# SME Internationalization and Performance: The Role of Ownership Structure

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This study aims to explore the effects of the degree of internationalization (DOI) on the performance of small- and medium- sized enterprises (SMEs), and the moderating effects of ownership structure. Using data from 232 listed Korean SMEs in manufacturing sectors during the 2003 - 2013 period, we reveal that there is a U-shaped curvilinear relationship between DOI and performance. In addition, that link varies by ownership type. Family ownership, foreign ownership, and domestic institutional ownership moderate the U-shaped relationship between DOI and performance such that the negative side of the U-shape becomes weaker and the positive side becomes stronger. However, both foreign ownership and domestic institutional ownership negatively influence the joint effects of DOI and family ownership on performance such that the negative side of the U-shape becomes stronger and the positive side becomes weaker for SMEs with higher family ownership. The implications of these findings for research and managerial practice are discussed.

Key words: Degree of Internationalization, Ownership Structure, Performance of Korean SMEs, A Three-Way Interaction Approach

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## I. Introduction

The question of how and whether international expansion influences corporate performance is one of the most addressed research problems in the international business literature (Lin and Liu, 2012; Lu and Beamish, 2001; Schwens, Zapkau, Bierwerth, Isidor, Knight, and Kabst, 2017; Sullivan, 1994b). Many scholars have explored this link worldwide. However, empirical evidence is inconclusive and contradictory.

Initially, scholars argued for and verified a positive linear shape (Grant, 1987). Inconclusive findings encouraged scholars to consider the curvilinear shape (Gomes and Ramaswamy, 1999; Sullivan, 1994a); if the curvilinear shape best reflects the relationship between internationalization and performance, the findings of a linear shape offer misleading results. Over the past decades, Capar and Kotabe (2003) and Ruigrok and Wagner (2003) verified the existence of a U-shape of the link, as well as an inverted U-shape (Gomes and Ramaswamy, 1999; Hitt, Hoskisson, and Kim, 1997). More recently, results by Contractor, Kundu, and Hsu (2003); Lu and Beammish (2004); and Ruigrok, Amann, and Wagner (2007) found the existence of an S-shape of link. Although most of these confusing results are generated from multinational, large firms, this internationalization - performance relationship is also complex and less conclusive in the SME context (Schwens et al., 2017). Further, because of the differences in views on the link, the impact of DOI on the performance of SMEs has not fully confirmed. Previous mixed findings may be attributed to the hitherto underestimated dynamic and complicated nature of the link. However, it also could be because scholars have neglected corporate ownership structure (e.g., Sanders and Carpenter, 1998; Singla, Veliyath, and George, 2014). Specifically, the impact of DOI on firm performance could vary with ownership structure and members held responsible for internationalization decisions.

Even if it has been identified that principal - principal problems may lead to differing preferences for internationalization, few studies have explored how different types of owners influence the internationalization - performance link. To the extent that dissimilar shareholders have the same or different interests in decisions on international expansion for their longterm profits, integrating ownership structure is important to enhancing our understanding of the impact of internationalization.

The present study explores the link between internationalization and SME performance with the moderating effects of different types of ownership. By doing so, coupled with the internationalization literature, we broaden the boundaries and scope of agency theory to involve the different principals' interests. Eventually, different types of shareholders could have the same interest in internationalization to obtain long-term profits. As such, this study argues that internationalization equally affects performance regardless of the investor. This principal - principal interest congruence could lead to the same desires for making decisions on implementing internationalization to achieve high performance. By employing the three-way interaction approach, we further broaden the studies of Dharwadkar, George, and Brandes (2000), and Kim, Kim, and Lee (2008), who note that enterprises particularly tend towards principal - principal goal incongruence and that principal - principal problems lead to dissimilarities in corporate performance. They also note that the coexistence of internal and external owners provides complementary skills in firm governance, and, as such, the impact of internal ownership may be highly contingent on the presence and degrees of external ownership (Kim

et al., 2008). It follows that these principal principal problems could also cause different desires for international expansion.

To test our hypotheses, we utilize a panel data set of Korean manufacturing SMEs with less than 500 employees by definition (Cho and Lee, 2018; Lu and Beamish, 2001; Sui and Baum, 2014) that were listed on the Korean Stock Exchange between 2003 and 2013. Korea offers an interesting context for this study. First, SMEs constitute more than 99% of Korean enterprises. "Since Korea is a huge, open economy with a shortage of natural resources and with small domestic markets. SMEs have been regarded as the core driving force behind Korean economic development by virtue of their international expansion" (Cho and Lee, 2017, p. 58). Indeed, Korean SMEs accounted for approximately 50% of manufacturing exports in 2008, which is a much larger ratio than in other emerging countries. Second, in contrast to Western firm governance, many Korean enterprises are operated by members of family. "In these enterprises, agency costs are simply mitigated as family members usually assume top executive positions and have the power to monitor and affect managerial decision-making" (Kim et al., 2008, p. 405). Managing shareholders as family members, nonetheless, creates another unique set of concerns among the different types of owners (Kim et al., 2008). Traditional principal - agent concerns between

managers and shareholders could be substituted by principal - principal concerns between external shareholders and family members in South Korea. Additionally, external investors in Korea, including foreign investors and domestic institutional investors, may potentially affect strategic decisions such as foreign expansions. Consequently, Korean SMEs show an intriguing hybrid of ownership structures. "This dissimilarity in broad national governance contexts could influence investment horizons. incentives, and capabilities of dissimilar shareholder types to affect and monitor corporate management" (Kim et al., 2008, p. 405). Hence, the context of Korea provides a chance to advance our understanding of the roles that dissimilar internal and external owners play in SME internationalization in the international governance context of an emerging economy.

## II. Theory and Hypotheses

### 2.1 Conceptual Arguments: The Relationship between Internationalization and Performance

Before formulating the hypotheses, this study discusses the general theory regarding internationalization's performance implications. First, we summarize and identify arguments for the link between internationalization and performance before zeroing in on the specific context of SMEs and applying this link to them.

Internationalization refers to the process of increasing corporate involvement in international markets (Johanson and Vahlne, 1977). Previous research agrees that enterprises face both costs and the benefits in international expansion (Capar and Kotabe, 2003; Contractor et al., 2003; Gomes and Ramaswamy, 1999; Hitt et al., 1997; Lu and Beammish, 2004; Ruigrok et al., 2007; Ruigrok and Wagner, 2003; Schwens et al., 2017; Sullivan, 1994a). Hence, international expansion is not an adequate condition for great performance, per se. Hypothesizing a monotonic linear relationship between international expansion and performance is consequently an overly simplistic approach to theory construction. Ruigrok and Wagner (2003, p. 63) argue that "an assessment of the interplay between benefits and costs along the corporate internationalization trajectory is more promising". The conceptual frameworks employed by scholars who have explored the level of the internationalization - performance curvilinear link offer a starting point for broaching the complicated benefit cost trade-off.

Certain scholars hypothesize a rather deterministic, or, at most, industry-specific, inverted-J form of the relationship between internationalization and performance, characterized by the internationalization threshold, an international performance maximum identified at the level of internationalization somewhere between 50% and 82% (Gomes and Ramaswamy, 1999). Firm performance monotonically rises up to this critical zone, climaxes, and then declines.

Gomes and Ramaswamy's (1999) theoretical framework best exemplifies this statement. The core of their argument is the incremental internationalization assumption. Enterprises engage in internationalization on an evolutionary path, beginning in markets that are culturally and geographically close, and then successively progressing toward physically and cognitively more distant circumstances (Pangarkar, 2008). Initial internationalization in area with very similar institutional settings, market systems, and consumer tastes eases the transfer of technology, human resources, and marketing techniques (Ruigrok and Wagner, 2003). Likewise, firm control mechanisms, leadership approaches, and organizational structures require only small adjustments when operating in international settings that closely resemble home markets. Eventually, political and financial risks are perceived to be minor for firms operating in homogeneous business environments (Lu and Beamish, 2004). Nonetheless, as soon as an enterprise enters unfamiliar territories that require major reconfiguration of mechanisms, structures, and internal processes, the costs of internationalization dramatically increase and finally exceed the benefits (Ruigrok and Wagner, 2003). Following this argument, one can readily infer that the inverted J-curve is pre-determined to a high level, and that enterprises have to prevent crossing the recognized internationalization thresholds.

The second theoretical argument is less standardized. However, Hitt et al. (1997) and Ruigrok and Wagner (2003) make considerably similar conceptual arguments applying the organizational learning theory. Particularly, Sullivan (1994b) employs metamorphic transformation theory, periodic reorientation theory, and gestalt reconfiguration theory, indicating that international expansion generates a call for and consequently is accompanied by inside change. As enterprises internationalize, their existing systems, structures, and other inside settings at some point become more likely to fail to fit the new international surroundings. causing a gradual deterioration in firm performance. Avoiding retrenchment or "deinternationalization," enterprises are compelled to reconfigure internal systems (Lu and Beamish, 2004). If they find a novel match between external contexts and internal settings, their performance recovers and they enter the socalled "convergence phase" (Ruigrok and Wagner, 2003). Hitt et al. (1997) also apply theories of organizational learning and organizational evolution. Particularly, they prove empirically that "managerial experience with complicated environments, derived from mastering high product diversification, offers organizations indispensable knowledge for achieving superior

performance at high levels of international expansion" (Hitt et al., 1997, p. 767). Their results represent a positive, linear relationship between internationalization and performance for enterprises with high product diversification, a standard U-form for non-diversified companies, and an inverted U-shape for enterprises with moderate product diversification.

To summarize, the second theoretical argument highlights the dynamic nature of internationalization thresholds. This indicates that enterprises "are not doomed to undergo gradually decreasing performance at a certain point on their expansion path but rather than corporate managers may actively shape the link between international expansion and performance by moving existing thresholds or avoiding them altogether" (Ruigrok and Wagner, 2003, p. 66), unlike in the first argument. However, the majority of the above arguments apply to established and large enterprises. In the following discussion, we explore the applicability of these arguments to SMEs.

## 2.2 The Relationship between

Internationalization and SME Performance

Incorporating these different theoretical arguments might appear difficult at first. Nonetheless, re-examination of the fundamental concepts involved leads to the proposed method of reconciliation.

Though not argued explicitly by Gomes and

Ramaswamy (1999), Johanson and Vahlne's (1977) locational choice or incremental internationalization theory involves organizational learning processes. Certainly, their research verifies that learning opportunities along the international expansion path offer enterprises cumulative knowledge, getting them ready for additional successful internationalization (Johanson and Vahlne, 1977). Consequently, their argument—"that enterprises are condemned mainly to diminishing performance at a high level of international expansion runs counter to the theory they rely on themselves" (Ruigrok and Wagner, 2003, p. 67).

Additionally, the perspective of a universal and deterministic internationalization threshold is at odds with study indicating the existence of vast benefits for SMEs that are internationally diversified in culturally heterogeneous markets (Almodóvar and Rugman, 2014; Lu and Beamish, 2001; Ruigrok and Wagner, 2003; Zhou, Wu, and Luo, 2007). Some researchers, for instance, state that cognitive inputs from a culturally diverse workforce are required for efficient technological progress and corporate innovation (Hitt et al., 1997). Here, international diversification offers opportunities for diverse and new ideas from various market and cultural notions. Scholars in international management, knowledge management, global leadership, and international human resource management argue that SMEs that can generate, combine,

and transfer tacit knowledge or intangible assets within operating units that link various cultural surroundings achieve the most worthwhile benefits of internationalization (Cho and Lee, 2018; Dunning, 1998; Lu and Beamish, 2001; Pangarkar, 2008; Zhou et al., 2007). Integrating these empirical research results and theoretical arguments is more likely to prove the presence of competitiveness for enterprises that expand into culturally diverse markets.

Chiefly, in contrast to the initial advantages in international markets derived from economies of scale, the prospective advantages at a high level of international expansion and in culturally unrelated markets have to be managed and induced proactively. As mentioned above, before any gains can be realized, enterprises should be able to reconfigure internal processes, systems, and structures in order to fit the novel market condition (Teece, 2007). While a few SMEs may fail to do so and consequently encounter stagnant performance improvement, a higher level of cultural diversity, international expansion, and high performance are not mutually exclusive.

The theories mentioned above, involving those of global knowledge development, organizational evolution, and locational choice, indicate that the form of the relationship between internationalization and performance tends to be determined by organizational learning processes (Almodóvar and Rugman,

2014; Ruigrok and Wagner, 2003). SMEs initially consider international activities merely as a source of quick profits or an adjunct to domestic business (Lu and Beamish, 2001). They can exploit economy of scale and/or scope and thus obtain profits. In the additional internationalization and progressive adoption of a culturally unrelated strategy, SMEs encounter an increasing imbalance between internal competencies and outside surroundings. Even if performance pressures occurring with such misalignment, organizational learning sets in and SMEs can more flexibly and quickly start reconfiguring mechanisms, inside systems, and processes to fit novel international circumstances due to the small firm size (Almodóvar and Rugman, 2014; Cho and Lee, 2018). Successfully passing the reorientation time, SMEs face a point of positive outcomes: restoration and reversal. Supported by viable organizational settings, SMEs are now in a position to reap the benefits possible at higher levels of international expansion. These arguments lead us to the following hypothesis:

Hypothesis 1: The relationship between the degree of internationalization and SME performance exhibits a U-shaped curvilinear relationship.

### 2.3 Different Owners' Roles in SMEs

Previous literature regarding corporate gov-

ernance distinguishes between internal and external owners since internal owners are better able to get access to important information and seek to have a strong impact on strategic investments than are external owners (Baysinger and Hoskisson, 1990; Boyd and Solarino, 2016; Kim et al., 2008; Liu, Chung, Sul, and Wang, 2018). Owing to differences in the approach to internal information and the capability to affect corporate management, dissimilar investors could have dissimilar incentives and horizons in order to monitor the enterprise, and thus they may have different ways of making decisions on internationalization (George, Wiklund, and Zahra, 2005). However, there might be similarities in views among investors over whether and/or how internationalization should be implemented for their long-term profits. Consequently, this study proposes that how international expansion is implemented for superior performance is depending on the owners' identity and their potentially common or dissimilar interests. More specifically, this study distinguishes among three owner types: family members, foreign investors, and domestic institutional investors. Utilizing the traditional distinction between external and internal owners (Baysinger and Hoskisson, 1990; Kim et al., 2008), foreign investors and domestic institutional investors are categorized as external owners, whereas family members, as internal owners. Next, we build the hypotheses with regard to how these differing owner types moderate the relationship between internationalization and performance.

#### 2.3.1 The Moderating Role of Family Ownership

The majority of Korean SMEs are categorized as family SMEs. Family members serve as chairpersons, top executives, or CEOs and have a large share of ownership. In an SME, family members, as insider owners, can access corporate specific information and have a strong influence on strategic decisions, for instance internationalization (Chen, Hsu, and Chang, 2014; Kao, Kuo, and Chang, 2013). Such control and informational benefits enable members of the SME family to have advantageous positions to implement international expansion for their interests. Kim et al. (2008) and La Porta, Lopez-de-Silanes, Shleifer, and Vishny (2000) note that family members frequently abuse their controlling benefits and information to achieve private gains, frequently to the detriment of minority shareholders. Further, family ownership may encourage conflicts between business and family issues that could reduce the availability of valuable resources like financial capital, capable personnel, and managerial capabilities (Chen et al., 2014; Fernandez and Nieto, 2005, 2006). While international expansion requires skills and resources, SMEs may possess a shortage of the finances, internationalization experience, and managerial capabilities

required to handle the internationalization process efficiently (Cho and Lee, 2017; Lee, Kelley, Lee, and Lee, 2012). Accordingly, SME family managers are likely to "be more riskreverse and unwilling to decentralize the decision-making process, thereby hindering access to capabilities and resources that are needed to remain competitive, and which can be exploited for performance improvement" (Cho and Lee, 2017, p. 55), implying that the limited access to intangible and tangible resources and the risk-averse tendency could be worse in SMEs with high family ownership, thereby discouraging international expansion for achieving high performance.

Nonetheless, SME family members play dissimilar roles regarding rent generation. The wealth of a family is highly associated with corporate wealth and members of the family may have considerable economic incentives to increase corporate performance (Anderson and Reeb, 2003; Chang, 2003; Chang and Shim, 2015; Chu, 2011; Smith, 2008). Family members are more likely to be long-term investors, often wishing to leave control of the enterprises to their descendants rather than to use up their fortune while alive (Chang and Shim, 2015; Miller and Le Breton-Miller, 2010; Miller, Lee, Chang, and Le Breton-Miller, 2009). Since family members are highly related to their enterprises, leaving the enterprise by selling off shareholdings might weaken their reputation as reliable and capable partners (Kim et al., 2008). Additionally, leaving the enterprise lessens the stake the future generation would inherit, and involves considerable emotional costs related to lower status, lost legitimacy, and contradictory family expectations (Chang and Shim, 2015). Consequently, family members have long-term investment horizons, indicating a willingness to make an investment in long-term projects like internationalization, thereby helping SMEs achieve long-term performance.

Moreover, family members may promote an organizational culture of loyalty, altruism, family ties, and commitment (Chen et al., 2014; Chu, 2011; Miller and Le Breton-Miller, 2005; Miller et al., 2009), which reduces family agents' share of benefits of and promotes an opportunistic attitude towards investments (Cho and Lee, 2017; Jensen and Meckling, 1976). Family members have a willingness to emphasize the sustainability of benefits for their shareholders and business and to have the long-term investment horizons (Cho and Lee, 2017; Miller and Le Breton-Miller, 2006). As international expansion can enhance corporate competitiveness and offer long-term success and profits, family owners may pursue foreign expansions despite its risks in order to achieve high performance. Given that the SME family members' interests are well aligned with long-term corporate performance, internationalization is more likely to result in a high performance as family ownership

rises. In this regard, we suggest that:

Hypothesis 2: Family ownership moderates the U-shaped curvilinear relationship between the degree of internationalization and SME performance such that the negative side of the U-shape becomes weaker and the positive side becomes stronger.

### 2.3.2 The Moderating Role of Foreign and Domestic Institutional Ownership

Unlike internal owners, external owners generally suffer from control and informational disadvantages (Boyd and Solarino, 2016; Chaganti and Damanpour, 1991; Cho and Kim, 2007; Hansen and Hill, 1991). Particularly in emerging economies, foreign investors and domestic institutional investors are more likely to be short-term oriented owing to their poor protection (Kim et al., 2008). Encountering risk of expropriation by highly controlling shareholders, these external investors prefer immediate profits via dividends from internationalization (Chen et al., 2014). However, domestic institutional investors could be more active and sophisticated investors than are individual investors. Certainly, domestic institutional investors may have great incentive to cause the cost of monitoring SMEs, since they generally have considerable ownership blocks in SMEs. In the same manner, in emerging economies, foreign investors are often institutional investors from European and U.S. financial institutions (Kim et al., 2008). With the modifications after the Asian financial crisis, these investors can state their problems and affect managerial decision-making more efficiently.

Foreign investors could only have fewer than 7% of stocks in domestic Korean SMEs, which restricted their penetration of Korean capital markets in the past. Such barriers were lifted after the Asian financial crisis, and thus foreign ownership in Korean SMEs increased to approximately 34.7% of publicly listed enterprises in 2013 with regard to market capitalization (Bureau of Economic and Business Affairs, 2013). Along with the improved equity holdings in Korea, foreign investors now affect SME governance systems more than ever before. Hence, foreign investors can have similar incentives to effectively monitor and affect SMEs as do domestic institutional investors. Moreover, foreign investors generally bring the view of shareholder capitalism to nations where they invest (Boyd and Solarino, 2016; Douma, George, and Kabir, 2006; Kim et al., 2008). Unlimited by previous social and business links with enterprises in which they have invested, foreign investors become pressureresistant (Bhaumik, Driffield, and Pal. 2010; Douma et al., 2006; Kim et al., 2008).

In both mature and emerging economies, for instance, the United States, Europe, and Asia, insofar as institutional investors are sophisticated and active investors, they are unlikely to assess SME executives on the basis of short-term gains alone and are more willing to support long-term projects like internationalization for long-term profitability (Boyd and Solarino, 2016; Bhaumik et al., 2010; George et al., 2005; Kochhar and David, 1996). Many previous researchers have verified this opinion. In researching SMEs in Taiwan, Chen et al. (2014) found that institutional ownership is positively related to international expansions of SMEs. George et al. (2005) reported similar results for a large sample of Swedish SMEs. In a similar vein, Bhaumik et al. (2010) found a positive influence of foreign ownership on long-term investments such as internationalization for better performance outcomes in Indian enterprises. To the extent that external investors favor long-term profits, for instance dividends over long-term gains via internationalization, international expansions are more likely to result in better performance of SMEs as their ownership rises. In this regard, this study proposes the following hypothesis:

Hypothesis 3: Foreign ownership moderates the U-shaped curvilinear relationship between the degree of internationalization and SME performance such that the negative side of the U-shape becomes weaker and the positive side becomes stronger.

Hypothesis 4: Domestic institutional own-

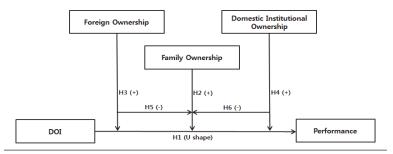
ership moderates the U-shaped curvilinear relationship between the degree of internationalization and SME performance such that the negative side of the U-shape becomes weaker and the positive side becomes stronger.

In Hypotheses 3 and 4, we argue that neglecting performance outcomes in SMEs with a higher level of foreign ownership or domestic institutional ownership might raise SME family owners' concerns regarding future external investors' potential to, for instance, threaten family control and cause conflicts among the shareholders, which puts family owners in a position of loss rather than gain (Chang and Shim, 2015; Chen et al., 2014). Such a link might be greater in family business context. The negative results of performance outcomes may be less apparent and more easily improved in SMEs with a lower level of family ownership than SMEs with a higher level of family ownership. In SMEs with high family ownership' structures, insufficient performance outcomes are less likely to encourage international expansion because of its risk, costs, and conflicts between shareholders, and thus family owners fail to promote expansion to foreign markets when the shares of foreign owners or domestic institutional owners increase. Thus:

Hypothesis 5: Foreign ownership moderates the joint impact of the degree of internationalization and family ownership on SME performance such that the negative side of the U-shape becomes stronger and the positive side becomes weaker for SMEs with higher levels of family ownership.

Hypothesis 6: Domestic institutional ownership moderates the joint impact of the degree of internationalization and family ownership on SME performance such that the negative side of the U-shape becomes stronger and the positive side becomes weaker for SMEs with higher levels of family ownership.

Figure 1 illustrates our research model.



(Figure 1) Research Framework

## III. Method

### 3.1 Research Design and Data Collection

We use sample that consists of Korean manufacturing SMEs listed on the Korean Stock Exchange from 2003 to 2013. Secondary data are obtained from the TS2000 database, which contains non-financial and financial data, for all publicly listed Korean firms.

We use panel data since the results explain both cyclical fluctuations and structural changes. The outcome variable is regressed against the control and explanatory variables to secure the right causality direction rather than the reverse. From a total of 681 manufacturing enterprises continuously listed on the Korean Stock Exchange for the 2003-2013 period, we first selected firms with less than 500 employees as the SME criteria (Cho and Lee, 2018; Lu and Beamish, 2001; Sui and Baum, 2014). We then dropped 14 firms that report incomplete firm profiles, financial information, or ownership information. We also excluded firms do not continuously make foreign sales during the research period "to avoid involving sporadic enterprises with no commitment to the foreign markets" (Sui and Baum, 2014, p. 828) and because the key focus of our research is the impact of internationalization. To fulfill the SME criteria, we lag each explanatory variable by one year; the final sample

that satisfied aforementioned conditions consists of 2,320 observations (232 firms over 10 years). We summarize the industrial classification and features of the sample based on two-digit Korean Standard Industrial Classification codes in Table 1.

#### 3.2 Measures

Dependent variable: Performance. This study considers accounting-based measures for corporate performance. Consistent with most prior research on the DOI and ownership structure. performance is measured by the return on assets (ROA) (Anderson and Reeb, 2003; Chang, 2003; Chang and Shim, 2015; Kim, Oh, and Park, 2011; Lu and Beamish, 2001; Sullivan, 1994a; Tallman and Li, 1996) to ensure that the measure of performance assesses operating efficiency without being biased by the relatively high debt-to-equity ratios common in Korean enterprises (Chang, 2003; Cho and Lee, 2018). This index provides "a precise measure of operating efficiency because, in the majority of emerging economies, the debt-to-equity ratio is normally high and capital markets are imperfect" (Chu, 2011, p. 840).

Independent variables: Degree of internationalization. We use the ratio of foreign sales to total sales (FSTS) to represent the enterprise's level of internationalization, as it is probably the most common

	No.	Industrial classification	Two-digit KSIC codes	Number of firms	Management Ownership	Size	Debt	Age	Sales Growth	R&D Intensity	Advertising Intensity	ROA	FSTS	Family Ownership	Foreign Ownership	Domestic Institutional Ownership
Phereage manufacturer         11         1         0.13         5.43         2.15         1.74         9.29         0.01         0.01         0.04         0.45         0.04         0.01           Textile manufacturer         13         5         0.33         4.56         0.55         1.56         2.53         0.01         0.01         0.01         0.05         0.44         0.04         0.01           Textile manufacturer         13         5         0.33         5.45         0.53         1.51         0.01         0.01         0.01         0.05         0.44         0.04         0.04           Wulture manufacturer         15         2         0.33         5.51         0.31         5.51         0.31         5.51         0.31         0.35 <td></td> <td>Food manufacturer</td> <td>10</td> <td>4</td> <td>0.35</td> <td>5.12</td> <td>1.19</td> <td>1.55</td> <td>8.19</td> <td>0.01</td> <td>0.003</td> <td>0.03</td> <td>0.21</td> <td>0.51</td> <td>0.07</td> <td>0.05</td>		Food manufacturer	10	4	0.35	5.12	1.19	1.55	8.19	0.01	0.003	0.03	0.21	0.51	0.07	0.05
Tratile anometaturer         13         5         0.35         4.45         0.35         0.35         0.01         0.01         0.36         0.41         0.01	~7	Beverage manufacturer	11	-	0.19	5.34	2.15	1.74	9.20	0.01	0.10	-0.02	0.04	0.45	0.04	0.07
	~	Textile manufacturer	13	5	0.35	4.95	0.95	1.56	2.53	0.002	0.001	0.01	0.50	0.40	0.01	0.13
Leather, lags, and forward         15         3         0.13         5.8         1.03         1.61         0.03<	4	Clothing manufacturer	14	2	0.33		0.92	1.30	36.28	0.02	0.01	0.07	0.08	0.47	0.16	0.03
Word manufacturer         16         2         0.13         5.34         1.67         1.67         0.06         0.46         0.44         0.02           Pubp and gener manufacturer         17         12         0.25         5.23         0.97         1.51         7.64         0.001         0.02         0.43         0.01           Prouble manufacturer         17         12         0.25         5.23         0.47         1.84         4.04         0.001         0.01         0.41         0.48         0.01           Color hivelety, and Pefined         19         3         0.37         5.01         0.53         1.45         1.83         0.01         0.01         0.41         0.41         0.43         0.41	10	Leather, bags, and footwear manufacturer	15	er	0.13	5.08	1.03	1.61	9.07	0.003	0.0001	0.02	0.51	0.52	0.02	0.08
Public and paper manufacture         17         12         0.25         5.2         0.27         1.51         7.61         0.001         0.001         0.012         0.14         0.48         0.01           Prinity and reproducture         18         1         0.50         4.72         0.42         1.41         4.01         0.001         0.01 <td>9</td> <td>Wood manufacturer</td> <td>16</td> <td>2</td> <td>0.13</td> <td>5.24</td> <td>2.03</td> <td>1.55</td> <td>16.72</td> <td>0.001</td> <td>0.008</td> <td>-0.06</td> <td>0.40</td> <td>0.44</td> <td>0.02</td> <td>0.05</td>	9	Wood manufacturer	16	2	0.13	5.24	2.03	1.55	16.72	0.001	0.008	-0.06	0.40	0.44	0.02	0.05
Printing and reproduction of recorded media manufacturer         18         1         0.56         1.44         4.04         0.001         0.01         0.13         0.61         0.04           recorded media manufacturer         19         3         0.37         5.01         0.58         1.58         1.37         0.00         0.01         0.14         0.14         0.13         0.31         0.31         0.31           Principle manufacturer         20         23         0.37         5.08         0.74         1.38         9.91         0.01         0.03         0.41         0.41         0.03         0.31	Ŀ~	Pulp and paper manufacturer	17	12	0.25	5.23	0.97	1.51	7.64	0.001	0.001	0.02	0.14	0.48	0.01	0.06
Colds. briquete, and refined         19         3         0.37         5.01         0.58         1.56         0.56         1.56         0.57         0.57         0.57         0.53         0	~	Printing and reproduction of recorded media manufacturer	18		0.50	4.72	0.42	1.44	4.04	0.0001	0.01	0.10	0.43	0.61	0.04	0.05
	6	Coke, briquette, and refined petroleum product manufacturer	19	ŝ	0.37	5.01	0.58	1.59	13.72	0.00	0.004	0.13	0.37	0.37	0.31	0.11
Medicine manufacturer         21         15         0.27         4.90         55         1.45         1.051         0.02         0.04         0.07         0.43         0.09         0.01           Numental manufacturer         22         4         0.25         5.31         0.81         1.51         8.94         0.01         0.03         0.30         0.51         0.02           Numental manufacturer         23         5         0.25         5.31         0.81         1.51         8.94         0.01         0.03         0.30         0.51         0.02           Metal product manufacturer         24         0.29         5.23         1.20         1.47         2.04         0.00         0.01         0.03         0.31         0.17         0.17           Metal product manufacturer         25         8         0.31         4.78         0.66         1.37         10.64         0.01         0.03         0.31         0.47         0.01         0.03         0.49         0.01         0.04         0.01         0.04         0.01         0.04         0.01         0.02         0.01         0.01         0.02         0.01         0.03         0.01         0.01         0.01         0.02         0.0	10	Chemical manufacturer	20	24	0.27	5.08	0.74	1.38	9.91	0.01	0.003	0.04	0.41	0.41	0.08	0.08
Rubber and plastic manufacturer2240.254.771111.537.210.0020.0100.030.510.020.0170.02Nurmetal manufacturer2350.20.230.310.310.330.530.330.0170.02Hubber and facturer24200.230.231.201.472.040.000.040.290.330.530.017Metal manufacturer2580.314.780.661.3710.640.000.040.290.330.520.01Betchronic components, computers26460.274.780.611.201.4010.020.010.020.010.05Betchronic components, computers2760.314.780.611.351.4010.020.010.020.010.020.01Betchronic components, computers2760.371.291.4010.020.010.020.030.040.040.04Betchronic components, computers2760.711.351.4010.020.010.020.030.040.04Betchronic components, computers2760.711.351.130.020.010.020.030.040.04Betchronic components, components, components, components2760.741.350.020.010.020.040.04Betchronic denignent28	11	Medicine manufacturer	21	15	0.27		0.58	1.45	10.81	0.02	0.03	0.04	0.07	0.43	0.09	0.07
Nummetal manufacturer $23$ $5$ $0.25$ $5.31$ $0.81$ $1.51$ $8.94$ $0.01$ $0.02$ $0.01$ $0.23$ $0.29$ $0.17$ $0.17$ Primary metal manufacturer $24$ $20$ $0.29$ $5.23$ $120$ $147$ $2204$ $0.00$ $0.04$ $0.29$ $0.29$ $0.05$ Metal product manufacturer $25$ $8$ $0.31$ $4.78$ $0.66$ $1.37$ $10.64$ $0.01$ $0.02$ $0.49$ $0.29$ $0.01$ Electronic comonents, computers, $26$ $46$ $0.27$ $4.82$ $0.97$ $1.29$ $14.01$ $0.02$ $0.01$ $0.29$ $0.24$ $0.01$ Idenominations equipment, $26$ $46$ $0.27$ $4.82$ $0.97$ $1.28$ $14.01$ $0.02$ $0.01$ $0.02$ $0.01$ $0.04$ Idenominations equipment, $27$ $5$ $6$ $1.71$ $1.28$ $14.01$ $0.02$ $0.01$ $0.02$ $0.01$ $0.04$ Identification $27$ $5$ $0.17$ $1.28$ $14.01$ $0.02$ $0.01$ $0.02$ $0.01$ $0.04$ Identification $27$ $5$ $0.17$ $1.28$ $1.401$ $0.02$ $0.01$ $0.02$ $0.01$ $0.01$ Identification $27$ $5$ $0.17$ $1.28$ $1.20$ $0.02$ $0.01$ $0.02$ $0.02$ $0.01$ Identification $29$ $400$ $0.29$ $1.28$ $1.28$ $1.28$ $1.28$ $0.02$ $0.01$ $0.02$	12	Rubber and plastic manufacturer	22	4	0.25		1.11	1.53	7.21	0.002	0:001	0.03	0.30	0.51	0.02	90'0
Primary metal manufacturer $24$ $20$ $0.29$ $5.23$ $1.20$ $1.47$ $2.04$ $0.00$ $0.04$ $0.29$ $0.40$ $0.06$ $0.06$ Metal product manufacturer $25$ $8$ $0.31$ $4.78$ $0.66$ $1.37$ $10.64$ $0.01$ $0.02$ $0.32$ $0.52$ $0.01$ $0.05$ Electronic components, computers, $46$ $0.27$ $4.82$ $0.97$ $1.29$ $14.01$ $0.02$ $0.03$ $0.41$ $0.01$ $0.04$ Electronic components, computers, $26$ $46$ $0.27$ $4.82$ $0.97$ $1.29$ $14.01$ $0.02$ $0.03$ $0.41$ $0.04$ $0.04$ and video and audio equipment, $27$ $5$ $0.17$ $1.25$ $11.21$ $0.12$ $0.02$ $0.12$ $0.01$ $0.04$ $0.01$ $0.04$ and video and audio equipment, $27$ $5$ $0.17$ $1.26$ $11.21$ $11.21$ $0.02$ $0.01$ $0.02$ $0.04$ $0.04$ $0.04$ and video and audio equipment, $27$ $6$ $0.17$ $1.26$ $11.21$ $11.21$ $0.02$ $0.02$ $0.01$ $0.04$ $0.01$ $0.04$ and video and audio equipment manufacturer $29$ $0.17$ $1.26$ $11.21$ $11.21$ $0.02$ $0.02$ $0.01$ $0.02$ $0.04$ $0.01$ $0.04$ Alteriansportation $29$ $10$ $0.27$ $1.29$ $11.21$ $11.21$ $0.02$ $0.02$ $0.04$ $0.04$ $0.04$ $0.04$ <	13	Non-metal manufacturer	23	5	0.25	5.31	0.81	1.51	8.94	0.01	0.002	0.01	0.21	0.39	0.17	0.13
Metal poduct manufacturer $25$ $8$ $0.31$ $4.78$ $0.66$ $1.37$ $10.64$ $0.04$ $0.03$ $0.33$ $0.52$ $001$ $0.02$ Ellectronic components, computers, and video and audio equipment, manufacturer $26$ $46$ $0.27$ $4.82$ $0.97$ $1.29$ $14.01$ $0.02$ $0.01$ $0.03$ $0.49$ $0.41$ $0.04$ Medical manufacturer $27$ $5$ $0.17$ $4.74$ $0.77$ $1.35$ $9.12$ $0.02$ $0.01$ $0.03$ $0.42$ $0.31$ $0.01$ Medical manufacturer $27$ $5$ $0.17$ $4.74$ $1.77$ $1.35$ $0.11$ $0.02$ $0.01$ $0.03$ $0.42$ $0.31$ $0.01$ Medical manufacturer $29$ $40$ $0.27$ $4.94$ $1.45$ $1.35$ $0.01$ $0.02$ $0.03$ $0.42$ $0.36$ $0.04$ Motional manufacturer $29$ $40$ $0.29$ $5.04$ $1.13$ $1.33$ $0.01$ $0.02$ $0.03$ $0.42$ $0.36$ $0.07$ Mutonobile and trailer $30$ $14$ $0.19$ $1.38$ $0.02$ $0.00$ $0.03$ $0.42$ $0.04$ $0.06$ Mutonobile and trailer $30$ $14$ $0.16$ $1.38$ $0.02$ $0.00$ $0.03$ $0.42$ $0.04$ $0.06$ Mutonobile and trailer $30$ $14$ $1.91$ $1.38$ $0.02$ $0.00$ $0.04$ $0.04$ $0.04$ Mutonobile and trailer $30$ $14$ $1.91$	14	Primary metal manufacturer	24	20	0.29	5.23	1.20	1.47	22.04	0.00	0.00	0.04	0.29	0.40	0.05	0.12
Electronic components, computers, telecommunications equipment, and video and audio equipment, manufacturer $26$ $46$ $0.27$ $4.82$ $0.97$ $1.29$ $14.01$ $0.02$ $0.01$ $0.02$ $0.49$ $0.41$ $0.04$ and video and audio equipment, manufacturer $27$ $5$ $0.17$ $4.82$ $0.97$ $1.35$ $11.01$ $0.02$ $0.01$ $0.02$ $0.49$ $0.01$ $0.04$ Medical manufacturer $28$ $8$ $0.27$ $4.94$ $1.45$ $1.35$ $11.13$ $0.01$ $0.02$ $0.03$ $0.43$ $0.01$ $0.01$ Uther machinery and equipment manufacturer $28$ $8$ $0.27$ $4.94$ $1.45$ $1.35$ $0.12$ $0.01$ $0.02$ $0.01$ $0.02$ $0.01$ $0.01$ Uther machinery and equipment manufacturer $29$ $40$ $0.29$ $5.04$ $1.13$ $0.01$ $0.02$ $0.01$ $0.02$ $0.01$ $0.01$ Uther machinery and equipment manufacturer $30$ $14$ $0.19$ $1.33$ $0.02$ $0.01$ $0.02$ $0.01$ $0.02$ $0.01$ $0.02$ Mutomobile and trailer $30$ $14$ $0.19$ $1.33$ $0.02$ $0.01$ $0.02$ $0.02$ $0.042$ $0.02$ $0.042$ $0.02$ Mutomobile and trailer $30$ $14$ $0.19$ $1.33$ $0.12$ $0.02$ $0.00$ $0.02$ $0.02$ $0.042$ $0.02$ $0.02$ Mutomobile and trailer $30$ $14$ $0.19$ $1.46$	15	Metal product manufacturer	25	8	0.31	4.78	0.66	1.37	10.64	0.04	0.01	0.03	0.33	0.52	0.01	0.04
Medical manufacturer $27$ $5$ $0.17$ $4.74$ $0.77$ $1.35$ $9.12$ $0.02$ $0.01$ $0.03$ $0.42$ $0.31$ $0.01$ $0.01$ Ellectrical equipment manufacturer $28$ $8$ $0.27$ $4.94$ $1.45$ $1.35$ $11.13$ $0.01$ $0.02$ $0.03$ $0.43$ $0.36$ $0.07$ $0.07$ Other machinery and equipment $29$ $40$ $0.29$ $5.04$ $1.19$ $1.36$ $14.33$ $0.01$ $0.02$ $0.03$ $0.36$ $0.44$ $0.06$ Automobile and trailer $30$ $14$ $0.19$ $4.97$ $1.18$ $1.46$ $13.78$ $0.00$ $0.00$ $0.04$ $0.42$ $0.03$ Automobile and trailer $30$ $14$ $0.19$ $4.97$ $1.18$ $1.46$ $13.78$ $0.00$ $0.00$ $0.04$ $0.64$ $0.06$ Automobile and trailer $30$ $14$ $0.19$ $4.97$ $1.18$ $1.46$ $13.78$ $0.00$ $0.00$ $0.04$ $0.42$ $0.03$ Automobile and trailer $30$ $14$ $0.19$ $1.46$ $13.78$ $0.00$ $0.00$ $0.04$ $0.42$ $0.03$ Automobile and trailer $31$ $1$ $0.18$ $5.33$ $3.46$ $1.44$ $7.26$ $0.00$ $0.00$ $0.04$ $0.42$ $0.03$ Automobile and traileturer $32$ $3$ $0.31$ $5.19$ $0.87$ $1.44$ $7.26$ $0.00$ $0.00$ $0.04$ $0.64$ $0.03$ Automotor anulact	16	Electronic components, computers, telecommunications equipment, and video and audio equipment manufacturer	26	46	0.27	4.82	0.97	1.29	14.01	0.02	0.01	0.02	0.49	0.41	0.04	0.07
Ellectrical equipment manufacturer         28 $0.27$ $4.4$ $1.45$ $1.35$ $11.13$ $0.01$ $0.02$ $0.43$ $0.36$ $0.07$ $0.07$ Other machinery and equipment         29 $4.0$ $0.29$ $5.04$ $1.19$ $1.38$ $14.33$ $0.02$ $0.03$ $0.43$ $0.36$ $0.07$ $0.06$ Automobile and trailer         30 $14$ $0.19$ $1.37$ $1.378$ $0.00$ $0.03$ $0.42$ $0.06$ $0.06$ Automobile and trailer         30 $14$ $0.19$ $1.378$ $0.02$ $0.00$ $0.04$ $0.06$ $0.36$ $0.07$ $0.06$ Automobile and trailer         30 $14$ $0.18$ $1.46$ $1.378$ $0.00$ $0.00$ $0.01$ $0.04$ $0.02$ $0.03$ $0.34$ $0.03$ Automobile and trailer         31         1 $0.18$ $1.46$ $1.378$ $0.00$ $0.00$ $0.00$ $0.04$ $0.42$ $0.03$ $0.01$	17	Medical manufacturer	27	υ	0.17	4.74	0.77	1.35	9.12	0.02	0.01	-0.03	0.42	0.31	0.01	0.05
Other machinery and equipment         29         40         0.29         5.04         1.13         14.33         0.02         0.03         0.36         0.44         0.06           manufacturer         30         14         0.19         4.97         1.18         1.46         13.78         0.003         0.004         0.43         0.42         0.03           Automobile and trailer         30         14         0.19         4.97         1.18         1.46         13.78         0.003         0.00         0.04         0.43         0.43         0.03           Other transportation         31         1         0.19         4.97         1.18         1.46         7.26         0.00         0.04         0.43         0.03         0.03           Other transportation         31         1         0.18         5.33         3.46         1.44         7.26         0.00         0.09         0.09         0.03         0.03         0.03         0.03         0.01         0.07         0.07         0.07         0.07         0.07         0.07         0.07         0.01         0.01         0.01         0.01         0.01         0.01         0.01         0.01         0.01         0.01         0.01	18		28	8	0.27	4.94	1.45	1.35	11.13	0.01	0.002	0.03	0.43	0.36	0.07	0.08
Automobile and trailer         30         14         0.19         4.97         1.18         1.46         13.78         0.003         0.00         0.04         0.43         0.42         0.03           manufacturer         31         1         0.19         4.97         1.18         1.46         7.26         0.00         0.00         0.04         0.43         0.42         0.03           Other transportation         31         1         0.18         5.33         3.46         1.44         7.26         0.00         0.00         0.09         0.38         0.07           Furniture manufacturer         32         3         0.31         5.19         0.87         1.61         1.76         0.07         0.02         0.06         0.07         0.05         0.01	19	Other machinery and equipment manufacturer	29	40	0.29	5.04	1.19	1.39	14.33	0.02	0.00	0.03	0.36	0.44	0.06	0.08
Other transportation         31         1         0.18         5.33         3.46         1.44         7.26         0.00         -0.09         0.28         0.38         0.07           equipment manufacturer         32         3         0.87         1.61         1.76         0.00         -0.09         0.28         0.35         0.07           Furniture manufacturer         32         3         0.31         5.19         0.87         1.61         1.76         0.07         0.02         0.06         0.35         0.01           Other product manufacturer         33         6         0.28         4.50         1.01         1.24         15.89         0.03         0.34         0.36         0.01	20	Automobile and trailer manufacturer	30	14	0.19	4.97	1.18	1.46	13.78	0.003	0.00	0.04	0.43	0.42	0.03	0.07
Furniture manufacturer         32         3         0.31         5.19         0.87         1.61         1.76         0.004         0.07         0.02         0.06         0.35         0.01           Other product manufacturer         33         6         0.28         1.01         1.24         15.89         0.03         0.01         -0.003         0.34         0.01	21	Other transportation equipment manufacturer	31	1	0.18	5.33	3.46	1.44	7.26	0.00	0.00	-0.09	0.28	0.38	0.07	0.13
Other product manufacturer 33 6 0.28 4.60 1.01 1.24 15.59 0.03 0.01 -0.003 0.34 0.36 0.01	22	Furniture manufacturer	32	er,	0.31	5.19	0.87	1.61	1.76	0.004	0.007	0.02	0.06	0.35	0.01	0.03
	23	Other product manufacturer	33	9	0.28	4.60	1.01		15.89	0.03	0.01	-0.003	0.34	0.36	0.01	0.04

internationalization measure used by firms (Capar and Kotabe, 2003; Chen et al., 2014; Cho and Lee, 2017; Kim et al., 2011; Ruigrok and Wagner, 2003; Sullivan, 1994a). We recognize that several measurements of the DOI have been developed in the international business scholarship. Rugman and Oh (2011) discuss and review this issue and "they conclude that scope metrics, such as the number of countries or subsidiaries in foreign countries, present misleading information about the breadth of foreign activity, because they assume countries to be of equal size" (Rugman and Oh, 2011, p. 203). Ok and Back (2015, p. 16) "casts doubt on the utilization of a multidimensional measure based on concerns with reliability, criterion validity, and content validity". The better index is the utilization of single-item measures, namely foreign sales to total sales (Almodóvar and Rugman, 2014; Capar and Kotabe, 2003; Cho and Lee 2018; Ruigrok and Wagner, 2003). This index has been used in previous papers in this journal (e.g., Kim et al., 2011). A similar good metric is the ratio of foreign assets to total assets (Gomes and Ramaswamy, 1999). Here, the FSTS index has been employed owing to data availability constraints and for the comparison purpose.<sup>1)</sup>

Family ownership. This is measured as the

sum of equity ownership by all family members (Chang and Shim, 2015; Kim et al., 2008).

*Foreign ownership.* This is calculated as the share of ownership of both foreign financial institutions and foreign enterprises (Kim et al., 2008).

Domestic institutional ownership. This is measured as the share of ownership of institutions including banks, investment funds, insurance enterprises, and pension funds (Chen et al., 2014: George et al., 2005).

Control variables. We incorporate several control variables. Considering the statements advanced in the existing literature that management ownership is highly related to executives' risk preferences and, consequentially, influence their decisions (Chen et al., 2014), it is crucial to prevent that our results are not caused by management ownership. We first control management ownership, calculated as the share of ownership by managers (Alessandri and Seth, 2014). Second, firm size is included as a control variable following the arguments of advanced studies that large enterprises possess the resources and personnel conducive to performance and is calculated as the logarithm of total assets (Zhou et al., 2007). Third, debt is represented by the debt-to-equity ratio and is incorporated in response to the sug-

<sup>1)</sup> Nonetheless, we consider other measures for DOI as the number of foreign countries and subsidiaries in foreign countries in order to secure no sensitivity of the findings of the measurement of DOI. For these variations, we find consistent findings. We thank an anonymous reviewer for this suggestion.

gestion made by the existing literature of internationalization requiring financial support (Chen et al., 2014). Fourth, we control firm age, calculated as the logarithm of the number of years a firm has been in existence. The age of a firm influences its ability to collect information about internationalization and build the necessary infrastructure for international expansion (Cho and Lee, 2017). Fifth, because R&D intensity and advertising are related to firm performance (Lu and Beamish, 2004), we included R&D intensity and advertising intensity and measured as the R&D expenditures to sales and the advertising expenditures to sales respectively. Sixth, to control any industry- and year- specific effects, industry and year dummies are also incorporated.

#### 3.3 Model Specification

We employ the fixed-effects regression analysis because "the fixed-effects approach is utilized at the firm level and this analysis also addresses unobserved enterprise heterogeneity as long as the errors are homoskedastic and independent" (Alessandri and Seth, 2014, p. 2069). We first evaluate a fixed-effects model "applying robust standard errors utilizing the Huber-White sandwich estimator" (Cho and Lee, 2018, p. 153). The Hausman test for each model checked that the fixed-effects model was suitable compared to the random-effects model.

## IV. Results

Table 2 presents descriptive statistics and the Pearson product-moment correlations. Variance inflation factors are tested for multicollinearity issues. All of the variables are found to have acceptable variance inflation factors; all of the scores are below 4.51, and the mean value of the variables is 2.01, implying that multicollinearity is not a serious concern. We also center the interaction variables in order to avoid multicollinearity. The regression analyses are conducted in a stepwise manner as shown in Table 3. Table 3 of Model 1 indicates the ownership and enterprise effects on performance and represents that these factors explain about 0.165 of the variability in the sample firms' relative ROA. Specifically, ROA is autocorrelated and also correlated with size ( $p \langle 0.01 \rangle$ , debt ( $p \langle 0.01 \rangle$ ), age (p  $\langle 0.01 \rangle$ , sales growth (p  $\langle 0.01 \rangle$ , and advertising intensity (p < 0.01).

FSTS and FSTS squared are added to Model 2. The result represents that FSTS is negatively associated with ROA (-0.05, p < 0.01) and FSTS squared is positively associated with ROA (0.07, p < 0.1). This supports H1, which states that the DOI-performance link resembles a U shape, with performance being low and high at degrees of international expansion, low at medium levels of international expansion, and high again at high levels of

		<tab< th=""><th>le 2&gt; M</th><th>eans, S</th><th>standard</th><th>d Deviat</th><th>ions, a</th><th>nd Corr</th><th><math display="inline">\langle \text{Table 2}\rangle</math> Means, Standard Deviations, and Correlations</th><th>(0</th><th></th><th></th><th></th><th></th></tab<>	le 2> M	eans, S	standard	d Deviat	ions, a	nd Corr	$\langle \text{Table 2}\rangle$ Means, Standard Deviations, and Correlations	(0				
Variable	Mean	SD	-	2	3	4	5	9	7	~	6	10	11	12
ROA	0.03	0.08	I											
Management ownership	0.27	0.13	$0.12^{***}$	I										
Size	4.99	0.39	0.09***	-0.01	T									
Debt	1.01	1.46	-0.36***	***20.0-	0.09***	I								
Age	1.40	0.26	0.03	$-0.10^{***}$	0.35***	0.03	ı.							
Sales growth	12.83	53.02	$0.13^{***}$	0.02	-0.00	-0.00	-0.10***	ī						
R&D intensity	0.01	0.03	-0.05**	-0.02	-0.12***	-0.08***	-0.21***	0.02	I					
Advertising intensity	0.01	0.01	-0.07***	-0.04**	-0.06***	-0.06***	-0.04**	-0.03*	0.30***	I				
FSTS	0.35	0.28	-0.02	-0.06*	0.06	0.05***	-0.11***	-0.00	0.01	-0.23***				
Family ownership	0.43	0.19	$0.14^{***}$	0.20***	-0.04**	-0.08***	0.04*	0.00	-0.01	-0.06***	-0.04**	I		
Foreign ownership	0.05	0.11	$0.19^{***}$	$0.19^{***}$	0.22***	-0.06***	0.05**	$0.04^{**}$	0.02	0.06***	-0.03*	-0.08***	I	
Domestic institutional ownership	0.07	0.14	** 20.0	0.00	$0.12^{***}$	-0.02	0.07***	-0.02	-0.05***	-0.06***	0.07***	-0.40***	0.15***	I
Number of observations =	2,320,	> d ***	*** p < 0.01, *	* p < 0.	** p < 0.05, * p < 0.10.	< 0.10.								

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international expansion. A partial derivative of the estimated regression equation for Model 2 of Table 3 taken regarding the levels of internationalization represents that SME performance becomes lowest if FSTS=0.35714. This indicates that SME performance continues to decline until DOI reaches 35.714%. Beyond this 35.714% threshold degree, SME performance increases along with DOI. Figure 2a summarizes graphically our finding for Model 2 of Table 3, which clearly offers additional supporting evidence of Hypothesis 1.

We also conduct the robustness of this curvilinear link. Based on the suggestion of Haans, Pieters, and He (2016), we divide the data into two parts based on the inflection point between high and low FSTS, and estimate the coefficients for both subsamples to confirm that the observed link between the DOI and performance is quadratic. The results show that the FSTS is highly associated with ROA in both subsamples. The high-end subsample demonstrates a positive link between FSTS and ROA ( $\beta = 2.02$ , SE = 0.42, p  $\langle 0.01 \rangle$ , whereas the low-end subsample implies a negative relationship ( $\beta = -0.12$ , SE = 0.03,  $p \langle 0.01 \rangle$ , confirming the U-shaped effects of the DOI on firm performance.

H2 expects family ownership to positively moderate the U-shaped relationship between internationalization and performance. Model 8 of Table 3 implies that the negative relationship between internationalization and performance becomes weaker, and their positive relationship becomes stronger as family ownership increases, eventually turning positive (0.09, p < 0.5). Therefore, H2 is supported.

In H3 and H4, we posit that foreign ownership and domestic institutional ownership positively moderate the U-shape relationship between internationalization and performance. As shown in Table 3, foreign ownership positively moderates the relationship between internationalization and performance after controlling another type of ownership variable (0.11, p  $\langle$ 0.1). Domestic institutional ownership also positively moderates the internationalization - performance relationship (0.14,  $p \langle 0.05 \rangle$ ). Thus, this result supports H3 and H4. These results indicate that as foreign ownership or domestic institutional ownership rises, the negative link between internationalization and performance becomes weaker, and the positive link between internationalization and performance becomes stronger, finally turning positive. Figure 2b, 2c, and 2d visually shows the moderating impact by separating the sample SMEs into two groups based on the median. Figure 2b, 2c, and 2d offer additional supporting evidence of Hypothesis 2, 3, and 4.

Lastly, in H5 and H6, we posit that the interaction between internationalization and family ownership is negatively moderated by foreign ownership or domestic institutional ownership. The three-way interaction models, Model 9 and Model 10, test this hypothesis. For the

fixed-effects models of Table 3, the joint impact of internationalization, family ownership, and foreign ownership on ROA is not significant. However, their joint impact has a strong negative impact on ROA (-0.85, p < 0.01) in the robustness tests of system GMM analysis. This result is consistent with Hypothesis 5. Further, as shown in Model 10 of Table 3, the joint impact of internationalization, family ownership, and domestic ownership on ROA is significant (-0.41,  $p \langle 0.01 \rangle$ ). Model 10 of Table 4 also indicates that, using the system GMM approach, the joint impact of internationalization, family ownership, and domestic ownership has a negative impact on ROA (-0.45,  $p \langle 0.1 \rangle$ ). This result is consistent with Hypothesis 6. Therefore, after controlling for potential endogeneity and the impacts of prior-period ROA, our three-way interaction variable appears to have negative impact on ROA. These results imply that the U-shaped relationship between the DOI and performance would become weaker in the presence of a higher level of foreign ownership or domestic institutional ownership, and significantly more so in SMEs with a higher level of family ownership than in SMEs with a lower level family ownership. Thus, Hypothesis 5 and 6 are supported. Figure 2e and 2f offer additional supporting evidence of Hypothesis 5 and 6, indicating that the moderating impact of family ownership on the DOI-performance relationship are weakest when external ownership high.

Furthermore, to check whether our fixedeffects regression estimates are robust, we have also undertaken analysis using dynamic panel estimation. As shown in Table 4 of the system GMM analyses, the AR(1) test statistics are significant for all models in Table 4. However, the AR(2) test statistics are not significant in any of these models. Consequently, it appears reasonable that there is no serial correlation in the error terms (Alessandri and Seth. 2014; Arellano and Bond. 1991; Cho and Lee, 2018). Moreover, the Hansen test assesses the validity of our instrument. As represented in Table 4, the Hansen statistic is not significant in any of the system GMM models, with the null hypothesis that the specified variables are suitable instruments (Arellano and Bover, 1995). To sum up, these tests prove the instruments' validity in our model to account for the endogenous variables. Thus, these suggest that the instruments are valid and cannot be rejected at any conventional degrees of significance.

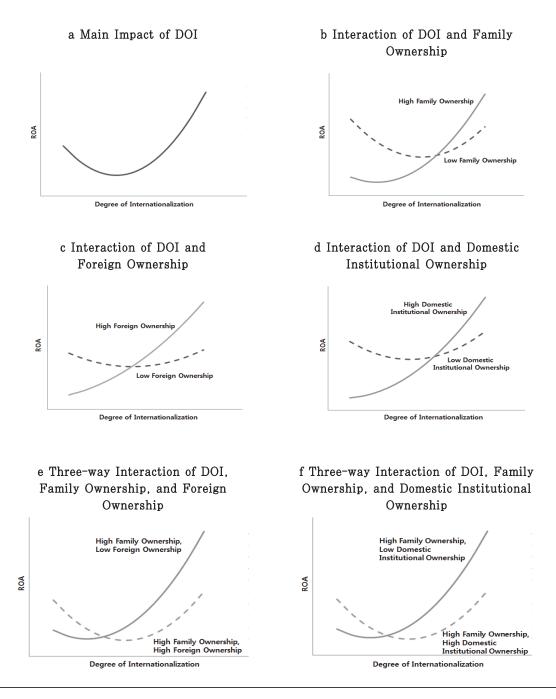
Additionally, we offer an additional analysis by grouping foreign ownership and domestic institutional ownership into external ownership to represent the moderating impact of external ownership on the link between DOI and performance and the joint impact with family ownership and DOI on performance, respectively. We verify that external ownership positively moderates the U-shaped curvilinear link between DOI and performance

Dependent Variable: ROA	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 7	Model 8	Model 9	Model 10
Management ownership	-0.01 (0.02)	-0.01 (0.02)	-0.02 (0.02)							
Size	0.06***	0.06***	0.07***	0.07***	0.06***	0.059***	0.06***	0.06***	0.06***	0.06***
Debt	(0.01) -0.02***	(0.01) -0.02***	(0.01) -0.02***	(0.01) -0.02***	(0.01) -0.020***	(0.01) -0.02***	(0.01) -0.02***	(0.01) -0.02***	(0.01) -0.02***	(0.01) -0.02***
Dept	(0.02)	(0.02)	(0.02)	(0.02)	(0.020	(0.02)	-0.02 (0.00)	(0.02)	(0.02)	(0.02)
Age	-0.02	-0.02	-0.02	-0.02	-0.02	-0.02	-0.02	-0.02	-0.02	-0.02
Sales growth	(0.03) 0.00*** (0.00)									
R&D intensity	-0.00	-0.00	-0.01	-0.02	-0.02	-0.03	-0.02	-0.03	-0.02	-0.02
4.1	(0.05)	(0.05)	(0.05)	(0.05)	(0.05)	(0.05)	(0.05)	(0.05)	(0.05)	(0.05)
Advertising intensity	-0.80*** (0.14)	-0.80*** (0.14)	-0.79*** (0.14)	-0.79*** (0.14)	-0.83*** (0.14)	-0.82*** (0.14)	-0.82*** (0.14)	-0.82*** (0.14)	-0.83*** (0.14)	-0.83*** (0.14)
FSTS (H1)	(0.11)	-0.05*** (0.02)	-0.05*** (0.02)	-0.05*** (0.02)	$-0.05^{***}$ (0.02)	-0.05*** (0.02)	-0.06*** (0.02)	$-0.05^{***}$ (0.02)	-0.06*** (0.02)	-0.06*** (0.02)
FSTS squared		0.07*	0.06	0.06	0.07*	0.07*	0.06	0.06	0.06	0.07*
Family ownership		(0.04)	(0.04) $0.05^{***}$	(0.04) $0.04^{***}$	(0.04) $0.05^{***}$	(0.04) $0.05^{***}$	(0.04) $0.04^{***}$	(0.04) $0.04^{***}$	(0.04) $0.04^{***}$	(0.04) $0.04^{***}$
Family ownership × FSTS (H2)			(0.01)	(0.01) 0.04	(0.01) 0.03	(0.013) 0.04	(0.01) 0.04	(0.01) 0.09**	(0.01)	(0.01)
Foreign ownership				(0.04)	(0.04) 0.22*** (0.05)	(0.04) 0.21*** (0.05)	(0.04) 0.20*** (0.05)	(0.04) 0.19*** (0.05)	0.21*** (0.05)	$0.20^{***}$ (0.05)
Foreign ownership squared					-0.33***	-0.32***	-0.28**	-0.29**	-0.30**	-0.31**
Foreign ownership × FSTS					(0.12)	(0.12) 0.10	(0.12) 0.11*	(0.12) 0.07	(0.12)	(0.12)
(H3)						(0.06)	(0.06)	(0.06)		
Domestic institutional ownership							0.06**	0.05*	0.06**	0.05*
Domestic institutional							(0.03) -0.17***	(0.03) -0.15**	(0.03) -0.16***	(0.03) -0.14**
ownership squared								-0.15	-0.10	-0.14
Domestic institutional							(0.06)	(0.06) 0.14**	(0.06)	(0.06)
ownership × FSTS (H4)								(0.05)		
Family ownership × foreign ownership × FSTS (H5)								(0.00)	-0.10	
-									(0.23)	
Family ownership × domestic institutional ownership × FSTS (H6)										-0.41***
-	т,	T I	τ 1	т 1	T I	т 1	T I	T I	ŢI	(0.15)
Year dummies Industry dummies	lncl. Incl.	lncl. Incl.	lncl. Incl.	lncl. Incl.	Incl. Incl.	lncl. Incl.	lncl. Incl.	lncl. Incl.	lncl. Incl.	Incl. Incl.
Constant	-0.19**	-0.22***	-0.27***	-0.25***	-0.21***	-0.21***	-0.20***	-0.20***	-0.20***	-0.20***
Observations	(0.07) 2,320	(0.07) 2,320	(0.08) 2,320	(0.07) 2,320	(0.07)	(0.07) 2,320	(0.07) 2,320	(0.07) 2,320	(0.07) 2,320	(0.07) 2,320
Observations R-squared	0.165	2,320 0.169	2,320 0.174	0.174	2,320 0.185	0.186	0.189	0.191	0.188	0.190
Hausman test	0.00***	0.00***	0.00***	0.00***	0.00***	0.00***	0.00***	0.00***	0.00***	0.00***
Number of firms	232	232	232	232	232	232	232	232	232	232

(Table 3) Results of Fixed Effects Analysis

 $\frac{1}{***} p \langle 0.01, ** p \langle 0.05, * p \langle 0.10, () = standard error.$ 

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(Figure 2) Main Impact and Interaction Impact

Dependent Variable: ROA	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 7	Model 8	Model 9	Model 10
Management ownership	-0.04	-0.04	-0.04	-0.04	-0.03	-0.03	-0.03	-0.03	-0.03	-0.02
	(0.04)	(0.04)	(0.04)	(0.04)	(0.04)	(0.04)	(0.04)	(0.04)	(0.04)	(0.04)
Size	0.12***	0.12***	0.12***	0.12***	0.12***	0.12***	0.12***	0.12***	0.12***	0.12***
	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)
Debt	-0.02***	-0.02***	-0.02***	-0.02***	-0.02***	-0.02***	-0.02***	-0.02***	-0.02***	-0.02***
	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)
Age	-0.16**	-0.16**	-0.16**	-0.16**	-0.16**	-0.16**	-0.16**	-0.17**	-0.16**	-0.16**
0-	(0.07)	(0.07)	(0.07)	(0.07)	(0.07)	(0.07)	(0.07)	(0.07)	(0.07)	(0.07)
Sales growth	0.00**	0.00**	0.00**	0.00**	0.00**	0.00**	0.00**	0.00**	0.00**	0.00**
54105 B101111	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)
R&D intensity	0.06	0.06	0.06	0.07	0.06	0.05	0.06	0.06	0.06	0.06
NGLD INCOMPTO	(0.19)	(0.19)	(0.20)	(0.20)	(0.19)	(0.20)	(0.20)	(0.19)	(0.20)	(0.19)
Advertising intensity	-1.00*	-1.0*	-1.00*	-1.01*	-0.99*	-0.98*	-0.98*	-0.99*	-0.99*	-0.99*
Auvernaning intenancy	(0.5)	(0.53)	(0.52)	(0.53)	(0.53)	(0.54)	(0.54)	(0.54)	(0.54)	(0.53)
FSTS	(0.0)	-0.00	-0.00	-0.00	-0.00	-0.00	-0.01	-0.00	-0.00	-0.01
1010		(0.03)	(0.03)	(0.03)	(0.03)	(0.03)	(0.01)	(0.03)	(0.03)	(0.03)
FSTS squared		0.02		0.02	0.01	0.03	0.03	0.03	0.01	0.02
rolo squareu			0.02							
Domile omoorehin		(0.07)	(0.07) 0.02	(0.07)	(0.07) 0.02	(0.07) 0.03	(0.07) 0.02	(0.07) 0.01	(0.07) 0.01	(0.07)
Family ownership				0.02						0.02
Denile contraction v DOMO			(0.01)	(0.01)	(0.01)	(0.01)	(0.02)	(0.02)	(0.02)	(0.02)
Family ownership × FSTS				0.05	0.04	0.05	0.06	$0.12^{*}$		
п · I·				(0.06)	(0.06)	(0.06)	(0.06)	(0.06)	0.00	0.00
Foreign ownership					-0.00	-0.01	-0.02	-0.02	-0.02	-0.02
					(0.07)	(0.07)	(0.07)	(0.07)	(0.07)	(0.08)
Foreign ownership					-0.13	-0.17	-0.14	-0.15	-0.20	-0.15
squared					(0,0,1)	(0,00)	(0,00)	(0,00)	(0.01)	(0,00)
<b>T</b> 11					(0.24)	(0.20)	(0.20)	(0.20)	(0.21)	(0.22)
Foreign ownership ×						0.21*	0.22**	0.17		
FSTS						(0.11)	(0.11)	(0.11)	0.00	0.00
Domestic institutional							0.07 (0.04)	0.06 (0.04)	0.06 (0.04)	0.06 (0.04)
ownership Domostia izatitutional							-0.20*	-0.18*		-0.17*
Domestic institutional							(0.11)	(0.10)	-0.19 (0.11)	(0.10)
ownership squared Domestic institutional							(0.11)	0.16*	(0.11)	(0.10)
ownership × FSTS								(0.10)		
Family ownership ×								(0.00)	-0.85***	
foreign ownership × FSTS									(0.31)	
Family ownership ×									(0.01)	-0.45*
domestic institutional										(0.25)
ownership × FSTS										(0.20)
ROA(t-1)	0.30***	0.30***	0.30***	0.30***	0.30***	0.30***	0.30***	0.30***	0.30***	0.30***
	(0.05)	(0.05)	(0.05)	(0.05)	(0.05)	(0.05)	(0.05)	(0.05)	(0.05)	(0.05)
Wald $\chi^2$	120.51***	125.49***	133.62***	133.44***	134.43***	135.57***	138.55***	164.16***	139.69***	141.96***
Arellano-Bond test for	-6.87***	-6.86***	-6.86***	-6.89***	-6.88***	-6.89***	-6.89***	-6.88***	-6.86***	-6.85***
AR(1) in first-differences	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Arellano-Bond test for	-0.61	-0.62	-0.61	-0.60	-0.57	-0.50	-0.51	-0.50	-0.54	-0.62
AR(2) in first-differences	0.01	0.00	0.01	0.00	0.01	0.00	0.01	0.00	0.01	0.02
Hansen test	53.80	53.50	53.35	52.83	52.13	52.03	52.13	53.08	53.05	53.81
Observations	1,856	1,856	1,856	1,856	1,856	1,856	1,856	1,856	1,856	1,856
Number of firms	232	232	232	232	232	232	232	232	232	232
*** n ( 0.01 ** n ( )	$\frac{202}{105 * n}$		() = ata			40 <u>4</u>	4U4	404	404	404

(Table 4) Results of System GMM Analysis

\*\*\*  $p \langle 0.01, ** p \langle 0.05, * p \langle 0.10, () = standard error.$ 

and the joint impact of DOI and family ownership is negatively affected by external ownership. These findings indicate that unlike family owners, external investors raise both same and different voices toward SME performance coming from international expansion. It is also probable that our findings are colored by a specific category of firms. Hence, we respectively assess the sample of our firms: those in the KOSPI and KOSDAQ stock markets in order to confirm that the observed relationship is consistent. Under all of these variations, the results, which are available from authors on request, remain consistent. Thus, the findings of this study are robust.

Our results also present that family ownership is positively associated with ROA, whereas the foreign ownership - ROA link and the domestic institutional ownership - ROA link exhibit an inverted U-shape. Particularly interesting findings are that even if foreign ownership or domestic institutional ownership has an inverted U-shape relationship with ROA, it positively moderates the DOI performance relationship. These findings represent that the link between foreign ownership or domestic institutional ownership and performance depends upon the level of internationalization. Indeed, these results imply that our understanding of the DOIperformance relationship is improved by incorporating ownership structure.

## V. Discussion

Drawing largely on the organizational learning perspective and agency theory, this paper explores the link between DOI, ownership structure, and SME performance in an emerging economy. To do so, the present study first examined the link between DOI and performance. A review of previous studies on the internationalization - performance relationship appeared to represent a conceptual contradiction at first. However, the organizational learning process might be recognized as a common denominator among constructed frameworks. Theoretical synthesis consequently prompted us to hypothesize a U-shaped relationship between DOI and performance. The result indicates that starting at high levels of financial performance, the performance of SMEs declines and levels off at a certain FSTS threshold, beyond which profits reverse and increase exponentially. The concave shape of the curve at high levels of internationalization indicates that once enterprises get past this threshold, SMEs are more likely to grow profits rapidly. One may deduce from this that, once they have adapted effectively, SMEs are in a better position to rapidly reap the advantages arising from high levels of international expansion. This also indicates that SMEs "go through an organizational learning process characterized by internal reconfiguration that allows for great performance improvement at high levels of internationalization" (Ruigrok and Wagner, 2003, p. 78). "The relatively long period of performance deterioration that accompanies this adjustment process" (Lu and Beamish, 2001, p. 567) can explain why many SMEs finally resign and reverse their internationalization efforts before reaching the turning point.

We then built and found general support for the hypotheses that dissimilar owner types influence the relationship between DOI and performance. We found that the internationalization - performance relationship is positively moderated by family ownership. Specifically, family members have a willingness to emphasize the sustainability of benefits for their shareholders and businesses, and to make long-term investments. Our results posit that SME members of family are more likely to be long-term investors in internationalization and create rent by achieving a greater performance.

Our results can be viewed as contrary to the recent research that concentrates on external investors' expropriation by family members (Chang and Shim, 2015; Chen et al., 2014). These works highlight substantial agency concerns between external investors and family members in the context of rent appropriation (Chen et al., 2014). Nonetheless, SME members of family seem to play dissimilar roles in rent generation. Even if SME members of family can expropriate value at the external investors' expense, they can also generate rent by converting a large number of resources into long-term investments such as international expansion. Korean SMEs are progressively becoming global players in many industries via their aggressive internationalization to survive and remain competitive (Lee et al., 2012). Our results indicate that SME family members drive Korean SMEs to make an investment in internationalization. Even if their motives might be that their descendants inherit a larger, healthier enterprise, the resulting preference is to invest more in internationalization to achieve a high performance. Nonetheless, "once the rent is created, there might be conflicts of interest over how it is distributed among dissimilar types of shareholders" (Kim et al., 2008, p. 407). Consequently, family ownership might be beneficial "insofar as the broad corporate governance context allows external investors to discipline and monitor family members" (Kim et al., 2008. p. 413). Moreover, improving the legal protection and transparency of external investors contributes to reinforcing family-ownership's value-creating potential in the rent-generation process and annuls its value-expropriation potential (Kim et al., 2008). Comparative research across nations with dissimilar national governance systems might represent how the impact of family ownership is depending on dissimilarities in national governance systems.

We also found that the DOI - performance

relationship is positively moderated by both foreign ownership and domestic institutional ownership. These results indicate that foreign investors and domestic institutional investors in Korea may serve as active and sophisticated investors, encouraging long-term investments because of the improved legal protection and strong disclosure requirements. With improved protection, they do not tend to evaluate SME executives based on shortterm profits alone, and are willing to support long-term projects like internationalization for high performance. Considering the benefits of monitoring enterprises and controlling shareholders, foreign investors and domestic institutional investors may make long-term investments and favor long-term rather than short-term profits.

This research also helps explain the impact of internationalization in the context of family businesses. The results imply that family control goals are more likely to converge with economic goals for SMEs with a higher level of family ownership. Findings are especially interesting since it is not explained by previous research highlighting that dissimilar ownership types may conflict when internationalizing. The findings represent that the positive interaction between DOI and foreign ownership, or domestic institutional ownership and performance can be significantly attenuated in SMEs with a higher level of family ownership. In spite of external investors' long-term investments, they will threaten corporate control and cause conflicts, which puts SME family owners in a position of loss rather than of gain when internationalizing. Our three-way interaction models verify that a configurational approach is suitable to researching the conditions under which internationalization improves performance.

## VI. Conclusion

This study contributes to the literature on the internationalization of SMEs by offering evidence on how DOI relates to performance. Drawing from the broader claims of the organizational learning perspective, we uncover the underlying mechanism of the impact of DOI on the performance of SMEs. From the perspective of the international dynamics of the process, this paper states that SMEs require higher levels of internationalization to have a positive effect on performance. This may be because internationalization alone may not necessarily result in sufficient knowledge and information for the SMEs to take risks and capture foreign market opportunities rapidly. Thus, it seems reasonable that SMEs rely on a high level of international activities to have the particular informational benefits that finally result in improved performance. Thus, these findings further extend the current understanding of the SME DOI - performance relationship, especially in the emerging economy context.

More importantly, the results posit owner identity congruence; dissimilar owner types may have the same desires in terms of the implementation of internationalization for their long-term profits. Family members and foreign and domestic institutional investors are more likely to make long-term investments and prefer long-term performance. Moreover, our findings highlight that the coexistence of internal and external owners provides complementary skills in the corporate governance context, and, as such, the impact of family ownership on the relationship between DOI and performance may be contingent on the presence and degree of external ownership. Several agency concerns that managers are highly believed to create may be a reflection of conflicts of preferences between dissimilar shareholders' type. "In the presence of principal-principal problems, the managers tend to take positions to please several shareholders" (Kim et al., 2008, p. 415). Hence, traditional agency problems between managers and shareholders might be overstated, or corporate managers may be inappropriately opportunistic (Choi, Zahra, Yoshikawa, and Han, 2015; Kim et al., 2008). More investigation on the impact of differing shareholder types may give a greater insight on complicated agency problems in SMEs. In addition, recent theoretical developments in governance literature emphasize how and why increasing external ownership in internationalizing enterprises with high family ownership leads to inferior performance (Chen et al., 2014; Singla et al., 2014). This paper explores the issue by exploring the underlying mechanism of the joint impact of DOI, family ownership. and foreign ownership or domestic institutional ownership on performance. The findings suggest that great corporate governance requires a prudent balance of dissimilar types of ownership. We further extend the current explanation of the link between DOI, ownership structure, and performance by providing a comprehensive model that includes the three-way interaction effect to explain the factors affecting the underlying performance of SMEs.

Such results have several practical implications. First, our findings posit that in order to improve performance, SMEs should continue to aggressively internationalize until they get through the reorientation period. Without reconfiguring mechanisms, internal systems and processes, and appropriate capabilities and resources, further international expansion cannot achieve a high performance. Therefore, a key task for SMEs is to build their capabilities and resources in areas such as financing, technology development, marketing, branding, and other managerial capabilities useful for internationalization as well as continuously reconfigure their internal systems and proc-

esses to adapt to international circumstances. In addition, it can be crucial for SMEs to prioritize between internationalization and building capabilities. This study provides indirect evidence that internationalization contributes to the development of these important capabilities. The additional learning gained from international expansion can be useful for developing internal systems, processes, technologies, and products, eventually leading to an improved performance. We also suggest that managers of SMEs have to concentrate on leveraging the learning opportunities from their international presence to discern the level at which they consider the advantages of internationalization to be optimal.

Previous studies argue that even if international expansion offers a variety of learning opportunities, capitalizing on these opportunities poses important organizational challenges (Pangarkar, 2008). Typically, SMEs have a shortage of trained managers who could help assimilate learning from their international activities. This paper posits, nonetheless, that SMEs are in an advantageous position to capitalize on the essential learning opportunities in various other respects. "Given the small size, interpersonal ties, and informal nature of their organizations, it may be relatively much easier to obtain buy-in and to communicate learning" (Cho and Lee, 2018, p. 162). In addition, "the centralized nature of SME decision-making implies that they are in a

good position to overcome the obstacles to the sharing and leveraging of acquired knowledge and also the majority of SMEs may enjoy the learning benefits of newness due to unfettered by bureaucratic cultures and established processes" (Pangarkar, 2008, p. 483).

Second, the findings indicate that foreign ownership and domestic institutional ownership could enhance the relationship between DOI and performance. This implies that the CEOs or senior executives of SMEs need to establish long-lasting relationships with external networks, including foreign and domestic institutional investors, and allow them to hold equity positions in their enterprises" (Cho and Lee, 2017, p. 51). As external investors invest in many firms, "they could obtain information on international markets and accumulate key learning points from the international management experiences of other successful enterprises" (Cho and Lee, 2017, p. 63). Thus, foreign and domestic institutional investors are beneficial as SME shareholders because they offer important resources including relevant experience, information, and knowledge, and monitor managerial strategic behaviors. This further reduces the uncertainty and risks related to internationalization. Moreover, SMEs may obtain financial assistance from external investors' when expanding into international markets, which may significantly affect the success of their internationalization. Consequently, the CEOs and senior executives of SMEs should

establish long-lasting relationships with foreign investors and domestic institutional investors and secure their support for increasing their chances of success in internationalization, which will help them achieve greater performance.

Lastly, the CEOs and senior executives of SMEs need to continuously communicate their goals and mission, and recognize the SME family owners' preference in order to secure their support. Hence, they need to maintain a healthy dialogue to secure high-quality strategic choices for performance improvement. The findings show that family ownership may enhance the relationship between internationalization and performance, indicating that the CEOs and senior executives of internationalizing SMEs need to gain the support of family shareholders in order to pursue long-term profits. Further, to diminish the negative impact of excessive family involvement in the management when internationalizing, SME family managers need to be carefully selected to be as qualified as the nonfamily managers on the job market (Sciascia and Mazzola, 2008; Singla et al., 2014). The education of family members aiming to join the SME management team must be designed in advance to address the knowledge-based needs of internationalizing SMEs. In order to enhance the SME's social capital, their training must be conducted externally so that they can build up their own distinctive relationships, which may be valuable for internationalization through an increase in the possibility of exploiting and identifying novel chances. Conflicts between external and family owners should be avoided by adopting organizational mechanisms that formalize links such as family councils, budget and control mechanisms, or having collective meetings between external investors and family owners in the development of shared cognitive beliefs and maps (Sciascia and Mazzola, 2008). Finally, external investors should be able to preempt the situation in which shareholders enjoy high cumulative stocks of emotional capital at the expense of strong financial capital (Sciascia and Mazzola, 2008).

This paper has several limitations. First, following the organizational learning perspective, the results indicate that intra-enterprise processes tend to be encouraged by the performance pressures SMEs face along their path of international expansion. The reconfigured "fit" between external environments and internal mechanisms enables exploitation of the benefits of high degrees of international expansion. Since SMEs learn continuously along their path to high levels of international expansion, an important query arises: What kinds of organizational capabilities are the most critical to successful operation in increasingly complicated international market environments? The results fall short of advising SMEs as to the precise areas for reconfiguration. Here, scholars may quantitatively identify

the core organizational moderators of the internationalization - performance relationship such as control systems, organizational structures, and top management team compositions.

Second, even if the results were to indicate that the curvilinear U-shape is a one-off phenomenon, one might enquire regarding the possibility of multiple, consecutive curvilinear U-shapes while internationalizing (Ruigrok and Wagner, 2003). If SMEs encounter multiple "fit-misfit-fit" cycles in the course of internationalization, this study has to presume a certain time schedule for the emergence of particular concerns and the respective requirements for adjustment. For instance, if a consecutive curvilinear U-shape existed, we could argue that performance would initially decline owing to concerns about top management team demographics, and eventually owing to concerns about SME control. The results may simultaneously convey the notion of an emergence of a misfit in various areas. SMEs are required to concurrently address the above issues through efficient and effective reconfiguration. Nonetheless, the exploration for contingency links, besides clarifying the nature of internal reconfiguration, would also demystify the issue of sequential or parallel adjustment demands in the course of internationalization for SMEs.

Third, although we explore principal - principal problems in the internationalization context, principal - principal problems also are present for other corporate strategies such as growth strategies, innovation strategies, and product diversification. It would be interesting to explore how dissimilar owner type is less or more likely to support corporate strategies.

Fourth, we had to calculate DOI as singleitem measurements owing to the non-availability of data. As Sullivan (1994a) noted that single-item measures of DOI may be less likely to be a suitable measure in comparison with multi-criterion composites if we secure the content validity, criterion validity, and reliability. Therefore, future scholars are necessary to use other operationalization and conceptualization techniques for the DOI variable.

Finally, the sample is limited to Korea and, therefore, the findings cannot be generalized to all SMEs. Thus, future studies could be conducted to cover firms in other nations to contrast the findings with those represented in this study. In addition, comparative research that includes both changes in firm-level governance features and national governance features will be a fruitful arena for future research.

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## 중소기업 국제화와 성과: 소유구조의 역할

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#### 요 약

본 연구는 국제화 수준이 중소기업의 재무적 성과에 미치는 영향과 이들 간의 관계에 있어서 가족 소유 지 분율, 외국인 투자가 소유 지분율과 기관투자가 소유 지분율의 역할을 탐구하였다. 소유 지분율의 균형이 국 제화 수준과 장기적인 성과에 있어 중요하다는 이론적인 논의에도 불구하고, 기존 연구들은 국제화 수준과 성 과 간에 관계에 있어서 소유구조의 역할을 간과하였다. 이에 본 연구는 2003년부터 2013년까지 한국증권거 래소에 상장되었던 232개의 국제화를 하는 제조업 중소기업을 대상기업으로, (1) 국제화 수준에 따라 중소 기업의 재무적 성과에 어떠한 영향을 미치는지, (2) 소유구조에 따라 국제화 수준과 중소기업의 재무적 성과 가 어떻게 달라지는지를 규명하기 위해 연구모형을 개발하고 검증하였다. 연구결과, 국제화 수준은 중소기업 의 재무적 성과와 U자 형태의 곡선관계를 가지는 것으로 나타났으며, 가족 소유 지분율, 외국인 투자가 소유 지분율과 기관투자가 소유 지분율은 각각 U자 형태의 국제화 수준과 재무적 성과간의 곡선관계를 긍정적으 로 조절하는 것으로 나타났다. 그러나 가족 소유 지분율이 높은 중소기업에서 외국인 투자가 지분율과 기관 투자가 소유 지분율이 증가하면 오히려 국제화와 재무적 성과간의 관계에 있어서 부정적인 영향을 끼치는 것 으로 나타났다. 연구의 결과를 바탕으로 학문적, 실무적 기여와 한계 및 향후 연구 과제를 제시하였다.

주제어: 국제화 수준, 소유구조, 한국 중소기업 성과, 삼원 작용 효과

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- 저자 조재영은 현재 경북대학교 경영학부 전략 및 조직관리 전공 박사과정으로 재학 중이다. 경영전략 분야를 주로 연구하며, 구체적 인 연구 대상은 가족기업, 중소기업, IT관련 산업 등이다.
- 저자 이장우는 현재 경북대학교 경영학부 전략 및 조직관리 전공 정교수로 재직 중이다. 서울대학교 경영학과를 졸업하였으며, 한국과 학기술원(KAIST)에서 산업공학 석사 및 경영과학 박사를 취득하였다. 미국 퍼듀 대학과 스탠포드 대학에서 방문학자로 연구하였다. 주요연구분야는 기업가정신과 벤처창업, 경영전략, 강소기업 경쟁력 등이다.

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