Effects of Global Capabilities of Small and Medium Businesses on Their Competitive Advantage and Business Management Performances

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Abstract

This paper categorized Korean small and medium businesses' global capabilities based on the preceding studies about the global capabilities and then, examined how their global capabilities would affect their competitive advantages and business management performances. As a result of testing the research model, it was found that the small and medium businesses' global capabilities had some significant effects on their competitive advantage ($p<.001$). On the other hand, the global capabilities had some positive effects on the business management performances and the mediating effects were significant ($p>.05$), which means that the competitive advantage has some mediating effects on the correlation between the global capabilities and the business management performances. Accordingly it was possible to analyze the correlation between global capabilities of small and medium businesses and their competitive advantage and thereby, provide for an opportunity to shift the paradigm of the global competition strategies.

Keywords: Competitive advantage, Global capabilities, Performance, Small and medium businesses

1. Introduction

Currently, Korean small and medium businesses seem to be less capable of addressing many problems as nut crackers or exchange fluctuations. Hence, they are obliged to build their capacity in the global markets where companies are struggling for innovations; when small and medium businesses shift their paradigms to regard the global markets as a repository of advanced innovative resources rather than just market, they may well be able to cultivate their capabilities facing the global markets.

Efforts of Korean small and medium businesses for globalization are being made centered about the increase of exports, but their exports are still petty, while their exports are heavily dependent on big companies. Moreover, even if they have advanced into foreign markets successfully, they can hardly develop such achievement into diverse business models based on a strategic alliance or a localized investment [1].

Despite Korean government's support programs for globalization are diversified, they seem to be less efficient because many of small and medium businesses are less satisfied with them. Moreover, the support programs are less differentiating depending on capabilities of com-

panies, while they can hardly choose a support program befitting their capabilities [2].

With such conditions in mind, this paper was aimed at finding the ways to increase global capabilities of small and medium businesses based on their enhanced learning and innovation. More specifically, this paper aimed to find the ways for small and medium businesses to make use of the global markets or the repository of the innovative resources from strategic and policy-wise perspectives and thus, be established as small but strong companies in the global markets. To this end, this paper focused on analyzing how the changed resources that they face during their globalization would affect their efforts for cultivation of the global capabilities as well as their global business management performances [3].

After all, it is perceived that the results of this paper or the analysis of the relationship between competitive advantages and business management performances by the level of the global capabilities would help small and medium businesses to design their global strategies to continue to grow through the global innovation efforts. Furthermore, this paper is deemed significant because it provide for some basic data useful for the government who endeavors to support the efforts of small and medium businesses to gain their global competitive edges [4].

2. Theoretical Background and Hypotheses

2.1 Preceding Studies about the Global Capabilities

Since it was not deemed easy to find a globalization theory suitable to the explanation of small and medium businesses' globalization, the researcher used as a framework of analysis the major models applicable to their globalization or those that were deemed adequate to draw some suggestions. The models used for this paper were eclectic decision making model, a stepwise one or learning and innovation adoption model, network model, resource-based model, original/extreme globalization model, etc. These models were basic analysis models based on theories [5].

Because the small and medium businesses' globalization activities themselves are conducted through complicated and stepwise processes, the global capabilities may be multi-dimensional in terms of attributes, and therefore, the globalization capabilities were divided into its sub-types. In order to be armed with the global capabilities, small and medium businesses require unique resources depending on their sub-types. Such diverse global capabilities may well have some positive effects on management performances of small and medium businesses.

On the other hand, global innovation activities of small and medium businesses act as factors enhancing their global business management performances. However, their globalization performances are affected by their uncontrollable external factors.

The subtypes of the global capabilities were divided into 4 categories based on the preceding studies and depending on tangible and intangible resources and capabilities required in the process of globalization: global managers' capabilities, global technological capabilities, global marketing capabilities and global learning capabilities. When the global capabilities are considered an organic combination of intra-organizational resources and processes to encourage harmony and integration among the global added-value activities, a total of 33 tangible and intangible resources may well comprise the above 4 global capabilities.

2.2 Preceding Studies about the Competitive Advantages

Globalization of small and medium businesses must be essential not only for achievement of such short-term goals as increase of sales and expansion of the market share but also for reinforcement of the mid- and long-term competitive advantages.

The prerequisite is the possession of differential intangible resources. For the possession of the distinctive assets and capabilities differentiating themselves from their competitors is the origin of the competitive advantages. The resource-based theory emphasize not only the possession of the intangible resources or knowledge ones but also the dynamics of an organized learning required for the development of new resources. A competitive advantage would be guaranteed only if such highly tacit and distinctive innovation technologies and resources were secured, and a competitive advantage could be warranted only if the configurable advantage or an efficient allocation of resources were feasible. Craig and Douglas [6] stressed that the configural designs would be different depending on the levels of market integration and responsiveness to the environmental changes.

On the other hand, Porter [7] describes that the competitive advantage is a capability of recording a performance higher than the average within the same industry; while the firm demonstrating such a record continues to present commodities or services that meet customers' needs more effectively than its competitors, and that the two basic attributes of the competitive advantage are price advantage and differentiation.

Zhou et al. [8] states that the more customer-oriented a firm is, it can develop a competitive advantage through innovation

and market differentiation, and that innovation differentiation and market differentiation advantages bring about a higher marketing performances such as recognized quality, customer satisfaction as well as a higher financial performances such as high market share.

This paper discussed Porter's cost advantage (price) and differentiation advantage (quality, design and technology) combined.

2.3 Research into Business Management Performances

Although there are a variety of measurements and their indices, profitability and growth are used primarily for an empirical analysis, and the growth indices used much are sales growth rate, market share, while the profitability indices used much are operational profit rate, turnover ratio of gross asset, etc. Also, in measuring financial performances, there are two methods: quantitative and qualitative methods. The former method is based on the quantitative figures of the financial statement, while the latter one refers primarily to respondents' subjective achievements. The financial performance indices are limited in that they can only show the past business management performances. In order to respond to such problems, some performance indices have emerged, and one of them is balanced scorecard (BSC). This index is not a short-term goal management focused on financial indices only for the achievement of company's vision and strategic goals, but manages the indices in longer terms and comprehensively from 4 perspectives: finance, customer, internal process, learning and growth [9]. However, as it is difficult to quantify the performance indices with the different factors, it is very difficult to apply the BSC in academic and practical views.

In this paper, the indices for measurement of the business management performances are divided into financial and operational ones.

2.4 Hypothesis

This paper set up the following hypotheses, on the assumption that the higher the global capabilities are, they would have more positive effects on firm's competitive advantage:

Hypothesis 1. The global capabilities would have positive effects on the competitive advantage.

Hypothesis 2. The global capabilities would have positive effects on the business management performances.

Hypothesis 3: The competitive advantage would have positive effects on the business management performances.

Hypothesis 4. The effects of the global capabilities on the business management performances would be mediated by the competitive advantage.

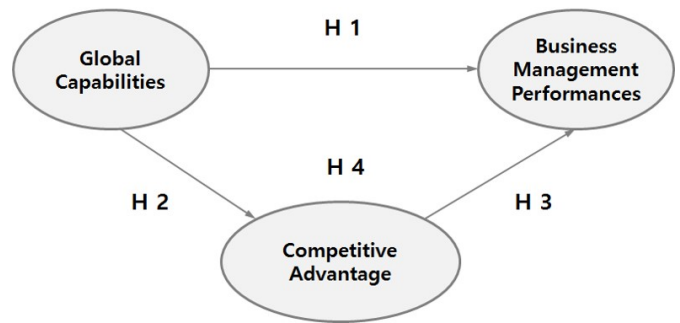## 3. Method of Study

3.1 Study Model

Figure 1. Study model.

3.2 Selection of the Sample and Collection of Data

The purpose of this paper was to analyze the casual relationship between global capabilities of small and medium businesses and business management performances and thereby, suggest some methods of sharpening their competitive edges. For this purpose, a questionnaire was designed in reference to the preceding studies, and thereby, a survey was conducted for about 15 thousand ASTI member businesses via on-line system for the period from July 1 to August 12, 2015. Two hundred seventy five responses that seemed to be sincere were used for the final test. Collected data was analyzed using a structural equation model.

3.3 Measurement of Research Variables

For this paper, it was deemed necessary to measure the variables related to the global capability types, competitive advantages and business management performances. The manipulative definition of each variable and its measuring points are as shown in Table 1.

This paper categorized the global capabilities into 4 types: global manager's capability, global marketing capability, resource securing capability and local learning capability. The detailed measuring points were adjusted for this paper in reference to the preceding studies.

Table 1. Descriptive statistics and regularity of the scales

		M	SD	Skewness	Kurtosis
Global capabilities	Manager's capabilities	3.66	0.68	-0.13	-0.42
	Technological capabilities	3.52	0.67	-0.46	0.34
	Marketing capabilities	3.06	0.91	-0.10	-0.41
	Local learning capabilities	2.53	1.02	0.42	-0.44
Competitive advantage	Price competitiveness	3.90	0.98	-0.67	-0.06
	Quality competitiveness	4.14	0.90	-1.09	1.11
	Design competitiveness	3.62	0.98	-0.31	-0.42
	Brand recognition	2.86	1.13	0.11	-0.74
Business management performances	Financial performances	3.29	0.82	-0.15	0.07
	Non-financial performances	3.77	0.78	-0.46	0.14

4. Empirical Analysis

4.1 Discussion about Reliability and Validity of the Component Concepts

In order to implement the structured equation, the validity was tested using the confirmatory factor analysis Table 2. The validity of the variables was tested using the AVE value and construct reliability (CR); AVE values were 0.50 or higher, while CR values were 0.70 or higher. In addition, the AVE values were larger than the squared value of the correlation efficient among the potential variables, which suggest discriminative validity and convergent validity for the variables. Thus, the validity of the measuring model was confirmed.

As a result of testing the measuring model, it was found that all the variables were significant, while the standardization loading value was 0.50 or higher. Namely, the intensive validity was secured Table 3.

4.2 Discussions about the Goodness-of-Fit of the Research Model

Table 4 reflects the results of analyzing the structured equation of the model for its goodness-of-fit.

As a result of testing the goodness-of-fit, it was found that CFI and NNFI (TLI) were 0.090 and higher, while RMSEA was 0.098 or lower than 0.10. Thus, the goodness-of-fit of the model was verified.
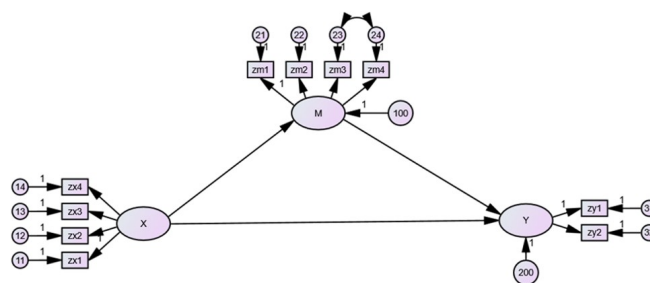
4.3 Test of the Hypotheses

Figure 2. Goodness-of-fit of the research model.

4.3.1 Test of hypothesis 1, 2 and 3

As a result of testing the research model, it was found that the small and medium businesses' global capabilities had some significant effects on their competitive advantage (p<0.001). Namely, the higher their global capabilities were, their competitive advantage was higher. (=0.892). On the other hand, it was found that the global capabilities had some positive effects on the business management performances Table 5. Namely, the higher the global capabilities were, the business management performances were higher. Furthermore, it was found that the higher the competitive advantage was, the business management performances were higher. Hence, hypotheses 1, 2 and 3 were all adopted.

4.3.2 Testing of hypothesis 4

In order to analyze the mediating effects of the competitive advantage on the correlation between the global capabilities and the business management performances, Sobel test was con-

Table 2. Correlation and AVE and construct reliability

	Global capability	Business attraction	Competitive advantage	Business management performances	CR	Cronbach's α
Global capabilities	(0.580)				0.840	0.957
Competitive advantage	0.652	(0.532)			0.817	0.956
Business management performances	0.639	0.576	0.627	(0.691)	0.817	0.874

CR, construct reliability.

Table 3. Measuring model

		B	SE	β	t	p
Global capabilities	Manager's capability	1.000		0.577		
	Technological capability	1.677	0.174	0.964	9.63	<0.001
	Marketing capability	1.562	0.195	0.663	7.991	<0.001
	Local learning capability	1.497	0.207	0.576	7.221	<0.001
Competitive advantage	Price competitiveness	1.000		0.715		
	Quality competitiveness	1.118	0.092	0.869	12.093	<0.001
	Design competitiveness	1.027	0.095	0.754	10.798	<0.001
	Brand recognition	0.959	0.118	0.590	8.135	<0.001
Business management performances	Financial performances	1.000		0.737		
	Non-financial performances	1.050	0.125	0.801	8.391	<0.001

Table 4. Result of testing the research model

	χ^2	df	p	Q	CFI	NNFI (TLI)	RMSEA
Research model	271.243	69	<0.001	3.786	0.938	0.911	0.098

CFI, comparative fit index; NNFI, non-normed fit index; TLI, Tucker-Lewis index; RMSEA, root mean square error of approximation.

Table 5. Results of testing the hypotheses 1, 2 and 3

			B	SE	β	t	p
Global capabilities	$\rightarrow$	Competitive advantage	1.707	0.213	0.892	8.005	<0.001
Global capabilities	$\rightarrow$	Business management performances	0.227	0.189	0.266	1.204	0.029
Competitive advantage	$\rightarrow$	Business management performances	0.647	0.353	0.396	1.832	0.047

ducted. As a result, it was found that the mediating effects were significant ($p > 0.05$), which means that the competitive advantage has some mediating effects on the correlation between the global capabilities and the business management performances (Table 6). After all, the hypothesis 4 was adopted, too.

5. Conclusion

The researches into the global capabilities have been conducted primarily for big businesses, but it is deemed necessary to reinforce the research efforts for the small and medium businesses.

Table 6. Testing of hypothesis 4

Independent variable		Parameter		Dependent variable	z	p
Global capabilities	$\rightarrow$	Competitive advantage	$\rightarrow$	Business management performances	1.787	0.050

As a result of empirically testing the causal relationship among global capabilities, comparative advantage and business management performances, the following suggestions could be drawn;

Firstly, it was possible to analyze the correlation between small and medium businesses' global capabilities and their competitive advantage and thereby, provide for an opportunity to shift the paradigm of the global competition strategies. The global capabilities may well be defined as core activities improving the competitive advantage. Accordingly, in order to maintain a competitive advantage, Korean small and medium businesses are obliged to maintain a competitive advantage by enhancing their global manager's capability, technology-securing capability, global marketing capability and global field learning capability [10].

Secondly, the global capabilities do not influence the business management performances for a short period of time, but indirectly affect them via the mediating factor called 'competitive advantage.' A certain period of time is required of the small and medium businesses to make their global innovation activities, enhance their business capabilities and then, improve their business management performances. Hence, in order to create a new wealth, Korean small and medium businesses are obliged to improve their global capabilities over time.

Thirdly, it is important to improve the competitive advantage and thereby, improve the business management performances. As the effects of the FTAs are spreading enough to deepen the competition in domestic and foreign markets, small and medium businesses are obliged to continue to innovate themselves and sharpen their competitive edges; they could not even survive through the simple cost advantage. After all, the key factors are the differentiated products and services. Hence, small and medium businesses should make company-wide efforts to maintain a competitive advantage, while the government should help the small and medium business to create their own unique consumer values and thus, maintain a competitive advantage.

Conflict of Interest

No potential conflict of interest relevant to this article was reported.

References

[1] Y. M. Park and S. G. Hwang, "Structure analysis for core competency of CEO," *Journal of Korean Institute of Intelligent Systems*, vol. 25, no. 1, pp. 85-90, 2015. http://dx.doi.org/10.5391/JKIIS.2015.25.1.085

[2] Y. J. Lee and D. J. Yoon, "The capabilities needed for becoming a global hidden champion," *International Business Journal*, vol. 26, no. 2, pp. 33-61, 2015.

[3] L. Zhou, W. P. Wu, and X. Luo, "Internationalization and the performance of born-global SMEs: the mediating role of social networks," *Journal of International Business Studies*, vol. 38, pp. 673-690, 2007. http://dx.doi.org/10.1057/palgrave.jibs.8400282

[4] C. K. Prahalad and G. Hamel, "The core competence of corporation," *Harvard Business Review*, vol. 68, no. 3, pp. 79-91, 1990.

[5] T. Vissak, "The internationalization of foreign-owned enterprises in Estonia: an extended network perspective," Ph.D. dissertation, University of Tartu, Tartu, Estonia, 2003.

[6] C. S. Craig and S. P. Douglas, "Configural advantage in global markets," Stern School of Business, New York University, NY, 1999.

[7] M. E. Porter, "Competition in global industries: a conceptual framework," in *Competition in Global Industries*, M. E. Porter, Ed. Boston, MA: Harvard Business School Press, 1986.

[8] K. Z. Zhou, J. R. Brown, and C. S. Dev, "Market orientation, competitive advantage, and performance: a demand-based perspective," *Journal of Business Research*, vol. 62,

pp. 1063-1070, 2009. http://dx.doi.org/10.1016/j.jbusres.2008.10.001

[9] R. S. Kaplan and D. P. Norton, *The Balanced Scorecard: Translating Strategy into Action*. Boston, MA: Harvard Business School Press, 1996.

[10] M. T. Tsai and C. M. Shih, "The impact of marketing knowledge among managers on marketing capabilities and business performance," *International Journal of Management*, vol. 21, no. 4, pp. 524-530, 2004.

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