 contractors. This leads to the lower ranking contractors went out of business (CIDB, 2006).

Thus, this study seeks to fill the gap between early works on the construction industries and their improvements in the small construction firms by investigating a set of variables that influence the success ventures of the construction industry through the entrepreneurial lens. This study is to determine the effects of two integration influencing factors which are entrepreneurial competencies and entrepreneurial networks toward the entrepreneurial success of the small size construction firms. Unfortunately, limited studies were carried out to investigate the impacts of these two influencing factors towards the growth of small sized construction firms in the local industry.

OBJECTIVES

Specifically, this leads to research objectives as shown below:

- 1. To study the influence of entrepreneurial competencies on the success of small sized construction firms
- 2. To examine the effects of entrepreneurial networks on the success of small sized construction firms
- 3. To determine the most contributing factor that determines the success of small scale construction firms

LITERATURE REVIEW

Success is influenced by managerial and planning skills (Liao, 2004). There is a collective of factors that could contribute to their success growth. According to the Malaysian Construction Master Plan 2016-2020, there are four strategic trusts which are;

- 1. Quality, Safety and Professionalism
- 2. Environmental Sustainability
- 3. Productivity
- 4. Internationalisation

(CIDB, 2015)

This is similar with a study carried out by Hutchings and Christofferson (2001); it was found that there are a variety of elements that determine business success, which are:

- a. Honesty
- b. Quality workmanship
- c. Customer communications
- d. Having good subcontractors
- e. Reputation
- f. Having good employees
- g. Completing projects on time

Entrepreneurship is closely linked with the development of small and new businesses (Colombo and Grilli, 2005). Asian firms can enhance their competitive advantage by leveraging their internal resources within an external environment generally conducive to growth. Accordingly, successful firms focused on the internal factors such as individual variables and organizational variables. Covin and Slevin (1986) suggested that the organizational variables that could affect a firm's performance include the resources and competencies. as well as structure and in-built culture. The firm's resources and competencies such as monetary resources, plant and equipment, personnel, functional-level capabilities, organizational-level capabilities, and system are factors that influence firms to succeed and grow. It is important to acknowledge that the role of an entrepreneur especially the SME, is vital to manage the internal and resources in order to achieve business success.

Entrepreneurial Competencies

Strebler et al (1997) demonstrated competency as attributes that individual portrays, and as a minimum standard of his/her performance. Since 1988, the United Kingdom government through the Management Charter Initiative encouraged the developments of competency where it is described as an outcome from a person that they are able to demonstrate (Cheng & Dainty, 2003). A relationship exists between an entrepreneur's competency and their ability to work for success. However, most studies in entrepreneurial competencies have been carried out in a small number of areas (Brinckmann, 2008). There is a variety of definitions of the term entrepreneurial competencies that have been suggested. More research has been conducted in the area of corporate entrepreneurship and intra-preneurship (Hayton and Kelley, 2006; Sathe, 2003; Zahra et al., 1999).

Man and Lau (2005) summarized entrepreneurial competency as two major origins, which are; entrepreneurs that are born with the required competencies, and entrepreneurs that are built in having these traits through work, theoretical or practical learning. Several attempts have been made to

distinguish between entrepreneurial competencies and managerial competencies (Chandler & Hanks, 1994). The relationship which has been widely investigated generates an interest in entrepreneurial competence (Baum, 1994). Churchill and Lewis (1983) revealed that entrepreneurs that are able to transform and tailored to the various stages of the business development will create more success for business growth.

Entrepreneurial Networks

Dynamically, entrepreneurial networks are considered as a scheme that consists of dyadic ties and linkages which is formed of formal and informal relations, weak and some are strong ties. It is constantly changing according to the stages and the needs of the venture (Elfring& Hulsink, 2001). In this regard, these firms are forced to act proactive in gaining support from other firms, supporting institutions, and relatives and friends. Otherwise, they will a face failure as a result of the scarcity of managerial skills, lack of marketing knowledge and limited power of planning. Without their internal resource base, they will be unable to compete in the highly robust and competitive market. Consequently, SMEs which are more vulnerable to the economic changes are forced to search for advices and business supports (Blackburn et al., 2010; Lowe & Talbot, 2000).

Networking has become a more prominent tool for entrepreneurs in attaining ideas, business opportunities as well as markets resources (Birley, 1985; Fang, Tsai, & Lin, 2010; Farr-Wharton & Brunetto, 2007; Gulati, Nohria & Zaheer, 2000; Hoang & Antoncic, 2003; Lee & Jones, 2008; Shaw, 2006; Taylor & Thorpe, 2004). External service provides the skills, knowledge, competency and expertise tailored to the capacity of small SMEs (Gilley et al., 2004). In fact, activities in which SMEs lacking in the necessary internal resources such as knowledge, skills, expertise and competence can be obtained from external service providers as stated from the Resource-Based View (RBV) (Kamyabi and Devi, 2011).

There are many motives in forming entrepreneurial networks. Forming a network is essential for the development of small firms (Thrikawala, 2011). Researchers such as Abdul Ghani Farinda et al. (2009) analysed on the prominence in comprehending motives in business networks that further contribute to business success. Their analysis from their framework reveals the factors that affect the motives of efficiency, which are; the internal factors of the business, the properties of the business in the network, the degree of similarity with one another, and external factors. A study carried out by Oliver (1990) integrates a diverse of literature and suggests six factors that form business networks, which are; necessity, asymmetry, reciprocity, efficiency, stability and legitimacy.

Firm Performance

Success is the ultimate goal for every business venture. It is highly related to the fulfillment set by their firm. Elements of sales, rate of return of capital, profitability, gained market share and the rate of turnover are some indicators of business achievements (Jauch & Glueck, 1998). Supplementary to that, there are three indications that could measure performance, which are growth, profit and efficiency (Li et al., 2009). On the other hand, Lee and Tsang (2001) indicated that performance is measured through their sales growth, the growth of the company's assets, and profit growth.

METHODOLOGY

The targeted respondents are owners of G1, G2 and G3 companies in the construction industry. Stratified random sampling is chosen for this research as it involves the division of categories of contractors in Selangor, namely G1, G2, and G3. Each forms characteristics in the sample that are proportional to the overall population. In essence, this study is specifically carried out in the state of Selangor. This study chose the state of Selangor due to the fact that Selangor has the largest population which is 5,411,324 in 2010. The economy of Selangor is a progressive market economy.

The state contributes the biggest fraction of the GDP with RM 128.815 Billion in 2010. This constitutes 23 percent of the total GDP of Malaysia. In comparison to other states, Selangor is reported to have the most developed infrastructure that signifies better standard of living with the lowest rate in poverty. The total numbers of construction managers (G1-G3) in Selangor are 8188 managers. The sample size is 368 respondents as referred to the total population.

RESULTS AND DISCUSSION

Approximately 300 questionnaires were distributed among construction firms throughout Selangor. From the number distributed, 151 responded. This gives a total response rate of 50.3 percent. The questionnaires were distributed through phone calls, email and the 'drop and collect' method in order to maximize the response rate from the constructions firms. The reliability coefficients are within 0.726 to 0.970, which is in line with Nunally (1978), and concludes valid results.

Regression analysis of coefficient test as exhibited in Table 1.1 is used to test the coefficient between independent variables and dependent variable. The results from the table shows that personal competency has the highest impact on the success of the construction firms (Beta= 0.405). More precisely, all dimensions of competency are significant predictors to entrepreneurial success of the construction firms, with the exception of social responsibility which do not have a significant relationship with entrepreneurial success. On the other hand, networking that have significant positive

relationships with entrepreneurial success are interorganizational network (Beta=.231) and social network (Beta=.223). However, business network is not a predictor to entrepreneurial success of the construction firms (G1-G3) in Malaysia.

In conclusion, only social and inter-organizational network, personal, commitment, opportunity, technical, organizing and leading, strategic, relationship, learning, conceptual, ethical and familism contribute to the success of the construction firms in Malaysia within the category of G1-G3. The results indicate that 47.4 percent is the amount of variance in the dependent variable that can be explained by the model. There is a need for more variables to explain the amount of variance that can be explained by this model.

Table 1.1: Results of regression analysis

Independent variables	Dependent variable		
Personal	.41*		
Commitment	.39*		
Opportunity	.32*		
Technical	.36*		
Organizing and Leading	.35*		
Strategic	.29*		
Relationship	.30*		
Learning	.28*		
Conceptual	.27*		
Ethical	.21*		
Familism	.21*		
Social Responsibility	00		
Social network	.22*		
Inter-organizational network	.23*		
Business network	00		
F value	46.695		
\mathbb{R}^2	.474		
Adjusted R ²	.460		

^{*}p<0.05, **p<0.0

All the correlations between variables were significant and have positive relationships between them. The strength of the correlations were well below 0.90, thus, indicating there is no serious multicollinearity problem between the correlations of all the variables (Hair et al, 1998). This correlation analysis is conducted in order to answer the second research objective which is to examine relationship between competency,

networking with its dimensions and entrepreneurial success within the construction industry.

Based on these results, it can be concluded that all variables positively correlated with each other. 47.4 percent is the amount of variance in the dependent variable (business success) that can be explained by the model. The closer the 1.0 the R-square value is, the better the model. Therefore, there is a need for more variables to explain the amount of variance that can be explained by this model. Table 1.2 depicts the regression weight of independent variables (competency and network) in predicting business success.

Table 1.2: The regression weight of independent variables (competency and network) in predicting business success

Independent	Dependent	Beta	P-	Result
variable	Variable	coefficient	Value	
Inter-	Entrepre-	.23	.014	Significant
organizational	neurial			
network	Success			
Social network		.22	.002	Significant
Business network		00	.966	Not
				significant
Personal		.41	.003	Significant
Commitment		.39	.012	Significant
Opportunity		.32	.004	Significant
Technical		.36	.021	Significant
Organizing and		.35	.042	Significant
Leading				
Strategic		.29	.005	Significant
Relationship		.30	.000	Significant
Learning		.28	.013	Significant
Conceptual		.27	.000	Significant
Ethical		.21	.005	Significant
Familism		.21	.002	Significant
Social		03	.014	Not
Responsibility				Significant

The finding of this study confirmed that the strategic competency of entrepreneur do influence to firm success. The finding is consistent with Man et al., (2005) strategic competency relates to "setting, evaluating, and implementing the strategies of the firm". The finding also supports finding by Noor Hazlina (2010) that strategic competency were important behaviors among entrepreneurial success in Malaysia.

Apart from that, these findings are consistent with Timmon's (1994) view that the acceptance of passion as a requirement among entrepreneurs in dealing with uncertainties. Moreover

it also supported Thompson et al (2001)'s study who revealed a frequent connection between commitment and success ventures. Furthermore, findings indicated are similar with the works of Man and Lau (2005)'s who revealed that conceptual competency is one of the factor influencing business success. The finding also supports finding by Noor Hazlina (2010) that conceptual competency was important behaviors among entrepreneurial success in Malaysia.

The results are consistent with opportunity competency and are closely linked to the behavior of successful entrepreneurs. The results from the quantitative results reaffirmed theories pertaining entrepreneurship, which maintain the essence of entrepreneurship by recognizing valuable opportunities (Chandler & Hanks, 1994; Shane, 2000). These findings also supported finding by Noor Hazlina (2010). Noor Hazlina (2010) found the consistency in behaviors of entrepreneurs which reflecting the opportunity competency in Malaysia. More importantly, Man et al (2002) states organizing and leading relates to the organization of different internal and external human, physical, financial, and technological resources, including team building, leading employees, training and controlling influence success.

The finding also supports finding by Noor Hazlina (2010) where it stated that relationship competency was important behaviors among entrepreneurial success in Malaysia. It can be also said that learning competency is also an important factor influencing the successful venture of a small business. These findings also supported the study by Noor Hazlina (2010) in her study. In essence, she found that personal qualities were important for entrepreneurial success.

This study also revealed that technical competency is one of the factors that influenced the success of a firm. The finding of this study is consistent with Chandler and Jansen (1992) which states that technical competency relates to the ability to use the tools, procedures, and technique of a specialized field is important factor to success of a firm. The finding also supports finding by Noor Hazlina (2010) that technical competency is an important behaviors among entrepreneurial success in Malaysia.

The finding of this study is consistent with Noor Hazlina (2010) that ethical competency is important to the successful venture in Malaysia. However, social responsibility is not significant to the success venture of small construction firms in Malaysia. This is in contrast with finding by Noor Hazlina (2010). Further study must be conducted to find the reasons as to why social responsibility is not significant. Ultimately, this study indicated that networking is critical to the business success.

CONCLUSIONS

The objective of this research was to determine the effects of entrepreneurial competency and entrepreneurial networks on

small sized construction firms in Malaysia. The findings of this study validate that entrepreneurial competencies and entrepreneur networks are positively related to the success of small sized construction firms in Malaysia. The findings also suggest that the entrepreneurial firms, in their efforts grow and succeed must pursue for competitive advantage. Competitive advantage is at the heart of firm's performance. Successful small firm's strategy depends on accumulating competencies and exploiting them by matching these competencies to the market opportunities, thereby achieving a sustainable competitive advantage. Now days, entrepreneurs face their toughest ever competition in the marketplace on top of economic uncertainties and gloomy global economic outlook. Nevertheless, for small construction firms to remain firmly in the marketplace, they must learn how to manage and steer their businesses through difficult and volatile global economic cycles.

Hence, firms' abilities to effectively execute solid business ideas into viable businesses will ensure business survival and This could be achieved through revenue growth. entrepreneurs' personal competency, learning competency, opportunity competency, and strategic management competency. The firms must also establish social networks and inter-organization networks. Small firms will be able to value-added resources through the networks competencies. networks competencies The enable entrepreneurs to gain access for supports and exploit external strategic resources. Personal competency is extremely important factor that influence the success small size construction firms. Personal competency which include relationships, commitment, conceptual and passion are critical behaviors for successful entrepreneurs. Developing interpersonal trust, gaining family supports and close friends are critical factors for developing a successful entrepreneur in the industry.

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