

Empirical Analysis of Effect of Entrepreneurship on Export Performance: Focusing on the Mediated Effect of Technology Capability and Export Support Policy of Start-Ups

JKT 24(6)

Received 26 August 2020
Revised 20 September 2020
Accepted 7 October 2020

Se-Hwan Joo

Department of International Trade, Gyeongsang National University, South Korea

Gun-Hoon Shin[†]

Department of International Trade, Gyeongsang National University, South Korea

Abstract

Purpose – This study aims to examine the effect of entrepreneurship of start-ups on export performance when the business closure rate is higher than business start-up rate in Korea. Thus, this study analyzes various factors for start-ups established within the past seven years and uses export performance as an indicator. Prior to analysis of factors, the study defines the concepts of start-up factors based on various studies.

Design/methodology – In order to analyze the export performance of startups, this study conducted an empirical analysis using statistical analysis. Theories were established based on previous studies, and hypotheses and research models were designed based on the established theories. Subsequently, in order to verify the research hypothesis and research model, factor analysis such as validity and reliability, and structural equation modeling were analyzed.

Findings – As a result of analysis based on previous studies, we found that there is a difference between theoretical and practical aspects. Whereas previous studies showed that market orientation, technology orientation, and social capital have a direct impact on export performance, the present study analyzed that there is no such impact, and that technology capabilities were important as a result of the unique traits of start-ups.

Originality/value – Existing studies have limitations in understanding the overall characteristics of a company by using market orientation, technology orientation, and social capital as individual independent variables. In addition, the existing researches have been analyzed in relation to corporate performance, whereas this study has been limited to export performance, so it can be regarded as different from other studies.

Keywords: Entrepreneurship, Market Orientation, Technology Orientation, Social Capital, Export Performance

JEL Classifications: C12, F14, O53, P45

1. Introduction

1.1. Background and Purpose of Study

Korea achieved USD 1 trillion in trade volume in 2018, of which exports accounted for USD 600 billion, and was the seventh nation in the world to do so after US, Germany, Japan, Netherlands, France, and Japan. However, due to excessive competition, GDP growth in 2018 was only 2%. Fierce competition for limited resources and capital is increasing household

[†] Corresponding author: gunhoon1@gnu.ac.kr

debt and economic problems, including stagnation in jobs and income. Currently, Korea's export structure is highly dependent on the export by large corporations based on capital. Therefore, relying on existing growth models cannot overcome the economic growth and job creation limitations. In 2016, the proportion of small and medium-sized enterprises (SMEs) in manufacturing is 98.9% and 1.1% for large companies. In terms of the number of employees, SMEs accounted for 74.6%, and large companies accounted for 25.4% (Oh Kyung-Hun, 2018).

The US decided that job creation through start-ups was the key to sustainable growth of the local and national economies. In 2011, the US announced the Startup America Initiative, a policy friendly to the promotion of startups and corporate development (KITA, 2019). Startup America Initiatives offers a wide range of support, including expanding direct investment in startups, strengthening education, and removing regulations and barriers. Employment policy in the US, along with its start-up policy, has been evaluated as successful, and continuous economic growth has been possible with the Startup America Initiative in 2011. FAANG (Facebook, Amazon, Apple, Netflix, and Google) have led the US stock market, while PULPS (Pinterest, Uber, Lyft, Palantir, Slack) have grown rapidly based on technology and capital.

Since 2010, Korea's entry barrier to start-ups has been lowered through the growth of mobile platforms and the spread of crowdfunding. And as start-up policies began to be aggressively supported to address the low growth and low employment era, companies with innovative technologies and ideas were established. However, Korea is too dependent on the government's start-up policy funding. As a result, brand value and technology are relatively weak compared to overseas startups (Jeon Hae-Yeong, 2016).

Many studies in Korea have analyzed the factors of Korean startups and explain that they are not adequately responding to market changes due to various reasons such as lack of preparation, resource acquisition failure, and marketing failure.

Therefore, this study intends to understand the important variables and to derive key factors for Korean startups to enter overseas markets. For the purpose of analysis, this study aims to identify the causality among market orientation, technology orientation, the use of the export support system, and export performance of start-ups, analyze the factors for variables, and derive the results based on the foregoing.

1.2. Methodology of the Study

Pursuant to the purpose of the study discussed above, this study aims to analyze variables related to the definition of startups, market orientation of firms, technology orientation of firms, and the use of export support systems, and the impact of each variable on export performance. For the research analysis, prior researches were used to operationally define research hypotheses and variables, and empirical analysis was conducted for verification.

Demographic characteristics and descriptive statistics were analyzed using empirical analysis, and research hypotheses were verified and analyzed based on the validity, reliability, and correlation of each variable. Surveys were distributed to startups for hypothesis testing and analysis, and import-related startups were excluded to focus on export performance.

Existing studies have set entrepreneurship, market orientation, and technology orientation as independent variables or conducted research using only one variable to analyze performance. Therefore, there was a limit to comprehensive analysis that considered the characteristics of startups. Therefore, in this study, we used the upper concept of "entrepreneurship" as a variable and the relative subconcepts of market orientation, technology orientation and social capital as factors of the variable. Existing studies focus on the relative performance of firms, whereas this study is different from previous studies because it focuses on exports.

2. Theoretical Background and Hypothesis Setting

2.1. Definition of a Start-up

According to Gartner, Bird and Starr (1992), a start-up has the meaning of a founding of a business, and can be defined as a process by which an organization is created. But because of the complexities in the meaning of “founding of a business”, it is difficult to establish a concrete and unified definition (Kuratko and Hodgetts, 2007).

Scherer (1980) describes a start-up as a relatively small- to medium-sized company that can respond quickly to innovative changes. Furthermore, these companies can react quickly to changes in the market because of the short internal communication process (Dogson and Rothwell, 1994).

Research by Gatigon and Xuereb (1997) describes a start-up as a new form of a technology oriented company that develops innovative technology and services to gain an edge over the competition and shares information and knowledge across diverse networks.

Morries, Kuratko and Covin (2010) describes founding as a new form of technological effort aiming to create opportunities for economical activity. More than just establishment of a new company, the term also refers to improvements within the organization of product, technology, manufacturing process, or organizational structure (Kang Byung-Oh, 2011).

Eric (2012) defines a start-up as a company that has the will to provide new products or innovative services in an uncertain market, and companies falling into this category can be called a start-up regardless of size and form of the company.

Articles 2 and 3 of the Enforcement Decree of Support for Small and Medium Enterprise Establishment Act provides that a newly established enterprise refers to a company that has begun operations within the last 7 years, and does not include companies in certain hospitality, restaurant, or real estate businesses. Start-up refers to a newly-starting enterprise either as a sole proprietorship or a corporation, and is considered a start-up if there is potential for investment, job creation, or growth.

According to Lee Seo-Han and Noh Seung-Hoon (2014), a start-up is a small group of project companies that are driven by innovative ideas to create high value based on uncertainty.

Companies that have succeeded based on recent start-ups have high growth rates and potential based on innovative ideas and technologies. As such, it can be defined as a technology-intensive newly-established company with high potential.

Although conceptual definition of a venture company and a start-up can seem similar, a detailed look shows a difference in the way that the company is operated. In case of a venture company, research and development accounts for a large portion of the business operation. Meanwhile, a start-up chooses a business model of small-scale project form based on innovative technology or ideas. As such, start-ups focus on the awareness of a problem within an industry and solutions therefor.

2.2. Entrepreneurship

Research on entrepreneurship has have been conducted from various perspectives on survival and growth based on the technological skills possessed by SMEs and venture companies in the process of their founding. Entrepreneurship is defined as a different concept depending on the researcher’s inclination and the utilization of personal, organizational and environmental factors (Morris and Paul, 1987).

Gartner (1990) has two explanations for entrepreneurship. Firstly, it is a form of market-oriented value creation that focuses on customer information, and secondly, it is a

technology-oriented form of innovation, development, and creativity.

Research by Covin and Slevin (1991) explains that the scope of activities of a company based on entrepreneurship depends on industry, scope, etc. However, innovativeness, risk-taking, and proactiveness are shared subconcepts comprising these.

Proactiveness refers to the act of creating opportunities based on demand forecasting, which is to collect information to create new value in the market.

Innovativeness is the creation of new products or services through ideas and research and development, in which creative and innovative activities are distinguished from competitors (Lumpkin and Dess, 1996).

Risk-taking is an act of avoiding market uncertainty and is a company's act of lowering the probability of loss and failure through external information, capital, technology and human resources to invest resources in high-risk businesses.

Based on the foregoing, the present study seeks to utilize market orientation, technology orientation, and social capital as subfactors of entrepreneurship based on prior studies.

2.2.1. Market Orientation

Many companies try to enter overseas markets for sustainable growth and expansion of their business areas (Lu and Beamish, 2006). Companies growing on the basis of their own markets are expanding their markets overseas due to intensifying competition and lack of resources.

Research by Armario, Ruiz and Armario (2008) explains that limitations of domestic market growth due to increased uncertainty can lower risks by entering overseas markets. As such, from this point of view, a company can become an important decision making company by creating an opportunity for sustainable growth and market diversification by entering overseas markets (Helpman, Melitz and Yeaple 2004).

Therefore, many companies want to enter overseas market based on market-oriented characteristics. Market orientation refers to the act of rapidly responding to changes and collecting information more actively than competitors for competitive advantage and growth in a market in which competition is intensifying (Day, 1994).

Kohil and Jawroski (1990) explains market orientation as analysis of information that reflects the demands of the consumers, sharing the analyzed information among organizations within the company, and subsequently reacting to the market based on such information. Furthermore, market orientation is summarized into three concepts: "information creation", "information propagation", and "responsiveness".

Narver and Slater (1990) approached market orientation from the perspective of corporate culture and specifically explained the concept of customer orientation. Customer orientation is the analysis of information that customers want in order to provide a high level of value, which is explained as a factor influencing the long-term growth of a company's revenue.

Research by Lee Hak-Sik, Yoo Dong-Keun and Lee Yong-Ki (1996) defines market orientation as a way of thinking that incorporates the concepts of customer satisfaction, customer value creation, and value chains, and that corporate activities should be centered on customers.

Market orientation refers to activities that can secure a competitive advantage and realize high profitability by collecting and analyzing information sensitive to customers' needs and competitors' changes in the market and sharing it with company members.

2.2.2. Technology Orientation

Technology orientation is a factor that secures a competitive advantage for survival in the

fierce competition, and means improvement of products and services by acquiring and securing technology based on innovative ideas.

According to Gatigon and Xuereb (1997), technology orientation is an investment in securing a relative advantage over competitors in uncertain markets and has a direct impact on corporate performance through innovative technology development.

Jeong, Pae and Zhou (2006) defines a technology orientation as a corporate culture that emphasizes new technology to acquire technology, and is an activity that can secure competitive advantage and potential based on technologies that cannot be easily replicated by competitors.

Talke, Salomo and Kock (2011) explain that more technology oriented firms have a positive impact on technology capabilities. The higher the technological advantage, the more secure the original technology and the higher quality new products can be developed, which directly improves the performance of the enterprise.

Research by Kang Do-Kyu and Park Seong-Young (2007) explains that technology orientation is the ability to commercialize superior products and services in the process of developing or acquiring innovative technologies.

Firms with high technology orientation seek to pursue technological superiority and secure original technology. In addition, research and development resources and systems are well established compared to competitors and provide high quality products and services that affect the performance of the company (Jeong, Pae and Zhou, 2006; Kim Chang-Soo and Yang Yong-Ik, 2008; Talke, Salomo and Kock, 2011).

2.2.3. Social Capital

Social capital refers to the actions of stakeholders involved in the network to increase the efficiency of production activities. The stronger the network of stakeholders, the greater the level of knowledge and information that can be gained by increasing access to the knowledge and information required by the company (Alder and Kwon, 2002).

Marino et al., (2002) explains that the use of networks increases and diversifies to create innovation opportunities through knowledge and technology acquisition.

Research by Mun Hye-Seon and Lee Sang-Myeong (2016) shows that small- and medium-sized venture companies, which lack resources, capital, and capabilities, are highly dependent on knowledge-based information on technology acquisition and utilization, which is mainly utilized through networks.

Social capital is the process of connecting corporate internal and external networks and creating new knowledge and resources for corporate management and performance (Kang Seok-Min and Kim Dae-Won, 2014; Yli-Renko, Autio and Sapienza, 2001).

In this study, the independent variable called entrepreneurship is used as a higher concept, whereas the subconcepts of market orientation, technology orientation, and social capital are used as factors of independent variables.

H1: Entrepreneurship will have a positive (+) effect on export performance.

H1-1: Market orientation will have a positive (+) effect on export performance.

H1-2: Technology orientation will have a positive (+) effect on export performance.

H1-3: Social capital will have a positive (+) effect on export performance.

2.3. Technology Capabilities

In this study, the export capability of the startup is largely divided into the internal capability of technology capability and the external capability of export support policy.

Technology capability is a source of competitive advantage based on the resources and knowledge of a company, and can create a sustainable competitive advantage.

For companies with a liability of smallness, it is important to have innovative internal capabilities in competition.

Hamel (1990) argues that a company's competence is a different concept from physical assets, which can be improved by utilizing internal and external resources and is an important core competency in creating competitive advantage and corporate performance (Lee Jae-Eun et al., 2017).

In particular, startups that wish to go abroad must bear the liability of foreignness, and assets such as ideas and technology serve as important factors to overcome these disadvantages (Autio, Sapienza and Almeida, 2000; Bloodgood, Sapienza and Almeida, 1996).

In case of developing by utilizing external knowledge of company, innovation performance is better and technology commercialization is possible (Lausen and Slter, 2006).

In order to strengthen the technology capabilities of a company, market requirement, manufacturing ability through technology, willingness to satisfy future need through new technologies and new products, ability to utilize competitive technologies to respond to unanticipated technology are important (Chung Yong-Woo, Jung Hun-Joo, Kim Byung-Gwi, 2012).

As such, this study establishes the hypothesis that entrepreneurship, which is a higher concept to market orientation, technology orientation, and social capital, will have an impact on the technology capability of a company.

H2: Entrepreneurship will have a positive (+) impact on technology capabilities.

H2-1: Market orientation will have a positive (+) impact on technology capabilities.

H2-2: Technology orientation will have a positive (+) impact on technology capabilities.

H2-3: Social capital will have a positive (+) impact on technology capabilities.

2.4. Utilizing Export Support Policies

The Korean government actively supports export promotion through structural change and export promotion policies for domestic startups and SMEs. Nevertheless, it is difficult to expect a steady increase in export volume due to sluggish exports of startups and SMEs. The reason for this is the lack of resources and capacities due to poor capital structures, similar redundancy in supporting projects, and inefficiency in providing information.

Nevertheless, improving the use of support policies and providing relevant policy information can improve a company's performance. And in order to increase the utilization of the support policy, the government's active cooperation must be supported (Ahmed et al., 2002).

Gencturk and Kotabe (2001) explained that the export support system is an important factor to enhance the performance of a company, and there is a direct export system for the competitive advantage of the company and an indirect export system for the profitability of the company. They compared the export performance of the two systems and proved that the direct export system is more useful in the position of the enterprise.

The export support policy use has a positive effect on the strategic direction of enterprises and the efficiency of export business, and is a strategic way to increase export performance (Park Kwang-Seo, Kim In-Kown and Ahn Jong-Seok, 2010).

Moon Sung-Wuk (2011) analyzed the effect of the use of government support policies on the performance of Korean manufacturing companies. As a result, it was analyzed that the use of external knowledge and the use of government support policies had a positive effect.

A study analyzing the relationship between the use of startup export support policy and export performance is not sufficient in Korea. In particular, there is a lack of research to explain the causal relationship between corporate characteristics and export support policies and to identify the path leading to performance.

Therefore, this study intends to measure export performance of a company by using export support policy as a parameter.

H3: Entrepreneurship will have a positive (+) impact on utilization of export support policies.

H3-1: Market orientation will have a positive (+) impact on utilization of export support policies.

H3-2: Technology orientation will have a positive (+) impact on utilization of export support policies.

H3-3: Social capital will have a positive (+) impact on utilization of export support policies.

2.5. Export Performance

Determining a company's export performance depends highly on financial and non-financial performance. Financial performance is an objective figure that shows the actual status of export performance. Non-financial performance is a subjective measure of corporate image, corporate goals, and market share, among others.

In Covin and Slevin's (1991) study, the performance of a start-up company is measured by the increase in sales, sales growth rate, and return on investment. In general, in analyzing export performance, financial performance can be classified into non-financial performance. In the case of financial performance, the reliability is highly used because of the objectivity of data.

In order to analyze export performance, both objective and subjective indicators should be analyzed and integrated, but objective indicators should be the basis of the analysis (Jang Dong-Kwan, 2013).

Objective indicators reflect the present and cannot be used to predict for the future. However, non-financial performance indicators are important because they allow companies to explore success factors and predict future possibilities beyond current possibilities. In addition, the start-up business is difficult to expect immediate financial results as the company operates on a project scale. Therefore, this study uses financial and non-financial performance in analyzing performance.

H4: Technology capabilities will have a positive (+) impact on export performance.

H5: Utilization of export support policies will have a positive (+) impact on export performance.

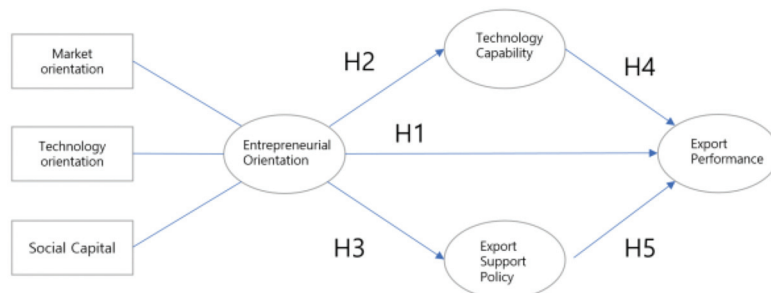
3. Research Model and Operational Definition of Variables

3.1. Research Model

This study is to analyze the causal relationship between startup orientation and export performance of startups, and established a research model as shown in Fig. 1 in order to identify causality. Entrepreneurship was selected as an independent variable, with subfactors of market orientation, technology orientation, and social capital. While selected factors are necessary for analyzing export performance, it was also analyzed in previous studies that the

selected factors have direct impact on technology capability and utilization of export support policies. As such, technology capability and utilization of export support policies were selected as parameters.

Fig. 1. Research Model



3.2. Operational Definition of Variables

3.2.1. Entrepreneurship

This study defines entrepreneurship as a multidimensional concept comprised of market orientation, technology orientation, and social capital. Market orientation is measured by six categories, including grasp of market awareness and consumer needs, market awareness, and willingness to explore new markets, among others (Jaworski and Kohli, 1993; Kirca, Jayachandran and Bearden, 2005; Lee Sung-Ho, Park Chan-Young and Kim Young-Kwan, 2011; Mavondo and Farrell, 2000; Yoo Eun-Sang, 2015). Technology orientation is measured by six categories, including willingness for technological innovation, pursuit of product and service change by technological development, level of technological development, and willingness to cooperate in technological development, among others (Ahn Ji-Yun and Park Kwang-Ho, 2015; Gatignon and Xuereb, 1997; Lee Eun-Ah and Seo Jung-Hae, 2017; Murray, Gao and Kotabe, 2011; Zou Fand and Zhao, 2003). Social capital was measured by three categories, including dependence on external resources, network formation, and mutual cooperation reliability (Alder and Kown, 2002; Lee Euna and Seo Jung-Hae, 2017; Nahapiet and Ghoshal, 1998).

3.2.2. Technology Capability

In many previous studies, technology capability is not only dependent on technology orientation, but capacity changes according to the cultural characteristics of the company. And the higher the firm's willingness to enter the overseas market, the more often it relies on technological capabilities, and the SMEs with innovative technologies can overcome disadvantages. Technology capability was measured by five items, including potential for commercialization, original technology, and development personnel for patent R&D, among others (Autio, Sapienza and Almeida, 2000; Filatotchev et al., 2000; Han and Jeong, 2013, Lee et al., 2017).

3.2.3. Utilization of Export Support

Export support utilization is the government's support policy that domestic-oriented companies use to advance into overseas markets. The government is actively encouraging

companies to go abroad, attracting companies concerned about survival in the fierce competition expected in the global market. According to previous studies, the smaller the size of the firm, the more dependence on the export support system, and the export promotion caused by the use of the export support system. Export support utilization is measured in five categories, including financial support, export promotion consulting, trade expositions, and trade insurance, among others (Cho Byung-Moon and Shin Hyun-Han, 2019; Gencturk and Kotave, 2001; Chun Dong-Suk, 2018; Park Kwang-Seo, Kim In-Kown and Ahn Jong-Seok, 2010).

3.2.4. Export Performance

Export performance should be focused on the startup's business activities, and the growth structure should be analyzed to determine the cause of the increase in exports. In order to derive export performance, startups should be selected in consideration of the increase in exports and sales, the number of exporting countries, export items, and market share. In reality, however, this research was conducted without considering this part because there is a limit in selecting research subjects. Export performance was measured in five categories, including corporate sales growth, export growth, corporate image, and quality, taking into account both financial and non-financial performance (Covin and Slevin, 1991; Chung Yong-Woo, Jung Hun-Joo and Kim Byung-Gwi 2012; Jeong So-Won and Chang Jae-Eun, 2015).

4. Empirical Analysis

4.1. Method of Analysis and Characteristic of Sample

To analyze this study, the research hypothesis was set based on the preceding studies and the research model was designed based on the research hypothesis. The survey questions consisted of the contents of previous studies. The survey was distributed to a randomly selected sample of knowledge-based start-ups focusing on ideas and technology, including manufacturing, service, and finance, that were founded during a seven-year period from 2012 to 2019. The survey was conducted twice, and the second survey was conducted following elimination of erroneous items in the first survey. First and second survey together consisted of 677 copies, and 142 were selected as a sample for empirical analysis, excluding 53 with invalid values.

Statistical analysis was performed to verify the sample. Descriptive statistics, feasibility, and reliability analysis were verified with SPSS Statistics 25.0. Analysis of the structural model tested the hypothesis through AMOS 26.0. A four-step measurement process was performed on the collected samples as a measurement tool to verify the hypotheses and research models presented in this study.

First, a feasibility study was conducted. The consistency of the metrics and explored the factors between them were verified. Second was the reliability measurement through Cronbach's α . Reliability analysis confirmed that the concept to be analyzed was consistently and accurately measured by respondents. Third was confirmatory factor analysis. Confirmatory factor analysis was conducted to verify the unidimensionality of factors and to verify the relationship between latent and measured variables. Finally, the structural equation model was used to confirm the structural relationship between each factor and to verify the research hypothesis.

Table 1. Basic Statistics of the Sample

Category	Item	Frequency	Percentile
Form of Company	Manufacturing	51	36.7%
	Service	36	25.9%
	Trade	29	20.9%
	Others	23	16.5%
Gender	Male	90	64.7%
	Female	49	26.7%
Exported Products	Manufactured products	23	35.3%
	Petroleum, Chemicals	4	2.9%
	Textiles, Apparels	16	11.5%
	Food	11	7.9%
	Medical products	4	2.9%
	Automobiles and parts	11	7.9%
	Electrical and Electronics	29	20.9%
	Cosmetics	3	2.1%
	IT	36	25.9%
Export Experience	Financial services	2	1.4%
	Less than 2 years	14	10.1%
	Less than 3 years	14	10.1%
	Less than 4 years	14	10.1%
	Less than 5 years	35	25.2%
Export Portion	5 years or more	62	44.6%
	Less than 20-30%	26	25.9%
	Less than 30-40%	16	11.5%
	Less than 40-50%	44	31.7%
	Less than 50-60%	13	9.4%
	60% or more	30	21.6%

4.2. Feasibility and Reliability Analysis

Exploratory factor analysis and reliability analysis were conducted to verify the validity and reliability of the variables. Exploratory factor analysis aims to explore the relationships between variables when they are not established or theoretically organized. Varimax was used for factor extraction and factor interpretation. In the extracted factors, a loading value of 0.4 or more and dispersion force of 0.5 or more are seen to be valid. Bartlett of 0.05 or lower is seen to have correlation. And KMO (Kaiser-Meyer-Olkin) of 0.5 or more is seen to be appropriate.

As seen in Table 2, Bartlett's significance probability is 0.000, which means that the use of factor analysis is significant and common factors exist. The KMO was 0.835, which analyzed that the correlation between variables and the selection of variables were not a problem, thereby securing feasibility for the research.

Before testing the hypothesis, reliability was analyzed to confirm that consistency between metrics was secured. It is analyzed that the higher the consistency between items, the higher the reliability. The most widely used method for reliability analysis is to check the reliability using Cronbach's α . Cronbach's α has a coefficient value from 0 to 1, and a value of 0.6 indicates reliability and 0.7 or higher indicates high reliability. In the present study, market

orientation had a value of 0.876, technology orientation had a value of 0.911, social capital had a value of 0.878, technology capability had a value of 0.892, export support utilization had a value of 0.897, and export performance had a value of 0.941, thus securing reliability of analysis results.

Table 2. Exploratory Factor Analysis and Reliability Analysis

Concept	Factor	Variable	Constituent		Unique Value	Dispersion Explanation	Cronbach Alpha
			Factor Load	Commonality			
Entrepreneurship	Technology orientation	TO2	.762	.827	3.629	11.340	.911
		TO3	.725	.845			
		TO4	.709	.769			
		TO1	.577	.686			
	Market orientation	MO2	.811	.763	3.673	11.477	.876
		MO4	.783	.749			
		MO1	.743	.635			
		MO5	.713	.799			
		MO3	.693	.695			
	Social Capital	SC1	.839	.768	3.827	11.958	.878
		SC2	.816	.783			
		SC4	.780	.823			
		SC3	.637	.655			
Technology Capability	TC1	.831	.807	2.646	8.269	.892	
	TC2	.803	.806				
	TC3	.778	.709				
	TC7	.587	.697				
	TC5	.527	.742				
	TC6	.514	.675				
Export Support Policy	ESP2	.872	.810	3.712	7.882	.897	
	ESP4	.849	.803				
	ESP3	.769	.799				
	ESP5	.690	.768				
	ESP1	.627	.643				
Export Performance	EP2	.880	.842	6.588	20.588	.941	
	EP1	.861	.812				
	EP3	.824	.790				
	EP4	.760	.719				
	EP5	.728	.644				
	EP6	.727	.774				
	EP8	.688	.683				
	EP7	.683	.754				
KMO							.851
Bartlett					Chi-Square	5585.622	
					df(p)	496 (.000)	

4.3. Confirmatory Factor Analysis

The method used to verify the validity is factor analysis. Factor analysis includes exploratory factor analysis and confirmatory factor analysis. Exploratory factor analysis is conducted for the purpose of exploration in the absence of a theoretically established relationship. Confirmatory factor analysis is used to identify factors by once again verifying the theory of previous studies. In the present study, exploratory factor analysis was first performed and confirmatory factor analysis was subsequently performed.

Table 3 shows the results of the confirmatory factor analysis. If the significance of the analytical result is $p = 0.000$, the research hypothesis should be adopted. In certain cases, the resulting value of Chi-Square is unsuitable; however, this does not mean that it cannot be used because it is not suitable for confirmatory factor analysis. The judgment can be made by referring to suitability index in comparison with other conditions. If the CMIN / DF is 2 or less, it is suitable for the model. If RMR is less than 0.05, GIF, AGFI, CFI, IFI is 0.9 or more, and RMSEA is less than 0.05, it is acceptable. In the present study, confirmatory factor analysis did not satisfy all conditions. However, since the criteria for determining the goodness-of-fit in structural equation models vary and are somewhat different for each researcher, this study views that the minimum criteria were met.

Table 3. Confirmatory Factor Analysis

Category	Questions	χ^2	p	CMIM /DF	RMR	GFI	AGFI	CFI	IFI	RMSEA	
Entrepreneurial Orientation	Market orientation	5	10.309	.000	2.062	.015	.977	.930	.988	.079	
	Technology orientation	5	18.482	.002	3.696	.025	.959	.876	.977	.126	
	Social Capital	5	46.693	.000	9.939	.055	.885	.654	.912	.229	
Technology Capability		6	1.861	.000	.931	.014	.994	.972	1.00	1.00	.000
Export Support Policy		5	10.202	.070	2.040	.030	.977	.932	.989	.990	.078
Export Performance		9	183.710	.000	6.804	.047	.779	.632	.881	.881	.184

4.4. Correlation Analysis

Table 4 shows an analysis of correlation between the variables. All of the p-values, which are significant probability, were less than 0.01, and thus were statistically significant. Although it is defined differently by researchers, it can be said that a correlation coefficient is formed between 0.3 and 0.7. Generally, the correlation is high when it is 0.7 or more. In this study, there is no problem in verifying the design of the research model because of the correlation between variables.

Table 4. Correlation Analysis

Factor	Market orientation	Technology orientation	Social Capital	Technology Capability	Export Support Policy	Export Performance
Market orientation	1.000					
Technology orientation	0.596 **	1.000				
Social Capital	0.362 **	0.627 **	1.000			
Technology Capability	0.358 **	0.525 **	0.410 **	1.000		
Export Support Policy	0.322 **	0.464 **	0.498 **	0.322 **	1.000	
Export Performance	0.363 **	0.688 **	0.573 **	0.493 **	0.565 **	1.000

Note: * $p < .005$, ** $p < .01$

4.5. Verification of the Suitability of the Research Model

Table 5 examines the suitability of the research model. The present study uses CMIN/DF, RMR, GFI, AGFI, CFI, IFI, RMSR to determine suitability, but satisfies only some of the suitability standards. In the context of structural equation models, evaluation does not have certain rules. However, based on the judgment of the researcher, objective judgment is used for factors somewhat lacking suitability; therefore, as long as the value is not erroneous or far lower than the standard value customarily used, it may be used. Therefore, if the minimum level of suitability is met, it can be judged that there is no problem in conducting the research.

Table 5. Suitability of the Research Model

Concept	Factor	Variable	Constituent		S.E.	C.R.	Reliability
			Factor Load	Standard Factor Load			
Entrepreneurial Orientation	Technology orientation	TO2	.884	.844	.082	10.7590	.911
		TO3	1.036	.923	.088	11.725	
		TO4	1.021	.800	.100	10.197	
		TO1	.851	.841	.079	10.725	
Market orientation	Market orientation	MO2	.737	.735	.069	10.713	.876
		MO4	1.000	.831	-	0.000	
		MO1	.531	.595	.065	8.175	
		MO5	1.009	.892	.080	13.931	
		MO3	.767	.758	.069	11.167	
Social Capital	Social Capital	SC1	.963	.777	.075	12.826	.878
		SC2	1.005	.807	.073	13.702	
		SC4	1.00	.905	-	.000	
		SC3	.742	.691	.070	10.643	
		SC5	1.00	.807	.073	13.702	

Table 5. (Continued)

Concept	Factor	Variable	Constituent		S.E.	C.R.	Reliability
			Factor Load	Standard Factor Load			
Technology Capability		TC1	1.000	.837	-	.000	.892
		TC2	1.112	.881	.090	12.312	
		TC3	.989	.733	.096	10.330	
		TC7	.775	.739	.066	11.819	
		TC5	1.267	.732	.112	11.263	
		TC6	1.000	.713	-	.000	
Export Support Policy		ESP2	1.015	.852	.082	12.312	.897
		ESP4	1.091	.823	.092	11.912	
		ESP3	1.121	.794	.098	11.380	
		ESP5	1.000	.800	-	.000	
		ESP1	.966	.733	.094	10.281	
Export Performance		EP2	1.037	.892	.067	15.506	.941
		EP1	1.000	.843	-	.000	
		EP3	1.068	.824	.079	13.511	
		EP4	1.002	.822	.074	13.463	
		EP5	.947	.763	.079	11.970	
		EP6	.985	.791	.078	12.641	
		EP8	.920	.779	.073	12.357	
		EP7	.902	.812	.070	13.186	
Estimated Model Suitability			Chi-Square=207.102, df=45, CMIN/DF=3.095, GFI=.997, AGFI=.827, CFI=.980, RMR=.098 RMSEA=.048, IFI=.847				

4.6. Hypothesis Verification and Analysis Result

Table 6 shows the results of verification of the research hypothesis. This study comprehensively analyzes the impact of entrepreneurship on export performance. As defined above, a start-up is a newly founded company with innovative technology based on original ideas. Previous studies have shown that market orientation, technology orientation, and social capital have a positive effect on export performance; however, of the three subfactors of independent variables in this study—market orientation, technology orientation, and social capital—only hypothesis 1-2 technology orientation has been found to have effect on export performance. Remaining hypotheses 1-1 and 1-3 have been rejected. As such, the theoretical concept that market orientation and social capital, subfactors of entrepreneurship, has any direct effect on export performance has been judged to be lacking reliability as a result of analysis.

Meanwhile, hypothesis 1-2 on technology orientation can be viewed to well-reflect the characteristics of a startup. When startups have realizable technology and differentiated products or services, customers tend to directly seek the products and services to be produced by that company without regard to market demand or amount of capital, and was analyzed to have direct impact on export performance.

Hypothesis 2-1 on the relationship between market orientation and technology capability was rejected. Startups, which begin with an innovative idea and low capital, have inherent

limitations in producing products which the consumers or the era demand. As such, these small- and medium-sized companies target niche markets, and their market orientation was analyzed to not have any impact on technological capabilities. Hypothesis 2-2 on the relationship between technological orientation and technological capability and hypothesis 2-3 on social capital and technological capabilities are adopted. Since startups operate technology-intensive, knowledge-based projects, technology orientation have an impact on the technology capability and the method of company management. Social capital was also analyzed to have an effect on technology capability; this is because a company that is technology-intensive with low capital meets online or smartphone environments, the company sees exponential growth. Such growth of a startup results in growth in finance, related industries, and education, resulting in increase of technology capability in the relevant field. Moreover, such exponential growth results in innovation in product or service, resulting in significant invest in technology capability for the sake of international competitiveness. As such, a company founded with low capital or a small company seeking growth was analyzed to be focusing on technology it already possesses or social capital (finance, cooperative research, and research and development) instead of making an effort to obtain technology competitiveness based on market orientation.

Hypothesis 3 on the relationship between startup orientation and the use of export support systems has been partially adopted. Hypothesis 3-2 on the relationship between technology orientation and export support policy and hypothesis 3-3 on the relationship between social capital and export support policy has been adopted. Improvements in technology and the use of external information, technologies and networks have an impact on the use of export support policies. Export support policies are necessary not only to small- and medium-sized companies but also to large-sized companies. In particular, companies struggle to deal with parts regarding export consulting such as finance, insurance, and customs, and as such, many companies rely on export support policies. Due to changes in the international trade environment, protectionism is on the rise seeking to protect domestic industries. As policies increasing tariff can be criticized, many nations are instead taking nontariff measures. A prime example of a nontariff barrier is technical barriers to trade (TBT), which are barriers relating to technical regulations, technical standards, and conformity assessment. From the perspective of an exporting company, TBT increases risk while potentially leading to increased time, costs, and disputes, and thus constitutes an important factor decreasing the competitiveness of a company. It was analyzed that companies rely heavily on support as there is a limit to how much TBT a company can overcome on its own. According to a 2020 press release by the Ministry of Trade, Industry, and Energy, it conducted 120 cases of TBT negotiations, resolving 50 cases on behalf of Korean companies. Through such negotiations, it succeeded in increasing exports while decreasing costs, and in case of communications equipment exported to India, there was a cost savings of KRW 4.8 billion for an export of KRW 140 billion.

However, hypothesis 3-1 on relationship between market orientation and export support policies was rejected. As such, the use of export support policies is analyzed to be related to the use of technology and external networks.

Hypothesis 4 on technical capability and export performance was adopted. In the present study, the product design was considered as a technology capability in addition to technological innovativeness and access to products and services, as it also has a positive impact on the consumer's desire for said product or service. Today's purchases no longer rely on advertisements on mass media, newspaper, and magazines as in the past. Consumers search online for products they need and engage in purchasing based on customer reviews. Moreover, products and services that are not domestically available are available online

without restriction of time and space. That is, as long as the product or service produced by a company is aligned with the desires of a consumer and access to purchasing is easy, the consumer has a willingness to purchase without regard to whether the company is located domestically or overseas. Due to low capital, most startups do not form offline stores and mostly conduct their business online. Moreover, based on the fact that it is difficult to maintain and grow the company based solely on domestic transactions, the companies provide products and services overseas with online websites supporting multiple languages. As such, technology capability is analyzed to be an important factor of a startup having direct impact.

Hypothesis 5 on export support policy utilization and export performance was adopted. Export promotion finance, trade exposition attendance support, and trade insurance impact export increase. In addition, proactive use of internet, e-commerce, and smartphones, which can be used with relatively low capital, requires technical support and information on the relevant country, and was thus analyzed to have an effect. However, given the fact that the international trade market is trending towards protectionism and considering the trade relations between the United States and China, a deep reflection on export support policies is thought to be required in the future.

Table 6. Research Hypothesis Verification

Hypothesis	Route	Route Parameters	C.R.	P Value	Result
1-1	Market orientation → Export Performance	-.197	-2.218	.027	Rejected
1-2	Technology orientation → Export Performance	.451	4.368	**	Adopted
1-3	Social Capital → Export Performance	.112	1.504	.133	Rejected
2-1	Market orientation → Technology Capability	.026	.259	.796	Rejected
2-2	Technology orientation → Technology Capability	.340	3.151	0.002*	Adopted
2-3	Social Capital → Technology Capability	.146	2.867	0.042*	Adopted
3-1	Market orientation → Export Support Policy	.142	1.113	.226	Rejected
3-2	Technology orientation → Export Support Policy	.144	2.101	.045*	Adopted
3-3	Social Capital → Export Support Policy	.414	4.082	**	Adopted
4	Technology Capability → Export Performance	.470	4.048	.041*	Adopted
5	Export Support Policy → Export Performance	.227	3.503	**	Adopted

Note: * $p < .05$, ** $p < .01$.

5. Conclusion

5.1. Summary of Research

This study empirically analyzed the use of technology capability and export support policy as a mediating effect in analyzing the effect of entrepreneurship on export performance for start-ups. Relative lack of resources and capital has been a barrier to sustainable growth of startups. Nevertheless, the Korean government spares no support for start-ups and is making a lot of efforts to increase the start-up rate by utilizing various support policies. Start-ups are concentrated in 40 cities around the world, and Seoul is among the top 25; many have evaluated Korea to have significant potential for innovation and technological fusion.

However, more than 80% of the businesses are closed within three years after the start of business. Even though the biggest attraction to founding a startup is the long-term growth and expansion using idea and technology based on low capital, the focus on profitability has resulted in new businesses concentrated in wholesale and retail, food services, and hospitality sectors. According to Statistics Korea's numbers from 2017, only 49.3% of companies survived for more than two years after establishment, and only 28% of those survived for more than five years. The survival rate can only be low since investments are made without full understanding of the startup ecosystem. Moreover, startups are more likely to succeed when targeting overseas markets in addition to domestic markets.

Therefore, this study focused on startups that are currently operating in order to consider the growth of startups and increase the survivability of more companies.

The present study rejects Hypothesis 1 that market orientation, technology orientation, and social capital, which were defined as subfactors of independent variables in this study, influence export performance. Therefore, it was judged that the theoretical concept that firm orientation directly affects export performance was not reliable because it differed from the actual sample.

Hypothesis 2 about the relationship between startup orientation and technology capability was adopted. Since startups operate technology-intensive, knowledge-based projects, market orientation, technology orientation, and social capital all have an impact on technology capability. As such, it can be judged that entrepreneurship is focused on the improvement of technology capability.

Hypothesis 3 on the relationship between startup orientation and the use of export support systems has been partially adopted.

Hypothesis 4 on technical capability and export performance was adopted. Due to the nature of start-ups, it was determined that technology has a direct impact on the company.

Hypothesis 5 on export support policy utilization and export performance was adopted, but it was shown that the impact is not as significant compared to technology capability. Export promotion finance, trade exposition attendance support, and trade insurance impact export increase; however, start-ups in the current era are able to produce profits with low capital using internet, e-commerce, and mobile phones, and thus it was analyzed that technology capability has more impact on export increase compared with export support policy utilization for these companies compared to regular companies.

As mentioned in the research results, market orientation, technology orientation, and social capital, which were theoretically established in the previous studies, were analyzed to be somewhat differently related to export performance. In particular, analysis of consumer needs and market volatility were analyzed to not have any direct or indirect effect on export performance, which is contrasted to previous studies that showed positive effect. In defining the research hypothesis and the model, such market orientation was expected to have an effect

on export performance, but it is difficult to view such influence to be large. A startup lacking capital is burdened by the cost of analyzing consumer needs and the market; as such, it uses crowdfunding to understand the willingness to purchase of consumers and produce the product once funding goal is reached. Given the nature of startups, early survival is paramount. As it is possible to confirm the competitiveness of the product in the market through crowdfunding, it is used as a means to reduce risk. Moreover, purchasers participating in such funding are not limited to Korea but also include consumers from overseas, allowing the startup to understand which consumers from which countries made an investment. As such, in order to be a subject of crowdfunding, technology capability and access to information of the relevant product or service were analyzed as more important factors than profit creation in the market.

With respect to the utilization of internal and external information or technology, given the nature of startups being reliant and operating on a small scale, it was analyzed that startups had the tendency to collaborate on technology or share information with other startups or small- to medium-sized companies. Moreover, as startups lacked experience and knowledge regarding exports and suffer from higher uncertainties compared to ordinary companies, startups were analyzed to proactively use support systems. Startups are showing aggressive willingness to export through consulting, lectures, and collaborations on finance, insurance, and customs. However, they tend to take a passive position with respect to shipping and logistics. While most startups outsource shipping of the product to freight forwarders or logistics companies, such passive attitude towards shipping and logistics sometimes resulted in unexpected expenditures.

5.2. Limitations of the Research and Future Agenda

The present study was unable to consider the characteristics of products and services as random sample were collected for research hypotheses and research model analysis. For detailed analysis, samples should be collected and analyzed by industry, but there were limitations due to practical difficulties. Moreover, since the hypotheses and models of current startup export performance approached the theoretical concept based on previous studies, it was able to be understood that there are practical differences. As such, the first survey was conducted to confirm the hypotheses and variables, and hypotheses and variables with problems were eliminated or revised. Even so, it became known that the startup ecosystem is very diverse and generalization is difficult. Although all companies may be similar in the beginning, startups particularly reflect strictly the spirit and philosophy of the founder, and there is a limitation in analysis through generalization. Export performance also differs based on the sharing economy, diversification of platforms, and form of purchase, and as such, these factors must also be given ample consideration. As such, if future studies acknowledge the foregoing limitations, more practical research results will follow thereby contributing to corporate management and policy establishment.

References

- Ahmed, Z. U., O Mohamed, J. P. Johnson and L. Y. Meng (2002), "Export Promotion Programs of Malaysian Firms: An International Marketing Perspective", *Journal of Business Research*, 55(10) 831- 843.
- Ahn, Ji-Yun and Kwang-Ho Park (2015), "The Effect of Export-Continuing SMEs' Export Capability on their Export Performance: Focusing on the Mediating Effect of the Export

- Market-Oriented Behavior and the Utilization Level of Export Support Policies”, *Asia Pacific Journal of Small Business*, 37(4), 23-56.
- Alder, P. S. and Seok-Woo Kwon (2002), “Social Capital: Prospects for a New Concept”, *Academy of Management Review*, 27(1), 17-40.
- Armario, J. M., D. M. Ruiza and E. M. Armario (2008), “Market Orientation and Internationalization in Small and Medium-sized Enterprises”, *Journal of Small Business Management*, 46(4), 485-511.
- Autio, E., H. J. Sapienza and J. G. Almeida (2000), “Effect of Age at Entry, Knowledge Intensity, and Imitability on International Growth”, *Academy of Management Journal*, 43(5), 909-924.
- Bloodgood, J. M., H. J. Sapienza and J. G. Almeida (1996), “The Internationalization of New High-potential US Ventures: Antecedents and Outcomes”, *Entrepreneurship Theory and Practice*, 20(4), 61-76.
- Chun, Dong-Suk (2018), *A Study on Determinants of Export Performance of SMEs Participating in Trade Shows* (Unpublished Doctoral Dissertation), Seoul: Konkuk University.
- Chung, Yong-Woo, Hun-Joo Jung and Byung-Gwi Kim (2012), “The Relationship between Innovation Capability and Export Performance of Exporting Firms”, *Korea Trade Review*, 37(5), 369-390.
- Covin, J. G. and D. P. Slevin (1989), “Strategic Management of Small Firms in Hostile and Begin Environments”, *Strategic Management Journal*, 10(1), 75-87.
- Day, G. S. (1994), “The capabilities of Market-driven Organizations”, *The Journal of Marketing*, 58(4), 37-52.
- Dogson, M. and R. Rothwell (1995), *The handbook of Industrial Innovation*, Aldershot, England: Edward Elgar Publishing.
- Eric, R. (2012), “Minimum Viable Product and the Importance of Experimentation in Technology Startups”, *Technology Innovation Management Review*, 34(1), 77-90.
- Filatotchev, I., X. Liu, T. Buck and M. Wright (2009). “The Export Orientation and Export Performance of High Technology SMEs in Emerging Markets: The Effects of Knowledge Transfer by Returnee Entrepreneurs”, *Journal of International Business Studies*, 40(6), 1005-1021.
- Gartner, W. B. (1990), “What Are We Talking about When We Talk about Entrepreneurship?”, *Journal of Business Venturing*, 5(1), 15-28.
- Gartner, W. B., B. J. Bird and J. A. Starr (1992), “Acting as if: Differentiating Entrepreneurial from Organizational Behavior”, *Entrepreneurship Theory and Practice*, 16(3), 13-32.
- Gatignon, H. and J. M. Xuereb (1997), “Strategic Orientation of the Firm and New Product Performance”, *Journal of Marketing Research*, 34(1), 77-90.
- Gencturk, E. F. and M. Kotabe (2001), “The Effect of Export Assistance Usage on Export Performance: A Contingency Explanation”, *Journal of International Marketing*, 9(2), 51-72.
- Hamel, G. (1990), “The Core Competence of the Corporation”, *Harvard Business Review*, 68(3), 79-91.
- Han, Sang-Seol and Yoon-Say Jeong (2013), “A Study on the Effects of Internal Capability, Export Assistance and Global Network on Rapid Globalization”, *Korea Trade Review*, 38(1), 173-197.
- Helpman, E., M. J. Melitz and S. R. Yeaple (2004), “Export Versus FDI with Heterogeneous Firms”, *American Economic Review*, 94(1), 300-316.
- Jang, Dong-Kwan (2013), *A Study of the Impacts of Strategic Orientation on the Performance in Technology-based Start-ups* (Unpublished Doctoral Dissertation), Deajoen, Korea: Deajoen University.
- Jaworski, B. J. and A. K. Kohli (1993), “Market Orientation: Antecedents and Consequences”, *Journal of Marketing*, 57(3), 53-70.

- Jeon, Hae-Yeong (2016), "Domestic and Overseas Startup and Implications", *VIP Report*, 654, 1-17.
- Jeong, I., J. H. Pae and D. Zhou (2006), "Antecedents and Consequences of the Strategic Orientations in New Product Development: The Case of Chinese Manufacturers", *Industrial Marketing Management*, 35(3), 348-358.
- Jeong, So-Won and Jae-Eun Chang (2015), "Empirical Analysis of the Relationship between Networks of Small and Medium-Sized Export Enterprises and Exploitation and Exploration Activates", *International Area Studies Review*, 19(1), 175-191.
- Kang, Byung-Oh (2011). *A Study on the Influence of CEO's Entrepreneurship in SMEs on Business Performance: Franchise Business* (Unpublished Doctoral Dissertation), Seoul: ChungAng University.
- Kang, Do-Kyu and Seong-Yong Park (2007), "The meaning of Technology Orientation and the Study on the Effect of Technology Orientation on Performances", *Journal of Product Research*, 25(4), 11-26.
- Kang, Seok-Min and Dae-Won Kim (2014), "An Empirical Study on the Relationship among Social Capital, Knowledge Application, and Product Innovation Performance in Technology Cooperation Network", *Knowledge Management Review*, 207-221.
- Kim, Chang-Soo and Young-IK Yang (2008), "The Effects of Technological Orientation, Environmental Turbulence on Product Creativity and Performance", *Korea Business Review*, 37(2), 249-268.
- Kim, Eun-Young (2011), *A Study on Utilization of Export Assistance Program for SMEs and Their Exportation Performance* (Unpublished Doctoral Dissertation), Deajeon, Korea: Hannam University.
- Kuratko, D. F. and R. M. Hodgetts (2007), *Entrepreneurship: Theory, Process, Practice* (7th ed.), Manson, OH: Thomson South-Western.
- Kirca, A. H., S. Jayachandran and W. O. Bearde (2005), "Market orientation: A Meta-Analytic Review and Assessment of its Antecedents and Impact on Performance", *Journal of Marketing*, 69(2), 24-41.
- KITA (2019), *U.S. Startup Trends and Implication*, New York, NY: Author.
- Kohil, A. K. and B. J. Jaworski (1990), "Market Orientation: The Construct, Research Propositions, and Managerial Implications", *Journal of Marketing*, 54(2), 1-18.
- Laursen, K. and A. Salter (2006), "Open for Innovation: The Role of Openness in Explaining Innovation Performance among UK Manufacturing Firms", *Strategic Management Journal*, 27(2), 131-150.
- Lee, Eun-A and Jung-Hea Seo (2017), "The Effect of Technological Orientation on Performance of Startup: The Meditating Effect of Social Capital", *Korean Corporation Management Review*, 24(6), 43-62.
- Lee, Hak-Sik, Dong-Keun Yoo and Yong-Ki Lee (1996), "Market Orientation; Structural Relations among Antecedents, Mediators, and Performance", *Korea Marketing Review*, 11(2), 161-181.
- Lee, Jae-Eun, Ji-Won Kang, Seo-Hyung Choi and Soon-Kyoo Choe (2017), "The Effects of Technological Capability and Domestic Marketing Capability on Export Market Orientation, and Moderating Effect of Market Turbulence: Evidence from SMEs in Gwangju and Jeonnam Province", *Korea Trade Review*, 42(4), 21-47.
- Lee, Seo-Han and Seung-Hoon Noh (2014), "A Study on the Success Factors of ICT Convergence Type-Specific Start-up enterprise: Mainly the Case Study", *Journal of Digital Convergence*, 12(12), 203-215.
- Lee, Sung-Ho, Chan-Young Park and Young-Kwan Kim (2011), "The Relationships among Market Orientation, Market Environmental Factors, Customer Characteristics of Industry and

- Marketing Performance Measurement Levels”, *Business Management Review*, 44(2), 1-25.
- Lu, J. W. and P. W. Beamish (2006), “SME Internationalization and Performance: Growth vs. Profitability”, *Journal of International Entrepreneurship*, 4(1), 27-48.
- Lumpkin, G. T. and G. G. Dess (1996), “Clarifying the Entrepreneurial Orientation Construct and Linking it to Performance”, *Academy of Management Review*, 21(1), 135-172.
- Marino, L., K. Strandholm, H. K. Steensma and K. M. Weaver (2002), “The Moderating Effect of National Culture on the Relationship between Entrepreneurial Orientation and Strategic Alliance Portfolio Extensiveness”, *Entrepreneurship Theory and Practice*, 26(4), 145-160.
- Mavondo, F. T. and M. A. Farrell (2000), “Measuring Market Orientation: Are there differences between business Marketers and consumer marketers?”, *Australian Journal of Management*, 25(2), 223-244.
- Moon, Hey-Seon and Sang-Myung Lee (2016), “Entrepreneurial Orientation, Organizational Learning, Social Capital and Performances in Korea SEMs”, *Asia Pacific Journal of Small Business*, 38(1), 207-235.
- Moon, Sung-Wuk (2011), “How does Openness Influence Innovation of Korea Manufacturing Firms?”, *Journal of Korea Technology Innovation Society*, 14(1), 711-735.
- Morries, M. H., and G. W. Paul (1987), “The Relationship between Entrepreneurship and Marketing in Established Firms”, *Journal of Business Venturing*, 2(3), 247-259.
- Morris, M. H., D. F. Kuratko and G. C. Jeffry (2010), *Corporate Entrepreneurship & Innovation*, Boston, MA: Cengage Learning.
- Murray, J. Y., G. Y. Gao and M. Kotabe (2011), “Market Orientation and Performance of Export Ventures: The Process through Marketing Capabilities and Competitive Advantages”, *Journal of the Academy of Marketing Science*, 39(2), 252-269.
- Nahapiet, J. and S. Ghoshal (1998), “Social Capital, Intellectual Capital and the Organizational Advantage”, *Academy of Management Review*, 23(2), 242-266.
- Narver, J. C. and S. F. Slater (1990), “The Effect of a Market Orientation on Business Profitability”, *Journal of Marketing*, 54(4), 20-35.
- Oh, Kyung-Hun (2018), *Recent Value-add Allocation by Enterprise Size*, Suwon, Korea: Bank of Korea.
- Park, Kwang-Seo, In-Kown Kim and Jong-Seok Ahn (2010), “A Study on Export Promotion Program at the Korean Small-Medium Exporters”, *International Business Review*, 14(2), 1-25.
- Sherer, F. (1980), *Industrial Market structure and Economic Performance*, Chicago, IL: Rand McNally College Publishing Company.
- Talke, K., S. Salomo and A. Kock (2011), “Top Management Team Diversity and Strategic Innovation Orientation: The Relationship and Consequences for Innovativeness and Performance”, *Journal of Product Innovation Management*, 28(6), 819-832.
- Yli-Renko, H., E. Autio and H. J. Sapienza (2001), “Social Capital, Knowledge Acquisition, and Knowledge Exploitation in Young Technology-based Firms”, *Strategic Management Journal*, 22, 587-613.
- Yoo, Eun-Sang (2015), *The Effects of Market Orientation and Entrepreneurship on Corporate Performance: Focusing on Market Orientation Scale Comparisons and the Moderating Effect of Environmental Characteristics* (Unpublished Doctoral Dissertation), Suncheon, Korea: Suncheon University.
- Zou, S., E. Fang and S. Zhao (2003), “The Effect of Export Marketing Capabilities on Export Performance: An Investigation of Chinese Exporters”, *Journal of International Marketing*, 11(4), 32-55.