The Effect of Entrepreneurial Orientation and Competitive Advantage on SMEs' Growth: A Structural Equation Modeling Study

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Abstract

The aim of this research is to analyze factors affecting on SMEs' growth and to develop the Structural Equation Modeling (SEM) of SMEs' growth. The samples sized consist331 entrepreneurs in Lao PDR, instrument of research was the questionnaires 5 levels of Likert Rating Scale, the variables were Entrepreneurial Orientation, Competitive Advantages and SMEs' growth. The result of this research were as follow: The factors Entrepreneurial Orientation has positively affecting on Competitive Advantages and the factors Competitive Advantages and Entrepreneurial Orientation has positively affecting towards SME's growth with statistical significance.

Keywords: Small and medium enterprises (SMEs), SMEs' Growth, Entrepreneurial Orientation, Competitive Advantages, Structural Equation Modeling (SEM).

Introduction

Small and medium enterprises (SMEs) play an increasingly important for market growth domestically and abroad, driving sustainable growth in the trading, production and service sectors through attracting investments. SMEs also play an important role in maintaining a healthy balance in the economy and are main job creators in society (Directory of Outstanding ASEAN SMEs, 2011; Law on the promotion of SMEs, 2012)

SMEs are important at both the national and international levels. For Lao PDR, the importance of SMEs is not exceptional. They form a core part of economic growth, driving a strong economic development in the country through manufacturing and commercial sector development. Investments in SMEs generate employment and income opportunities for the Lao people; thus, improving living standards in the country. Such improvements are crucial for industrialization and modernization in the country (9th Party Congress Resolution,2011,p.71). In addition, SMEs constitute important sources of new knowledge for innovation towards increasing value adding and maximizing the use of natural resources for improving goods manufacturing and service development (small and medium enterprise development strategy until 2010: SMEs Promotion and Development Office, 2009, p.1; Deresky, 2000, p.15).

Based on existing literature, we found that business development of SME entrepreneurs in Laos PDR have faced a number of problems and challenges in terms of stiff competition in both domestic and foreign markets. SMEs have suffered from skilled labor shortage; thus, they find it difficult to undertake quality improvement and innovation. Government's regulations are not yet sufficiently enabling for SMEs' growth. Public sector and SMEs sector linkages are still weak; market and financial resource access is low.

All above challenges and constraints reduce SMEs' competitiveness (Kyophilavong, 2008, p. 191; Quang& Thavisay,1999, p. 6; Southiseng & Walsh, 2010, pp. 57-58)

The above mentioned problems and changing environments in which small and medium enterprises operate; especially in order to be able to improve SMEs' growth, it is necessary to investigate mechanisms and factors which are important for SMEs' growth. Such investigations are important for developing a structural equation modeling which is appropriate for SMEs development conditions and promotion in Lao PDR.

Research Objectives

Therefore, this study are :

- ▪ To investigate factors which are important determinants of small and medium enterprise growth.
- ▪ To develop a structural equation modeling involving factors influencing small and medium enterprise growth.

Scope of Research

This study is framed within the following scope:

Conceptual framework: The conceptual thinking used in this study is framed within firm growth theories of Murphy (1996), resource-based views (RBV) of Barney (1991, pp.101-102), entrepreneurial orientation concepts was developed by Miller (1983) as comprising three dimensions; innovativeness, proactiveness and risk taking and the competitive advantage theory of Michael E. Porter (1985, pp.12-14).

Study site: The study is conducted based on data collected from small and medium enterprise owners in Lao PDR.

Literature Review

Entrepreneurial Orientation

Entrepreneurial orientation is a significant contributor to a business success; the business operation success is related with both internal and external environment factors. The external environment factors include economic and social conditions, political and technological factors. The internal environment factors include entrepreneurial management which consists of a level of emphasis placed on strategic orientation, resources orientation, management structure entrepreneurial culture development, reward philosophy, and the entrepreneurial orientation is related with personal characteristics of the entrepreneurs (Isalam, 2011).The entrepreneurial orientation consists of attitudes towards business innovativeness, proactiveness in business operation and risk taking (Miller, 1983; Lumpkin., &Dess, 1996, p.137; Gürbüz., & Aykol, 2009; Kuratko & Hodgetts, 2004,p. 130).

Li, et al, (2009) studied relationships between entrepreneurial orientation and entrepreneurial performance of 165 enterprises in Taiwan based on primary data collected through a questionnaire. The level of influence of each independent variable on the enterprise performance is measured in a Likert scale of five. The independent variables include entrepreneurial orientation, innovativeness, proactiveness and risk taking. The dependent variable is the enterprise growth. The study found that the model has a high level of goodness of fit with chi-Square=72.05, df=40, chi-Square/df=1.8 GFI=0.932, NFI=0.975, CFI=0.989, RMSR=0.0124. Considering the hypotheses, it was found that entrepreneurial orientation is positively related to growth; p<0.05 and Path Coefficient = 0.47.

Competitive Advantage

According to Barney (1991, p.99) and Baum et al, (2001, p. 292), a resource-based theory consists of capacity and the resource which is a foundation for business organizations to build capacity is rare with a high value. Such resource is rather specific to each enterprise and other enterprises find it difficult or costly to imitate. It is also difficult for an enterprise to find a substitute for such a core factor or core competence. Business core competence is directly related with advanced technical know-how, reputation, brand awareness, ability of manager, patents and trade mark (Fahy and Smithee, 1999, p.2). Prahalad and Hamel (1990) states that individual staff capacity is a prime determinant factor of production of the enterprise and such staff capacity leads an enterprise to be different from and costs leaderships among other enterprises (Porter, 1985,p.14; Prahalad and Hamel, 1990).

Growth of SMEs

Growth of SMEs can be measured in terms of financial performance and non-financial performance; the latter includes customer satisfaction levels and market share (Murphy, 1996; Chong, 2008; Ahmad et al, 2010; Nguyen, 2008). This study applies non-financial performance such as sales and market shares which are consistent with a studies by Mahmood and Hanafi (2013). Subjective measures of enterprise performance are used for sake of convenience as most enterprise owners rarely disclose their company financial status for purpose of research (Mahmood and Hanafi, 2013; p. 84)

According to Baum et al. (2001) studied on business growth in various dimensions. The aimed of study to investigate the reason for business growth under changing environment. The data collected from top management of the 307 logistics enterprises. The objective variables in the study are competitive strategy, business environment, firm size and, growth in sales, profit and market share. The study finds that the estimated model has a high goodness of fit with χ^2=168; p<0.00; GFI=0.92, AGFI=0.89; RMSR=0.06; and RMSEA=0.08. The competitive strategy, innovation, quality, cost leadership and market segmentation all have a statistically significant effect on the enterprise performance (p=value < 0.05) and (p=value < 0.001).

Research Framework

Based on the review of theories related to firm growth, resource based theory, entrepreneurial orientation concepts and the competitive advantage theory above, we can draw up a conceptual framework in this study is presented below:
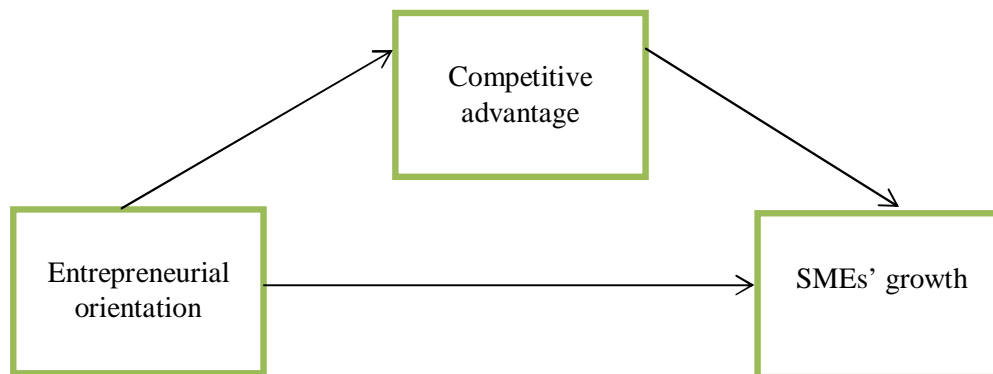
Testing of Hypotheses

This study is conducted based on three following hypotheses:

Hypothesis 1: Entrepreneurial orientation has a positive relationship with the competitive advantage.
Hypothesis 2: Entrepreneurial orientation has a positive effect on the SMEs' growth.
Hypothesis 3: The competitive advantage has a positive effect on the SMEs' growth.

Research Methodology

1. Population and Sample

The population in this study involves all 38,889 small and medium enterprises in Lao PDR. Capital (Ministry of Industry and Commerce, Enterprise Registration office, 2011). The sample involves 331 small and medium enterprises out of 38,889 enterprises defined based on Teddlie and Tashakkori (2009, p. 183). According their paper, if the population size is greater than 9,604, then the appropriate sample size which yields a 95% confidence results is 331.

2. Reliability and Validity

The instrument is used as a tool for primary data collection. The questionnaire consists of 4 sections such as **Section 1** collects demographical data of the respondents, **Section 2** collects the entrepreneurial orientation data, **Section 3** collects the competitive advantage data, and **Section 4** collects the growth of SMEs data. The questionnaire is developed based on a review of related studies and is subject to a content validity test as well as an index of congruence (IOC) test. The questionnaire of 21 questions has IOC of greater than 0.67, which is acceptable based on Rovinelli and Hambleton (1977).

After that the questionnaire was try-out with 30 enterprises in Vientiane City, which are not part of the target sample. The reliability test have Cronbach Alpha coefficient α= 0.911. As the coefficient Cronbach Alpha of all constructs exceed the 0.70 level recommended by Nunnally and Berstein (1994).

3. Data Collection

Research sample collected from Lao SMEs in Vientiane City, Luangprabang, Savanaket and Champasak provinces. The author distributed and collected back the questionnaire from the sample with a full questionnaire recovery.

4. Variables Used in the Study

Variables used include:

1). Latent exogenous variables

Entrepreneurial orientation components:

V_1 -Business innovativeness
V_2 -Proactiveness
V_3 -Risk taking

2). Latent endogenous variables

Competitive advantage components:

V_4 -Product and service differentiation
V_5 -Cost leadership

Growth of SMEs components:

V_6 -Sales growth
V_7 -Market share growth

Data Analysis

A statistical package is used in data analysis. The tool is used in order to conduct analysis with the set reliability according to the research objectives and hypotheses related with the relationships between the factors which are important determinants of small and medium enterprise growth and constructed an structural equation modeling of factors which are important for SMEs' growth according to a study by Hair, et al. (2010, p. 672).

1. Confirmatory factor analysis (CFA) is aimed at understanding relationships among variables according to the theories and related literature.
2. Test for construct reliability and average variance extracted (AVE)
3. Estimate the structural equation model (SEM)

Chi-squares and degree of freedom	χ^2/df (2.00-5.00)
χ^2 (insignificant p-value)	p-value >0.05
Goodness of Fit Index (GFI)	GFI>0.95
Adjusted Goodness of Fit Index (AGFI)	AGFI>0.95
Comparative Fit Index	CFI>0.95
Root Mean Square Residual(RMR)	RMR<0.07
Root mean square error of approximation (RMSEA)	RMSEA<0.07

Result of Research

The results of this study are shown below:

1. Confirmatory Factor Analysis (CFA)

The results of the confirmatory factor analysis (CFA) result showed that factors loading for each variable is greater than0.50 (Hair., et al. 2010, p. 662) and the correlations among factors are smaller than 0.80, indicating a low level of multicollinearity (Stevens, 2009, p.75).

2. The construct Reliability Test and Average Variance Extracted (AVE)

The results of construct reliability (CR) and the value of average variance extracted (AVE) of each variable are greater than the requirements such as CR>0.70 and AVE>0.5 (Fornell and Larcker, 1981; Hair., et al. 2010, p. 695) as shown in the following table.

Variables	CR	AVE
Entrepreneurial Orientation	0.80	0.66
Competitive Advantage	0.78	0.64
Growth's SMEs	0.82	0.61

3. Structural Equation Model (SEM)

Test results of the structural equation model (SEM) showing the effects of determinants of SMEs' growth showed that a majority of the values indicate a high level of consistency of the model. That is, the empirical results support the structural equation model as shown in the following table.

Statistics	χ^2	df	χ^2/df	RMR	GFI	AGFI	CFI	RMSEA
Model	16.51	11	1.50	0.01	0.986	0.965	0.981	0.039
Good Fit (Hair, 2010, 762)			<2-5	<.07	>.95	>.95	>.95	<0.07

These parameters show that the proposed SEM is deemed as fit and it can provide good basic for testing the hypothesized paths. The tests for factors influencing the growth's SMEs show that the entrepreneurial orientation has a positive effect on competitive advantage; p-value<0.001, t-value=3.70 and Path Coefficients β= 0.439, the hypothesis testing is supported, and competitive advantage has a positive effect on the growth's SMEs; p-value<0.001, t-value=3.545 and Path Coefficients β=0.44, the hypothesis testing is supported. The entrepreneurial orientation also has a positive effect on the growth's SMEs; p-value<0.01, t-value=2.6 and Path Coefficients β=0.24, the hypothesis testing is supported.

Conclusion and Implication

This study classifies factors which have direct and indirect influences on the growth of small and medium enterprises. Such factors include entrepreneurial orientation and competitive advantage. However, in order to improve precisions of findings, I would like to provide the following two suggestions for future research.

First, future studies should be undertaken with a large scale which will allow a larger sample size and to cover the SMEs entrepreneurs in the whole country.

Second, the number of independent variables in the structural equation modeling of SMEs' growth should be increased. The value of R^2 is 0.21, indicating that the variables included in the equation could explain only 21% of the fluctuations in SMEs' growth. These findings may be of help to the SMEs entrepreneurs in Lao PDR to be more entrepreneurial oriented and developed competitive advantage in order for them to success the intensely competitive business environment.

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