3

In Relation to Entrepreneurial Orientation, Dynamic Capability and Export Performance of International New Ventures, the Moderating Effect of External Trade Environment*

국제신벤처기업의 기업가지향성, 동적역량, 수출성과 관계와 외부 통상환경의 조절효과

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Contents

ABSTRACT

This study has examined the relationship between entrepreneurial orientation(EO), dynamic capability(DC) and export performance of international new ventures(INVs). Also, the moderating effect of external environment factors(the hostility at domestic markets and the industrial dynamics) were analysed. Empirical analysis was performed on 101 INVs. It was conducted using the PLS(Partial Least Square). The result of empirical analysis showed that there is a positive relationship between EO, DC and export performance. The result of moderating effect showed that two external environment factors have positive moderating effect on the relationship between EO and DC. However, there was not moderating effect of external environment factors on the relationship between DC and export performance.

Key Words : International New Ventures, Entrepreneurial Orientation, Dynamic Capability, External Environment

Ⅰ. Introduction

With the advent of FTA era, integration of regional economy is being accelerated and business conducts are being diversified. In particular, small and medium-sized enterprises are briskly advancing to foreign markets, which is mainly thanks to the development of communication technology and logistics system. For the explanation of enterprises' advance into foreign markets, the existing stage theory has been applied(McDougall and Oviatt, 2000). However, recently there has been active researches(Lumpkin and Dess, 2001; Corner and Wu, 2012) on international new ventures(INVs) which are advancing to foreign markets immediately after foundations.

Since the research of Rennie(1993), the phenomenon of INVs has been studies with much attention to those enterprises aggressively advancing foreign markets in spite of their insufficient resources after their foundations. In the earlier stage, most of studies(Knight and Cavusgil, 2004; Dimitratos et al., 2004) were focused on examination of the backgrounds of INVs appearance and the factors having effects on advance to foreign markets. Since then, they have developed to the researches on the factors influencing the performance of exporting businesses which are the major types of utilization by INVs(Oviatt and McDougall, 2005; Corner and Wu, 2012).

INVs research mostly reviewed resource based view(RBV) and entrepreneurial orientation(EO) for the analysis of key factors to performance determination(Oviatt and McDougall, 2005). The following was found that with the higher EO and the more unique resources enabling to compete in foreign markets, the more rapidly they advance to foreign markets along with the better influence on performance(Knight and Cavusgil, 2004; Dimitratos et al., 2004). In addition, previous studies(Prashantham and Floyd, 2012; Jiao et al.,2013) have been pointing out that also such non-financial goals as knowledge learning of local markets and custom-relationship establishment are very significant factors to INVs, which is mainly influenced by EO.

Dynamic capability(DC) is one of those which are paid attention to as a significant factor to performance determination in the process of researching small and medium-sized enterprises with insufficient resources. DC means the capability for integration and reconfiguration of any limited existing resources, with which any small and medium-sized enterprises with insufficient resources are able to utilize exiting resources better to create new ones which are more competitive(Glejser et al., 1980; Zollo and Winter, 2002; Avlonitis and Salavou, 2007; Spence et al., 2011). Even

In Relation to Entrepreneurial Orientation, Dynamic Capability and Export Performance of
International New Ventures, the Moderating Effect of External Trade Environment

5

though DC has been considered significant in the studies of small and medium-sized enterprises(Prashantham and Floyd, 2012), there has been no analysis of performance determination models which includes DC with domestic INVs as the research objects.

When any small and medium-sized enterprises don't have sufficient resources, they get more sensitive to external environment. Accordingly, the INVs studies(Dimitratos et al., 2004; Khavul et al., 2010) with the viewpoint of SCP(structure-conduct-performance) have examined the changes of decision-making for foreign market advance and the effects of factors in external environment on performance determination. But there have been very few studies considering factors of external environment as having effects on the correlation between EO, DC and export performance.

According to the above discussion, this study will verify the moderating effect of external environment in the correlation between EO, DC and export performance of INVs. In the studies of INVs, entrepreneurship has been a precedence factor determining competitive advantage and performance. Also DC has been found to be a precedence factor to export performance in multiple studies(Cooper and Kleinschmidt, 1985; Zollo and Winter, 2002). External environment has effects on business conducts(Zhara et al., 1997; Dimitratos et al., 2004). Especially, in case of insufficient resources as at INVs, they responds very sensitively to environmental features. There have been multiple studies on the correlation between these factors in the field of international management. Accordingly, those previous studies the followings are the purposes of the studies.

First, the integral analysis by grafting EO and DC onto INVs can suggest any theoretical implications needed for any studies in the future. Second, the integration of moderating effect of factors in external environment into INVs studies makes it possible for the viewpoint of resource base and that of SCP to be integrated theoretically. Third, it is expected that the examination of correlation between EO, DC and export performance of INVs, which are trying for rapid advance into foreign markets, of domestic small and medium-sized enterprises to which the reactivation of export is very critical can suggest practical implications.

Ⅱ. Theory and hypothesis

1. Entrepreneurial orientation and dynamic capability

The study on entrepreneurship in the field of INVs is dealing with objective conditions of individual entrepreneurs and recent ones are focusing higher interest on their psychological propensity(McDougall and Oviatt, 2000; Lumpkin and Dess, 2001). EO is a variable standing proxy for this kind of propensity and attitude. The organizing factors of EO are innovativeness, risk tolerance, and proactiveness, all of which show the propensity of entrepreneurs who are seeking for new opportunities not interruptive by any limit to resources. This type of feature is a certain psychological propensity in that it is inherent in individual entrepreneurs.

All the studies on INVs have been emphasizing the significance of EO from early on and regarding it as a key factor driving rapid globalization of venture businesses(McDougall et al., 2003; Knight and Cavusgil, 2004). Furthermore, EO has been regarded as being helpful to reinforcing the capability of newly-born enterprises with insufficient resources. That is, any inherent propensity of an entrepreneur has been thought to have effects on business conducts.

EO has effects on any organization cultures and then those business conducts. With higher EO, the culture must get bigger which is trying to be free from limitation of insufficient resources. At the same time, the propensity to take risk resulting from such activities as advance into foreign markets will get higher(Dimitratos et al., 2004; Oviatt and McDougall, 2005). Consequently, any activities indispensible for it will get more aggressive. And in that this kind of process may need the resources of enterprises, DC will get beefed up for reconfiguration and integration of insufficient resources in order to excavate new resources.

As seen above, multiple previous studies(Avlonitis and Salavou, 2007; Park et al., 2007) have confirmed the positive relation between EO and DC. Both of them are needed for adaptation to any new external environment with insufficient resources. A foreign market is a very unfamiliar environment to newly-born enterprises and for any adaptation to locals resource commitment must be needed. At the same time, the unfamiliar environment of foreign markets means an uncertainty, and therefore any activity to remove it is needed. All of these activities are influenced by the features of EO, which have effects on the overcoming of psychological burden resulting from

input of resources needed to overcome the uncertainty(Khavul et al., 2010; Kim, 2010). In other words, the innovativeness of an entrepreneur will beef up DC to find out new resources and the risk tolerance will determine drastic input of resources into the uncertainty at foreign markets.

The relation between EO and DC is very positive in that the latter is a security of organizational capability. The organizational capability is neither limited to nor dependent on any particular individual capability. It is a normal capability permeated into the inside of an organization(Rasmussen et al., 2012). Accordingly, any founders with higher EO are very aggressive and innovative for their organization by emphasizing the activities to take risks. This kind of emphasis becomes the culture of the organization itself and embedded into the routine of business conducts(McDougall and Oviatt, 2000; Corner and Wu, 2012).

H1 : There will be a positive relationship between EO and DC in INVs.

2. Dynamic capability and export performance

The difficulties of advancing to foreign markets have been confirmed in the field of international management research. The reason of those difficulties is the commitment of resources for adaptation to any unfamiliar environment first. Relatively large enterprises can reduce the time needed for the adaptation to and the experience accumulation at the foreign markets through resource commitment, while any enterprises with insufficient resources or of small size such as INVs suffer difficulties doing it. Therefore, continuous activities for creating new resources, which is a feature of DC, is very critical(McDougall and Oviatt, 2000; Zollo and Winter, 2002).

One of the key precedence factors for higher export performance is the retention of unique resources. If any enterprises retain the resources whose imitation is difficult and whose transportation and replacement is impossible, they can secure competitive advantages at markets. DC plays a great role for the security of this kind of resource(McDougall et al., 2003; Knight and Cavusgil, 2004). It is because the feature of DC is to create new resources through integration and reconfiguration of any existing resources. The retention of unique resources is a lot more important with INVs. Since INVs cannot retain abundant resources, they should retain unique resources needed for the area where any key capability can be exerted. Consequently,

INVs are trying to beef up their competitiveness at foreign markets by retaining such resources albeit insufficient(Oviatt and McDougall, 2005). Therefore, DC of INVs has a positive effect on export performance through continuous creation of unique resources needed for the competition at foreign markets(Avlonitis and Salavou, 2007; Khavul et al., 2010).

The competition against local enterprises at foreign markets leads to bigger transaction cost due to information asymmetry and lack of experience. When they employ any local agents to overcome the information asymmetry, the transaction cost increases. So most of them secure any resources needed for the sites through outside network, when the resources coming from the outside may be any local knowledge or information and the experience needed for local markets(Spence et al., 2011; Kim, 2012; Prashantham and Floyd, 2012). These kinds of resources again should go through the process of fusion with the existing internal resources of INVs.

INVs can develop and connect it to performance from the perspective of DC's ambiguity. DC, a capability embedded into the inside of organization, has the ambiguity which cannot be easily estimated by anyone outside. From the viewpoint of resource base, this ambiguity can be a unique resource and accordingly DC which is a unique resource retained by enterprises becomes a factor creating competitive advantage outside. Very often INVs develop their competitiveness by focusing on any specialized technology or knowledge. Moreover, the individual capability of an entrepreneur or that of founders' group has a serious effect on it(Rasmussen et al., 2012; Jiao et al.,2013). Therefore, DC inside of INVs will be the resource differentiated from outside, which will have a positive effect on export performance.

H2 : There will be a positive relationship between DC and export performance in INVs.

3. Moderating effect of external environment

The factors in external environment have been used as diverse variables in previous studies mainly on the performance of enterprises which have advanced into foreign markets. Performance has been applied as a precedence factor, moderating factor or controlling factor to the capability of an enterprise. However, there has not been any consistent conclusion on the effect of the factors in external environment and what is more is that each researcher has her or his own

In Relation to Entrepreneurial Orientation, Dynamic Capability and Export Performance of International New Ventures, the Moderating Effect of External Trade Environment

9

conclusion which is different from that of any other one. For example, the research by Cooper and Kleinschmidt(1985) concluded that the abundance in domestic markets encourages the advance into foreign markets by enterprises while those of others(Glejser et al., 1980) drew the opposite conclusion(Zahra et al,. 1997).

There has been the consistent comment that external environment and industrial feature have an effect on the manager's attitude in spite of various results seen at any previous researches on external environment(Lumpkin and Dess, 2001; Dimitratos et al., 2004). The external environmental factors influencing manager's attitude are hostility at domestic markets and dynamics of industry.

The hostility at domestic markets and the dynamics of industry force managers to seize new opportunities. When the competition at internal markets gets fierce or any stagnance of market growth is expected, most of managers try to develop new markets. This tendency gets more intense when it is joined with EO, which us because the more aggressive and risk tolerance entrepreneurs are more active for advancing to foreign markets(Khavul et al., 2010).

What is needed for the enterprises trying to overcome the dynamic environment of industry to which they belong is the capability of creating new resources. DC corresponds to it, which should be an activity not transient but embedded into the conducts of the organization. As seen from the fact that DC is dynamic, it is not the stagnant culture or custom in an organization(Kim, 2010; Yang and Li, 2011). It is a business conduct actively coping with environmental change, a capability continuously changing in the system of an organization.

For the creation of this DC, continuous innovation and aggressive input of resources are indispensible. In particular, if the environment outside of the industry INVs belongs to is hostile or dynamic, that capability is absolutely indispensible since seeking for new opportunities at foreign markets on its ground is the very essence of INVs(Rasmussen et al., 2012; Corner and Wu, 2012). Therefore, for advance into foreign markets seeking for new opportunities by getting out of the hostile environment of domestic markets and the dynamics of the industry, INVs should be equipped with DC which can change any existing resources into new ones. And the capability for it is under the influence of EO. With these, it can be understood that when external environment is hostile or dynamic the managers with higher EO will beef up DC aggressively for the advance into foreign markets.

H3 : The relationship between EO and DC will be moderated by domestic environmental hostility. INVs that pursue EO in domestic environments with higher levels of hostility will have higher DC.

H4 : The relationship between EO and DC will be moderated by industry dynamism. INVs that pursue EO in industry with higher levels of dynamism will have higher DC.

DC is not a capability solidified after development but goes through the process of continuously finding new resources(Park et al., 2007). The activities for that are seen inside an organization and proceed in the direction of adaptation to any change of external environment. Previous studies have researched the positive relation between DC and export performance(Khavul et al., 2010; Terjesen et al.,2011). Most of them pointed out that the DC activities can create new resources to have a favorable effect on performance. Like this, DC, which is an effort for adaptation to the change of external environment, becomes a precedence factor to performance.

Even though DC is under the influence of EO, it is executed by the members of organization(Avlonitis and Salavou, 2007; Khavul et al., 2010; Spence et al., 2011). Especially, in case that experience and resource is not enough yet to proceed with any work according to such structured system as INVs, DC is more dependent on human resources. With this, DC becomes the capability of an individual. And the members executing it can recognize the change of external environment. With the characteristic flexibility of INVs added to it, these individuals try to raise DC according to the change of external environment. It is because it does not take a long time for the individual recognition in the system which is not structured to be materialized into DC such as integration and reconfiguration of existing resources(Kim, 2012; Rasmussen et al., 2012). That is, the structural features of flexible INVs enable the members to implement DC activities relatively freely.

With unfavorable conditions of domestic markets or rapid change of industries, the effect of capability and resource which have been helpful to the maintainment of existing performance gets worse(Prashantham and Floyd, 2012). Furthermore, it happens very often that those enterprises hurriedly advancing into foreign markets retain only the key resources needed for creation of outcome. In that less effect of key capability makes it difficult for enterprises to maintain their

In Relation to Entrepreneurial Orientation, Dynamic Capability and Export Performance of
International New Ventures, the Moderating Effect of External Trade Environment

11

performance, foreign markets whose environment are somewhat unfamiliar becomes a threat to INVs. Therefore, the capability to create other resources besides retained key ones is necessary(Yang and Li, 2011; Jiao et al.,2013). And the hostility of domestic markets and dynamics in the industry endlessly encourages the creation of these kinds of new resources.

The above discussion makes it definite that INVs need more DC when there is more uncertainty of external environment. The fact that the subject realizing DC is the members of INVs shows that the external environment is directly recognized by them. Therefore, it can be assumed that the higher uncertainty of external environment, in other words - if there is more hostility of domestic markets and more dynamics of the industry – will force the members to exert themselves for creation of higher DC. And this kind of DC will have a positive effect on export performance.

H5 : The relationship between DC and INVs' export performance will be moderated by domestic environmental hostility. INV that pursue DC in domestic environments with higher levels of hostility will have higher firm's performance.

H6 : The relationship between DC and INVs' export performance will be moderated by industry dynamism. INVs that pursue DC in industry with higher levels of dynamism will have higher firm's performance.

Ⅲ. Research method

1. Samples

The samples for this study are small and medium-sized enterprises which are performing export activities in the latter part of 2010. The original data for those samples are from KORCHAMBIZ DB of The Korea Chamber of Commerce and Industry. For the industry distribution of exporting small and medium-sized enterprises for examination, 12 high-tech and knowledge-intensive industries were selected. It is because the relevant industries are expected to show worldwide

market distribution on the whole and INVs have been seen to be active in these industries.

Telephone, e-mail and fax were used for survey and the survey period was from August to October 2010. Those directly involved in export business and at higher positions were selected as survey respondents since they are thought to have better appreciation of the entire export business and the overall situation of their companies. In particular, it is because EO, which will be examined in this study, can be felt as organization culture by those managers and those at higher positions. Those companies selected for the survey are 3,700 small and medium-sized manufacturing enterprises with employees from 30 to 300 involved in export business. The reason of selecting the companies with more than 30 employees is that EO can't be observed to be shown as an organizational culture from too a small company.

The total of 417 sheets (11%) were collected from the survey. 32 of them were excluded due to their insincere respondence, which leads to the collection of 385 (10%) sheets. Depending on the definition of INVs, those companies whose export sales occupy more than the rate 25% out of the total sales were selected for the final analysis objects, which are the total of 101(3%). This rate is very similar to that by nation seen at previous INVs research.

2. Measurement

The latent variables used for this study are EO, DC, export performance and external environment factor. EO was measured mainly by risk tolerance, innovativeness and proactiveness. Previous INVs studies also measured EO with these items(Lumpkin and Dess, 2001; McDougall et al., 2003). This study has applied 7-point scale to measure the total 6 questions each of which has two items by three factors.

DC means new integration and reconfiguration of the new resources enterprises have(Zollo and Winter, 2002; Corner and Wu, 2012). This study has applied 7-point scale to measure the total of 4 questions each of which has two items of integration and reconfiguration of existing resources respectively in the same way as in previous studies.

Previous studies used both subjective and objective indices for examination of export performance. While the performance measurement by objective indices have the merit of confirming with shown figures, it has its own limitation of not being able to reflect any specific

In Relation to Entrepreneurial Orientation, Dynamic Capability and Export Performance of
International New Ventures, the Moderating Effect of External Trade Environment

13

situation of the relevant enterprises. On the contrary, the subjective indices have their own limitation of measuring the performance only with the degree of respondents' satisfaction. Accordingly, previous studies insist that the two kinds of indices should be used properly depending on the study purpose and situation. Knight and Cavusgil, 2004; Avlonitis and Salavou, 2007). The total of 5 questions were applied for the measurement of export performance.

The factors to external environment were divided into the hostility at domestic markets and the dynamics at the industries for measurement. The former is the appearance of new competitors at domestic demand markets and the uncertain market growth. The industrial turbulence means the rapid change of consumer need and the changing rate of technology at the industries where particular enterprises belong. All these features require new change of small and medium-sized enterprises since most of the small and medium-sized enterprises with insufficient resources have to find new opportunities according to the rapidly changing environment. Previous studies also applied these features to measure the factors of external environment. This study has measured the hostility of domestic markets and the dynamics in the industries by three items with seven-point scale. The factors to external environment were divided into the hostility at domestic markets and the dynamics at the industries for measurement(Zahra et al., 1997; Dimitratos et al., 2004; Jiao et al., 2013). This study has measured the hostility of domestic markets and the dynamics in the industries by 3 questions with 7-point scale. The measurement items are as <Table 1>

<Table 1> Measurement scale

Latent variable	Measurement items	Previous studies
Entrepreneurial orientation	(EO1)Willing to take a financial risk for a high performance. (EO2)Willing to take external borrowing for an initial investment. (EO3)Willing to pursue a innovative ways to penetrate the market (EO4)Willing to pursue a innovativeness needed to achieve goals. (EO5)Willing to make an effort to strive market advantage. (EO6)Willing to catch the opportunity difficult to predict.	Lumpkin and Dess(2001); McDougall et al.(2003); Avlonitis and Salavou(2007)
Dynamic capability	(DC1)Capabilities to integrate the existing technology in the production process of a product or service. (DC2)Capabilities to integrate the capacity of organization. (DC3)Capabilities to reconfigure the existing technology in the production process of a product or service. (DC4)Capabilities to reconfigure the capacity of organization.	Zollo and Winter(2002); Corner and Wu(2012)

Latent variable	Measurement items	Previous studies
Export performance	(EP1)We are satisfied with the market share for the past three years compared with expectations(subjective). (EP2)We are satisfied with the sales growth for the past three years compared with expectations(subjective). (EP3)We are satisfied with the pre-tax profit for the past three years compared with expectations(subjective). (EP4)Average sales in the last three years(objective). (EP5)Average profit in the last three years(objective).	Knight and Cavusgil(2004); Avlonitis and Salavou(2007)
Market hostility	(MH1)It's size for main products is small. (MH2)It's intensity of competition is high. (MH3)It is difficult to forecast future market about main products.	Zahra et al.(1997); Dimitratos et al.(2004); Jiao et al.(2013)
Industry dynamism	(ID1)The life cycle of a product or services is usually short (ID2)The technology development speed is very fast. (ID3)There is difficult to predict the future of technological.	

3. Analysis method

PLS(Partial Least Square) of structural equation was applied for the verification of hypotheses according to study models. Since PLS is based on the analysis of key components corresponding to the total variance, it has the features mitigating the constraint of normal distribution of size, variable and residual of the samples and making it possible for the correlation between measuring variables and latent ones and the structure of study models to be appreciated at the same time. Furthermore, since normal distribution of analyzed objects is not assumed, the method of Bootstrapping including the process of resembling is applied for the verification of statistical significance. In addition PLS applies lease square method decreasing measurement error, which in turn reduces prediction error, for higher probability of verification. This kind of PLS analysis focuses on any verification and is very useful for the case of fewer samples.

This study is to verify the relation between EO and DC and the moderating effect of external factors with the objects of INVs. The relationships among all factors have been theoretically verified at previous studies already. Therefore, it would be natural that this study should focus on their cause-and-effect relationship. And since the analysis sample is not big with 101, PLS analysis applying Bootstrapping is appropriate. Consequently, PLS of structural equation model was applied as empirical analysis method.

In Relation to Entrepreneurial Orientation, Dynamic Capability and Export Performance of
International New Ventures, the Moderating Effect of External Trade Environment

15

Ⅳ. Empirical research

21 measuring questions were applied for this study and Chronbach's α was utilized for the verification of reliability. The equivalence scale reliability is the mean of possible inner correlation between the divided groups and more than 0.7 is considered to be appropriate. Chronbach's α of 5 latent variables used at this study has been found to be higher than 0.7, which is shown at <Table 2>. For the feasibility analysis, validity of factor loading value, average variance extract and composite reliability value should be examined for the verification of convergent validity at confirmatory factor analysis of PLS. factor loading value has to have the higher figure than 0.5 and statistical significance, and the average variance extract and composite reliability are to be higher than 0.5 and 0.7 respectively(Fornell and Larcker, 1981).

The result of analyzing the 21 questions at this study shows that all the values of factor loading, average variance extract and composite reliability meet the standard. This result is shown at <Table 2>. Therefore, the convergent validity for the 21 measuring questions used at this study has been secured.

<Table 2> Results of confirmatory factor analysis

Path	Coefficient	S.E	T-value	AVE	CR	Cronbachs α
EO1 ← EO	0.720	0.049	14.736***			
EO2 ← EO	0.726	0.070	10.387***			
EO3 ← EO	0.721	0.118	6.092***	0.553	0.881	0.838
EO4 ← EO	0.734	0.060	12.271***			
EO1 ← EO	0.816	0.037	21.837***			
EO2 ← EO	0.741	0.074	10.064***			
DC1 ← DC	0.862	0.030	28.561***			
DC2 ← DC	0.814	0.041	20.018***	0.665	0.888	0.831
DC3 ← DC	0.859	0.033	26.346***			
DC4 ← DC	0.719	0.064	11.279***			
EP1 ← EP	0.630	0.152	4.140***			
EP2 ← EP	0.710	0.076	9.342***			
EP3 ← EP	0.801	0.085	9.376***	0.566	0.866	0.806
EP4 ← EP	0.775	0.089	8.664***			
EP5 ← EP	0.829	0.054	15.464***			
MH1 ← MH	0.940	0.235	4.000***			
MH2 ← MH	0.888	0.210	4.225***	0.752	0.900	0.861
MH3 ← MH	0.763	0.223	3.429***			
ID1 ← ID	0.747	0.230	3.250***			
ID2 ← ID	0.825	0.195	4.232***	0.614	0.826	0.705
ID3 ← ID	0.777	0.199	3.909***			

Note : **=p<0.05, ***=p<0.01

Discriminant validity has to be verified after the analysis of convergent validity. The discriminant validity is applied to confirm whether abstract latent variables are distinguished from one another through measuring questions. For this, cross loading values among measuring variables suggested by PLS analysis should be examined, which should show that there is the gap of at least 0.1 between the factor loading value of measuring questions belonging to specific latent variables and that explained by other measuring questions. Moreover, all factor loading values of measuring questions should satisfy higher than 0.5. The below <Table 3> confirms that the analysis results satisfy these conditions.

<Table 3> Results of cross loading factor

	EO	DC	EP	MH	ID
EO1	0.720	0.539	0.366	0.034	0.262
EO2	0.726	0.463	0.326	0.034	0.262
EO3	0.721	0.406	0.296	0.100	0.204
EO4	0.734	0.467	0.368	0.072	0.225
EO5	0.816	0.557	0.350	0.016	0.161
EO6	0.741	0.471	0.293	0.012	0.153
DC1	0.567	0.862	0.431	0.086	0.222
DC2	0.545	0.814	0.414	0.091	0.209
DC3	0.593	0.859	0.465	0.100	0.216
DC4	0.416	0.719	0.347	0.042	0.109
EP1	0.350	0.371	0.630	0.173	0.188
EP2	0.281	0.333	0.710	0.009	0.103
EP3	0.401	0.392	0.801	0.012	0.256
EP4	0.254	0.345	0.775	0.025	0.114
EP5	0.383	0.464	0.829	0.013	0.141
MH	0.028	0.110	0.058	0.940	0.048
MH	0.046	0.080	0.010	0.888	0.065
MH	0.019	0.029	- 0.006	0.763	0.031
ID1	0.163	0.136	0.102	0.004	0.747
ID2	0.126	0.140	0.189	0.009	0.825
ID3	0.325	0.247	0.193	0.094	0.777

Next, the square root value of AVE and the correlation coefficients among latent variables are compared for confirming mutual independency of latent variables, when the square root of average variance extract calculated at PLS shoulbe bigger than correlation coefficient of latent variables (Fornell and Larcker, 1981). The below <Table 4> shows the result. Accordingly, the discriminant validity of measuring questions used for this study and cross loading values have been finally confirmed.

<Table 4> Results of discriminant validity

	EO	DC	EP	MH	ID
EO	0.744*				
DC	0.656	0.81*			
EP	0.450	0.511	0.75*		
MH	0.037	0.100	0.038	0.86*	
ID	0.283	0.237	0.216	0.058	0.78*

Note : * The value of the square root of AVE

Before verification of the hypotheses, the model explanatory power for this study was analyzed. PLS method determines the fitness of the entire models by the whole Goodness-of-Fit Index defined by Amato et al. (2004), the value of R^2, the cross-verified index of redundancy and the index of communality. The value higher than 0.5 is the recommended standard value of the index of communality and the statistic of cross-verified index of redundancy should have a positive value. R^2 means the explanatory power of exogenous variables against endogenous ones and 0.26 and the higher is considered to be good. Furthermore, GoF of PLS path model is the square root of the value from the mean of value R^2 multiplied by the mean of the communality index(Amato et al., 2004). And if this value is higher than 0.36, it is determined to be good.

As seen at <Table 5>, the analysis shows that all the R^2 values of endogenous variables are higher than 0.26, which means they have relatively high explanatory power. Also, communality index and redundancy index are seen to have the recommended standard value of 0.5 and the positive value. The whole Goodness-of-Fit Index is also 0.481, which is higher than 0.36. Accordingly, this entire goodness-of-fit used for this study was confirmed not to have any problem(Amato et al., 2004).

<Table 5> Results of model fit indices

	R2	Communality	Redundancy	GoF
EO		0.553		
DC	0.457	0.665	0.268	
EP	0.278	0.566	0.087	0.481
MH		0.752		
ID		0.614		
Average	0.368	0.630		

Note: GoF = $\sqrt{\overline{R^2} \times \overline{Communality}}$

Through PLS hypothesis verification, regression coefficient(β), t-value and standard error are drawn(Fornell and Lacker, 1981). For PLS regression analysis, bootstrapping is executed through resembling for exploratory research or the case of fewer samples, for which it is common for 500 times of resembling to be recommended. This study also has only 101 samples, which forced the bootstrapping method of PLS analysis to be used. The results of path analysis are shown at <Table 6>.

<Table 6> Results of analyses on hypothesized relationships

H	Path	DC			EP			Assesment
		β	S.E	T−value	β	S.E	T−value	
H1	EO	0.815	0.402	2.025**				S
H2	DC				0.685	0.324	2.113**	S
H3	EO * MH	0.612	0.310	1.971**				S
H4	EO * ID	0.584	0.258	2.260**				S
H5	DC * MH				-0.128	0.707	-0.180	NS
H6	DC * ID				0.544	0.654	0.832	NS

Note : **=p<0.05, ***=p<0.01, S=Supported, NS=Not significant

The results of path analysis reveals that the effect of EO on DC is significant with the path coefficient of 0.851(t=2.205, p<0.05), which produced H1 that EO would have a positive effect on DC in INVs. The path analyses of export performance and DC showed a significant path coefficient of 0.685(t=2.113, p<0.05). Accordingly, H2 has been set up which establishes the positive correlation between DC and export performance.

The analyses of moderating effects of external environment factors were applied for the verification of H3 through H6. H3, which deals with the moderating effect of the hostility at domestic markets, was found to have the path coefficient of 0.612(t=1.971, p<0.05). Consequently, H3 that the hostility at domestic markets would have moderating effect on the relationship between EO and DC has been set up. The analysis of the effect moderating industrial dynamics influencing the relationship between EO and DC showed the path coefficient of 0.584(t=2.260, p<0.05). This also shows a significant result. Consequently, it was possible to set up H4. The analysis of the effect moderating external environment factors in the relationship between DC and export performance does not show any significant results. Therefore, the two H5 and H6 have been dismissed.

V. Conclusion

1. Summary and discussion

This study has examined the correlation between EO, DC and export performance of INVs. The result of empirical analysis revealed that there is a positive correlation between EO, DC and export performance. And the analysis of moderating effect showed that two external-environment factors have only signigicant moderating effect on the correlation between EO and DC.

This study has a very significant meaning in that the concept of DC has been grafted onto new types of enterprises. Most of previous studies(McDougall and Oviatt, 2000; Rasmussen et al., 2012) have approached with the views of EO and unique resources, all of which, the researches with resource-based views, examined what effect the combination of EO and any resources unique to INVs would have on the advance into foreign markets and its performance. However, when the fact is considered that INVs are innately short of resources, DC can be considered as a key factor connecting EO and performance(Spence et al., 2011; Corner and Wu, 2012).

Studies on DC defines it as the capability to newly integrate and reconfigurate those key resources of enterprises. Because of this feature, DC becomes a lot more important to those enterprises of a small size of with insufficient resources. Since INVs also have this kind of feature, the role of DC must be very significant to them(Spence et al., 2011; Prashantham and Floyd, 2012). This study, based on these theoretical discussion, empirically analyzed the role of DC at INVs to find out that the entrepreneurs more innovativeness, more proactiveness and more risk tolerance in those INVs with insufficient resources are making more efforts to beef up DC. And since DC has a positive effect on export performance, too, the entrepreneurs of INVs have to make DC into an organizational culture. This study has practical implications in that it has examined this correlation.

The studies on INVs have been paid attention to the effect of external-environment factors on the appearance background of these enterprises. One of the reasons that INVs are seeking for foreign markets is that they have thought the hostile environment of domestic markets have some effects. So the external environment factors to INVs have something to do with the effects of strategic decision-making and EO on the entire business(McDougall et al., 2003). That is, the

external-environment factors may make the feature of EO emphasized a lot more. It is because when entrepreneurs regard external environment as a threat they would exert themselves to overcome it. This study, with the consideration of this fact, analyzed the moderating effect by regarding the hostility of domestic markets and the industrial dynamics as external-environment factors, which revealed that the external-environment factors have a moderating effect only on the correlation between EO and DC.

The entrepreneur's role of an INVs is more important than that of a big or a normal medium-sized enterprise(Oviatt and McDougall, 2005; Rasmussen et al., 2012). It is because the determination of a newly born enterprise to advance into foreign markets must be influenced by the entrepreneur's propensity. INVs studies are saying that with more dynamic external environment entrepreneurs need to create new resources(Lumpkin and Dess, 2001). Therefore, entrepreneurs come to have interest in DC which enables the creative combination and reconfiguration of their existing resources. The analysis results suggest that the entrepreneurs of INVs hurrying on with advance to foreign markets should reinforce their EO and DC a lot more when external environment is changing more rapidly.

External environment factors are seen not to have any moderating effect on the relationship between DC and export performance, which means that the influence of external environment on DC is not significant for better export performance of INVs in Korea. It can be thought as the following: INVs advance to foreign markets only with the purpose of acquiring the local information regardless of performance creation and therefore DC of INVs is not only for export performance. Like this, DC of INVs is an organizational culture helpful to various non-financial performance in addition to export performance.

The non-financial performance can be sought for more actively with the influence of any change to external environment. On the contrary, export performance needs more direct input of resources than non-financial performance. Human resource, technological resource and capital are these kinds of resources. However, INVs are innately not only short of these resources but also incapable of inputting any of them in a short time when there is any rapid change to external environment. Accordingly, it is very difficult for any changes in external environment to have more DC activities for better performance in a short time.

This analysis has a very significant theoretical implication in that it has connected DC of INVs

In Relation to Entrepreneurial Orientation, Dynamic Capability and Export Performance of
International New Ventures, the Moderating Effect of External Trade Environment

21

to external-environment factors. In addition, the entrepreneurs of INVs should not overlook the importance of DC only because DC counteracting to any changes in external environment does not have any short-term effect on performance, for DC is very helpful to beefing up the organizational capability of an enterprise.

2. Research limitation and further direction

This study has its own limitations in suggesting the above-mentioned implications from the examination of the relationship between DC and external environment with INVs as study objects.

First, this study has examined the correlation between EO, DC and external environment with Korean INVs as the study objects but it could not subdivide EO as precedence factor. That is, though risk tolerance, innovativeness and proactiveness are key concepts comprising EO, there are some gaps between them. This study has its own limitation not being able to categorizing the details of EO for better examination. Any future study is to subdivide them for examination of the relation to DC.

Second, this study, having examined the moderating effect of external-environment factors of INVs, has not been able to examine any mediated effect of factors on the path of export performance in DC and EO. There are various factors to EO and export performance. This study has examined only DC as a mediated factor, failing to analyze the mediated effect. Any future studies are to verify the effects of diverse mediated factors including DC.

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In Relation to Entrepreneurial Orientation, Dynamic Capability and Export Performance of
International New Ventures, the Moderating Effect of External Trade Environment

23

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국문초록

국제신벤처기업의 기업가지향성, 동적역량, 수출성과의 관계에서 외부환경의 조절효과

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　본 연구는 창업 직후 빠른 시간 안에 외국시장에 진출하는 국제신벤처기업에서 기업가지향성, 동적역량 그리고 수출성과의 관계를 살펴보았다. 또한, 외부환경 요인으로 국내시장 적대성과 산업 역동성의 조절효과도 분석하였다. 국제신벤처기업은 자원의 제약에도 적극적으로 외국시장 진출을 시도하는 기업을 말한다. 국제신벤처기업의 외국시장 진출에 영향을 주는 요인으로는 기업가지향 성과 보유자원의 특성 등이 있다. 기존 연구는 국제신벤처기업 현상이 중소벤처기업의 새로운 성장 동력이 될 것이라고 말하며, 해당 기업의 수출활동 성과 요인 등을 분석하였다. 최근에는 동적역량 측면에서 국제신벤처기업의 경쟁력을 설명하려는 연구들도 있다. 이러한 연구들은 동적역량이 자 원이 부족한 국제신벤처기업의 수출활동을 포함한 외국시장 진출에 도움을 주는 것으로 지적한다. 본 연구는 기존 연구를 바탕으로 이러한 요인들 간의 관계를 실증분석 하였다. 기업가지향성은 기 업가의 위험감수 성향, 혁신 성향, 적극적 성향으로 그리고 동적역량은 기존 자원의 통합과 재배치 역량으로 살펴보았다. 수출성과는 기존 연구에 따라 주관적 접근과 객관적 접근을 병행하여 측정하 였다. 외부환경 요인은 두 가지로 나누어 설정하였는데 시장 불안정성과 산업의 역동성이다. 실증 분석은 국제신벤처기업의 정의에 따른 국내 101개 기업을 대상으로 하였다. 분석 방법은 구조방정 식 모형인 PLS(Partial Least Square)를 이용하였고 외부환경 요인의 조절효과를 포함해 총 6개의 가 설을 설정하였다. 실증분석 결과 기업가지향성은 동적역량에 긍정적 영향을 주는 것으로 나타났다. 그리고 동적역량 또한 수출성에 긍정적 영향을 미치는 것을 확인하였다. 조절효과 분석에서는 기업 가지향성과 동적역량 사이에 두 외부환경 요인이 모두 유의한 조절효과를 보여주었다. 그러나 동적 역량과 수출성과 사이에서는 외부환경 요인의 조절효과를 확인할 수 없었다. 이는 우리나라 국제신 벤처기업의 수출성과를 높이는데 동적역량이 외부환경으로부터 받는 영향이 크지 않음을 의미한 다. 이러한 분석은 국제신벤처기업의 동적역량과 외부환경 요인의 관계를 분석한 점에서 이론적 시 사점을 가진다. 그리고 국제신벤처기업의 경영자들은 외부환경 변화에 대응하는 동적역량이 단기 적으로 성과에 영향을 주지 못한다고 해서 이의 중요성을 간과해서는 안 된다. 동적역량은 결국 신 생기업의 전체적인 조직 역량을 강화하는데 도움을 주기 때문이다.

주제어 : 국제신벤처기업, 기업가지향성, 동적역량, 외부환경요인

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