An Institution-Based View of the Competitive Advantage of Firms in Emerging and Transition Economies: The Case of Vietnamese Exporters

Dissertation Submitted for the Degree of PhD in Economics and Management Sciences

by

Ngô Vi Dũng

LLN | November 2012
Committee

Prof. Philippe Chevalier (UCL), President
Prof. Frank Janssen (UCL), Supervisor
Prof. Régis Coeurderoy (UCL)
Prof. Marcus Dejardin (FUNDP)
Prof. Jolanda Hessels (EUR)
Prof. Philippe Lebailly (ULg)
Prof. Leonidas C. Leonidou (UCY)
I would like to thank the Commission Universitaire pour le Développement (CUD) via the PIC’s project on the “Développement de l’entrepreneuriat en amont et en aval de l’activité agricole au Viet Nam” for their financial support during my 24 months of scholarship in Belgium. I also would like to thank the Information Center (AGROINFO) of the Institute of Policy and Strategy for Agriculture and Rural Development (IPSARD), Ministry of Agriculture and Rural Development (MARD), Viet Nam; the PIC’s management team in Ha Noi; the CIEM-ILSSA-DANIDA and the USAID-DAI-VCCI projects’ office in Ha Noi; the Center of Entrepreneurial Change and Innovative Strategies (CRECIS) of the Louvain School of Management (LSM), Université Catholique de Louvain (UCL); the Unité d’Economie et Développement Rural of the Gemboux Agro-Bio Tech, Université de Liège (ULg) for their administrative and technical supports.

I would like to express my gratitude to my supervisor, Prof. Frank Janssen, for his expertise, availability, and tolerance. I also would like to thank the members of my jury for their kind support and advice: Prof. Philippe Chevalier, Prof. Régis Coeurderoy, Prof. Marcus Dejardin, Prof. Jolanda Hessels, and especially Prof. Philippe Lebailly and Prof. Leonidas C. Leonidou. I gratefully thank Dr. Đặng Kim Sơn, Dr. Dương Ngọc Thí, Dr. Nguyễn Đình Long, Dr. Vũ Trọng Bình, Dr. Chu Tiến Quang, Dr. Trần Đại Nghĩa, Phạm Quang Diệu, Trần Thị Quỳnh Chi, Phạm Hoàng Ngân, Phan Văn Đàn and many others at IPSARD for their support and advice in Viet Nam. My gratitude also goes to Prof. Alain Vas, Prof. Nathalie Delobbe, Prof. Armin Schwienbacher, Prof. Valérie Swaen, Prof. Assâad El Akremi, Prof. Laurent Taskin, Prof. Benoit Gailly, Prof. Per Agrell, Prof. Yves De Ronge, Prof. Françoise de Viron, Mme. Nadine Stoffelen, Mme. Véronique Seminerio, Mme. Sandrine Delhaye, Mme. Clio Fabry, Mme. Valérie Eeckhout, Mme. Jackie Geeraerts, Mme. Dominique Warte, and many others at UCL and ULg for their support and advice in Belgium.
I especially thank my friends and colleagues in Viet Nam and Belgium for their support and sharing during my PhD studies: Nguyễn Quý Nghị, Nguyễn Tuấn Minh, Mai Thanh Tú, Trương Thị Hưởng Giang, Nguyễn Thu Hằng, and the members of the two groups of survey in Ha Noi and Ho Chi Minh City; the community of Vietnamese students in Louvain-la-Neuve and Gembloux; the ET (Olivier Giacomin, Amélie Jacquemin, Sophie Bacq) and Frank’s family, Albert Lwango, Christophe Lejeune, Mahamadou Biga Diambeidou, Valérie Duplat, Flore Bridoux, Luc Da Gbaji, Olga Beloussova, Florence Jaspart, Thomas Lederer, Yannick De Harlez, Gabriel Van Bunnen, Nathalie Guilmot, Emilie Malcourant, Anne-Lise Demortier, Lê Thị Thu Thảo, Cédric Lenaerts, Ilham Riachi, Savina Princen, Thomas Lambert, Nicolas Bruneau, Marine Falize, Tanguy De Jaegere, Christian Gnękpe, Roxane De Hoe, Ina Ehner, Marine Janiczek, Loïc Decaux, Nicolas De Vlaminck, Guilhem Bascle, William Asamoah Ownsu and many others at CRECIS and LSM.

Finally, I would like to thank my parents and my family for their invaluable support and patience. I dedicate this dissertation to my two uncles Lữong and Thông, to my aunt Tý, to my Prof. Chung at VNU and to Prof. Joseph Desaintes at UCL.

Ngô Vi Dũng
Louvain-la-Neuve, August 2012
CONTENTS

Acknowledgments __ 3
Abbreviations __ 7
Introduction __ 9
  Rationale ___ 9
  Objectives ___ 12
  Structure ___ 12
Part 1. Exploring __ 17
  Essay 1. Entrepreneur’s Actual Behavioral Controls, Psychic Distance Stimuli, and Export Mode Choice ___ 19
  Essay 2. Sub-National Market-Supporting Institutions and Export Behaviors ___ 47
Part 2. Theorizing and Testing __ 89
  Essay 3. Institutional Environment, Industrial Competition, and Resource Investment: an Incentive-Based Model of the Competitive Advantage of Firms in Emerging and Transition Economies ___ 91
  Essay 4. Institutional Attributes, Competitive Pressures, Resources and Capabilities Investment, and Competitive Advantage: the Case of Vietnamese Exporters ___ 129
Conclusion __ 171
  Contributions ___ 172
  Limitations ___ 174
  Implications ___ 175
ABBREVIATIONS

ACFTA : ASEAN-China Free Trade Area
AGROINFO : Information Center for Agriculture and Rural Development
AMOS : Analysis of MOment Structure
APEC : Asia-Pacific Economic Cooperation
ASEAN : Association of Southeast Asian Nations
ASV : Average Shared Squared Variance
AVE : Average Variance Extracted
BRICs : Brazil, Russia, India, and China
BTA : Bilateral Trade Agreement
CFA : Confirmatory Factor Analysis
CFI : Comparative Fit Index
CIEM : Central Institute for Economic Management
CMIN/DF : Minimum Discrepancy/Degree of Freedom
CR : Composite Reliability
C.R. : Critical Ratio for Regression Weight (i.e., t-Value in AMOS)
CRECIS : Center of Entrepreneurial Change and Innovative Strategies
CUD : Commission Universitaire pour le Développment
DAI : Development Alternatives Inc.
DANIDA : Danish Development Assistance
DE : Developed Economies
EE&TE : Emerging and Transition Economies
EFA : Exploratory Factor Analysis
EU : European Union
EUR : Erasmus University Rotterdam
FDI : Foreign Direct Investment
FUNDP : Faculté Universitaire Notre-Dame de la Paix
GDP : Gross Domestic Product
GEM : Global Entrepreneurship Monitor
GSO : General Statistical Office, Viet Nam
<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>ILSSA</td>
<td>Institute of Labour Science and Social Affairs</td>
</tr>
<tr>
<td>IPSARD</td>
<td>Institute of Policy and Strategy for Agriculture and Rural Development</td>
</tr>
<tr>
<td>LSM</td>
<td>Louvain School of Management</td>
</tr>
<tr>
<td>MARD</td>
<td>Ministry of Agriculture and Rural Development</td>
</tr>
<tr>
<td>MSV</td>
<td>Maximum Shared Squared Variance</td>
</tr>
<tr>
<td>PCA</td>
<td>Principal Component Analysis</td>
</tr>
<tr>
<td>PCI</td>
<td>Provincial Competitiveness Index</td>
</tr>
<tr>
<td>PDp</td>
<td>Psychic Distance perspective</td>
</tr>
<tr>
<td>PIC</td>
<td>Projet Inter-Universitaire Ciblès</td>
</tr>
<tr>
<td>RMSEA</td>
<td>Root Mean Square Error of Approximation</td>
</tr>
<tr>
<td>SEM</td>
<td>Structural Equation Modeling</td>
</tr>
<tr>
<td>SMEs</td>
<td>Small and Medium Size Enterprises</td>
</tr>
<tr>
<td>SOE</td>
<td>State Owned Enterprises</td>
</tr>
<tr>
<td>TPB</td>
<td>Theory of Planned Behavior</td>
</tr>
<tr>
<td>TRA</td>
<td>Theory of Reasoned Action</td>
</tr>
<tr>
<td>UCL</td>
<td>Université Catholique de Louvain</td>
</tr>
<tr>
<td>UCY</td>
<td>University of Cyprus</td>
</tr>
<tr>
<td>ULg</td>
<td>Université de Liège</td>
</tr>
<tr>
<td>USA</td>
<td>United States of America</td>
</tr>
<tr>
<td>USAID</td>
<td>United States Agency for International Development</td>
</tr>
<tr>
<td>USD</td>
<td>United States Dollar</td>
</tr>
<tr>
<td>VCCI</td>
<td>Viet Nam Chamber of Commerce and Industry</td>
</tr>
<tr>
<td>VIFs</td>
<td>Variance Inflation Factors</td>
</tr>
<tr>
<td>VND</td>
<td>Viet Nam Dong</td>
</tr>
<tr>
<td>VNU</td>
<td>Viet Nam National University</td>
</tr>
<tr>
<td>WTO</td>
<td>World Trade Organization</td>
</tr>
</tbody>
</table>
INTRODUCTION

Rationale

Since its formal reform in 1986, Viet Nam’s economy has achieved many successes. The private sector boomed and became the main contributor to the country’s high growth rate of about 7% in the period of 1986-2010. The domestic market strongly connected to the international market: the merchandise trade as a percentage of GDP increased from about 11.2% in 1986 to about 147.5% in 2010. The economic development created employment, increased income and reduced poverty: the number of people that lived below 1.25 USD/day decreased from 63.7% in 1993 to 16.9% in 2008. However, after more than 25 years of reform, Viet Nam is still a middle income country and one of the poorest countries in the world: about 43.4% of the population live below 2 USD/day (2008). Furthermore, even compared with some countries that have similar initial conditions, the reform process of Viet Nam is much slower: in 1986, the GDP/capital of Viet Nam, China and Thailand was about 437.1 USD, 279.2 USD and 807.9 USD, respectively; in 2010, it is about 1224.3 USD, 4428.5 USD, and 4608.1 USD, respectively. How then can we explain this fact and, more importantly, how to improve it?

Going beyond the case of Viet Nam, the existing literature suggests that many emerging and transition economies (EE&TE) grow rapidly in the first period of reforms, but often fail to overcome the “middle-income trap” (Ohno, 2009) or more generally the “points of inflection” (Peng, 2003). The main cause is that, these economies lack strong formal market-supporting institutions that are crucial to promote more entrepreneurial spirit and facilitate more sophisticated (i.e., complex and specialized) economic

---

1 Source: World Databank (World Bank).
2 Source: Id.
3 Source: Id.
4 Source: Id. (by national standard: about 14.5%)
5 Source: Id. (by current US dollar).
transactions and organizations (Djankov et al., 2002; Johnson, McMillan and Woodruff, 2002b; Malesky and Taussig, 2009a; McMillan, 1995, 2007; McMillan and Woodruff, 2002; World Bank, 2002). The role of institutions as fundamental cause of long-run growth and economic performance has been well recognized and analyzed at the macro level by historical and political economics (Acemoglu, Johnson and Robinson, 2005; Baumol, 1990; North, 1990). At the micro level, however, the situation is less sound: the basic questions of how institutions do matter, in what ways or by which mechanisms, and to what extent are still ambiguous (Peng et al., 2009). Interestingly, it is the growing role of EE&TE that induces scholars in entrepreneurship (Welter, 2011; Welter and Smallbone, 2011; Yamakawa, Peng and Deeds, 2008) and strategy (Hoskisson et al., 2000; Wright et al., 2005) to call for paying more attention to the role of institutions.

In prior works, the concept of institutions is too broad and encompassing (Peng et al., 2009). Institutions include different dimensions - i.e., formal and informal or regulative, normative and cognitive - and levels - i.e., institutional environment and institutional arrangement (Davis and North, 1971; North, 1990; Scott, 2001; Williamson, 1991). With a few exceptions (e.g., Johnson, McMillan and Woodruff, 2002a; Johnson et al., 2002b; McMillan and Woodruff, 1999), most prior studies did not clarify what lacking elements of the formal market-supporting institutions of EE&TE are. In addition, institutions are often measured by objective methods and analyzed at an aggregate level in order to make a comparative analysis of different institutional frameworks at the macro level (Acemoglu and Johnson, 2005; Djankov et al., 2002, 2003), rather than to unbundle the ways through which these institutional frameworks influence entrepreneurs’ decision and the firm’s strategic choices (Malesky and Taussig, 2009a). Furthermore, most prior works developed their institution-based models to explain and predict the behaviors of firms from developed economies (DE) that operate or intend to operate in EE&TE (e.g., Meyer, 2004; Meyer et al., 2009; Meyer and Nguyen, 2005) rather than the ones of local firms. As a consequence, “the exact nature of institutional forces in emerging economies is not yet well conceptualized”, cultural differences are often used as the cause of any entrepreneurial differences between EE&TE and DE, and the role of other institutional components are often neglected (Bruton, Ahlstrom and Obloj, 2008: 10; Busenitz, Gómez and Spencer, 2000: 995).

In this context, the main purpose of our dissertation is to analyze the relationship between the formal institutional environment, the firm’s...
behavior (i.e., its strategic choices) and its competitive advantage. We focus on the formal institutional environment because among the two levels of institutions – i.e., institutional environment and institutional arrangement – and among the two dimensions of institutions – i.e., formal and informal institutions – that is the institutional environment that determines the institutional arrangement (Pejovich, 1990: 3; Williamson, 1998: 75), and only when the formal institutions fail, the informal institutions will play a larger role in societies and economies – i.e., the compensatory structure of institutions (Peng et al., 2009: 68).

In addition, we choose Vietnamese exporting firms as target population because of three main reasons. First, Vietnamese firms are more and more involved in the global markets, mainly through exporting. In fact, the value of export as a percentage of GDP increased from about 6.6% in 1986 to about 77.5% in 2010. Exporting is therefore very important in Vietnam, and policy makers and managers would like to know how to improve the competitive advantage of exporting firms. Second, compared with firms that only operate in the domestic market, firms that internationalize (i.e., export) are expected to be more sensitive to the institutional environment because they theoretically need more resources and directly face more risks and uncertainty in both domestic and overseas markets. Within the context of EE&TE like Vietnam, internationalized firms are therefore a typical group that could allow us to better observe the impact of the institutional environment on the firm’s behavior and competitive advantage. Third, there have been some studies that investigated the impact of the domestic institutional environment on the behaviors of Vietnamese firms (e.g., Malesky and Taussig, 2009a; Malesky and Taussig, 2009b; McMillan and Woodruff, 1999; McMillan and Woodruff, 1998), but their target population were firms that only operated in the domestic market. Thus, these prior studies did not reflect the relationship between the institutional reform in domestic market and the internationalization of Vietnamese firms.

In the lines that follow, we detail our research objectives, and briefly show how we will try to achieve these objectives through each individual essay.
Objectives

Our dissertation has three major objectives:

1. To clarify the key attributes of the formal institutional environment that characterizes EE&TE.

2. To identify the mechanisms by which the formal institutional environment influences the firm’s strategic choices and competitive advantage.

3. To apply the institution-based view in order to explain and predict the competitive advantage of Vietnamese exporting firms.

Structure

Beside the introduction and conclusion parts, this dissertation consists of four essays that are grouped in two parts. The first part includes two exploratory studies in which we used secondary data to discover whether it would be better to focus on the domestic institutional environment as a major antecedent of the firm’s behavior in the context of Viet Nam. The second part also includes two studies. In the third one, we developed a conceptual model about the relationship between the institutional environment, the industrial competition, the firm’s behavior and competitive advantage. We then tested this model with our primary data in the fourth one. The main features of each study (research purposes, research questions, research methods, and research results) and their link to our research objectives are discussed below.

Essay 1. “Entrepreneur’s Actual Behavioral Controls, Psychic Distance Stimuli, and Export Mode Choice”. In this study, we tried to discover whether the firm’s behavior in EE&TE like Viet Nam could be explained by other theoretical approaches than the institution-based view. More precisely, the research question is whether the entrepreneur’s actual behavioral controls mediate or moderate the impact of the distances or differences between the home country (i.e., Viet Nam) and the host countries (i.e. the firm’s export markets) on the firm’s export mode choice. We propose a hybrid model combining the most traditional perspective of internationalization theories (i.e., the psychic distance perspective) and the theory of planned behavior (TPB) which is appropriate in the context of small and medium size enterprises (SMEs). We used a secondary dataset that consists of 2635 small and medium manufacturing enterprises in Viet Nam, including 126 exporting firms to test this model. The most important finding
of this study is that the distances (i.e., geographic distance and psychic distance stimuli) between the home and the host countries do not significantly influence the export mode choice of Vietnamese SMEs. In other words, although the environmental factors related to export markets could have certain impacts on the firm’s behavior, they are not, however, the crucial issues for Vietnamese exporters. Our attention was therefore conducted to the factors related to the domestic environment.

Essay 2. “Sub-National Market-Supporting Institutions and Export Behaviors”. This study aims to verify whether the domestic market-supporting institutions at sub-national level matter for the export behaviors (i.e., export propensity, export mode choice, and export intensity) of Vietnamese SMEs. We used a secondary dataset that consists of 7818 Vietnamese private manufacturing SMEs including 719 exporting firms. The concept of market-supporting institutions that are used was broad and included both the formal and informal ones. The institutional factors were indentified and validated by exploratory factor analysis. The results of this study reaffirmed the significant impacts (i.e., positive and negative) of the domestic market-supporting institutions on the export behaviors (i.e., export propensity and export intensity) of Vietnamese firms, especially the smaller and private ones. These results induced us to investigate more on the relationship between the domestic institutional environment (the formal one) and the firm’s behavior and competitive advantage in a systematic manner.

Essay 3. “Institutional Environment, Industrial Competition, and Resource Investment: an Incentive-Based Model on Competitive Advantage of Firms in Emerging and Transition Economies”. In this study, we extensively reviewed the existing literature of economics, strategy and entrepreneurship in order to propose a conceptual model about the relationship between the institutional environment, the industrial competition, and the firm’s resource investment and competition advantage in the context of EE&TE. First, we concentrate on the property rights and contracting institutions as the most crucial elements of the formal institutional environment of EE&TE. Second, we clarified the key institutional attributes (i.e., the degree of specificity, stability, predictability, and enforceability of property rights and contracting institutions) that could be used to understand how the formal institutional environment influences individuals’ (i.e., managers) perceived institutional risk and uncertainty. Third, we show the fact that the firm’s resources and capabilities investment could be a major mechanism by which the institutions matter for the firm’s competitive advantage. We therefore extended and integrated, rather than disentangled, the three legs of strategy tripod (i.e., the industry-based, the resource-based, and the institution-based views) to explain and predict the behavior and competitive advantage of firms in EE&TE.
Essay 4. “Institutional Attributes, Competitive Pressures, Resources and Capabilities Investment and Competitive Advantage: the Case of Vietnamese Exporters”. In this study, we empirically tested the conceptual model developed in the third study with primary data gathered from a sample of 109 exporting firms in Viet Nam. The conceptual model is validated by exploratory and confirmatory factor analyses. The empirical results supported the main hypotheses: the institutional environment (i.e., the degree of specificity, stability, predictability, and enforceability of property rights and contracting institutions) significantly influences the firm’s resources and capabilities investment (i.e., investing in human, innovation and marketing assets) that, in turn significantly influences its export competitive advantage. The hypotheses relative to the relationship between competitive pressures in domestic and overseas markets and the firm’s investment are not strongly supported by statistical results, but this could be a technical (i.e., sample size) rather than theoretical limitation. In general, our model proved its applicability and provided better insightful explanations and implications of the relationship between the institutional environment, the industrial competition, the firm’s investment and competitive advantage in the context of EE&TE.

In sum, the four essays attempt to answer the fundamental questions of the institution-based view, i.e., do institutions matter, how do they matter, by which mechanisms, and to what extent? More precisely, the first essay demonstrates that it would be better to focus on the domestic environment as important antecedents of the firm’s behavior in EE&TE. The second essay shows that the institutional elements of the domestic environment at sub-national level matter for export behaviors of Vietnamese firms. The third and fourth essays conceptually and empirically clarified the attributes, the mechanism and the extent to which the formal institutional environment of the domestic market influences the firm’s behavior and competitive advantage. In the next two parts, the four essays are presented. We will then summarize the contributions, limitations, and implications of this dissertation in conclusion.

References


PART 1. EXPLORING
Abstract

This paper aims to investigate the relationship between environmental, entrepreneur-related and organizational characteristics and SMEs’ export behavior. More precisely, it looks at the mediating effect of entrepreneurs’ actual behavioral controls on the relationship between psychic distance stimuli and export mode choice of Vietnamese SMEs. Based on a dataset of 2635 small and medium enterprises in Viet Nam, including 126 exporting firms, we find that entrepreneurs’ actual behavioral controls and organizational factors are determinants of Vietnamese SMEs’ export mode choice. We find no evidence that psychic distance (geographic distance and psychic distance stimuli) influences the export mode choice of Vietnamese SMEs. Finally, entrepreneurs’ actual behavioral controls do not play the mediating or moderating role in the relationship between psychic distance and Vietnamese SMEs’ export mode choice.

Key words

Export behavior, SMEs, behavioral control, psychic distance, Viet Nam.

1 An early version of this essay was presented at the 56th World Conference of ICSB in Stockholm, 15-18 June 2011 (co-authored with Frank Jannssen). A former French version of this essay (co-authored with Frank Janssen and Amélie Jacquemin) with some differences in the title, the theoretical model and the statistical results was accepted to be published in the Revue de l’Entrepreneuriat.
Introduction

Since the ‘70s, socio-economic, technical and institutional changes such as the oil crisis, the progress in communication and transport, and the harmonization of international economic and commercial institutions have favored the renaissance of small and medium-sized enterprises (SMEs) in both national and international economies (Knight and Cavusgil, 2004; Oviatt and McDougall, 1994; Reynolds, 1997; Storey, 1997). A common strategy of SMEs to internationalize is through export because, compared with other internationalization strategies (e.g., licensing, franchising, foreign direct investment or joint ventures), it involves “fewer resources, lower risk, and less costs” (Leonidou, Katsikea and Coudounaris, 2010: 78). To export, SMEs can choose different export modes, i.e. direct and/or indirect exporting (Acs et al., 1997; Peng and Ilimitch, 1998).

The literature on export studies identified three groups of factors as potential determinants of export behavior in general and of export mode choice in particular: (i) entrepreneur related factors, e.g., demographic, psychological, educational, experience, language proficiency, foreign travels, social ties; (ii) organizational factors, e.g., location, size, age, ownership, industry, resources, organizational ties, for example; and (iii) environmental factors in both the home and the host market, i.e., the macro or “remote environment” such as economic, political/legal, socio-cultural factors and physical/geographic conditions; and the “task environment” concerning competition/industry, market/customers (Asheghian and Ebrahimi, 1990; Hessels and Terjesen, 2010; Leonidou, 1998; Leonidou, Katsikeas and Piercy, 1998).

There are numerous empirical studies analyzing the influence of managerial and organizational factors on export behavior in general and on export mode choice in particular, but most of them ignore the role of environmental factors, especially the institutional ones (Hessels and Terjesen, 2010; Peng et al., 2009). Perhaps, the main reason for this is that most prior export studies were realized in the context of developed economies (Leonidou and Katsikea, 2010) whose environmental conditions (e.g., market-supporting institutions) are well established and thus were often considered as “background” conditions (Peng et al., 2009). However, in the context of globalization, the environmental conditions of both the home and host markets change rapidly and directly influence the firm’s strategy (Peng et al., 2009). For this reason, many researchers in international business (e.g., Peng and Khoury, 2008) and entrepreneurship (e.g., Welter and Smallbone, 2011) are calling to pay more attention to environmental factors (e.g., the institutional ones).
However, in the case of SMEs, the owner’s (i.e., entrepreneur) characteristics play a major role because this type of enterprise is often considered as an extension of the entrepreneur (Lumpkin and Dess, 1996; Miller and Toulouse, 1986) who takes all the decisions (Miesenbock, 1988; Wiedersheim-Paul, Olson and Welch, 1978). For this reason, Reid (1981: 104) stressed that “the existence of decision maker’s characteristics at the level of the firm … can mediate the impact of the environmental and firm contextual characteristics in export decision making”. In this context, it is reasonable to argue that understanding the interaction between managerial and environmental factors is crucial to understand the export behaviors of SMEs. For this reason, the current study aims to answer the following research question: Do entrepreneur-related factors mediate or moderate the influence of environmental factors on the export mode choice of SMEs?

We choose Viet Nam, an emerging and transition economy\(^2\) in Southeast Asia (Arnold and Quelch, 1998; Ellis, 2010) as our research field. By doing this, our study aims to fill some important gaps in prior export studies. First, despite the fact that the firms from emerging economies are increasing their role in the global economy (Aulakh, Kotabe and Teegegen, 2000; Yamakawa, Peng and Deeds, 2008), most of previous research on entrepreneurship and export has been done in the context of developed economies (Bruton, AhIstrom and Obloj, 2008; Leonidou et al., 2010). When studies look at other countries, they often focus on China, Brazil, and countries of the former Soviet Union and ignore other emerging economies and transition economies (EE&TE) (Bruton et al., 2008; Hoskisson et al., 2000). Our study on Vietnamese SMEs therefore tries to extend the existing knowledge about the strategy of firms in these non-common EE&TE (Hoskisson et al., 2000).

Like China, the countries of Eastern Europe and the former Soviet Union, Viet Nam is a transition economy because its economy formally transitions from a centrally planned to a market-based economy since 1986. Like China, Viet Nam has chosen a gradualist policy rather than shock therapies like Russia or Poland (Peng, 2003). The political power is however more concentrated at central level in China, while the local authorities in Viet Nam have more autonomy (Malesky, Abrami and Zheng, 2011). Viet Nam achieved a high rate of growth (an average of 7.2% in the period of 2000-2010), and became a middle income country in 2010 (about 1,224.3 USD/capital).\(^3\) Exporting is vitally important for Viet Nam because it

\(^2\) Hoskisson et al. (2000) propose that an emerging economy “can be defined as a country that satisfies two criteria: a rapid pace of economic development, and government policies favoring economic liberalization and the adoption of a free-market system” (pp. 249).

\(^3\) Source: World Databank
accounts for about 77.5% of its GDP (2010). Together with the Eastern European countries and China, Viet Nam is one of best destinations for foreign direct investment (Buckley and Casson, 1998). For these reasons, certain authors believe that Viet Nam is a promising research context for testing and developing existing literature in entrepreneurship and strategy (Peng, 2003; Peng and Heath, 1996). However, until now there is a limited number of studies looking at the internationalization of Vietnamese firms (Kokko and Sjöholm, 2004; Nguyen et al., 2008; Nguyen, Le and Bryant, 2012).

Second, EE&TE are characterized by a lack or a weakness of market-supporting institutions, both formal institution or regulative dimension (Peng and Heath, 1996) and informal institutions or normative and cognitive dimensions (Manolova, Eunni and Gyoshev, 2008). For this reason, certain authors argue that the firm’s strategy in EE&TE can be better explained by the institution-based view, followed by transactions cost theory/agency theory, and resource-based view (Hoskisson et al., 2000; Shenkar and von Glinow, 1994). However, there are also other theoretical frameworks that could be applied to study the impact of environmental factors in general and of the institutional ones in particular, on the firm’s strategy, e.g., the Psychic Distance perspective (Dow, 2000; Dow and Ferencikova, 2010). To our knowledge, there has only been a limited number of studies that tried to apply these frameworks in the context of EE&TE.

In this study, we aim to fill this gap by testing a theoretical direction that combines two complementary theoretical perspectives: the Psychic Distance perspective (PDP) and the Theory of Planned Behavior (TPB) to evaluate the relationship between environmental and entrepreneur-related factors and their influence on SMEs’ internationalization strategy (i.e., export mode choice). The PDP is one of the traditional perspectives in internationalization theories (Johanson and Vahlne, 1977) while the TPB is appropriate to understand the individual’s (i.e., entrepreneurs) behavior (Ajzen, 1991) in the context of SMEs. Based on this new framework, we expect that the environmental factors (i.e., macro-differences or psychic distance stimuli between the home and the host countries) influence the export mode choice, but also that this impact can be mediated or moderated by entrepreneur-related factors (i.e., entrepreneur’s actual behavior controls).

The rest of this paper is structured as follows: in the first section, based on the TPB and on the PDP, we develop our hypotheses to explain and predict the export mode choice of SMEs in Viet Nam. The second section describes the data, variables and measurements used in our study. The

4 Source: Id.
research results are presented and discussed in the third and forth sections, respectively. This article concludes by stressing our study’s contributions, limitations and its implications for future research, managers and policy makers.

Theories and hypotheses

Export mode choice, direct or indirect, is one of the key decisions that entrepreneur of SMEs should have effect on exporting (together with export propensity, export market selection, export expansion, export marketing, export withdrawal, for example). In indirect export, the exporters use independent organizations (domestic or international) located in the home country to export their products. In direct export, the exporters sell directly their products to the importers or buyers located in foreign countries (Albaum, Strandskov and Duerr, 1998; Brady and Bearden, 1979; Root, 1982). Furthermore, to export indirectly, the exporter has various organizational alternatives of merchants and agents, such as trading companies, brokers, and export management companies. The difference between a merchant and an agent is that the “merchant takes title to the products to be sold, while agent does not” (Albaum et al., 1998: 218) but they are both called export intermediaries (Peng and Ilinitch, 1998) or international trade intermediaries (Ellis, 2003; Ellis, 2010). In direct export, there are also various alternatives such as home country based department, foreign sales branch, storage or warehousing facilities, foreign sales subsidiary, traveling sales person, for example. (Albaum et al., 1998; Asheghian and Ebrahimi, 1990; Root, 1982). The basic assumption about the nature of SMEs, i.e. the central role of entrepreneur, allows us to apply two different but complementary theories to explain and predict the export mode choice of SMEs in emerging economies: the Psychic Distance perspective (PDp) and the Theory of Planned Behavior (TPB).

Psychic distance stimuli and export mode choice

PDp, which aims to explain and predict the firm’s internationalization behavior, has mainly been developed by the Uppsala school. This theoretical perspective proposes that the firm’s entry mode choice is determined by two key factors: (i) psychological or psychic distance between the home and the host countries, and (ii) international market knowledge and experience (Dow and Larimo, 2009; Johanson and Vahlne, 1977). The psychic distance is

---

5 The Uppsala school uses the concept of “market knowledge” that is defined as “information about markets, and operations in those markets, which is somehow stored and reasonably retrievable - in the mind of individuals, in computer memories, and in written report includes”. Market knowledge can be classified into “objective knowledge” that “can be
defined as “the sum of factors preventing the flow of information to and from the market. Examples are differences in language, education, business practices, culture, and industrial development” (Johanson and Vahlne, 1977: 24). The measurement of psychic distance or non-geographic distance has achieved a remarkable progress and includes several dimensions such as languages, religions, industrial development, levels of education, and political systems (Dow and Karunaratna, 2006). According to PDp, differences or distances (geographic and non-geographic) between the home and host countries cause “the lack of, and difficulty of obtaining market knowledge in international operations” (Johanson and Vahlne, 1977: 26). This situation influences the entrepreneur’s perception of risk and uncertainty, and therefore the firm’s internationalization behavior (Dow and Larimo, 2009). However, because entrepreneurs incrementally gain international market knowledge and experience through “connection with activities that are based on relations to other individuals” (Johanson and Vahlne, 1977: 28), the influence of psychic distance on the firm’s internationalization behavior diminishes (Dow, 2000; Dow and Larimo, 2009).

In addition, PDp distinguishes two types of psychic distance: psychic distance stimuli and perceived psychic distance. The former refers to macro-level differences between the home and the host countries, and the latter are individual perception of these macro-level differences (Dow and Karunaratna, 2006). Dow and Karunaratna (2006) argue that the main limitation of the perceptual approach is that researchers often measure an ex post perception (after decisions are made), and that, although a relationship between perceptions and actions can be found, the direction of causality is still equivocal. For this reason, in this study, we focus on the relationship between psychic distance stimuli (instead of perceived psychic distance) and SMEs’ export mode choice.

We can apply PDp’s propositions to explain and predict SMEs’ export behavior in general and their export mode choice in particular. SMEs

---

*Dow (2000: 51) argues that although geographic distance is often considered as a dimension of psychic distance, this kind of distance is largely independent of psychological or non-geographic distance. For a more systematic and exhaustive comparison of the advantage of psychic distance’s measurement used in this study with other psychic distance’s measurements, including cultural distance (e.g., Hofstede, 2001; Kogut and Singh, 1988), see Dow and Karunaratna (2006: 581).*
are often considered to be lacking resources and capabilities, and to be facing more barriers than large firms in international markets (Acs et al., 1997). Compared with indirect export, direct export requires SMEs to invest more resources and capabilities to establish, maintain and control exporting activities (Hessels and Terjesen, 2010). In this context, if SMEs use an indirect export mode, they can transfer a large part of transaction costs (search, negotiation, and monitoring/enforcement costs) to export intermediaries on the one hand, and acquire marketing knowledge from international trade intermediaries on the other (Ellis, 2010; Peng and Ilinitch, 1998). Thus, we can expect that the more distant their export markets are, the more likely SMEs will be to export indirectly rather than directly (Peng and Ilinitch, 1998). Several empirical studies find that psychic distance influences entry mode choice. For example, Dow and Larimo (2009) find that several types of distance (culture, religion, industrial development, education) influence negatively the high control entry mode choice of Nordic firms: the higher the distance between the home and the host countries is, the more likely Nordic investors are to use joint ventures with a local partner rather than a wholly owned subsidiary. Dow (2000) finds that psychic distance (geographic distance and perceived psychic distance) negatively influences export market selection of Australian SMEs: the more distant a host market is, the less frequently it is present among the first five export markets of the firm. Based on these theoretical and empirical arguments, we propose that:

**Hypothesis 1**: The more distant (geographic distance and psychic distance stimuli) their export markets are, the less likely SMEs are to export directly.

**Entrepreneur’s actual behavior controls and export mode choice**

TPB is an extension of the Theory of Reasoned Action – TRA (Ajzen, 1991; Ajzen and Fishbein, 1980) developed in social psychology to explain and predict individual behaviors. This theory supposes that the individual behavior is determined by two major factors: (i) the behavioral intention or motivational factors defined as the degree of willingness and effort that people dispose in order to perform a behavior (action), and (ii) the behavioral controls or non-motivational factors defined as the “availability of requisite opportunities and resources (time, money, skills, cooperation of others)” (Ajzen, 1991: 181-182). Like TRA, TPB proposes that the behavioral intention is determined by (i) the attitude toward a behavior or “the degree to which a person has a favorable or unfavorable evaluation or appraisal of the behavior in question”; (ii) subjective norms or “the perceived social pressure to perform or not to perform the behavior” (Ajzen, 1991: 188). The main difference between TPB and TRA is the fact that TPB proposes that (i) an action is determined not only by the behavioral intention
but also by the behavioral controls and that (ii) the behavioral controls influence, not only directly but also indirectly, an action through its impact on the intention and on the intention’s antecedents (attitude toward behavior and subjective norms).

TPB distinguishes two types of behavioral controls: actual and perceived behavioral control. The first are the resources and opportunities that are available to the entrepreneur, while the second is the entrepreneur’s perception and belief about his/her resources and opportunities (Ajzen, 1991). Although the perceptual measure has more psychological interest (the relationship between behavioral perception, behavioral intention and action), TPB’s creator also argues that “the importance of actual behavioral control is self evident: The resources and opportunities available to a person must to some extent dictate the likelihood of behavioral achievement” and that “perceived behavioral control may not be particularly realistic when a person has relatively little information about the behavior, when requirements or available resources have changed, or when new and unfamiliar elements have entered into the situation” (Ajzen, 1991: 183-185). For this reason, in this study that focuses on internationalization phenomenon characterized by rapid change and high uncertainty, we focus on the direct relationship between the entrepreneur’s actual behavioral control (instead of perceived behavioral control) and SMEs’ export mode choice.

TPB can be used to explain and predict the export mode choice. As mentioned above, compared with indirect export, direct export requires more resources and capabilities to establish, maintain and control exporting activities (Hessels and Terjesen, 2010). In the context of SMEs, this also means that direct export requires more behavior controls (time, capital, knowledge, skill, experience, social ties, for example) from entrepreneurs. In turn, we can expect that if an entrepreneur has more behavioral controls, he or she will be able to perform more difficult tasks concerning exporting activities, i.e., direct export in comparison with indirect export. The entrepreneur’s actual behavioral controls can be measured by proxies of his/her characteristics such as age, gender, educational level, professional experience, international market experience (e.g., time spent abroad by living, studying, working or traveling), social ties, and immigrant status. The entrepreneur’s actual behavioral controls are argued to influence his/her ability, attitude and therefore his/her behavioral intention and action (Axinn, 1988; Ellis, 2000; Ellis and Pecotich, 2001; Leonidou et al., 1998; McConnell, 1979; Orser et al., 2010; Simpson and Kujawa, 1974).

Prior export studies on managerial factors provide many evidences of the relationship between entrepreneur-related characteristics and the firm’s export behaviors (Leonidou et al., 1998; Miesenbock, 1988; Sousa, Martinez-López and Coelho, 2008). For instance, McConnell (1979) argues
that the entrepreneur’s age and education level influence his/her attitude toward risk-taking and therefore his/her export decision (export propensity): exporters are younger, more educated and more liberal. Orser et al. (2010) find that the entrepreneur’s gender influences the export behavior (export propensity) of Canadian SMEs: firms owned by female entrepreneurs are less likely to export than firms owned by men. Ellis (2000) argues that an entrepreneur’s foreign market knowledge is mainly acquired by social ties rather than by market research. Ellis and Pecotich (2001) find that the export is often initiated by one or combination of three agents (seller-exporters, buyers, or third parties) who have already established relationships with the manager. In other words, social ties can bring both export opportunities and resources for entrepreneurs.

In fact, TPB does not clearly identify the different types of entrepreneur’s actual behavioral control. In the present study, we focus on three groups of entrepreneur’s actual behavioral control: (i) the entrepreneur’s demographic characteristics (age and gender); (ii) the entrepreneur’s human capital (level of education and international experience); and (iii) the entrepreneur’s social capital (social ties). Based on these theoretical and empirical arguments, we propose that:

**Hypothesis 2:** The more actual behavioral controls the entrepreneur has, the more likely his/her SMEs is to export directly. Concretely:

**H2a:** The older the entrepreneur is, the less likely his/her SMEs is to export directly.

**H2b:** SMEs managed by female entrepreneurs are less likely to export directly than those managed by male entrepreneurs.

**H2c:** The higher the entrepreneur’s level of education is, the more likely his/her SMEs is to export directly.

**H2d:** The more international experience the entrepreneur has, the more likely his/her SMEs is to export directly.

**H2e:** The more social ties the entrepreneur has, the more likely his/her SMEs is to export directly.

**Mediating (moderating) role of entrepreneur’s actual behavior control**

As we have seen, TPB insists on the entrepreneur’s characteristics (behavioral controls) and PDP on the firm’s characteristics (international market knowledge and experience) and its environments in the home and host markets. In the context of SMEs, as mentioned above, we suppose that
the entrepreneur plays a central role. It seems that the concept of behavioral controls is larger than the ones of international market knowledge and international experience because it incorporates not only the experiential dimension but also other dimensions of the entrepreneur’s characteristics such as time, money, skills, social ties (Ajzen, 1991). However, through these concepts, we can combine TPB and PDp to build a new framework to analyze SMEs’ internationalization behavior. This framework allows us to analyze not only the direct relationship between entrepreneur-related factors and export mode choice (traditionally investigated by TPB) and the direct relationship between environmental factors and export mode choice (traditionally investigated by PDp), but also the mediating or moderating role of entrepreneur-related factors, i.e. the entrepreneur’s behavioral controls, as Reid (1981) stressed. A few studies have investigated the moderating role of international market experience: Dow (2000) finds that the negative impact of psychic distance (geographic and psychic distance) on export market selection (the frequency that an export market entered in the first five export markets of Australian firms) diminishes because of the moderating role of export experience (cultural learning). Dow and Larimo (2009) go one step further by distinguishing international market experience in similar and dissimilar markets: they argue that only international market experience in markets similar to the host market positively influences the firm’s high-control entry mode choice (wholly owned subsidiary vs. joint venture with local partner). Unfortunately, this study does not investigate the moderating role of these two types of international market experiences. Based on these theoretical and empirical arguments, we propose that:

**Hypothesis 3**: The more actual behavioral controls entrepreneurs have, the less likely psychic distance stimuli will be to influence export mode choice of SMEs.

**Method**

**Data**

In Viet Nam, SMEs are defined as enterprises that have less than 300 employees in agriculture, industry and construction sectors, and less than 100 employees in commerce and services. However, in order to facilitate the comparison of our research results with those of other export studies in developed economies, we use one of the elements of the European

---

7 Source: Degree 56/2009/ND-CP on assistance for SMEs development (www.gov.vn). Even if we use the Vietnamese definition of SMEs, this only adds one firm to our sample population. Thus, we decide to use the EU’s definition of SMEs for potential comparison purpose.
Commission’s definition, being that SMEs have less than 250 employees.\textsuperscript{8}

We use two secondary datasets: (i) The first one is a dataset on 2635 small and medium manufacturing enterprises in Viet Nam, resulting from a cooperation between Danish and Vietnamese institutions in 2007. This dataset provides variables concerning export markets, export mode (direct and indirect), firms’ performance, entrepreneurs’ characteristics (demographic, ethnicity, education, experience, social ties, for example), firms’ characteristics (location, age, size, industry, for example), and domestic environmental characteristics. Among the 2635 firms, there are 154 firms engaging in exporting activities (about 6.5 percent of total sample population) but 13 do not meet our SMEs’ definition criteria in terms of number of employees (more than 250 employees). In addition, 42 firms did not provide any information about their export market because they only export indirectly and do not know the final destination of their products. Furthermore, 12 firms that only export to the group of “Other” countries\textsuperscript{9} do not provide any information about their precise export market; therefore, we cannot calculate the geographic distance and psychic distance stimuli of this group of countries. The final sample consists of 84 firms (\(n = 84\)) with 67 firms only exporting directly and 17 firms exporting both directly and through trading companies. According to Leonidou and Katsikea (2010), our sample size is acceptable because about 30 percent of the export studies published between 1960 and 2007 have a sample size of 99 or less. (ii) Based on the information of export markets provided by the first dataset, we combine it with the work of Dow and Karunaratna (2006) to incorporate variables concerning psychic distance (languages, religions, industrial development, levels of education and political differences) and geographic distance between Viet Nam and its export markets.\textsuperscript{10}

Variables

Dependent variable

Following Hessels and Terjesen (2010), we measure the dependent variable, export mode choice (EXMODE), as a dummy variable with direct export = 1 and indirect = 0. Like these authors, we have classified firms that use both direct and indirect export mode in indirect export.\textsuperscript{11}

\textsuperscript{9} The firms in our dataset export to China, Japan, ASEAN, USA, EU, Russia and “Other” countries.
\textsuperscript{10} Source: http://www.mbs.edu/home/dow/research/
\textsuperscript{11} We have no choice for the measurement of this variable because firms that only use indirect export method do not provide information about their export markets. These firms cannot be taken into analyses because we have no information about their psychic distance stimuli.
Independent variables

In line with Dow (2000), we distinguish two types of psychic distance: geographic distance and psychic distance stimuli. The geographic distance is measured in nautical miles from Viet Nam’s main seaport (Ho Chi Minh City port) to the nearest international main port of six major export markets and group of markets: Hong Kong for China, Nagasaki for Japan, Singapore as the nearest port of ASEAN countries, Los Angeles for the USA, Marseille (France) as the nearest international port of the EU, and Vladivostok for Russia.\footnote{Source: http://www.searates.com/reference/portdistance/} The total geographic distance (GEODIS) of the firm with its export markets is calculated as weighted mean of geographic distance between Viet Nam and each of six countries and group of countries that it exported to:

\[
\text{Geo\_Dis} = \frac{G_1W_1 + G_2W_2 + \ldots + G_nW_n}{W_1 + W_2 + \ldots + W_n} = \sum_{i=1}^{n} \frac{G_iW_i}{\sum_{i=1}^{n} W_i}
\]

(1)

where “Gn” (> 0) is geographic distance (in nautical miles) between Viet Nam’s main seaport and the nearest main international port of a country or a group of countries that the firm exports to, and “Wn” (0 < Wn ≤ 1) is the weighted proportion of export value to this country or group of countries in the total export value of the firm.

The psychic distance stimuli are measured with scales for five dimensions (languages, religions, industrial development, levels of education, and political systems) developed by Dow and his colleagues.\footnote{Source: http://www.mbs.edu/home/dow/research/} Following Dow and Ferencikova (2010: 50), in order to avoid the problem of multicollinearity, we converted these five dimensions into a single index of psychic distance stimuli between Viet Nam and 119 other countries (Table 1). The total psychic distance stimuli (PSYDIS) that the firm should resolve with its export markets is calculated as weighted mean of psychic distance stimuli between Viet Nam and each of six countries and group of countries that the firm exported to:

\[
\text{Psy\_Dis} = \frac{P_1W_1 + P_2W_2 + \ldots + P_nW_n}{W_1 + W_2 + \ldots + W_n} = \sum_{i=1}^{n} \frac{P_iW_i}{\sum_{i=1}^{n} W_i}
\]

(2)

where “Pn” (> 0) is psychic distance stimuli between Viet Nam and a country or a group of countries that the firm exports to, and “Wn” (0 < Wn ≤ 1) is the weighted proportion of export value to this country or group of countries in the total export value of the firm.
According to Dow and Larimo (2009), three common scales of international experience are the number of previous foreign markets entries, the number of years of international experience, and the number of years of operational experience in the target market. In this study, we adapt the second scale to measure the firm’s international experience because it is the only available scale provided by our secondary dataset: the number of years that the firm has products for direct export (INTEXP).

In line with several previous studies (Axinn, 1988; Leonidou et al., 1998; McConnell, 1979; Orser et al., 2010; Simpson and Kujawa, 1974; , among others), the entrepreneur’s age (ENTAGE) is measured in number of years; the entrepreneur’s gender (ENTGEN) is a dummy variable with “male” = “1”, “female” = “0”; the entrepreneur’s education level (ENTEDU) is dummy variable with “lower education” = “0” for no professional education and vocational education, and “higher education” = “1” for technical secondary education, college/university and post university. Following Peng and Luo (2000), we distinguish two types of ties: ties with entrepreneurs/managers of other firms in the same or in a different sector (BUSTIE), and ties with government officials such as bank officials, politicians and civil servants (OFFTIE). These social ties are measured as the number of people that entrepreneur currently has regular contact with at least once every 3 month and perceived as useful for his/her business.

Control variables

Several empirical studies identified the relationship between export behavior and various organizational factors such as the firm’s industry (Cavusgil and Nevin, 1981; Christensen, Rocha and Gertner, 1987; Hessels and Terjesen, 2010; Kedia and Chhokar, 1985), its size measured by total annual sales or number of employees (Calof, 1993, 1994; Cavusgil and Nevin, 1981; Christensen et al., 1987; Gripsrud, 1990), its age (Hessels and Terjesen, 2010; Orser et al., 2010) and its location (Zhao and Zou, 2002). We use as control variables the firm’s size (measured by number of total permanent and full time employees, FIRSIZE) (Hessels and Terjesen, 2010), and its age (measured by number of years, FIRAGE) (Hessels and Terjesen, 2010). In the context of a developing country like Viet Nam, because there are huge differences in terms of infrastructural conditions between urban and rural areas, we code the firm’s location (FIRLOC1) as a dummy variables with “rural” = “0” and “urban” = “1”. In addition, we also introduce the provinces in which the firm localizes (a dummy variable with the “firm’s province” = “1”, “other” = 0) as an alternative control variable of its location (FIRLOC2): when the provincial location is introduced, the location “urban/rural” is removed from the modes in order to avoid the problem of redundancy. The firm’s industry (FIRINDU) is determined based on Vietnamese ISIC 4-digit code (1993) and there are three groups of firms: a
categorical variable with “1” = “Mining” (62 observations), “2” = “Manufacturing” (74 observations), and “3” = “Other” (5 observations).

Results

In line with previous studies (e.g., Hessels and Terjesen, 2010), we use binary or binomial logistic regression and introduce groups of variables in incremental steps (by block entry method) to test our first two hypotheses. Within each block, we choose the forced entry method (“Enter”) because of the theory testing nature of our hypothesis. Firstly, in model 1 (the base model), we only introduce control variables (firm’s size, age, industry location). In model 2, we add variables of psychic distance (geographic distance and psychic distance stimuli) to the base model. In model 3, variables of entrepreneur’s actual behavioral controls (age, gender, education, social ties, and international experience) are included and variables of geographic distance and psychic distance are excluded. In model 4, all groups of variables are introduced. Based on the testing results of Hypotheses 1 and 2, we will determine techniques to test Hypothesis 3, depending on whether entrepreneur’s actual behavioral controls play a mediating or moderating role.

Firstly, we tested for multicollinearity between the predictor variables by using variance inflation factors (VIFs). Almost all VIFs are well below 10 (from 1.12 to 1.99) except for geographic distance and psychic distance (12.47 and 11.52, respectively). This means that there is collinearity between two types of distance (Field, 2005: 260). To solve this problem, we did a factor analysis on these two predictors and used resulting factor scores (PSYGEO) as a new predictor (Field, 2005: 263). We then re-tested for multicollinearity and our results show that all VIFs are well below 10 (from 1.13 to 1.86).

The descriptive statistics (Table 2) show some interesting findings. First, the entrepreneur’s age and the firm’s age are positively and significantly correlated. To a certain extent, this means that in the context of SMEs, the organizational life cycle is strongly attached to its owners, i.e., entrepreneurs. Our assumption about the central role of entrepreneurs in SMEs is therefore appropriate. Second, the entrepreneur’s levels of education is negatively and positively correlated with the firm’s age: older entrepreneurs of more established firms are less educated than younger entrepreneurs of more recently established firms.

The results of the binomial logistic regression are presented in Table 3. Model 1 which only includes control variables shows that the firm’s age,
size, and locations significantly influence Vietnamese SMEs’ export mode choice: the more established the firms are, the less likely they are to export directly; larger firms are more likely to export directly than smaller ones; SMEs in urban areas are more likely to choose direct export than those in rural areas; and the firms in Ho Chi Minh City are more likely to export directly than any firms in other provinces.

Model 2 which includes controls variables and psychic distance shows three important findings: first, psychic distance does not significantly influence Vietnamese SMEs’ export mode choice; second, when psychic distance is introduced, none of the control variables significantly influences export mode choice; third, when psychic distance is introduced, the model’s explanatory power is poorer than in model 1: LR chi2 is very small (4.89) and Prob > chi2 is not significant (p-value = 0.43). This means that in the face of psychic distance, organizational factors (i.e., the firm’s age, size, industry, and locations) alone cannot appropriately explain the export mode choices of SMEs in our sample.

When entrepreneurs’ actual behavioral controls variables are introduced in model 3 (and psychic distance is excluded), the $R^2$ significantly (Prob > chi2 = 0.01) increases from 0.06 in model 2 to 0.29 in model 3, meaning that the model’s explanatory power increases about nearly 23 percent. Compared with model 1, the $R^2$ is also significantly increased from 0.13 in model 1 to 0.29 in model 3. This means that a model that integrates both the organizational and entrepreneur’s actual behavioral controls variables better explains the export mode choice of SMEs in our sample. Model 3 also reveals two interesting points: firstly, when the entrepreneur’s actual behavioral controls are introduced, only the firm’s industry matters for its export mode choice: manufacturing firms are more likely to export directly than mining ones. Secondly, among the entrepreneur’s actual behavioral controls, only the entrepreneur’s age and levels of educations significantly influence the firm’s export mode choice: older entrepreneurs are less likely to choose direct export than younger entrepreneurs; and entrepreneurs with higher level of education are more likely to export directly.

Finally, when all groups of variables are introduced in model 4, the $R^2$ slightly and significantly (Prob > chi2 = 0.01) increases from 0.295 to 0.299. This means that a model (i.e., model 4) that also integrates the differences between the home and host markets, i.e., psychic distance, better explains the export mode choice of SMEs in our sample than models that only include organizational and managerial factors (i.e., models 1 and 3). Once again, psychic distance variables do not influence Vietnamese SMEs’ export mode choice. Among the entrepreneur’s actual behavior controls and organizational factors, entrepreneurs’ age and levels of education, and firms’
industry still significantly influence SMEs’ export mode choice. In addition, while the impact of the entrepreneur does not change (log-odd = -0.10 in both models 3 and 4), the impact of the entrepreneur’s education is slightly increased (log-odd = 2.36 in model 3 and = 2.46 in model 4). This demonstrates the importance of education, rather than of age or experience in doing international business like exporting. Coming back to our hypotheses, we find no support for Hypothesis 1 while Hypothesis 2 is partially supported.

As we have seen, there is a relationship between the entrepreneur’s actual behavioral controls (age and levels of education) and the export mode choice. However, there is no relationship between psychic distance and the latter, nor between psychic distance and the entrepreneur’s actual behavior controls. Applying Baron and Kenny (1986) four steps in establishing mediation, the two first conditions concerning the relationship between the independent and the dependent variables, and between the independent and the mediating variables are not satisfied. There is therefore no chance for the entrepreneur’s actual behavioral controls to play the role of mediating variables (neither complete nor partial mediation) in the relationship between psychic distance and export mode choice. We, therefore, examine whether the entrepreneur’s actual behavioral controls (age and level of education) play a moderating role by applying Hayes and Matthes (2009) computational procedures for probing interactions in OLS and logistic regression. We expect the actual behavioral controls will significantly amplify or reverse the relationship between psychic distance and export mode choice. Concretely, in model 5, we introduce EXMODE as an outcome variable (Y), PSYGEO as a focal variable (X), ENTAGE as a moderator variable (M) and FIRAGE, FIRLOC as other predictors. In model 6, there is no change of Y, X and other predictors but ENTEDU replaces ENTAGE as moderator. Results are presented in Table 4.

We observe that there is no significant interaction between psychic distance and the entrepreneur’s actual behavioral controls, neither in models 5 or model 6. This means that there is no relationship between psychic distance (both geographic distance and psychic distance stimuli) and Vietnamese SMEs’ export mode choice, neither directly nor indirectly. In other words, the entrepreneur’s actual behavioral controls do not play a moderating role in the relationship between psychic distance and SMEs’ export mode choice. Hypothesis 3 is thus not statistically supported.

14 Also: http://davidakenny.net/cm/mediate.htm
15 Also: http://www.comm.ohio-state.edu/ahayes/SPSS%20programs/modprobe.htm
16 Also: http://davidakenny.net/cm/moderation.htm
Discussion

In this study, our first main finding is that psychic distance (geographic distance and psychic distance stimuli) does not significantly influence the export mode choice of Vietnamese SMEs. This means that although distances (or differences) between the home and the host countries often cause more problems for SMEs than for large firms, especially in developing and emerging economies, these difficulties are not determinants of the SMEs’ export mode choice. This is in line with findings of studies on international new venture (Oviatt and McDougall, 1994) or born-global (Knight and Cavusgil, 2004; Madsen and Servais, 1997) which argue that the incremental or stages models do appropriately not explain the internationalization phenomenon in the new context of globalization. The socio-economic, technological (transport and communication) and institutional (trade liberalization) changes provide international opportunities, not only for large firms but also for SMEs, both in developed and developing economies. Once export opportunities are identified, the distance or difference between the home and the host countries is not a major barrier of SMEs’ decision concerning whether to exploit or not (export propensity) and how to exploit these opportunities (export mode choice).

In addition, we find no evidence that the firm’s international experience significantly influences its export mode choice. In the context of globalization, with the progress of communication technologies, transportation, and institutional harmonization (trade liberalization), entrepreneurs in emerging economies can perhaps rapidly gain international knowledge and experience. Thus, the two fundamental propositions of psychic distance theory, i.e. the negative role of psychic distance on entry mode choice and the mediating role of international experience, are not affirmed in our study.

Contrary to our proposition, we find that social ties (business and official ties) do not significantly influence SMEs’ export mode choice. This is contrary to both theoretical and empirical suggestion of prior studies. For example, Welter and Smallbone (2011) and Peng and Luo (2000) argued that, in the context of developing and transition economies, because of the lack or weakness of formal institutions, entrepreneurs should rely on social ties (organizational and personal networks) to reduce uncertainty, to identify opportunities and to acquire resources. Thus, social ties should influence, to a certain extent, the way entrepreneurs behave, as well as their export mode choice. However, our results do not support this proposition.

As expected, the younger the entrepreneurs are, the more likely their firm will be to export directly. This is in line with previous studies, for
example McConnell (1979) suggests that young entrepreneurs are more risk-taking in international markets (i.e. direct export rather than indirect export). We also find that entrepreneurs who have higher levels of education are more likely to export directly. This result does not support the finding of Hessels and Terjesen (2010) who find no significant relationship between the business owner education and export mode choice. In addition, our study also does not support the relationship between the entrepreneur’s gender and the export mode choice suggested by prior studies (e.g., Orser et al., 2010). However, these two researches are taken in the Dutch and Canadian context, two developed economies while our sample is SMEs in Viet Nam, an emerging economy. We therefore need more evidence in the context of emerging economies to reach more consistent conclusions about the influence of these entrepreneur-related characteristics on SMEs’ export mode choice.

Finally, we find no statistical evidence that supports the mediating or moderating role of entrepreneurs’ actual behavioral controls in the relationship between psychic distance and export mode choice. Nevertheless, as mentioned above, when entrepreneur-related factors are added in models 3 and 4, the values of LR chi2, Prob > chi2 and R² are strongly improved: the LR chi2 increases from 22.70 from model 1 to 23.14 and 23.44 in models 3 and 4, respectively; the R² increases from .13 in model 1 to .27 and .28 in models 3 and 4, respectively. In other words, it seems that entrepreneur-related factors slightly moderate the impact of organizational factors on SMEs’ export behaviors: the organizational factors strongly and significantly influence SMEs’ export mode choice in model 1 that does not include the entrepreneur’s actual behavioral controls; when psychic distance is introduced (i.e., model 2), the organizational factors have lost their explanatory power; while the entrepreneur’s actual behavioral controls strongly improve the models’ explanatory (R²) power whether the psychic distance is introduced or not (models 3 and 4). It is also important to note that our study focuses on actual rather than perceived behavioral control, and on psychic distance stimuli rather than perceived psychic distance. As previous studies indicated (e.g., Ajzen, 1991; Dow and Larimo, 2009), the actual and perceived should be considered as two continuous levels rather two separate dimensions of behavioral controls and psychic distance. Because we only focus on actual behavioral controls, this could blur the impact of behavioral controls on the influence of environmental factors on the export mode choice. Thus, coming back to Reid (1981) proposition concerning the mediating and moderating role of entrepreneur-related factors, it seems that this proposition is still partially supported by our findings. However, we need more empirical studies on this issue.

In the case of Viet Nam, there are some specific characteristics that can explain some of our findings: first, the demand in export markets around
Viet Nam (with the exception of China), such as Cambodia and Laos is relatively small and unsophisticated. The biggest export market that is close to Viet Nam, not only in geographic terms, but also in terms of other dimensions of psychic distance - China is the market with which Viet Nam has the biggest trade deficit. Chinese firms export several products similar to those of Vietnamese firms and are champions in using competitive strategies based on low prices (mostly due to lower labor costs) that also are dominant competitive strategies of Vietnamese firms. Thus, Vietnamese firms should identify and exploit export opportunities in more distant markets (both in terms of geographic and psychic distance). In this context, compared to the questions of whether the firm has export opportunities or not, and of how to increase export sales, it seems that the question of export mode choice (direct or indirect export) is somewhat less important. In other words, the entrepreneurial and organizational characteristics, rather than the characteristics of export markets, would be the major antecedents of the export mode choice of Vietnamese firms.

**Conclusion**

In this study, based on the assumption of the central role of entrepreneur-related factors in the context of SMEs, we combine two different but complementary theories (Psychic Distance perspective and the Theory of Planned Behavior) to explain and predict the export mode choice of SMEs in an emerging economy. Overall, based on this new framework, we find that in the context of an emerging economy like Viet Nam, entrepreneur-related and organizational factors explain Vietnamese SMEs’ export mode choice better than environmental factors (i.e. macro differences or psychic distance between Viet Nam and countries that the firm exported to).

Our study contributes to the existing literature by at least two points: first, like certain authors suggested (e.g., Hoskisson *et al.*, 2000; Peng, Wang and Jiang, 2008; Shenkar and von Glinow, 1994; Welter and Smallbone, 2011), it provides additional evidence that the institution-based view is perhaps the most appropriate theoretical approach to understand the impact of environmental factors in general and the institutional ones in particular on the behaviors of firms in EE&TE. Second, we provided a conceptual model that combined two complementary theories: the PDp and TPB. Although this hybrid model is not strongly supported by the empirical results of our study, the key idea is that it would be better to mobilize different theoretical tools to study entrepreneurial phenomena that are complex and multidimensional. This suggestion becomes especially important when researchers aim to apply different theoretical models developed in developed countries to the context of EE&TE.
Our study has some major limitations: First, although our sample size is acceptable, it is somewhat small compared with current export studies that often have a sample size from 100 to 249 (Leonidou and Katsikea, 2010). Second, our dataset did not allow us to identify export markets of SMEs those only export indirectly (42 observations) or those only export to “Other” group (12 observations), and we had to exclude these firms from our sample. This could bias our results. Third, our dataset is cross-sectional and we cannot therefore conclude about causal relationships. Finally, due to the nature of our secondary dataset, we can only investigate the role of a limited number of entrepreneurs’ actual behavioral controls. Some important behavioral controls mentioned by previous export studies such as entrepreneurs’ international market experience gained by living or studying abroad have not been examined in this study.

However, based on the current study, there are several directions that future research can take to develop a better understanding of internationalization behavior in general and of export behavior of SMEs in particular. First, we think that the distinction between direct and indirect export is too simple because there are different kinds of actors/partners within each type of export mode, and that the decision of which actors/partners should be chosen is also important because it can influence the firm’s export performance. Second, as mentioned above, the actual and perceived behavioral controls and the psychic distance stimuli and perceived psychic distance should be considered as two continuous levels of behavioral controls and psychic distance rather than two separate dimensions. Studying the influence of these two continuous levels of behavioral controls and psychic distance could bring more insightful evidences to explain and predict export behavior. The concept of entrepreneurs’ actual behavioral controls needs to be clarified at both conceptual and operational levels. In addition, future research could distinguish and investigate the influence of different types of international knowledge and experience on SMEs’ internationalization behavior in order to obtain more refined results, as Dow and Larimo (2009) suggested. Third, in the context of emerging economies, the relationship between environmental factors and entrepreneur-related factors and their influence on SMEs’ export mode choice could also be investigated from another theoretical point of view, i.e. the institution-based view that is strongly suggested by many authors (e.g., Hoskisson et al., 2000; Peng et al., 2008; Shenkar and von Glinow, 1994; Welter and Smallbone, 2011). Finally, future research could investigate the influence of export mode choice on export performance, at both macro and micro-levels.

Our study has some implications for managers and policy makers. The major implication for managers is that the effort should be concentrated on improving their internal capability (i.e., behavioral controls) to overcome barriers in domestic and foreign markets (i.e., psychic distance). For policy
makers, because “both direct and indirect export activities are important for national economies” (Hessels and Terjesen, 2010: 217), the main question is how to assist entrepreneurs in order to reinforce their behavioral controls, on the one hand (through export promotion, export information, export credit among others, for example), and to reduce their barriers or distances in internationalization, on the other hand. In addition, Chinese market should be more investigated for opportunities because of its rapidly increasing incomes and living standards, and therefore increasing products and services demand. The major question is how to proactively increase the export market share of Vietnamese firms in the Chinese market? Theoretically, Vietnamese firms could use several strategic alternatives to exploit export opportunities in that market, such as cooperation and/or alliance with Western partners who could choose Viet Nam as the nearest and most favorable location to set up a subsidiary and export to China.

Acknowledgments

The authors gratefully acknowledge the financial support of the PIC-CUD project. They would like to thank CIEM-DANIDA project’s office in Ha Noi for their kind permission to use the 2007’s raw data. They also would like to thank Dr. Tran Dai Nghia, for his helpful methodological advices, and Dr. Utz Dornberger, for his helpful discussions at the 56th World Conference of ICSB. The helpful comments from reviewers of the Revue de l’Entrepreneuriat are kindly recognized. The perspectives presented in this paper belong to the authors.
# Appendices

## Table 1. Psychic distance stimuli between Viet Nam and other countries

<table>
<thead>
<tr>
<th>Countries</th>
<th>PDS</th>
<th>Countries</th>
<th>PDS</th>
<th>Countries</th>
<th>PDS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Afghanistan</td>
<td>0.6</td>
<td>Indonesia</td>
<td>0.4</td>
<td>Poland</td>
<td>0.7</td>
</tr>
<tr>
<td>Algeria</td>
<td>0.6</td>
<td>Iran</td>
<td>0.6</td>
<td>Portugal</td>
<td>0.9</td>
</tr>
<tr>
<td>Argentina</td>
<td>0.9</td>
<td>Iraq</td>
<td>0.6</td>
<td>Puerto Rico</td>
<td>0.8</td>
</tr>
<tr>
<td>Australia</td>
<td>1.1</td>
<td>Ireland</td>
<td>1.0</td>
<td>Qatar</td>
<td>0.7</td>
</tr>
<tr>
<td>Austria</td>
<td>1.0</td>
<td>Israel</td>
<td>1.0</td>
<td>Romania</td>
<td>0.8</td>
</tr>
<tr>
<td>Bahrain</td>
<td>0.7</td>
<td>Italy</td>
<td>1.1</td>
<td>Russian</td>
<td>0.9</td>
</tr>
<tr>
<td>Bangladesh</td>
<td>0.8</td>
<td>Jamaica</td>
<td>0.6</td>
<td>Samoa</td>
<td>0.7</td>
</tr>
<tr>
<td>Belgium</td>
<td>1.2</td>
<td>Japan</td>
<td>0.9</td>
<td>Saudi Arabia</td>
<td>0.7</td>
</tr>
<tr>
<td>Brazil</td>
<td>0.8</td>
<td>Jordan</td>
<td>0.7</td>
<td>Serbia</td>
<td>0.4</td>
</tr>
<tr>
<td>Bulgaria</td>
<td>0.9</td>
<td>Kazakhstan</td>
<td>0.5</td>
<td>Sierra Leone</td>
<td>0.6</td>
</tr>
<tr>
<td>Cameroon</td>
<td>0.5</td>
<td>Kenya</td>
<td>0.5</td>
<td>Singapore</td>
<td>0.9</td>
</tr>
<tr>
<td>Canada</td>
<td>1.2</td>
<td>Korea (North)</td>
<td>0.4</td>
<td>Slovakia</td>
<td>0.8</td>
</tr>
<tr>
<td>Chile</td>
<td>0.8</td>
<td>Korea (South)</td>
<td>1.0</td>
<td>Slovenia</td>
<td>0.9</td>
</tr>
<tr>
<td>China</td>
<td>0.3</td>
<td>Kuwait</td>
<td>0.8</td>
<td>Solomon Islands</td>
<td>0.8</td>
</tr>
<tr>
<td>Colombia</td>
<td>0.7</td>
<td>Laos</td>
<td>0.2</td>
<td>South Africa</td>
<td>0.8</td>
</tr>
<tr>
<td>Congo</td>
<td>0.4</td>
<td>Latvia</td>
<td>0.9</td>
<td>Spain</td>
<td>1.1</td>
</tr>
<tr>
<td>Cook Islands</td>
<td>0.7</td>
<td>Lebanon</td>
<td>0.8</td>
<td>Sri Lanka</td>
<td>0.3</td>
</tr>
<tr>
<td>Costa Rica</td>
<td>0.8</td>
<td>Libya</td>
<td>0.6</td>
<td>Sudan</td>
<td>0.6</td>
</tr>
<tr>
<td>Cote d’Ivoire</td>
<td>0.6</td>
<td>Lithuania</td>
<td>0.8</td>
<td>Suriname</td>
<td>0.6</td>
</tr>
<tr>
<td>Croatia</td>
<td>0.7</td>
<td>Luxembourg</td>
<td>1.1</td>
<td>Sweden</td>
<td>1.1</td>
</tr>
<tr>
<td>Czech Republic</td>
<td>1.1</td>
<td>Madagascar</td>
<td>0.6</td>
<td>Switzerland</td>
<td>1.1</td>
</tr>
<tr>
<td>Denmark</td>
<td>1.1</td>
<td>Malaysia</td>
<td>0.7</td>
<td>Syria</td>
<td>0.5</td>
</tr>
<tr>
<td>Ecuador</td>
<td>0.7</td>
<td>Malta</td>
<td>1.0</td>
<td>Taiwan</td>
<td>0.6</td>
</tr>
<tr>
<td>Egypt</td>
<td>0.6</td>
<td>Mexico</td>
<td>0.6</td>
<td>Tanzania</td>
<td>0.6</td>
</tr>
<tr>
<td>El Salvador</td>
<td>0.9</td>
<td>Morocco</td>
<td>0.8</td>
<td>Thailand</td>
<td>0.4</td>
</tr>
<tr>
<td>Estonia</td>
<td>1.0</td>
<td>Mozambique</td>
<td>0.7</td>
<td>Trinidad &amp; Tobago</td>
<td>0.9</td>
</tr>
<tr>
<td>Ethiopia</td>
<td>0.6</td>
<td>Myanmar</td>
<td>0.1</td>
<td>Turkey</td>
<td>0.9</td>
</tr>
<tr>
<td>Fiji</td>
<td>0.7</td>
<td>Nauru</td>
<td>0.8</td>
<td>Uganda</td>
<td>0.6</td>
</tr>
<tr>
<td>Finland</td>
<td>1.1</td>
<td>Nepal</td>
<td>0.7</td>
<td>Ukraine</td>
<td>0.8</td>
</tr>
<tr>
<td>France</td>
<td>1.1</td>
<td>Netherlands</td>
<td>1.1</td>
<td>United Arab Emirates</td>
<td>0.7</td>
</tr>
<tr>
<td>French Polynesia</td>
<td>0.8</td>
<td>New Caledonia</td>
<td>0.7</td>
<td>United Kingdom</td>
<td>1.1</td>
</tr>
<tr>
<td>Germany</td>
<td>1.2</td>
<td>New Zealand</td>
<td>1.2</td>
<td>United States of America</td>
<td>1.2</td>
</tr>
<tr>
<td>Ghana</td>
<td>0.6</td>
<td>Nigeria</td>
<td>0.7</td>
<td>Uruguay</td>
<td>0.9</td>
</tr>
<tr>
<td>Greece</td>
<td>0.9</td>
<td>Norway</td>
<td>1.0</td>
<td>Uzbekistan</td>
<td>0.4</td>
</tr>
<tr>
<td>Guam</td>
<td>1.0</td>
<td>Oman</td>
<td>0.7</td>
<td>Vanuatu</td>
<td>0.9</td>
</tr>
<tr>
<td>Guatemala</td>
<td>0.8</td>
<td>Pakistan</td>
<td>0.8</td>
<td>Venezuela</td>
<td>0.8</td>
</tr>
<tr>
<td>Hong Kong</td>
<td>0.5</td>
<td>Panama</td>
<td>0.8</td>
<td>Yemen</td>
<td>0.6</td>
</tr>
<tr>
<td>Hungary</td>
<td>0.8</td>
<td>Papua New Guinea</td>
<td>0.8</td>
<td>Zambia</td>
<td>0.6</td>
</tr>
<tr>
<td>Iceland</td>
<td>1.1</td>
<td>Peru</td>
<td>0.7</td>
<td>Zimbabwe</td>
<td>0.5</td>
</tr>
<tr>
<td>India</td>
<td>0.7</td>
<td>Philippines</td>
<td>0.7</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source: Adapted from [http://www.mbs.edu/home/dow/research/](http://www.mbs.edu/home/dow/research/)
Table 2. Descriptive statistics and Spearman correlations matrix

<table>
<thead>
<tr>
<th>#</th>
<th>Variables</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
<th>10</th>
<th>11</th>
<th>12</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>EXMODE</td>
<td>1.00</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>FIRAGE</td>
<td>-0.20*</td>
<td>1.00</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>FIRSIZE</td>
<td>0.23**</td>
<td>-0.09</td>
<td>1.00</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>FIRINDU</td>
<td>0.07</td>
<td>0.07</td>
<td>-0.09</td>
<td>1.00</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>FIRMLOC1</td>
<td>-0.16</td>
<td>0.05</td>
<td>0.04</td>
<td>0.08</td>
<td>1.00</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>ENTAGE</td>
<td>-0.23**</td>
<td>0.26**</td>
<td>0.08</td>
<td>-0.01</td>
<td>0.02</td>
<td>1.00</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>ENTGEN</td>
<td>0.08</td>
<td>-0.05</td>
<td>-0.02</td>
<td>-0.20*</td>
<td>-0.06</td>
<td>-0.29*</td>
<td>1.00</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>ENTEDU</td>
<td>0.22**</td>
<td>-0.25**</td>
<td>0.19*</td>
<td>0.02</td>
<td>-0.13</td>
<td>-0.10</td>
<td>-0.03</td>
<td>1.00</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>9</td>
<td>BUSTIE</td>
<td>-0.07</td>
<td>-0.01</td>
<td>0.03</td>
<td>0.06</td>
<td>0.15</td>
<td>0.12</td>
<td>-0.10</td>
<td>0.06</td>
<td>1.00</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>10</td>
<td>OFFTIE</td>
<td>0.05</td>
<td>0.01</td>
<td>0.16</td>
<td>0.03</td>
<td>0.06</td>
<td>0.10</td>
<td>0.03</td>
<td>0.15</td>
<td>0.00</td>
<td>1.00</td>
<td></td>
<td></td>
</tr>
<tr>
<td>11</td>
<td>INTEXP</td>
<td>-0.06</td>
<td>0.44**</td>
<td>0.03</td>
<td>-0.20*</td>
<td>0.03</td>
<td>0.20</td>
<td>0.10</td>
<td>-0.09</td>
<td>0.19</td>
<td>-0.08</td>
<td>1.00</td>
<td></td>
</tr>
<tr>
<td>12</td>
<td>PSYGEO</td>
<td>0.03</td>
<td>-0.23*</td>
<td>0.27*</td>
<td>-0.18</td>
<td>-0.06</td>
<td>-0.08</td>
<td>-0.11</td>
<td>0.04</td>
<td>-0.07</td>
<td>0.03</td>
<td>-0.04</td>
<td>1.00</td>
</tr>
</tbody>
</table>

Note: * p < 0.05; ** p < 0.01
Table 3. Binomial logistic regression estimates (indirect export = reference category)

<table>
<thead>
<tr>
<th>Control variables (firm’s attributes)</th>
<th>Model 1</th>
<th>Model 2</th>
<th>Model 3</th>
<th>Model 4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age</td>
<td>-0.06*</td>
<td>-0.00</td>
<td>0.14</td>
<td>0.16</td>
</tr>
<tr>
<td>Size</td>
<td>0.01**</td>
<td>0.00</td>
<td>-0.00</td>
<td>-0.00</td>
</tr>
<tr>
<td>Industry</td>
<td>0.48</td>
<td>0.86</td>
<td>1.47*</td>
<td>1.51*</td>
</tr>
<tr>
<td>Location 1 (urban/rural)</td>
<td>-0.97*</td>
<td>-0.99</td>
<td>-1.10</td>
<td>-0.97</td>
</tr>
<tr>
<td>Location 2 (provinces)**</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Psychic distance</td>
<td>0.12</td>
<td>0.21</td>
<td>1.24</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Entrepreneur’s actual behavior controls</th>
<th>Model 1</th>
<th>Model 2</th>
<th>Model 3</th>
<th>Model 4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender</td>
<td></td>
<td>-0.06*</td>
<td>-0.10**</td>
<td>-0.10*</td>
</tr>
<tr>
<td>Age</td>
<td></td>
<td>0.94</td>
<td>0.91</td>
<td>0.91</td>
</tr>
<tr>
<td>Levels of education</td>
<td>2.36*</td>
<td>10.63</td>
<td>2.46*</td>
<td>11.74</td>
</tr>
<tr>
<td>Business ties</td>
<td>-0.01</td>
<td>1.00</td>
<td>-0.01</td>
<td>1.00</td>
</tr>
<tr>
<td>Official ties</td>
<td>-0.02</td>
<td>0.98</td>
<td>-0.02</td>
<td>0.98</td>
</tr>
<tr>
<td>International experience**</td>
<td></td>
<td>-0.10</td>
<td>-0.12</td>
<td>0.89</td>
</tr>
<tr>
<td>Constant</td>
<td>0.58</td>
<td>1.38</td>
<td>0.77</td>
<td>0.41</td>
</tr>
</tbody>
</table>

| Observation | 126(c) | 84     | 84      | 84      |
| LR chi2     | 22.70  | 4.89   | 24.98   | 25.31   |
| Prob > chi2 | 0.00   | 0.43   | 0.01    | 0.01    |
| Pseudo R2   | 0.13   | 0.06   | 0.29    | 0.30    |
| Log likelihood | -75.73 | -39.86 | -29.82  | -29.66  |

Note: * p < 0.05, ** p < 0.01; (a) when the provincial location (9 provinces: Ha Noi, Ho Chi Minh City, Hai Phong, Ha Tay, Long An, Quang Nam, Nghe An, Khanh Hoa, Lam Dong) is introduced, the location of “urban/rural” is removed from the models in order to avoid the problem of redundancy. The statistical results showed that the firm’s location in some provinces (i.e., Ho Chi Minh City (1.25**), Ha Tay -1.40*, Lam Dong -2.27*) significantly influence the export mode choice in model 1; Ha Tay (-2.24*) in model 2; and Lam Dong (-3.73*) in model 3. However, these influences did not change the whole directions of models; (b) measured at the firm level but introduced in models as one aspect of entrepreneur’s actual behavioral controls because the central role of entrepreneur in the context of SMEs, and this does not change the nature of statistical results; (c) the number of observation is higher in this model than in other models because it is not constrained by information about the firm’s export markets.
### Table 4. Moderating effect of entrepreneur’s actual behavioral control

<table>
<thead>
<tr>
<th></th>
<th>Model 5</th>
<th></th>
<th></th>
<th></th>
<th>Model 6(*)</th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>B</td>
<td>SE</td>
<td>Wald</td>
<td>Exp(B)</td>
<td>B</td>
<td>SE</td>
<td>Wald</td>
<td>Exp(B)</td>
</tr>
<tr>
<td>Constant</td>
<td>2.76</td>
<td>1.65</td>
<td>2.82</td>
<td>15.83</td>
<td>-1.91</td>
<td>1.14</td>
<td>2.80</td>
<td>0.15</td>
</tr>
<tr>
<td>FIRAGE</td>
<td>0.08</td>
<td>0.07</td>
<td>1.19</td>
<td>1.08</td>
<td>0.06</td>
<td>0.07</td>
<td>0.77</td>
<td>1.06</td>
</tr>
<tr>
<td>FIRLOC1</td>
<td>1.89</td>
<td>0.75</td>
<td>6.44</td>
<td>6.64</td>
<td>2.15</td>
<td>0.73</td>
<td>8.81</td>
<td>8.60</td>
</tr>
<tr>
<td>PSYGEO</td>
<td>0.46</td>
<td>1.48</td>
<td>0.10</td>
<td>1.59</td>
<td>-0.58</td>
<td>0.65</td>
<td>0.78</td>
<td>0.56</td>
</tr>
<tr>
<td>ENTAGE</td>
<td>-0.08</td>
<td>0.03</td>
<td>5.71</td>
<td>0.93</td>
<td>1.38</td>
<td>0.75</td>
<td>3.36</td>
<td>3.99</td>
</tr>
<tr>
<td>PSYGEO*ENTAGE</td>
<td>-0.01</td>
<td>0.03</td>
<td>0.04</td>
<td>0.99</td>
<td>0.96</td>
<td>0.75</td>
<td>1.64</td>
<td>2.61</td>
</tr>
<tr>
<td>Nagelkerke $R^2$</td>
<td>0.28</td>
<td></td>
<td></td>
<td></td>
<td>0.24</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>$-2 \text{ Log likelihood}$</td>
<td>68.38</td>
<td></td>
<td></td>
<td></td>
<td>70.60</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Note: $N = 84$

(*) ENTAGE was replaced by ENTEDU
References


Essay 2. Sub-National Market-Supporting Institutions and Export Behaviors

Abstract
Following the institution-based view, this paper examines whether the market-supporting institutions at the sub-national level influence export behaviors (i.e. export propensity, export mode choice and export intensity) of firms in the context of an emerging economy, i.e. Viet Nam. By using logistic and tobit regressions to analyze a dataset of 7818 Vietnamese firms, including 719 exporting firms, we find that the different elements of the market-supporting institutions do not have a similar impact on the firms’ decisions to export and that the different types of firms do not behave in the same manner in responding to these institutional constraints. Concretely, we find that export propensity is mainly and negatively influenced by the provincial financial conditions. The provincial attitude, bureaucracy, legal and informal charges positively drives the firm’s export intensity. The predictability of domestic laws and regulations negatively influences the firm’s export intensity. In addition, institutions do matter more for smaller, younger and private firms. Nevertheless, the influence of sub-national market supporting institutions on export mode choice is ambiguous.

Key words
Institutions, transition, export, Viet Nam

Introduction

The firms from emerging economies are raising their importance in the global economy (Bruton, Ahlstrom and Obloj, 2008; Wright et al., 2005) through common internationalization strategies such as exporting (Aulakh, Kotabe and Teegen, 2000) or foreign direct investment (Yamakawa, Peng and Deeds, 2008). Entrepreneurship plays a major role in the development of emerging economies, but there is little knowledge about the entrepreneurial phenomenon in these economies (Bruton et al., 2008). Emerging economies, including transition economies (Hoskisson et al., 2000; Peng, 2003), are defined as economies that have “a rapid pace of economic development, and government policies favoring economic liberalization and the adoption of a free-market system” (Hoskisson et al., 2000: 63). However, when studies look at emerging economies, they often focus on China, Brazil, Russia and countries of the former Soviet Union and ignore other emerging economies (Bruton et al., 2008; Hoskisson et al., 2000; Wright et al., 2005). This is somewhat surprising because emerging economies are heterogeneous, not only by their context of development, i.e. their socio-economic, political and cultural conditions (Hoskisson et al., 2000; Wright et al., 2005), but also by their process of development, i.e. their degree or phase of development (Meyer et al., 2009; Peng, 2003), and because entrepreneurs in different emerging economies behave differently to deal with problems in their own institutional environment, like the problem of bureaucracy, for instance (Luo and Junkunc, 2008).

The business environment of emerging and transition economies (i.e., EE&TE) is highly volatile and unpredictable mainly because they lack strong formal market-supporting institutions, especially in their early phase of transition (McMillan, 1995; Peng, 2003). In this context, certain authors argue that the firm’s strategy can be better explained and predicted by the institution-based view, followed by the industry-based view and the resource-based view (Hoskisson et al., 2000; Meyer and Peng, 2005; Peng, Wang and Jiang, 2008; Shenkar and von Glinow, 1994; Wright et al., 2005). Numerous studies have used the institution-based view to explain and predict the firm’s internationalization behavior in the context of developed economies, i.e., DE (e.g., Coeurderoy and Murray, 2008; Descotes et al., 2011; Hessels and Terjesen, 2010), or the internationalization behavior of firms from DE in EE&TE (e.g., Estrin et al., 2008; Meyer et al., 2009; Meyer and Nguyen, 2005). However, only a few studies do the same effort to explain and predict the internationalization and export behavior of firms from EE&TE to DE or to other EE&TE (Gao et al., 2010; Nguyen, Le and Bryant, 2012; Wright et al., 2005; Yamakawa et al., 2008). In addition,

2 Peng et al. (2009) provided an excellent explanation to the question “Why the institution-based view label for strategy” rather than “institutional theory” or “institutional economics”. 
despite the fact that institutional conditions vary not only between countries, but also within a country and between industries (Gao et al., 2010; Wright et al., 2005), these studies often focus on national institutions and neglect the sub-national institutional level (Meyer and Nguyen, 2005). However, these lower institutional levels play an important role because they regulate the firms’ day-to-day activities (Luo and Junkunc, 2008). In other words, the institution-based view has been recently called as a theoretical promise to explain and predict the entrepreneurial phenomena of EE&TE, but its framework (at both conceptual and operational levels) and its explanatory power need to be clarified and examined in larger scope and scale (Hoskisson et al., 2000; Peng et al., 2009; Peng et al., 2008; Welter and Smallbone, 2011; Wright et al., 2005).

The current study aims at investigating the impact of the market-supporting institutions at sub-national level on the export behaviors of firms in the context of an emerging economy in Southeast Asia, i.e. Viet Nam3 (Arnold and Quelch, 1998; Ellis, 2010). Specifically, our research question is “Do the market-supporting institutions at the sub-national level influence the export behaviors (i.e. export propensity, export mode choice and export intensity) of Vietnamese firms?”4 Viet Nam is seen as a promising research context to validate the institution-based view (Peng and Heath, 1996), but until now, there have only been a few responses (Meyer and Nguyen, 2005; Nguyen et al., 2012). Our study will enlarge the scope of investigation of export studies beyond the usually studied emerging economies such as China, Brazil, South Africa, Russia or countries in Central and Eastern of Europe (Aulakh et al., 2000; Calof and Viviers, 1995; Christensen, Rocha and Gertner, 1987; Gao et al., 2010; Shinkle and Kriauciu纳斯, 2010; Zhao and Zou, 2002). In addition, as mentioned above, we analyze the impact of market supporting institutions at the sub-national level rather than at the national level. Our study differs from prior studies that also investigate the impact of Viet Nam’s sub-national market-supporting institutions on the firm’s internationalization behavior (i.e. Meyer and Nguyen, 2005; Nguyen et al., 2012) because we focus on (i) exporting rather than on foreign direct investment, and (ii) domestic firms rather than on foreign firms; (iii) the impact of the domestic institutional environment on the firm’s export behaviors rather than on the firm’s performance; (iv) several dimensions of the domestic institutional environment, both formal and informal ones, rather than only on state owned enterprises (SOEs) bias and transparency.

3 As firms in other emerging and transition economies, export is the main foreign market entry mode of Vietnamese SMEs. Export plays a crucial role in national economy because it accounts for about 77.5% of GDP in 2010 (World Data Bank). Viet Nam is also a major supplier of many agricultural products (e.g., rice, coffee, pepper, rubber, seafood, etc.) and light manufactured products (e.g., garment, footwear, etc.) for the world market.

4 By “sub-national”, we mean the provincial level. More detailed explanations will be provided in the methodological section.
The rest of this paper is structured as follows: in the next section, based on the institution-based view and the results of previous empirical studies, we develop our hypotheses about the relationship between the market-supporting institutions at the sub-national level and the export behaviors (i.e. export propensity, export mode choice, and export intensity) of Vietnamese firms. The third section describes the data, variables and measurements used in our study. The research results are presented and discussed in the fourth and the fifth sections, respectively. The sixth section concludes this article, stresses our study’s contributions, limitations and its implications for future research and policy makers.

Theories and hypotheses

In this section, we first clarify the conceptual background of the market-supporting institutions, i.e., their nature, dimensions, elements and types of impact on the behavior of firms in EE&TE. We then contextualize the heterogeneity of market-supporting institutions at the sub-national level of Viet Nam, in which our firms operate. Finally, we develop our hypotheses about the impact of sub-national market-supporting institutions on the export behaviors of Vietnamese firms.

EE&TE and market-supporting institutions

As defined above, emerging economies are economies whose governments adopt the free-market system and favor policies of economic liberalization (Hoskisson et al., 2000). In contrast to non-market based economies, especially the central planned economies that comprehensively use the central economic planning and bureaucratic control (Peng and Heath, 1996), market-based economies function on basis of the market mechanism and, more generally, of the principle of economic freedom that can be defined as “all liberties and rights of production, distribution, or consumption of goods and services” (Miller and Holmes, 2011: 20). According to Miller and Holmes (2011: 20), “… The highest form of economic freedom should provide an absolute right of property ownership; fully realized freedoms of movement for labor, capital, and goods; and an absolute absence of coercion or constraint of economic liberty beyond the extent necessary for citizens to protect and maintain liberty itself. In other words, individuals in an economically free society would be free and entitled to work, produce, consume, and invest in any way they choose under a rule of law, with their freedom at once both protected and respected by the state”. Institutions are defined as “the rules of the game in a society or, more formally … the humanly devised constraints that shape the human interaction … and human exchange, whether political, social, or economic” (North, 1990: 3). Thus, the
market-supporting institutions can be defined as “the set of fundamental political, social and legal ground rules that establishes the basis for production, exchange and distribution” (Davis and North, 1971: 6) and that bases on and guarantees (supports) the principles of market mechanism and, more generally, the economic freedom. The main function of market-supporting institutions is to “ensure that property rights are respected, that people can be trusted to live up to their promises, that externalities are held in check, that competition is fostered, and that information flows smoothly” (McMillan, 2007).

Like institutions in general, the market-supporting institutions can be classified into formal and informal institutions (North, 1990), or into regulative - normative - cognitive dimensions (Scott, 2001). The difference between these dimensions or aspects of institutions (i.e. between the formal and informal institutions, between the regulative, normative and cognitive pillars of institutions, and also between the economic and sociological classification of institutions) is one of degree and perspective (North, 1990; Peng et al., 2009). These institutional dimensions or aspects also interrelated by the compensatory structure: when the formal institutions fail, the informal institutions will play a larger role in societies and economies (Peng et al., 2009: 68). At an operational level, Meyer et al. (2009) argue that the major elements of market-supporting institutions are the legal framework and its enforcement, property rights, information systems and regulatory regimes. In their turn, Peng and Heath (1996) suggest that emerging-transition economies often lack three strong formal market-supporting institutions: (i) the property-rights-based legal framework; (ii) the political certainty; (iii) and developed strategic factor markets (financial markets, for example). The World Bank (2002) groups market-supporting institutions into three pillars: (i) the firm (land, financial, technology, innovation and governance); (ii) the government (political institutions, taxation, judicial systems, competition, regulation of infrastructure); and (iii) the society (norms and networks, media). However, the most comprehensive and exhaustive classification of market-supporting institutions is probably the economic freedom index developed by the Heritage Foundation (Meyer et al., 2009). According to this foundation, market-supporting institutions can be grouped into ten pillars: (i) business freedom; (ii) trade freedom; (iii) fiscal freedom; (iv) government spending; (v) monetary freedom; (vi) investment freedom; (vii) financial freedom; (viii) property rights; (ix) freedom of corruption; and (x) labor freedom (Miller and Holmes, 2011).

The market-supporting institutions can have different types of impacts on the firm’s behavior: they can be either facilitating/enabling or troubling/constraining forces of entrepreneurial behavior (Hoskisson et al., 2000; Welter and Smallbone, 2011), and their degree of impact varies between types of firms because each type of firm - i.e. incumbent firms,
entrepreneurial start-ups and foreign entrants - faces different degrees of institutional pressures (Peng, 2003). Meyer et al. (2009: 63) argue that the impact (i.e., the degree of troubling/facilitating) of market-supporting institutions can be considered as strong “if they support the voluntary exchange underpinning an effective market mechanism” and as weak “if they fail to ensure effective markets or even undermine markets (as in the case of corrupt business practices)”. In DE, the impact of market-supporting institutions is almost invisible because the markets work smoothly; by contrast, in EE&TE, this impact is more conspicuous when the markets work poorly (McMillan, 2007). The lack or weakness of strong formal market-supporting institutions makes the business environment of EE&TE become extremely volatile and unpredictable. In this context, in order to gain advantage, firms generally and mainly rely on relationship-based strategies, rather than on resources-based or capabilities-based ones (Peng and Heath, 1996). The influence of informal institutions, either under facilitating or troubling form, on the firms’ behavior and on their interactions/transactions is therefore more crucial than the one of formal institutions (Peng, 2003).

In sum, the market-supporting institutions are political, social and legal ground rules that establishes the basis for production, exchange and distribution based on and to guarantee/support the principles of the market mechanism, i.e., the freedom of making economic transactions. The market-supporting institutions can be categorized as formal or informal, and they consist of different elements that can be either facilitating or troubling forces of the firm’s behaviors. The next section will contextualize the heterogeneity of market-supporting institutions at the sub-national level of Viet Nam, in which our firms operate.

**Heterogeneity of market-supporting institutions at sub-national level in Viet Nam**

Like China, Eastern Europe and the former Soviet countries, Viet Nam is an emerging-transition economy. The Vietnamese economy has been centrally

---

5 In other words, if we consider the impact of the institutional environment (i.e., market-supporting institutions) on the firm’s behaviors going from \([-\infty]\) to \([\infty+]\), this impact would be close to the middle (i.e., zero [0]) in the context of DE whose institutions, at least the formal ones, are very well established and do not significantly matter (i.e., low institutional transaction costs) for the firm’s behavior. In other words, the institutional environment could be assumed as “background” (Peng et al., 2009) and the firm’s strategic choices and success are mainly influenced by its internal resources and capabilities rather than by external institutional environment. In the context of EE&TE, however, this impact cannot be neglected because it significantly constrains/troubles \([-\infty]\) or enables/facilitates \([\infty+]\) the firm’s strategic choices and therefore its success.

6 Peng and Heath (1996: 505) also argue that the strong constraints of informal institutions ‘can either arise from a country’s long cultural tradition or emerge as a consequence of more formal constraints’. 
planned for a long time: from 1945 to 1975 in the North, and from 1975 to 1986 in the whole country (Dang, 2005). The transition process from a centrally planned to a market-based economy has been informally initiated in the agricultural sector and by local authorities in the middle of the 60s, but this process has only been recognized at the central level and for all sectors since 1986, at the Sixth Congress of Vietnam’s Communist Party (Dang, 2006). Like China, Viet Nam has chosen a gradualist policy rather than shock therapies like Russia or Poland (Peng, 2003). The market-based legal framework has been incrementally built and improved for investment (Investment Law), business creation and doing business (Law of Enterprise, Law of Commerce, Competition Law, E-commerce Law, Bankruptcy Law, and Law of Audit) and property rights (Land Law, Law of Intellectual Rights). In addition, the international integration process of Viet Nam became more and more intensive: in 1995, the country joined ASEAN, and then APEC in 1998. The USA-Viet Nam bilateral trade agreement (BTA) became effective in 2002, and, in 2007, Viet Nam officially became a member of WTO. In fact, these institutional changes generate both international opportunities and challenges for Vietnamese firms, especially firms (Kokko and Sjöholm, 2004).

Viet Nam is politically homogeneous because its policy is based on a single party regime. However, that does not mean that the institutions in general and the market-supporting institutions in particular are homogeneous within the country. After more than 20 years of reform toward a market-based economy, there are significant differences in terms of level of socio-economic development between regions and between provinces in Viet Nam, especially between Northern and Southern provinces, between mountain and delta regions, and between rural and urban areas. According to certain authors, the heterogeneity in socio-economic development between regions and between provinces in Viet Nam is the effect of the

---

7 In the Vinh Phuc province, the local authorities tried to give more rights (labor, land, production, and distribution) to agricultural cooperatives and farmers under the form of contracts (“khoan ho”) in the middle of the 60s. This institutional innovation was strongly criticized by central authorities, and was put to a stop in the late 60s. Then, the authorities of some other provinces such as Hai Phong also tried to apply similar “fence-breaking” policies (Malesky, 2004) at the beginning of the 80s. However, the central authorities only approved this institutional change in the late 80s, when the socio-economic conditions became pressing (Dang, 2006).

8 Malesky, Abrami and Zheng (2011) argue that the socio-economic inequality between regions and between provinces in Viet Nam is still lower than in China. For example, the Gini coefficient (a common indicator to measure the inequality of income or wealth with a value of 0 expressing total equality and a value of 1 maximal inequality) of China in 2004 is about 0.47 while for Viet Nam it is about 0.37. In the period of 1993-2006, the Gini coefficient in China also rose faster than in Viet Nam (1.35% compared to 0.55%). All other indicators such as life expectancy, infant mortality, and access to health care also demonstrate that Viet Nam does better in the social distribution task of economic growth than its Northern neighbor (Malesky et al., 2011).
heterogeneity of market-supporting institutions, and the latter, in its turn, is the consequence of socio-economic and political conditions. For example, Meyer and Nguyen (2005) argue that the heterogeneity of market-supporting institutions at the provincial level in Viet Nam can be an effect of decentralizing the legal framework by giving more authority to provincial officials. For instance, the Investment Law (1996, 2005) gives the provincial government the right/responsibility to approve certain levels of FDI projects (e.g., by capital size). On the other hand, central laws and regulations are not always clearly defined and can thus be heterogeneously interpreted and implemented by local governments (Meyer and Nguyen, 2005). In other words, there are both intended and unexpected effects of decentralization at sub-national level in the legal framework of Viet Nam. Nguyen et al. (2004) find that although the socio-economic conditions of the Northern provinces (i.e., Ha Noi and its provincial periphery) and of the Southern provinces (i.e., Ho Chi Minh city and its provincial periphery) are almost the same, and even more favorable for some conditions like labor and education in the former, the latter always achieved a higher economic growth rate. That is because the market-supporting institutions - i.e. the extent to which local authorities favor market mechanism, especially land and capital transactions, the attitude of local authorities toward private sector and the autonomy of business association - are more stimulated by public policy in the Southern provinces than in the Northern provinces. From a political science’s perspective, Malesky (2004) shows that there is a certain degree of provincial autonomy in Viet Nam, and that this political phenomenon can be explained by differences in terms of geographic location, of the initial conditions on the eve of reform and of the provincial economic structure related to ownership. Malesky et al. (2011) go one step further by arguing that, contrary to China, that also has a single party regime, but where the central authorities have total power, Vietnamese local leaders play an important role in the political selection processes of Viet Nam’s Communist Party, and the Central Committee accepts local autonomy to a certain extent. In other words, the heterogeneity of the market-supporting institutions in Viet Nam could also be an effect of political framework (Acemoglu, Johnson and Robinson, 2005).

Several projects, such as Doing Business, the Global Entrepreneurship Monitor (GEM) or the Economic Freedom Index have tried to measure and analyze the relationship between market-supporting institutions and firms’ behavior in a cross-national context. Within a single country, to our knowledge, the situation is less sound. In Viet Nam, the most comprehensive database about the institutional environment at the sub-national level is the Provincial Competitiveness Index (PCI) developed by the Viet Nam Chamber of Commerce and Industry (VCCI). This database includes different elements and aspects of market-supporting institutions that will be detailed in the methodological part of this article. This database has
already been used by some authors to examine the influence of sub-national institutions on the firm’s decisions to move from the informal, i.e. household businesses, to the formal economy, i.e. registered companies (Malesky and Taussig, 2009a), on the performance of bank lending in Viet Nam (Malesky and Taussig, 2009b), and on the firm’s export strategy (i.e. export intensity) and performance (Nguyen et al., 2012). These previous studies support the hypothesis of the existence of institutional heterogeneity at sub-national level (i.e., provincial) in Viet Nam and its significant impact on the behavior of local firms.

In sum, the heterogeneity of market-supporting institutions at the sub-national level, either to be explained by its effect - the socio-economic differences between regions and between provinces, etc. - or by its antecedents - the decentralization and the ambiguity of the national legal framework, the attitude toward entrepreneurship of local authorities or the political characteristics, etc. - is a concrete phenomenon in Viet Nam. We can therefore expect these sub-national institutions to influence, at least to a certain extent, the export behaviors of local firms. The unknown is whether different aspects and elements of the sub-national market-supporting institutions have different types of impact (i.e., troubling or facilitating impacts) on the export behaviors of Vietnamese firms. The next section details some theoretical mechanisms and empirical proofs that allow us to develop our hypotheses.

**Sub-national market-supporting institutions and export behaviors**

Exporting is the common internationalization strategy of firms, especially small and medium size enterprises (SMEs) and firms that come from EE&TE because, compared to other internationalization strategies (e.g. licensing, franchising, foreign direct investment, joint ventures), it involves “fewer resources, lower risk, and less costs” (Leonidou, Katsikea and Coudounaris, 2010: 78). There are four major strategic questions that the firms should address in exporting: (i) Whether to export or not? (Export propensity); (ii) Where to export (Export markets); (iii) How to export? (Export mode choice, i.e. direct or indirect exporting); and (iv) How much to export? (Export intensity). The current study deals with three of these four strategic choices in order to know whether they are influenced by formal and informal institutions at sub-national level (Peng et al., 2009).

---

9 Export intensity (i.e. percentage of export sales in total sales) is often considered as one aspect of export performance (Katsikea, Leonidou and Morgan, 2000; Matthyssens and Pauwels, 1996). In this study, following Gao et al. (2010), we consider export intensity as an aspect of export behaviors.
Strong market-supporting institutions (e.g., stable, enforceable and pro-competition rules and regulations) minimize transaction costs (McMillan, 2007) and therefore not only reduce uncertainty but also enable firms to effectively and efficiently access and deploy resources and capabilities (North, 1990). Compared to doing business in the domestic market, “going abroad”, and exporting in particular, involves more risk and uncertainty, on the one hand, and requires more resources and capabilities, like international market knowledge and experience, on the other (Johanson and Vahlne, 1977). Compared to indirect exporting, direct exporting requires firms to invest more resources and capabilities to establish, maintain and control exporting activities (Hessels and Terjesen, 2010). It also involves a long-term relationship with foreign partners that normally require more transparent and stable market institutions. Similarly, if firms increase their export intensity, i.e. the level of export sales in the firm’s total sales, they will need more resources and capabilities to manage larger risks and uncertainty in both the home and foreign markets. Thus, we can suppose that market-supporting institutions are crucial parameters for firms in deciding whether to export or not (export propensity), how to export (export mode choice), and how much to export (export intensity).

As described above, numerous empirical studies have used the institution-based view to explain and predict the internationalization behavior of firms in the context of DE, or of firms from DE in EE&TE, but not of exporting local firms in EE&TE (Filatotchev et al., 2001). Based on our research question, we only present the results of the few empirical studies that have used the institution-based view to investigate the internationalization behavior of local firms in EE&TE, especially those looking at exporting and those looking at Viet Nam. In their study of 9,123 firms in 72 emerging economies, Luo and Junkunc (2008) focus on the negative impact of institutions (i.e., the problem of bureaucracy that is ubiquitous in these economies) and find that firms could have two generic strategic responses: (i) a reactive strategy (i.e. engagement) in which entrepreneurs attempt to satisfy prevailing rules and regulations; (ii) a proactive strategy (i.e. influence) in which entrepreneurs try to shape the rules and regulations. They also stress that the relationship between bureaucracy and firms’ strategic responses is moderated by firms’ entrepreneurial type, governance and location. In the context of China, Gao et al. (2010) focus on the positive impact market-supporting institutions and find that the development of free market mechanisms and of intermediate institutions significantly and positively influence the firms’ export behaviors: the stronger the market-supporting institutions are, the more likely Chinese firms are to export and to increase their export sales. However, they find that this positive impact is not moderated by the firm’s ownership, i.e., domestic private enterprises and foreign wholly owned subsidiaries. In their cross-countries study of Egypt, India, South Africa, and
Viet Nam, Meyer et al. (2009) find that the development of market-supporting institutions significantly influences the foreign investors’ entry mode choice in emerging economies: the stronger the market-supporting institutions are, the less likely the foreign investors are to choose joint ventures rather than Greenfield and acquisition. In the context of Viet Nam, Meyer and Nguyen (2005) find that the market-supporting institutions at the sub-national level significantly influence the entry strategy (i.e. location choice and mode choice) of foreign direct investors: the provinces where market-supporting institutions are more developed receive more FDI than others; in these provinces, foreign investors are also more likely to choose Greenfield rather than joint ventures as an entry mode. Unfortunately, these two last studies (i.e., Meyer et al., 2009; Meyer and Nguyen, 2005) do not investigate whether the impact of institutions is moderated by the firm’s attributes. Recently, in their study on the interaction between provincial institutions and export strategy (i.e., export intensity) of Vietnamese firms, Nguyen et al. (2012) find that the province’s SOEs bias is significantly and negatively associated with the firm’s export intensity: Vietnamese private manufacturing firms tend to increase their export sales when they face more provinces’ SOEs bias. They also find that this negative impact of sub-national market-supporting institutions on export behavior of Vietnamese SMEs does not vary with the firm’s attributes (i.e., age, size, industry).

In sum, the previous empirical studies successfully demonstrate that: (i) the market-supporting institutions significantly influence the firm’s behaviors; (ii) the market-supporting institutions can be either positive or negative drivers of the firm’s strategic choices. However, these studies also have some major shortcomings: (i) they only focus on either positive or negative impact of the market-supporting institutions and fail to recognize that the market-supporting institutions can be both facilitating and troubling forces of the firm’s behaviors; (ii) they only investigate a limited number of aspects and elements of the market-supporting institutions that can have different types of impact on the firm’s behaviors; (iii) their findings on the moderating role of the firm’s attributes (e.g., age, size, ownership, industry, etc.) are inconclusive. In the current study, due to its exploratory nature, we propose that:

**Hypothesis 1**: The market-supporting institutions (i.e., their aspects and elements) have both positive and negative impacts on the firm’s export behaviors (i.e., export propensity, export mode choice, and export intensity).

**Hypothesis 2**: The impacts of market-supporting institutions (i.e., positive and negative impacts) on the firm’s export behaviors (i.e., export propensity, export mode choice, and export intensity) vary with the firm’s attributes (i.e., age, size, ownership, and industry).
Method

Data

In this study, we use the 2008 raw data of PCI that provide variables concerning the firm’s export behaviors (i.e. export propensity, export mode choice and export intensity), the firm’s organizational characteristics (e.g. age, size, legal form, ownership, sector, location, etc.), and the firms’ perception of their provincial institutional environment which is grouped into twelve pillars: (i) entry costs; (ii) land access and security of tenure; (iii) transparency and access to information; (iv) time costs of regulatory compliance; (v) informal charges; (vi) competition environment and SOEs bias; (vii) proactivity of provincial leadership; (viii) business development services; (ix) labor and training; (x) confidence in legal institutions; (xi) infrastructure; and (xii) finance.10 This dataset includes 7818 enterprises located in 64 cities/provinces of Viet Nam. Among these 7818 firms, there are 719 firms that engage in exporting (about 9.2% of total sample population).

Variables

Dependent variables

The three dependent variables are export propensity, export mode choice and export intensity. Like in several previous export studies (e.g., Hessels and Terjesen, 2010; Zhao and Zou, 2002), export propensity is measured as a dummy variable with “export” = “1” and “no export” = “0”. Following Hessels and Terjesen (2010), we have classified firms that use both direct and indirect export mode in indirect export, and we measure export mode choice as a dummy variable with “direct export” = “1” and “indirect” = “0”. Following Gao et al. (2010), we measure export intensity as the percentage of export sales in the firm’s total sales in the last year (2007).

Independent variables

As mentioned above, the PCI 2008 covers many dimensions of the sub-national market-supporting institutions that are grouped into twelve pillars. These pillars are measured both by objective and subjective methods based on the sources published by central and local governments, and on the

10 PCI 2008 has another sub-index of Information and Communication Technology (ICT). The two sub-indexes of Infrastructure and of ICT in PCI 2008 are novel compared to prior versions (2005, 2006 and 2007). The financial conditions are available in raw data but have been not shown into the final index of PCI 2008. For more information about PCI index: www.pcivietnam.org
entrepreneurs’ perception of their provincial institutional environment in 64 provinces (Malesky and Taussig, 2009a). Some prior studies (e.g., Meyer and Nguyen, 2005; Nguyen et al., 2012) only use objective method for measuring market-supporting institutions. For our purpose (i.e. analyzing export behaviors at the firm level), within these twelve pillars, we only select the items that contain entrepreneurs’ perception of their provincial institutional environment. There are many resources and capabilities that are involved in the exporting processes, but the most important ones are relative to financial, human, innovation, and marketing assets (Leonidou, Palihawadana and Theodosiou, 2011). Thus, we can suppose that the market-supporting institutions (both the formal and informal ones) that are relative to financial, human, innovation and marketing assets will have more influence on the firm’s export behavior. However, due to the exploratory nature of the current study, we would like to investigate the potential impact of different aspects and elements of the sub-national market-supporting institutions that are provided by our secondary data on the firm’s export behaviors. Thus, a principal components analysis (PCA, Varimax rotation) was performed and it reveals six institutional components with eigenvalues larger than one, explaining 58.7% of the variance (Table 1). The first component contains six items concerning the **provincial public services for business/private sector development** (PC1). The second component also contains six items concerning the **provincial attitude, bureaucracy, legal and informal charges** (PC2). The third component contains four items relating to **provincial financial institutions** (PC3). The forth component contains three items concerning the **provincial FDI bias** (PC4). The fifth component contains three items relating to the **provincial SOEs bias** (PC5). The sixth component contains two items concerning the **predictability of central and provincial laws and regulations** (PC6). The scores of these six components (factors), rather than individual variables, are used as independent variables within our models.

**Control variables**

Several empirical studies have identified significant relationships between export behaviors and various organizational characteristics such as the firm’s industry (Cavusgil and Nevin, 1981; Christensen et al., 1987; Hessels and Terjesen, 2010; Kedia and Chhokar, 1985), its size measured by total annual sales or number of employees (Calof, 1993, 1994; Cavusgil and Nevin, 1981; Christensen et al., 1987; Gripsrud, 1990), its age (Hessels and Terjesen, 2010; Orser et al., 2010), its location (Zhao and Zou, 2002), and its ownership (Dosoglu-Guner, 2001; Hessels and Terjesen, 2010). Thus, we use the firm’s size (measured as an ordinal variable of the firm’s total number of employees in the last year, 2007), its age (number of established years), its legal form (measured as a nominal variable with “Sole Proprietorship = 1”, “Partnership = 2”, “Limited Liability = 3”, “Joint-Stock
60

= 4′’, “Other = 5′′), its industry (a dummy variable with “manufacturing” = “1′′, “other sectors” = “0′′) as control variables. In addition, in order to know whether the impact of sub-national market-supporting on the firm’s export behaviors varies with different firm’s attributes, we also created additional dummy variables in order to divide our sample into sub-groups by firm size11 (“SMEs < 250 labors” = “1′′ and “larger firms ≥ 250” = “0′′), firm age12 “younger firms ≤ 5 years” = “1′′ and “older firms > 5 years” = “0′′), firm ownership14 (“with SOEs’ or government agency shares” = “1′′ and “without SOEs’ or government agency shares” = “0′′), and firm industry (the same as control variable that is excluded in sub-group analysis).

Results

Because of their binary nature, following Hessels and Terjesen (2010), we use binominal or binary logistic regressions for export propensity and export mode choice. Export intensity varies within an interval of 0-100 and is skewed to the right (skewness = 4.02 and kurtosis = 15.08). Thus, following Gao et al. (2010), we use a tobit regression for export intensity. We tested for multicollinearity between the predictor variables by using variance inflation factors (VIFs). For all three models, the results show that all VIFs are well below 10: from 1.000 to 1.386 in model 1 (export propensity), from 1.011 to 1.397 in model 2 (export mode choice) and from 1.000 to 1.386 in model 3 (export intensity).

11 Manufacturing firms are defined as firms that have manufacturing revenue greater than 10% of their total revenue (Nguyen et al., 2012).
12 In Viet Nam, SMEs are defined as enterprises that have less than 300 employees in the agriculture, industry and construction sectors, and less than 100 employees in commerce and services (source: Degree 56/2009/ND-CP on assistance for SMEs development (www.gov.vn)). However, in order to facilitate the comparison of our research results with those of other export studies in developed and emerging economies, we use one of the elements of the European Commission’s definition, being that SMEs are recognized as such if they have less than 250 employees (source: http://ec.europa.eu/enterprise/policies/sme/analyses/sme-definition/index_en.htm). The PCI 2008 uses a Likert scale of 8 levels to measure firm size with 1= less than 5 people, 2=between 5 and 9 people, 3=between 10 and 49 people, 4=between 50 and 199 people, 5=between 200 and 299 people, 6=between 300 and 499 people, 7=between 500 and 1000 people and 8=more than 1000 people. In our study, because SMEs are defined as firms that have less than 250 people, we select firms from scale 1 to 5. Some SMEs within the 216 observations of the fifth scale (between 200 and 299 people) are therefore included in our sample.
13 This is the mean value of firm’s age in our sample. In addition, as several entrepreneurship studies suggested, 5 years is a critical threshold of the firm’s business life (Storey, 1997: 93).
14 PCI 2008 only includes Vietnamese firms, i.e., private and state-owned domestic firms. The foreign firms are also surveyed by PCI’s team but excluded in PCI’s databases. Thus, we can only do comparative analyses between wholly private vs. firms with shares from SOEs and government agencies.
In the three general models 1, 2 and 3 (tables 5, 6 and 7), the statistical results show that the sub-national market-supporting institutions significantly influence the export behaviors of Vietnamese firms, and that there are both negative and positive impacts depending on the aspects and elements of the sub-national market-supporting institutions. The general model 1 (table 5) demonstrates that: among the firm’s attributes, its size and industry strongly influence its decision of whether to export or not. Larger firms are more likely to export than smaller ones, and manufacturing firms are more likely to export than firms that operate in other sectors. Among aspects and elements of the sub-national market-supporting institutions, only the provincial financial institutions (i.e., formal and informal institutions related to bank loans) significantly and negatively influence the export propensity of Vietnamese firms: the more difficult the financial conditions in their local market are (e.g., burdens in administrative procedures, discrimination between SOEs and private firms, informal charges), the more likely firms are to export.

The general model 2 (table 6) demonstrates that the firm’s size and industry still significantly influence the export mode choice of Vietnamese firms: larger firms are more likely to choose direct export than smaller ones, and manufacturing firms are more likely to choose indirect export than firms that operate in other sectors. Among aspects and elements of the sub-national market-supporting institutions, only the provincial public services for business/private sector development significantly and positively influence the export mode choice of Vietnamese firms: the more efficient and effective the provincial public services are (e.g., labor exchange, export promotion and trade fair, vocational training, business information), the more likely firms are to choose direct export method.

The general model 3 (table 7) shows that the firm’s age and size significantly influence the export intensity of Vietnamese firms: younger firms are more likely to export more (i.e., higher level of export sales in total sales) than the older ones, and larger firms are more likely to export more than smaller ones. The sub-national market-supporting institutions have both positive and negative impacts on the export intensity of Vietnamese firms: the provincial attitude toward private sector significantly and positively influences the firm’s export intensity (e.g., more favorable attitude toward private sector, less bureaucratic and informal burdens, effective enforcement of contracting and property rights will induce firms to export more). By contrast, the more predictable the market-supporting institutions in the domestic market are, the more likely firms are to keep a high level of domestic sales. In other words, firms are more likely to increase their sales in overseas markets through exporting when the rules and regulations in domestic market are difficult to predict.

61
The sub-group analyses also demonstrate that the different impacts (i.e., positive and negative impacts) of the sub-national market-supporting institutions on the export behaviors of Vietnamese firms vary with the firm’s attributes (models 1A, 1B, 1C, 1D, 2A, 2B, 2C, 2D, 3A, 3B, 3C, and 3D in table 5, 6, and 7). Model 1A shows that the provincial financial institutions negatively matter for the export propensity of private firms (i.e., firms without shares from SOEs or government agencies) but not for firms with governmental capital. In addition, and interestingly, firms with governmental capital perceive that the province’s bias toward foreign and big private firms do matter (i.e., negative impact) for their export propensity, but this is not the case for private firms (i.e., without shares from SOEs or government agencies). Model 1B shows that only SMEs (i.e., having less 250 employees) perceive that the provincial financial institutions do matter for their export propensity, but that larger firms do not. Model 1C shows that younger firms (i.e., having less 5 years of establishment) find that the provincial financial institutions do matter for their export propensity, but that older firms do not. In addition, the export propensity of older firms is positively influenced by the provincial public services for business/private sector development and negatively influenced by the provinces’ FDI bias. However, this is not the case for younger firms. Model 1D shows that the provincial financial institutions matter for the export propensity of manufacturing firms, but not for firms that operate in other sectors. In addition, while the export propensity of manufacturing firms is negatively influenced by the province’s FDI bias, the export propensity of firms that operate in other sectors is negatively influenced by the province’s SOEs bias.

The model fit indexes of many sub-models in models 2A, 2B, 2C, and 2D do not achieve critical values (i.e., Prob > chi2 should < .05). There are three possible reasons that can explain this fact: (i) the sub-group’s size (e.g., model 2A) is too small; (ii) the measurement bias, i.e., grouping firms that use both direct and indirect export into indirect export; (iii) the theoretical limitation of the institution-based view in explaining the firm’s export mode choice. We will discuss these aspects more in depth in the Discussion part. However, for sub-models that achieve critical values of model fit indexes, we can still observe a significant difference between these sub-models and the general model 2: for instance, the export mode choice of firms that have no shares from SOEs or government agencies are also significantly and positively influenced by the provincial public services for business/private sector development, and the magnitude of this impact is different (i.e., larger) than the one in the general model (log-odds = .24 and odds = 1.27 in the sub-model, these values in the general model are .19 and 1.21, respectively). Similarly, for the sub-group of manufacturing firms whose export mode choice is also positively influenced by the provincial public services for business/private sector development, the log-odds and odds values are .24 and 1.27, respectively. Finally, for the sub-group of
SMEs (i.e., having less 250 employees) whose export mode choice is also positively influenced by the provincial public services for business/private sector development, the log-odds and odds values are .17 and 1.20, respectively.

Model 3A shows that the provincial attitude toward the private sector only significantly and positively influences the export intensity of private firms (i.e., without shares from SOEs or government agencies) but not of firms with governmental capital. In addition, only private firms perceive that the predictability of central and local rules and regulations do matter for their export intensity while firms with governmental capital do not. Model 3B shows similar direction: the provincial attitude toward the private sector and the predictability of central and local rules and regulations do matter for the export intensity of SMEs (i.e., having less 250 employees) but not for larger firms. In addition, the provinces’ SOEs bias also matter (i.e., positive impact) for their export intensity, but this is not the case for smaller ones. Model 3C shows that the provincial attitude toward the private sector and the predictability of central and local rules and regulations do matter for the export intensity of older firms (i.e., having more than 5 years of establishment), but not for younger firms. In addition, older firms also perceive that the provincial financial institutions do matter (i.e., negative impact) for their export intensity while younger firms do not. In a similar vein, model 3D shows that the provincial attitude toward the private sector, the predictability of central and local rules and regulations, and the provincial financial institutions do matter for the export intensity of manufacturing firms, but not for firms that operate in other sectors.

In sum, based on the results above, we can draw the following major features about the interaction between the sub-national market-supporting institutions and the export behaviors of Vietnamese firms. First, the decision for Vietnamese firms to export or not is mainly and negatively influenced by the provincial financial institutions (i.e., the difficult financial conditions in the domestic market, rather than the favorable ones, drive Vietnamese firms to export). However, this feature is mainly suitable for private, smaller, and younger firms that operate in manufacturing sectors rather than firms with governmental capital, larger, older and operate in non-manufacturing sectors. Second, the choice of export method is mainly and positively influenced by the provincial public services for business/private development. However, the statistical results do not allow us to strongly conclude that this feature really varies with the firm’s attributes. Finally, the decision of how much to export (i.e., export intensity) is positively influenced by the provincial attitude toward the private sector, and negatively influenced by the predictability of rules and regulations. Once again, this feature is mainly suitable for private, smaller, and younger firms that operate in manufacturing sectors rather than for firms with governmental capital, larger, older and
operating in non-manufacturing sectors. Coming back to our hypotheses, Hypothesis 1 is strongly supported, while Hypothesis 2 is partially supported because the sub-models for export mode choice do not reach required statistical criterion.

Discussion

In this study, our first main finding is that, at the provincial level in Vietnam, among the market-supporting institutions dimensions, the provincial financial conditions (i.e. administrative procedures, interest rate and loan terms, informal charges, and requirements of collateral) are a major concern in the firm’s decision to export or not (export propensity). Interestingly, unfavorable financial institutions, rather than favorable, will stimulate Vietnamese firms to internationalize (i.e., export). What does this mean? As mentioned above, institutions can have both positive and negative impacts on the firm’s behaviors depending on their aspects and elements, and on the types of firms. In the context of DE whose institutions, at least the formal ones, are very well established, these impacts are often assumed to be insignificant or “background” factors (Peng et al., 2009). By contrast, in the context of EE&TE whose market-supporting institutions, especially the formal ones, are lacking or weak, these impacts cannot be neglected because they significantly and either positively or negatively influence the firm’s transaction costs (McMillan, 2007). In the current study, the negative impact of the provincial financial institutions on the export propensity of Vietnamese firms can therefore be interpreted as follow: exporting, or more generally “going abroad”, becomes a strategic choice of Vietnamese firms in order to respond to their difficult financial conditions in the domestic market. But since operating in overseas markets (i.e., exporting) theoretically requires more financial resources than operating in the domestic market, how can exporting become a strategic response to the difficult financial conditions in the domestic market? As several previous export studies demonstrated (e.g., Leonidou, 1995), unsolicited orders from foreign customers are the most important export stimuli of firms. We can suppose that this type of export stimuli is even more important for firms in EE&TE, especially SMEs, because they lack resources and capabilities that enable them to proactively identify their export clients. In this context, it seems that exporting is a reactive strategic response but that its transaction costs could

15 Similar idea was proposed by Yamakawa et al. (2008) who argue that a regulative environment that favors large established firms (e.g., SOEs) and that discriminates against new ventures will motivate new ventures to internationalize from EE to DE (proposition 7a). Here, we extend this proposition by focusing not only on the formal institutions (i.e., regulative dimension) but also on informal ones and on several firm’s attributes (age, size, industry and ownership). In addition, Yamakawa et al. (2008) focus on foreign direct investment while our work focuses on export.
be lower than the ones doing business in domestic market. This is due to some external stimuli such as the pre-payment or on time-payment of foreign customers who proactively search and identify their supply sources. Thus, exporting can become a strategic choice of firms in order to respond to the difficult financial conditions in their domestic market.

The sub-groups analyses provide more evidences for the above interpretation. The negative impact of the provincial financial institutions is more likely to influence private, smaller, and younger firms rather than state owned, larger and older firms. This means that firms that often confront financial difficulties (i.e., private, smaller, and younger firms) in their domestic market are more likely to choose exporting as a strategic response. Many previous studies provide evidences about this situation of private, smaller, and younger firms in EE&TE. For instance, in his literature review on the relationship between finance and SMEs in developing countries, Cook (2001) shows that, compared to larger firms, SMEs in developing economies have limited access to financial resources, not only because their financial supply is restricted, but also because they face more transaction costs than the former. On the one hand, financial institutions such as banks often neglect smaller clients because of the lack of collateral, of high transaction costs and of the risks associated with a small loan, etc. On the other hand, SMEs also often lack financial management skills. In this context, SMEs in developing countries rely more on owner’s savings or borrowings from friends or relatives, rather than on formal lending institutions (Cook, 2001). In a study that is also based on PCI 2008’s data, Malesky and Taussig (2009b) argue that the local banks insist on “connections” rather than on performance to allocate loans, despite the fact that connected firms (i.e., often state owned and larger firms) are even less profitable than non-connected ones. They also stress that bankers’ focus on collateral rather than business prospects is a similar response to an ‘insecure legal environment’ (Malesky and Taussig, 2009b: 574). In other words, the local institutional characteristics do not only frame the firms’ behaviors, but also those of their partners (i.e. bankers) and the local economic transactions in general. In this context, it is reasonable to hypothesize that private, smaller, and younger firms in EE&TE will choose to go abroad (i.e., export), especially when they receive an opportunity like unsolicited orders from foreign customers, as a strategic response to their difficult financial institutions in the domestic market.

Our second major finding is that there is only little evidence about the positive impact of sub-national market-supporting institutions (i.e. the provincial public services for business/private sector development) on the export mode choice of Vietnamese firms. In addition, the statistical results do not allow us to conclude that this positive impact varies with the firm’s attributes. This is in line with the findings of other studies, such as Hessels
and Terjesen (2010) who argue that, in the Dutch context, the institutional theory perspectives are more appropriate to explain SMEs’ decision to export rather than their export mode choice. However, our findings are also somewhat different from the ones of Hessels and Terjesen (2010) who find no significant relationship between the firm’s age, size, industry or ownership and its export mode choice. In our study, the firm’s size and industry do matter for its export mode choice. Nevertheless, the work of Hessels and Terjesen (2010) was done in the context of DE (i.e., the Netherlands) while the current study focuses on firms in EE&TE (i.e., Viet Nam). Beside the theoretical explanation, we also tried to understand whether our finding is influenced by the measurement of the dependent variable (i.e., export mode choice): we performed an additional multinomial logistic regression in which firms that use both direct and indirect export are not grouped into a single group of indirect export. However, the statistical results do not significantly change and are not reported here. This allows us to question two things: (i) is the institution-based view really appropriate to explain and predict the firm’s export mode choice or do we need another theoretical perspective as Hessels and Terjesen (2010) suggested? (ii) is the current measurement of export mode choice, either as binary or multinomial variable, appropriate to capture the firm’s export mode choice in reality? We therefore need more both theoretical and empirical studies, especially in the context of EE&TE, to reach more consistent conclusions about the antecedents, including the institutional ones, of the firm’s export mode choice.

We find that the provincial attitude, bureaucracy, legal and informal charges, as well as the degree of predictability of domestic laws and regulations significantly influence the export intensity of Vietnamese firms. While the positive impact of the provincial attitude, bureaucracy, legal and informal charges is straightforward to understand (the firms tend to export more when they face less burdens of attitudinal discrimination, bureaucracy, legal, and informal charges, i.e. bribes), the negative impact of the predictability of domestic laws and regulations is more complicated: the more likely firms are to predict the changes and implementation of domestic (i.e. national and provincial) law and regulations, the less likely they are to increase their export intensity. Once again, logic is the same as for the first finding: increasing the export sales in total sales is a strategic response that Vietnamese firms use in order to respond to the unpredictable rules and regulations in domestic market. In the context of Viet Nam, as well as in other EE&TE, the rules and regulations are rarely well constructed as needed because of several reasons, mostly the lack of an efficient administrative system, of capable leadership and of qualified government officials (Ohno, 2009). The laws and regulations often “can only be regarded as general guidelines, establishing the rough ambit of bureaucratic discretion” (Gillespie, 1993, cited by McMillan, 1995). In this context, we can
hypothesize that even if local entrepreneurs can predict the changes and implementation of domestic laws and regulations, this “knowledge” could incite the firm to use the “wait and see” strategy rather than to integrate immediately this information into its export strategy (i.e. export intensity). In the best case, firms that can predict the changes and implementation of rules and regulations will profit from this by increasing their domestic sales while keeping their export sales stable or even decreasing these in order to avoid risk and uncertainty in overseas markets. By contrast, firms that cannot predict changes and implementation of rules and regulations, especially private, smaller, and younger firms that operate in manufacturing sectors as our sub-groups analyses showed, will choose to increase export sales as a strategic response to the unpredictable rules and regulations in domestic market.

Our findings concerning the impacts of sub-national market-supporting institutions on the firm’s export intensity is somewhat different but not inconsistent with the ones of Nguyen et al. (2012) who also use PCI secondary data (version 2007) in order to investigate the relationship between provincial institutions and the export behavior (i.e., export intensity) of Vietnamese firms. On the one hand, our results showed that the provincial SOEs bias also negatively but not significantly influences the firm’s export intensity. One important reason that can explain this difference is that our study uses the subjective method (i.e., the firm’s perception of the provincial favoritism toward SEOs) rather than the objective method (i.e., the proportion of SOEs’ revenues and assets in the total revenues and assets of the business sectors in the province) like Nguyen et al. (2012). On the other hand, our study shows that other dimensions of the provincial institutional environment (i.e., the provincial attitude, bureaucracy, legal and informal charges, and the degree of predictability of domestic laws and regulations) also significantly influence the firm’s export intensity. To a certain extent, the variable relative to the degree of predictability of domestic laws and regulations in our study could be considered as interchangeable measurement of the transparency used in the work of Nguyen et al. (2012), because it is reasonable to hypothesize that the degree of predictability could be a function of the degree of transparency and information provision. We also extended the scope of investigation by introducing other dimensions of the provincial institutional environment such as the provincial public services for business/private sector development, the provincial financial institutions, and the provincial FDI bias. More importantly, we show that the sub-national market-supporting institutions have different impacts, positive

16 Nguyen et al. (2012) also focus on SMEs while SMEs are only one sub-group in our analyses. However, these authors do not provide their reason for selecting SMEs and we do not know the extent to which this variable does matter for the difference between our findings.
and negative, on the export behaviors of Vietnamese firms, and that these impacts vary with certain attributes of the firm. This is a major shortcoming in prior studies, including the one of Nguyen et al. (2012).

Finally, as mentioned above, export intensity is often considered as a dimension of export performance (Matthyssens and Pauwels, 1996). For our purpose, we consider export intensity as a type of export behavior or strategy. This choice is also supported by prior work (e.g., Gao et al., 2010; Nguyen et al., 2012). However, due to the cross-sectional nature of our dataset, it is not easy to distinguish whether export intensity, as an effect of organizational and institutional factors, plays the role of performance or of behavior in these findings. For instance, on the one hand, as export performance, export intensity can be directly and negatively influenced by poor infrastructure conditions (e.g. export sales decrease because of losses in transportation process) or by informal charges (e.g., using profit from exporting for bribes). On the other hand, as an export choice, export intensity could also be an effect of the entrepreneurs’ decision in reflecting the transportation cost and/or informal charges. In the context of EE&TE like Viet Nam, it is therefore difficult to determine whether the degree of export sales is either a passive consequence of the inefficient and unfavorable institutional conditions in emerging economies, or a proactive strategic choice of entrepreneurs responding to their institutional environment (Luo and Junkunc, 2008; Oliver, 1991). We need more theoretical and empirical evidences, especially longitudinal studies, to clarify these aspects.

Conclusion

In response to the call of many authors (e.g., Hoskisson et al., 2000; Peng and Heath, 1996; Peng et al., 2009; Peng et al., 2008; Welter and Smallbone, 2011; Wright et al., 2005), we attempt to apply the institution-based view to study the impact of sub-national market-supporting institutions on the export behavior of firms in the context of an emerging-transition economy, Viet Nam. Overall, we find that the sub-national (i.e. provincial) market-supporting institutions explain the export behaviors of Vietnamese firms to a certain extent. However, not all aspects and elements of these market-supporting institutions have a similar impact on the firms’ decisions in exporting, and not all types of firms behave in a same manner in responding to these institutional constraints. Concretely, we find that: (i) export propensity is mainly and negatively influenced by the provincial financial conditions; (ii) the provincial attitude, bureaucracy, legal and informal charges are positive drivers of the firm’s export intensity; (iii) the degree of predictability of domestic laws and regulations are negative drivers of the firm’s export intensity. In addition, institutions do matter more for smaller,
younger and private firms. Nevertheless, the influence of sub-national market supporting institutions on export mode choice is ambiguous.

Our work contributes to the existing literature by some aspects. First, we show that institutions do matter, not only at the national, organizational and individual levels but also at the sub-national or regional (i.e. provincial) level that regulate the firms’ day-to-day activities (Luo and Junkunc, 2008). Second, the sub-national market-supporting institutions can have different types of impacts (i.e., positive and negative impacts) on the firm’s export behaviors depending on the institutional aspects and elements, and on the types of firms. With these findings, we both confirm and extend the validity of the institution-based view in explaining and predicting the internationalization behavior of firms in EE&TE. Third, the measurements of market-supporting institutions at the sub-national level that was used in the current study can be re-tested in future studies.

Our research has some limitations. First, due to the nature of our secondary dataset, we can only investigate the role of a limited number of the market-supporting institutions. There are other measurements of institutional environment such as the ones of Euromoney, the European Bank for Reconstruction and Development, the World Bank (Brouthers, Brouthers and Werner, 2008), etc. Applying a comparative approach would bring a more adequate understanding of the impact of the institutional environment on firms’ behaviors in EE&TE. Second, since we only investigate the institutional environment and firms in Viet Nam, our findings may not be generalized to other emerging and transition economies, especially the ones that are in different phases of transition (Peng, 2003). Finally, because of the cross sectional nature of our secondary data and of the subjective method of measurement of sub-national market-supporting institutions, we cannot firmly conclude about the causal relationship between the sub-national market-supporting institutions and the export behaviors of Vietnamese firms.

Nevertheless, based on the current study, there are several directions that future research could take to develop existing knowledge. First, from a theoretical point of view, our current framework mainly relies on the macro branch of the new institutional economics, more precisely the historical and political economics (Acemoglu and Johnson, 2005; Djankov et al., 2002, 2003; North, 1990), rather than the micro branch of the new institutional economics, more precisely the economics of governance and transaction costs economics (Shleifer and Vishny, 1997; Williamson, 1996, 1998, 2005) or the institutional theory of sociological tradition (DiMaggio and Powell, 1983, 1991; Scott, 2001). More sophisticated and testable mechanisms integrating different levels (macro and micro) and different dimensions (economic and sociological) of institutions could maybe be identified and
developed in order to analyze their impact on the firm’s strategy and performance. In this direction, combining the strategy tripod (i.e. the industry-based, resource-based, and institution-based views) - as some called for (Peng et al., 2009) and as a few attempted in the strategic management and entrepreneurship fields, both theoretically and empirically (e.g. Brouthers et al., 2008; Gao et al., 2010; Oliver, 1991, 1997; Yamakawa et al., 2008; Yang et al., 2009) - is really promising, but more work still needs to be done, especially in the area of export studies.

Second, researchers could also concentrate their attention on the market-supporting institutions of exporting itself rather than that of business in general, e.g. administrative export procedures, export finance, etc. In addition, the two dimensions of export mode choice and export market selection need to be further investigated because, compared to export propensity and export intensity, they are relatively less analyzed and results are still ambiguous. Third, as mentioned above, the market-supporting institutions also vary between industries and their influences on firms’ internationalization behaviors should be examined. Fourth, because exporting involves two markets, research on the influence of market-supporting institutions in both the home and the host markets would bring more insightful results about the firm’s internationalization behaviors. Fifth, it would be interesting to investigate the influence of institutional factors not only on export behaviors but also on export performance, as well as the relationship between export behaviors and export performance. Finally, longitudinal and comparative future studies would be very helpful to conclude whether international entrepreneurship (i.e., export) can be considered as a last resort (Braunerhjelm, 2011) of entrepreneurs in EE&TE because of the negative impact of their institutional environment.

The current study has some implications for Viet Nam’s policy makers and export policy. Despite the fact that it recently reached the position of middle lower income country (with average income about 1000 USD/capital/year), Viet Nam is still an emerging and transition economy that is being “in the midst of deep reform” and its “normal market-supporting institutions are still being built” (McMillan and Woodruff, 1999: 637). The subsequent question for Viet Nam is how to reach the next step of development. However, beside the problems relating to the shortages of budget, human resources and efficient policy processes common to most developing countries, some scholars argue that Viet Nam has unique institutional problems related to the procedures of policy formulation, organization and implementation (Ohno, 2009) that can hamper the country’s progress. According to Ohno (2009), the most serious institutional problem is the lack of involvement of stakeholders, especially the business

17 Source : http://data.worldbank.org/country/vietnam
community, and of inter-ministerial coordination in policy formulation and implementation. As a result, industrial policies are ineffective and even unimplementable. The inefficiency of policy formulation and implementation, in its turn, is the consequence of fundamental issues in policy making organization related to the lack of an appropriate administrative system and mechanism (i.e. the distorted incentive mechanism among political components), of capable leadership and of qualified government officials (Ohno, 2009). In other words, Viet Nam is still in the early phase of institutional transition where the market-supporting institutions are not developed enough, and where more radical institutional changes are needed to avoid the “middle-income trap” (Ohno, 2009) or, more generally, the critical “points of inflection” (Peng, 2003).

Our study underlines the above-mentioned institutional challenges of Viet Nam: the influence of informal institutions (e.g., connections and informal charges for local officials and bank staffs) on the firms’ export behaviors (i.e. export propensity and export intensity) is an effect of the lack of strong formal market-supporting institutions (e.g., simple financial procedures, efficient and effective administration and legal system). Stated differently, as suggested by the institution-based view, in a context where market-supporting institutions are still immature, the relationship-based strategies, rather than the resources-based or capabilities-based ones, are still the dominant strategies of the firms (Peng and Heath, 1996). Can Vietnamese entrepreneurs, with other agents of change such as political leaders, public servants and foreign partners (Ohno, 2009), proactively and significantly contribute to the macro institutional transition of Viet Nam that, in its turn, will frame their day-to-day activities? And how? Theoretically, for sure, this important question is not new but some scholars in entrepreneurship and strategic management have recently stressed the necessity to investigate it in depth (e.g., Luo and Junkunc, 2008; Welter and Smallbone, 2011).

Our empirical study modestly indicates that the sub-national supporting-institutions are major institutional concerns of Vietnamese entrepreneurs, especially the smaller, younger and private ones. Vietnamese firms face institutional barriers, not only in their international market (e.g. the antidumping policy of some export markets, such as the USA and the EU, applying to many products of Vietnamese firms such as frozen shrimps, fish, leather shoes, etc.), but also in their domestic market. So, for policy maker, we suggest that developing strong market-supporting institutions, at both national and sub-national levels, would enhance and speed up the internationalization of Vietnamese firms. In addition, exporting is often seen as an important source of foreign currencies, employment and income. In the context of Viet Nam, internationalization is even more crucial because its domestic demand is relatively small and somewhat unsophisticated. Thus,
the identification of crucial factors stimulating domestic firms to go abroad and to increase their international market share is usually an important target of governments’ business development programs, especially in the era of Global Recession that affects the growth strategy of Viet Nam (Pincus, 2009). We suggest that improving sub-national institutional conditions related to finance, administration and legal system is crucial to attain this target. Also, some of the firm’s characteristics such as age, size, industry, and ownership can be used as key indicators to identify different firms’ profile and to appropriately formulate and efficiency implement export policy.

Acknowledgments

The authors gratefully acknowledge the financial support of the PIC-CUD project. They would like to thank USAID/DAI, and VCCI/VNCI for their kind permission to use the raw data of Vietnam’s PCI 2008. They would also like to thank Dr. Tran Dai Nghia and Dr. Edmund J. Malesky for their helpful methodological advice. The helpful comments from participants to the (i) 3rd International Workshop on Entrepreneurship, Culture, Finance and Economic Development, Namur, Belgium, June 14-15, 2012; (ii) 4th Asian Management and Entrepreneurship Workshop, Brussels, Belgium, May 21-22, 2012, especially from the Chairpersons Tomas Caas Klett and Darryn Mitussis; (iii) 3rd Belgian Entrepreneurship Research Day (BERD), Hasselt, Belgium, May 7, 2012 are kindly recognized. The perspectives presented in this paper belong to the authors.
## Appendices

### Table 1. Factor and reliability analysis

<table>
<thead>
<tr>
<th>Scale</th>
<th>PCI 2008’s items</th>
<th>Mean</th>
<th>S.D</th>
<th>Component</th>
</tr>
</thead>
<tbody>
<tr>
<td>Labor exchange services</td>
<td>e1_13</td>
<td>3.47</td>
<td>1.06</td>
<td>0.82</td>
</tr>
<tr>
<td>Export promotion and trade fairs</td>
<td>e1_14</td>
<td>3.63</td>
<td>1.07</td>
<td>0.81</td>
</tr>
<tr>
<td>Technology and technology-related services</td>
<td>e1_15</td>
<td>3.48</td>
<td>1.06</td>
<td>0.81</td>
</tr>
<tr>
<td>Vocational training for labor</td>
<td>e1_12</td>
<td>3.62</td>
<td>1.09</td>
<td>0.79</td>
</tr>
<tr>
<td>Business Information</td>
<td>e1_4</td>
<td>3.51</td>
<td>1.13</td>
<td>0.68</td>
</tr>
<tr>
<td>Consulting on regulatory information</td>
<td>e1_5</td>
<td>3.54</td>
<td>1.13</td>
<td>0.67</td>
</tr>
<tr>
<td>My PPC is creative and clever about solving new business problems (*)</td>
<td>h7_3</td>
<td>2.67</td>
<td>0.61</td>
<td>0.67</td>
</tr>
<tr>
<td>I'm confident provincial legal system will</td>
<td>h7_9</td>
<td>2.90</td>
<td>0.56</td>
<td>0.63</td>
</tr>
<tr>
<td>Statement</td>
<td>Anchored between</td>
<td>g</td>
<td>h</td>
<td>e</td>
</tr>
<tr>
<td>--------------------------------------------------------------------------</td>
<td>------------------</td>
<td>---</td>
<td>---</td>
<td>---</td>
</tr>
<tr>
<td>uphold my contract and property right</td>
<td></td>
<td>g9.2</td>
<td>2.70</td>
<td>0.73</td>
</tr>
<tr>
<td>Provincial officials use compliance with local regulations to extract rents (*)</td>
<td></td>
<td>g11</td>
<td>3.27</td>
<td>0.98</td>
</tr>
<tr>
<td>How do you estimate the administrative procedures reform to facilitate business</td>
<td></td>
<td>h1</td>
<td>3.61</td>
<td>0.82</td>
</tr>
<tr>
<td>Attitude of local government towards private sector</td>
<td></td>
<td>g3</td>
<td>2.13</td>
<td>0.79</td>
</tr>
<tr>
<td>It's common for firms to pay informal charges (*)</td>
<td></td>
<td>e3.3</td>
<td>2.40</td>
<td>0.78</td>
</tr>
<tr>
<td>Complicated procedures for loans (*)</td>
<td></td>
<td>e3.2</td>
<td>2.13</td>
<td>0.79</td>
</tr>
<tr>
<td>Interest rates and loan terms for SOEs are more favorable</td>
<td></td>
<td>e3.4</td>
<td>2.57</td>
<td>0.79</td>
</tr>
<tr>
<td>Paying bank staff to secure loans is very popular</td>
<td></td>
<td>e3.1</td>
<td>1.55</td>
<td>0.72</td>
</tr>
<tr>
<td>Loans cannot be obtained without collateral</td>
<td></td>
<td>h7.14</td>
<td>2.51</td>
<td>0.64</td>
</tr>
<tr>
<td>Provincial authorities seem to prioritize FDI attraction over PSD</td>
<td></td>
<td>h7.15</td>
<td>2.68</td>
<td>0.61</td>
</tr>
<tr>
<td>Provincial authorities prioritize handling FDI difficulties</td>
<td></td>
<td>h7.16</td>
<td>2.59</td>
<td>0.67</td>
</tr>
<tr>
<td>Provincial authorities still favor big private firms &amp; discriminate against small firms</td>
<td></td>
<td>h7.10</td>
<td>2.63</td>
<td>0.65</td>
</tr>
<tr>
<td>Favoritism towards the state sector is an obstacle to my business</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Question</td>
<td>Factor</td>
<td>Mean</td>
<td>SD</td>
<td>Reliability</td>
</tr>
<tr>
<td>------------------------------------------------------------------------</td>
<td>--------</td>
<td>------</td>
<td>-----</td>
<td>--------------</td>
</tr>
<tr>
<td>Favoritism towards equitized firms is an obstacle to my business</td>
<td>h7_14</td>
<td>2.73</td>
<td>0.60</td>
<td>0.86</td>
</tr>
<tr>
<td>Provincial authorities favor State corporations causing difficulties to your firm</td>
<td>h9</td>
<td>2.37</td>
<td>0.66</td>
<td>0.51</td>
</tr>
<tr>
<td>Can you predict changes in regulations at central level affecting your business?</td>
<td>f5</td>
<td>2.45</td>
<td>0.99</td>
<td>0.88</td>
</tr>
<tr>
<td>Can you predict the implementation of the rules, laws and regulations at the provincial level?</td>
<td>f6</td>
<td>2.17</td>
<td>0.94</td>
<td>0.88</td>
</tr>
</tbody>
</table>

Note: Percentage of variance explained: 58.7%; KMO = 0.86; Cronbach's Alpha PC1 = 0.89, PC2 = 0.74 PC3 = 0.67, PC4 = 0.78, PC5 = 0.74, PC6 = 0.73

(*) Items have reverse scales but their meanings are already reverse, their scales should therefore not be reserved in factor and reliability analyses (Field, 2005).
Table 2. Descriptive statistics and Spearman correlations matrix (Export propensity)

<table>
<thead>
<tr>
<th>#</th>
<th>Variables</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
<th>10</th>
<th>11</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Export propensity</td>
<td>1.000</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Firm age</td>
<td>.065**</td>
<td>1.000</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Firm size</td>
<td>.277**</td>
<td>.187**</td>
<td>1.000</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>Firm legal form</td>
<td>.107**</td>
<td>-.137**</td>
<td>.415**</td>
<td>1.000</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>Firm industry</td>
<td>.272**</td>
<td>.042**</td>
<td>.296**</td>
<td>.109**</td>
<td>1.000</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>PC1</td>
<td>.015</td>
<td>-.001</td>
<td>-.003</td>
<td>-.006</td>
<td>-.024*</td>
<td>1.000</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>PC2</td>
<td>-.019</td>
<td>-.014</td>
<td>-.084**</td>
<td>-.110**</td>
<td>-.011</td>
<td>.001</td>
<td>1.000</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>PC3</td>
<td>-.001</td>
<td>.049**</td>
<td>.066**</td>
<td>.026*</td>
<td>.005</td>
<td>.023*</td>
<td>.015</td>
<td>1.000</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>9</td>
<td>PC4</td>
<td>-.011</td>
<td>-.025*</td>
<td>.035**</td>
<td>.045**</td>
<td>-.020</td>
<td>.010</td>
<td>.023*</td>
<td>-.002</td>
<td>1.000</td>
<td></td>
<td></td>
</tr>
<tr>
<td>10</td>
<td>PC5</td>
<td>.005</td>
<td>-.028*</td>
<td>-.016</td>
<td>.007</td>
<td>-.008</td>
<td>-.003</td>
<td>.001</td>
<td>.004</td>
<td>.019</td>
<td>1.000</td>
<td></td>
</tr>
<tr>
<td>11</td>
<td>PC6</td>
<td>.043**</td>
<td>-.009</td>
<td>.183**</td>
<td>.154**</td>
<td>.019</td>
<td>-.003</td>
<td>-.013</td>
<td>-.001</td>
<td>.009</td>
<td>.010</td>
<td>1.000</td>
</tr>
</tbody>
</table>

Note: * p < 0.05; ** p < 0.01 (2-tailed). Number of observation = 7818
Table 3. Descriptive statistics and Spearman correlations matrix (Export mode choice)

<table>
<thead>
<tr>
<th>#</th>
<th>Variables</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
<th>10</th>
<th>11</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Export mode choice</td>
<td>1.000</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Firm age</td>
<td>.087*</td>
<td>1.000</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Firm size</td>
<td>.090*</td>
<td>.291**</td>
<td>1.000</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>Firm legal form</td>
<td>.054</td>
<td>-.055</td>
<td>.329**</td>
<td>1.000</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>Firm industry</td>
<td>-.048</td>
<td>.162**</td>
<td>.381**</td>
<td>.048</td>
<td>1.000</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>PC1</td>
<td>.083*</td>
<td>.022</td>
<td>-.002</td>
<td>-.051</td>
<td>-.028</td>
<td>1.000</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>PC2</td>
<td>.024</td>
<td>-.017</td>
<td>.077*</td>
<td>.032</td>
<td>.073</td>
<td>.051</td>
<td>1.000</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>PC3</td>
<td>.085*</td>
<td>.074</td>
<td>.158**</td>
<td>.067</td>
<td>.035</td>
<td>.031</td>
<td>.012</td>
<td>1.000</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>9</td>
<td>PC4</td>
<td>-.014</td>
<td>-.031</td>
<td>.035</td>
<td>.061</td>
<td>-.036</td>
<td>.049</td>
<td>.151**</td>
<td>.024</td>
<td>1.000</td>
<td></td>
<td></td>
</tr>
<tr>
<td>10</td>
<td>PC5</td>
<td>.020</td>
<td>-.117**</td>
<td>.001</td>
<td>.082*</td>
<td>.009</td>
<td>.009</td>
<td>-.038</td>
<td>.075*</td>
<td>-.002</td>
<td>1.000</td>
<td></td>
</tr>
<tr>
<td>11</td>
<td>PC6</td>
<td>-.014</td>
<td>-.018</td>
<td>.096*</td>
<td>.181**</td>
<td>-.002</td>
<td>-.033</td>
<td>.049</td>
<td>-.024</td>
<td>.013</td>
<td>.077*</td>
<td>1.000</td>
</tr>
</tbody>
</table>

Note: * p < 0.05; ** p < 0.01 (2-tailed). Number of observation = 719
Table 4. Descriptive statistics and Pearson correlations matrix (Export intensity)

<table>
<thead>
<tr>
<th>#</th>
<th>Variables</th>
<th>Mean</th>
<th>S.D</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
<th>10</th>
<th>11</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Export intensity</td>
<td>56.80</td>
<td>36.74</td>
<td>1.000</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Firm age</td>
<td>6.64</td>
<td>4.03</td>
<td>-0.015</td>
<td>1.000</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Firm size</td>
<td>4.17</td>
<td>1.65</td>
<td>0.211**</td>
<td>0.280**</td>
<td>1.000</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>Firm legal form</td>
<td>2.80</td>
<td>1.06</td>
<td>0.030</td>
<td>-0.018</td>
<td>0.305**</td>
<td>1.000</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>Firm industry</td>
<td>0.66</td>
<td>0.48</td>
<td>0.015</td>
<td>0.139**</td>
<td>0.331**</td>
<td>0.056</td>
<td>1.000</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>PC1</td>
<td>0.03</td>
<td>0.99</td>
<td>0.028</td>
<td>0.010</td>
<td>0.006</td>
<td>-0.040</td>
<td>-0.022</td>
<td>1.000</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>PC2</td>
<td>-0.06</td>
<td>0.95</td>
<td>0.111**</td>
<td>-0.028</td>
<td>0.077*</td>
<td>0.030</td>
<td>0.057</td>
<td>0.051</td>
<td>1.000</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>PC3</td>
<td>-0.01</td>
<td>1.04</td>
<td>-0.039</td>
<td>0.100**</td>
<td>0.151**</td>
<td>0.038</td>
<td>0.026</td>
<td>0.029</td>
<td>-0.020</td>
<td>1.000</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>9</td>
<td>PC4</td>
<td>-0.06</td>
<td>1.02</td>
<td>0.020</td>
<td>-0.101**</td>
<td>0.033</td>
<td>0.051</td>
<td>-0.045</td>
<td>0.024</td>
<td>0.166**</td>
<td>0.030</td>
<td>1.000</td>
<td></td>
<td></td>
</tr>
<tr>
<td>10</td>
<td>PC5</td>
<td>-0.01</td>
<td>1.03</td>
<td>0.026</td>
<td>-0.070</td>
<td>0.026</td>
<td>0.054</td>
<td>0.036</td>
<td>0.001</td>
<td>-0.070</td>
<td>0.042</td>
<td>0.023</td>
<td>1.000</td>
<td>.</td>
</tr>
<tr>
<td>11</td>
<td>PC6</td>
<td>0.14</td>
<td>0.98</td>
<td>-0.090*</td>
<td>-0.006</td>
<td>0.084*</td>
<td>0.147**</td>
<td>-0.006</td>
<td>-0.027</td>
<td>0.080*</td>
<td>-0.051</td>
<td>0.005</td>
<td>0.037</td>
<td>1.000</td>
</tr>
</tbody>
</table>

Note: * p < 0.05; ** p < 0.01. Number of observation = 719
<table>
<thead>
<tr>
<th>Control</th>
<th>General model 1</th>
<th>1A. Firm ownership</th>
<th>1B. Firm size</th>
<th>1C. Firm age</th>
<th>1D. Firm industry</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>with SOEs’ shares</td>
<td>SOEs’ shares</td>
<td>&lt;250 labors</td>
<td>≥ 250 labors</td>
<td>≤ 5 years</td>
</tr>
<tr>
<td>Firm age</td>
<td>-0.02</td>
<td>-0.06</td>
<td>-0.01</td>
<td>-0.02</td>
<td>-0.03</td>
</tr>
<tr>
<td></td>
<td>(0.98)</td>
<td>(0.94)</td>
<td>(0.99)</td>
<td>(0.98)</td>
<td>(0.97)</td>
</tr>
<tr>
<td>Firm size</td>
<td>0.75***</td>
<td>0.82***</td>
<td>0.76***</td>
<td>0.78***</td>
<td>1.07***</td>
</tr>
<tr>
<td></td>
<td>(2.11)</td>
<td>(2.28)</td>
<td>(2.14)</td>
<td>(2.18)</td>
<td>(2.93)</td>
</tr>
<tr>
<td>Firm legal form</td>
<td>-0.03</td>
<td>-0.05</td>
<td>-0.01</td>
<td>-0.02</td>
<td>-0.12</td>
</tr>
<tr>
<td></td>
<td>(0.97)</td>
<td>(0.95)</td>
<td>(0.99)</td>
<td>(0.98)</td>
<td>(0.88)</td>
</tr>
<tr>
<td>Firm industry</td>
<td>1.41***</td>
<td>0.72</td>
<td>1.44***</td>
<td>1.37***</td>
<td>1.79***</td>
</tr>
<tr>
<td></td>
<td>(4.09)</td>
<td>(2.06)</td>
<td>(4.23)</td>
<td>(3.93)</td>
<td>(6.00)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Institutions</th>
<th>PC1</th>
<th>PC2</th>
<th>PC3</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>0.07</td>
<td>-0.02</td>
<td>-0.13**</td>
</tr>
<tr>
<td></td>
<td>(1.08)</td>
<td>(0.98)</td>
<td>(1.48)</td>
</tr>
<tr>
<td></td>
<td>-0.30</td>
<td>0.39</td>
<td>0.19</td>
</tr>
<tr>
<td></td>
<td>(0.74)</td>
<td>(1.48)</td>
<td>(1.97)</td>
</tr>
<tr>
<td></td>
<td>0.09</td>
<td>-0.03</td>
<td>-0.13**</td>
</tr>
<tr>
<td></td>
<td>(1.09)</td>
<td>(0.97)</td>
<td>(1.00)</td>
</tr>
<tr>
<td></td>
<td>0.33</td>
<td>-0.02</td>
<td>-0.14**</td>
</tr>
<tr>
<td></td>
<td>(1.39)</td>
<td>(0.98)</td>
<td>(0.98)</td>
</tr>
<tr>
<td></td>
<td>-0.03</td>
<td>0.00</td>
<td>-0.13*</td>
</tr>
<tr>
<td></td>
<td>(1.21)</td>
<td>(0.98)</td>
<td>(0.98)</td>
</tr>
<tr>
<td></td>
<td>0.19**</td>
<td>-0.02</td>
<td>-0.16*</td>
</tr>
<tr>
<td></td>
<td>(1.07)</td>
<td>(0.98)</td>
<td>(1.02)</td>
</tr>
<tr>
<td></td>
<td>0.07</td>
<td>0.02</td>
<td>-0.09</td>
</tr>
<tr>
<td></td>
<td>(1.08)</td>
<td>(0.94)</td>
<td>(0.94)</td>
</tr>
<tr>
<td></td>
<td>(0.88)</td>
<td>(1.20)</td>
<td>(0.87)</td>
</tr>
<tr>
<td>------</td>
<td>--------</td>
<td>--------</td>
<td>--------</td>
</tr>
<tr>
<td>PC4</td>
<td>-0.08</td>
<td>-0.70**</td>
<td>-0.06</td>
</tr>
<tr>
<td></td>
<td>(0.92)</td>
<td>(0.50)</td>
<td>(0.94)</td>
</tr>
<tr>
<td>PC5</td>
<td>-0.03</td>
<td>0.36</td>
<td>-0.03</td>
</tr>
<tr>
<td></td>
<td>(0.97)</td>
<td>(1.43)</td>
<td>(0.97)</td>
</tr>
<tr>
<td>PC6</td>
<td>0.01</td>
<td>-0.06</td>
<td>0.02</td>
</tr>
<tr>
<td></td>
<td>(1.01)</td>
<td>(0.94)</td>
<td>(1.02)</td>
</tr>
<tr>
<td>Constant</td>
<td>-5.26***</td>
<td>-5.55*</td>
<td>-5.37***</td>
</tr>
</tbody>
</table>

Observation | 6806 | 228 | 6578 | 6577 | 229 | 3703 | 3103 | 1910 | 4896 |
LR chi2 | 933.06 | 57.79 | 888.1 | 528.87 | 62.99 | 358.72 | 584.55 | 377.95 | 107.41 |
Prob > chi2 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
Pseudo R2 | 0.22 | 0.29 | 0.22 | 0.15 | 0.20 | 0.17 | 0.28 | 0.19 | 0.06 |
Log likelihood | -1646.33 | -70.55 | -1564.45 | -1516.88 | -124.85 | -864.51 | -769.66 | -829.68 | -800.57 |

Note: * p < 0.05; ** p < 0.01; *** p < 0.001. The values in parentheses are odds.
Table 6. Regression estimates (Export mode choice)

<table>
<thead>
<tr>
<th></th>
<th>General model 2</th>
<th>2A. Firm ownership</th>
<th>2B. Firm size</th>
<th>2C. Firm age</th>
<th>2D. Firm industry</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>with SOEs’ shares</td>
<td>without SOEs’ shares</td>
<td>&lt;250 labors</td>
<td>≥ 250 labors</td>
</tr>
<tr>
<td>Firm age</td>
<td>0.03</td>
<td>-</td>
<td>0.03</td>
<td>0.05</td>
<td>-0.03</td>
</tr>
<tr>
<td></td>
<td>(1.03)</td>
<td></td>
<td>(1.03)</td>
<td>(1.05)</td>
<td>(0.97)</td>
</tr>
<tr>
<td>Firm size</td>
<td>0.12*</td>
<td>-</td>
<td>0.13*</td>
<td>0.04</td>
<td>0.34</td>
</tr>
<tr>
<td></td>
<td>(1.13)</td>
<td></td>
<td>(1.13)</td>
<td>(1.04)</td>
<td>(1.40)</td>
</tr>
<tr>
<td>Firm legal form</td>
<td>0.06</td>
<td>-</td>
<td>0.07</td>
<td>0.07</td>
<td>0.22</td>
</tr>
<tr>
<td></td>
<td>(1.06)</td>
<td></td>
<td>(1.07)</td>
<td>(1.07)</td>
<td>(1.24)</td>
</tr>
<tr>
<td>Firm industry</td>
<td>-0.37*</td>
<td>-</td>
<td>-0.40*</td>
<td>-0.62*</td>
<td>1.71**</td>
</tr>
<tr>
<td></td>
<td>(0.69)</td>
<td></td>
<td>(0.67)</td>
<td>(0.54)</td>
<td>(5.55)</td>
</tr>
<tr>
<td>Institutions</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PC1</td>
<td>0.19*</td>
<td>-</td>
<td>0.24**</td>
<td>0.19*</td>
<td>0.16</td>
</tr>
<tr>
<td></td>
<td>(1.21)</td>
<td></td>
<td>(1.27)</td>
<td>(1.20)</td>
<td>(1.16)</td>
</tr>
<tr>
<td>PC2</td>
<td>0.05</td>
<td>-</td>
<td>0.02</td>
<td>0.07</td>
<td>-0.02</td>
</tr>
<tr>
<td></td>
<td>(1.05)</td>
<td></td>
<td>(1.02)</td>
<td>(1.07)</td>
<td>(0.98)</td>
</tr>
<tr>
<td>PC3</td>
<td>0.12</td>
<td>-</td>
<td>0.10</td>
<td>0.09</td>
<td>0.25</td>
</tr>
</tbody>
</table>

81
<table>
<thead>
<tr>
<th></th>
<th>PC4</th>
<th>PC5</th>
<th>PC6</th>
<th>Constant</th>
<th>Observation</th>
<th>LR chi2</th>
<th>Prob &gt; chi2</th>
<th>Pseudo R2</th>
<th>Log likelihood</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>(1.13)</td>
<td>(1.10)</td>
<td>(1.09)</td>
<td>(1.28)</td>
<td>(1.14)</td>
<td>(1.13)</td>
<td>(1.11)</td>
<td>(1.21)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>0.01</td>
<td>0.02</td>
<td>-0.04</td>
<td>0.11</td>
<td>0.10</td>
<td>-0.08</td>
<td>0.01</td>
<td>-0.06</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(1.01)</td>
<td>(1.02)</td>
<td>(0.96)</td>
<td>(1.12)</td>
<td>(1.10)</td>
<td>(0.92)</td>
<td>(1.01)</td>
<td>(0.94)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>0.02</td>
<td>0.05</td>
<td>0.07</td>
<td>-0.36</td>
<td>-0.08</td>
<td>0.14</td>
<td>-0.00</td>
<td>0.07</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(1.02)</td>
<td>(1.05)</td>
<td>(1.07)</td>
<td>(0.69)</td>
<td>(0.92)</td>
<td>(1.15)</td>
<td>(1.00)</td>
<td>(1.07)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>-0.07</td>
<td>-0.08</td>
<td>-0.09</td>
<td>-0.08</td>
<td>-0.05</td>
<td>-0.10</td>
<td>-0.03</td>
<td>-0.20</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(0.93)</td>
<td>(0.92)</td>
<td>(0.91)</td>
<td>(0.92)</td>
<td>(0.95)</td>
<td>(0.90)</td>
<td>(0.97)</td>
<td>(0.82)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>-0.66*</td>
<td>-0.67</td>
<td>-0.43</td>
<td>-3.9*</td>
<td>-0.36</td>
<td>-0.81</td>
<td>-1.53***</td>
<td>0.27</td>
<td></td>
</tr>
<tr>
<td>Observation</td>
<td>636</td>
<td>36</td>
<td>600</td>
<td>505</td>
<td>131</td>
<td>301</td>
<td>335</td>
<td>430</td>
<td>206</td>
</tr>
<tr>
<td>LR chi2</td>
<td>22.47</td>
<td>-</td>
<td>23.54</td>
<td>20.54</td>
<td>17.10</td>
<td>11.87</td>
<td>16.73</td>
<td>30.78</td>
<td>8.63</td>
</tr>
<tr>
<td>Prob &gt; chi2</td>
<td>0.01</td>
<td>-</td>
<td>0.01</td>
<td>0.02</td>
<td>0.07</td>
<td>0.29</td>
<td>0.08</td>
<td>0.00</td>
<td>0.47</td>
</tr>
<tr>
<td>Pseudo R2</td>
<td>0.03</td>
<td>-</td>
<td>0.03</td>
<td>0.03</td>
<td>0.09</td>
<td>0.03</td>
<td>0.04</td>
<td>0.05</td>
<td>0.03</td>
</tr>
<tr>
<td>Log likelihood</td>
<td>-429.40</td>
<td>-</td>
<td>-403.96</td>
<td>-338.10</td>
<td>-79.85</td>
<td>-201.10</td>
<td>-223.51</td>
<td>-281.99</td>
<td>-138.02</td>
</tr>
</tbody>
</table>

Note: * p < 0.05; ** p < 0.01; *** p < 0.001. The values in parentheses are odds. (a) Regression is omitted because of limited observation. (b) The model fit indexes do not attempt critical values.
Table 7. Regression estimates (Export intensity)

<table>
<thead>
<tr>
<th></th>
<th>General model 3</th>
<th>3A. Firms ownership</th>
<th>3B. Firm size</th>
<th>3C. Firm age</th>
<th>3D. Firm industry</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>with SOEs’ shares</td>
<td>without SOEs’ shares</td>
<td>&lt;250 labors</td>
<td>≥ 250 labors</td>
<td>≤ 5 years&lt;sup&gt;(3)&lt;/sup&gt;</td>
</tr>
<tr>
<td><strong>Control</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Firm age</td>
<td>-1.06*</td>
<td>2.97*</td>
<td>-1.34**</td>
<td>-1.59**</td>
<td>0.33</td>
</tr>
<tr>
<td></td>
<td>(0.48)</td>
<td>(1.31)</td>
<td>(0.50)</td>
<td>(0.60)</td>
<td>(0.83)</td>
</tr>
<tr>
<td>Firm size</td>
<td>8.15***</td>
<td>9.95**</td>
<td>8.42***</td>
<td>2.23</td>
<td>13.58*</td>
</tr>
<tr>
<td></td>
<td>(1.33)</td>
<td>(3.46)</td>
<td>(1.41)</td>
<td>(2.47)</td>
<td>(5.54)</td>
</tr>
<tr>
<td>Firm legal form</td>
<td>-1.64</td>
<td>-5.45</td>
<td>-0.99</td>
<td>-1.78</td>
<td>-4.25</td>
</tr>
<tr>
<td></td>
<td>(1.85)</td>
<td>(17.66)</td>
<td>(1.91)</td>
<td>(2.00)</td>
<td>(5.27)</td>
</tr>
<tr>
<td></td>
<td>(4.14)</td>
<td>(13.45)</td>
<td>(4.32)</td>
<td>(4.51)</td>
<td>(11.70)</td>
</tr>
<tr>
<td><strong>Institutions</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PC1</td>
<td>1.43</td>
<td>11.51</td>
<td>0.41</td>
<td>1.43</td>
<td>3.65</td>
</tr>
<tr>
<td></td>
<td>(1.86)</td>
<td>(6.49)</td>
<td>(1.94)</td>
<td>(2.00)</td>
<td>(5.03)</td>
</tr>
<tr>
<td>PC2</td>
<td>4.89*</td>
<td>-12.30</td>
<td>5.77**</td>
<td>4.04*</td>
<td>8.65</td>
</tr>
<tr>
<td></td>
<td>(1.95)</td>
<td>(8.99)</td>
<td>(2.00)</td>
<td>(2.12)</td>
<td>(4.82)</td>
</tr>
<tr>
<td>PC3</td>
<td>-3.14</td>
<td>-5.55</td>
<td>-2.21</td>
<td>-1.77</td>
<td>-6.53</td>
</tr>
<tr>
<td></td>
<td>PC4</td>
<td>PC5</td>
<td>PC6</td>
<td>Constant</td>
<td></td>
</tr>
<tr>
<td>-----</td>
<td>---------</td>
<td>---------</td>
<td>---------</td>
<td>----------</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(1.75)</td>
<td>(5.28)</td>
<td>(1.85)</td>
<td>(1.81)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(1.92)</td>
<td>(4.19)</td>
<td>(2.81)</td>
<td>(2.19)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(2.08)</td>
<td>(3.37)</td>
<td>(2.08)</td>
<td>(2.08)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>0.00</td>
<td>3.33</td>
<td>-0.21</td>
<td>-0.23</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(1.81)</td>
<td>(6.67)</td>
<td>(1.87)</td>
<td>(1.95)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(1.92)</td>
<td>(4.69)</td>
<td>(2.96)</td>
<td>(2.19)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(2.13)</td>
<td>(3.45)</td>
<td>(2.13)</td>
<td>(2.13)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>1.52</td>
<td>8.41</td>
<td>1.64</td>
<td>0.20</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(1.76)</td>
<td>(7.37)</td>
<td>(1.81)</td>
<td>(1.89)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(1.87)</td>
<td>(4.88)</td>
<td>(2.93)</td>
<td>(2.15)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(2.15)</td>
<td>(3.16)</td>
<td>(2.15)</td>
<td>(2.15)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>-5.68**</td>
<td>0.18</td>
<td>-5.68**</td>
<td>-5.16</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(1.89)</td>
<td>(8.54)</td>
<td>(1.94)</td>
<td>(2.04)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(1.94)</td>
<td>(4.89)</td>
<td>(3.18)</td>
<td>(2.28)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(2.28)</td>
<td>(3.42)</td>
<td>(2.28)</td>
<td>(2.28)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>-5.16*</td>
<td>-7.34</td>
<td>-5.43</td>
<td>-5.27*</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(1.89)</td>
<td>(7.37)</td>
<td>(1.81)</td>
<td>(1.89)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(1.89)</td>
<td>(4.88)</td>
<td>(2.93)</td>
<td>(2.15)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(2.15)</td>
<td>(3.16)</td>
<td>(2.15)</td>
<td>(2.15)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>-5.16*</td>
<td>-7.34</td>
<td>-5.43</td>
<td>-5.27*</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(1.89)</td>
<td>(7.37)</td>
<td>(1.81)</td>
<td>(1.89)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(1.89)</td>
<td>(4.88)</td>
<td>(2.93)</td>
<td>(2.15)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(2.15)</td>
<td>(3.16)</td>
<td>(2.15)</td>
<td>(2.15)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Constant</td>
<td>46.69***</td>
<td>14.89</td>
<td>46.46***</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(6.81)</td>
<td>(69.94)</td>
<td>(7.04)</td>
<td>(9.27)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(9.27)</td>
<td>(39.21)</td>
<td>(14.80)</td>
<td>(9.11)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(9.11)</td>
<td>(8.35)</td>
<td>(11.84)</td>
<td>(11.84)</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>Observation</th>
<th>LR chi2</th>
<th>Prob &gt; chi2</th>
<th>Pseudo R2</th>
<th>Log likelihood</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>636</td>
<td>53.55</td>
<td>0.00</td>
<td>0.01</td>
<td>-2648.78</td>
</tr>
<tr>
<td></td>
<td>36</td>
<td>20.96</td>
<td>0.02</td>
<td>0.06</td>
<td>-152.65</td>
</tr>
<tr>
<td></td>
<td>600</td>
<td>54.29</td>
<td>0.00</td>
<td>0.01</td>
<td>-2484.15</td>
</tr>
<tr>
<td></td>
<td>505</td>
<td>18.65</td>
<td>0.04</td>
<td>0.00</td>
<td>-2164.22</td>
</tr>
<tr>
<td></td>
<td>131</td>
<td>21.78</td>
<td>0.01</td>
<td>0.02</td>
<td>-475.19</td>
</tr>
<tr>
<td></td>
<td>301</td>
<td>11.46</td>
<td>0.32</td>
<td>0.00</td>
<td>-1199.96</td>
</tr>
<tr>
<td></td>
<td>335</td>
<td>68.26</td>
<td>0.00</td>
<td>0.02</td>
<td>-1432.64</td>
</tr>
<tr>
<td></td>
<td>430</td>
<td>48.91</td>
<td>0.00</td>
<td>0.01</td>
<td>-1783.19</td>
</tr>
<tr>
<td></td>
<td>206</td>
<td>16.46</td>
<td>0.05</td>
<td>0.01</td>
<td>-859.63</td>
</tr>
</tbody>
</table>

Note: * p < 0.05; ** p < 0.01; *** p < 0.001. The values in parentheses are standard errors. (a) The model fit indexes do not attempt critical values.
References


PART 2. THEORIZING AND TESTING

Abstract

In this paper, we present a model that conceptually links the institutional environment, the industrial competition, and the firm’s resource investment and competitive advantage. The institutional attributes (i.e., the degree of specificity, stability, predictability, and enforceability of property rights and contracting institutions) are argued to drive the firm’s perceived uncertainty and incentive, and therefore its resource investment behaviors (i.e., the choice of investment propensity, objective, method, type, expenditure, and timing) that in turn influence the firm’s competitive advantage. In addition, the institutional attributes also configure the industrial competition (i.e., its competitive structure, dominant competitive strategy, and competitive intensity) that also influences the firm’s resource investment behaviors. Focusing on private firms in Emerging and Transition Economies (EE&TE) whose property rights and contracting institutions are still lacking or weakness, we name our model an incentive-based model on the firm competitive advantage.

Keywords

Institutions, resource investment, competitive advantage, transition, emerging economies
Introduction

In strategic management, there is a conventional wisdom that the firm’s success or failure, either in domestic or foreign markets, is determined by its competitive advantage and its ability to sustain this competitive advantage (Barney, 1991; Peng, 2004; Porter, 1991). Traditionally, the firm’s competitive advantage that can be defined as a competitive position or series of competitive positions relative to “the world’s best rivals” in which the firm has “lower cost than rivals, [and] or the ability to differentiate and command a premium price that exceeds the extra cost of doing so” can be achieved by formulating and implementing generic competitive strategies (i.e., cost leadership, differentiation, and focus) through various activities – i.e., its value chain and value system (Porter, 1991: 96, 101; brackets added). However, strategic schools differ considerably in identifying the parameters based on which the firm could and should formulate its competitive strategies. The industry-based view insists on the external industry structure (i.e., competitive forces and their bargaining power) as the most important parameters (McGahan and Porter, 1997; Porter, 1979, 1980). The resource-based view argues however that the firm’s internal resources and capabilities play a crucial role (Barney, 1991, 1995, 2001a). Recently, the institution-based view argues that both the way by which the competitive forces interact and the extent to which the resources and capabilities are valued are determined by the rules of competition, i.e., the formal and informal institutions (Peng, 2002; Peng et al., 2009).

There is a growing belief that the combination on strategy tripod - i.e., the industry-based, resource-based, and institution-based views - will bring more insightful explanations and implications to strategic management (Peng et al., 2009). In fact, there were some attempts, both theoretical and empirical, but these early works have some major shortcomings. First, they often apply the three strategic perspectives to analyze different dimensions of the firm’s strategy (e.g., internationalization strategies) rather than to identify the underlying mechanisms that link these three perspectives and their impacts on the firm’s strategic choices (Gao et al., 2010; Yamakawa, Peng and Deeds, 2008). Second, certain authors identify some underlying mechanisms but, unfortunately, they only integrate two rather than all three views of the strategy tripod, such as the institution-based and resource-based views (Foss and Foss, 2005; Kim and Mahoney, 2002; Meyer et al., 2009; Oliver, 1997), or the industry-based and resource-based views (Amit and Schoemaker, 1993; Barney, 1986c). Third, as Peng et al. (2009: 75-77)

---

1 In fact, Amit and Schoemaker (1993) link the industry-based and resource-based views through the behavior-based view by arguing that the resources and capabilities’ features (i.e., uniqueness and low mobility) that are the sources of sustainable competitive advantage stem not only from market imperfections (i.e., the industry-based view on imperfect competition)
argued, the institution-based view, as the latest and youngest leading theoretical perspective in strategy, is still too broad and too encompassing because it lacks strong measures of institutions. Perhaps, the main reason is the fact that the institution-based studies in strategic management and entrepreneurship bases on different schools of the new institutionalism, notably the institutional theory in sociology (DiMaggio and Powell, 1983, 1991; Scott, 2001), the new institutional economics (North, 1990; Williamson, 1996), and the cultural approach (Hofstede, 2001; Thurik and Dejardin, 2012). In addition, with a few exceptions (e.g., Oliver, 1997; Oxley, 1999; Thomas III and Waring, 1999; Williamson, 1991), different levels of institutions (i.e., individual, organizational governance or institutional arrangement, and inter-organizational or institutional environment) and their interactions were often not unbundled (Figure 3). Finally, previous studies often focus on firms that operate in developed economies (DE), or on foreign firms that operate in emerging and transition economies (EE&TE) (e.g., Coeurderoy and Murray, 2008; Estrin et al., 2008; Meyer et al., 2009) rather than on local firms in EE&TE (Hoskisson et al., 2000). This is very questionable because it raises the problem of ex-ante feasibility of existing theoretical models in the context of non-Western i.e., EE&TE (Williamson, 1991: 270). So, “the exact nature of institutional forces in emerging economies is not yet well conceptualized” and, as a consequence, prior studies often use cultural differences as the cause of any entrepreneurial difference between EE&TE and DE, and neglect the role of other institutional components (Bruton, Ahlstrom and Obloj, 2008: 10).

In this paper, we aim to fill some of these gaps by proposing a model that (i) contextually focuses on local private firms in EE&TE; (ii) conceptually links the institutional environment, the industrial competition, and the firm’s resources; (iii) operationally measures the attributes of two major elements of the formal economic institutional environment, i.e., property rights and contracting institutions. More precisely, our research question is “How the institutional environment influences the competitive advantage of firms in EE&TE: by which mechanism, and to what extent?”

but also from cognitive imperfections (i.e. boundedly rational manager) and organizational imperfection (i.e., intraorganizational conflicts). By contrast, Barney (1986c) integrates the industry-based view (i.e. the Industrial Organization competition or IO) and the resource-based view (i.e., the Chamberlinian conceptions of competition) through the Schumpeterian conceptions of competition (i.e., the revolutionary innovations in product, market, or technology).

2 In the context of EE&TE, the structure of competitive forces can be classified as three major organizational forms: (i) incumbent firms (primarily business groups, state-owned enterprises, and privatized firms), (ii) entrepreneurial start-ups, and (iii) foreign entrants (Peng, 2003: 283). By considering entrepreneurship as major engine of socio-economic development, and this requires a strong infrastructure of market-supporting institution, we thus focus on local private firms that can be considered as central agent of socio-economic development in EE&TE (McMillan and Woodruff, 2002).
Based on the insights of the new institutional economics (including historical and political economy, economics of property right, and economics of governance), evolutionary economics and strategic literature, we argue that the different attributes of the formal economic institutional environment (i.e., the degree of specificity, stability, predictability, and enforceability of property rights and contracting institutions) strongly influence the firm’s competitive advantage because they configure the firm’s industrial competition (i.e., competitive structure, competitive strategy, and competitive intensity) and especially the firm’s resource investment behavior (i.e., choices of propensity, objective, method, type, expenditure, and timing) by determining the firm’s perceived uncertainty and incentive. Figure 2 graphically outlines our model.

The rest of this paper will be organized in four parts. First, we show that resource investment is a major concern of both the industry-based and the resource-based views, based on which we propose an exhaustive definition of resource investment and then hypothesize the relationship between resource investment and competitive advantage. Second, by contextualizing the EE&TE, we clarify the most important attributes of their institutional environment, and then hypothesize the impact of these institutional attributes on the firm’s industrial competition and resource investment behaviors. In the third and fourth parts, respectively, we discuss the contribution and application of our model, and then conclude our arguments.

**Resource investment and competitive advantage**

In this part, we first show that the relationship between resource and competitive advantage is the central concern of both the industry-based view and the resource-based view. However, because of their own interest, each school of strategic thought focuses on different dimensions of this strategic relationship: the industry-based view insists on the external industry structure while the resource-based view insists on the firm-specific resources attributes. We therefore propose a unique mechanism relative to resource investment that combines the two leading perspectives into a single framework on the firm’s competitive advantage. We then provide an exhaustive and operational definition of resource investment, make assumptions about the conditions in which this strategic behavior can prove its role, and hypothesize its effects on the firm’s competitive advantage.
Concepts and scope

In the strategic literature, the firm’s resources are often distinguished from its capabilities. For instance, Amit and Schoemaker (1993: 35; square brackets and emphasis added) define the firm’s resources as “stock of available factors that are owned or controlled by the firm … [such as] knowhow that can be traded (e.g., patent and licenses), financial or physical assets (e.g., property, plant and equipment), human capital, etc. [whereas] capabilities … refer to a firm’s capacity to deploy resources, usually in combination, using organizational processes, to effect a desired end”. In the present work, we adopt Barney (1991: 101; brackets, emphasis and italic added)’s and Barney’s (2001a: 54) definition that use resources and capabilities as interchangeable concepts meaning “all [tangible and intangible] assets … controlled by a firm that enable the firm to conceive of and implement strategies that improve its efficiency and effectiveness” and including “all of the financial, physical, human, and organizational assets used by a firm to develop, manufacture, and deliver products or services to its customers” (Barney, 1995: 50).

The resource-based view argues that because resources and capabilities enable the firm to conceive and implement competitive strategies, the firm’s heterogeneity in resources and capabilities should therefore be sources of its sustained competitive advantage: a firm “is said to have a sustained competitive advantage when it is implementing a value creating strategy not simultaneously being implemented by any current or potential competitors and when these other firms are unable to duplicate the benefits of this strategy” (Barney, 1991: 102; italic original); and the extent to which competitors are unable to duplicate the firm’s competitive strategy depends on certain attributes of resource that the firm possess such as valuable, rare, imperfectly imitable, and not substitutable (Barney, 1991, 2001a). Where do such resources and capabilities heterogeneities come from? Why can certain firms own or control valuable, rare, imperfectly imitable, and not substitutable resources and capabilities while others do not? The resource-based view argues that this mainly results from the firm’s resource investment. For instance, Ethiraj et al. (2005: 28; brackets and italics added) argue that capabilities can be either (i) “rooted in the organizational memory to repetitively execute the sequence of productive activities without trouble … [in other words] the results of tacit accumulation of experience embedded in routines and learning by doing … [or (ii)] the results of deliberate investments in organizational structure and systems to make constant improvements in those routines and practices”. In other words, the first capability building mechanism is “semiautomatic accumulation of experience” while the second is “deliberate investments in knowledge articulation and codification activities” (Zollo and Winter, 2002). For his part, Barney (1986b) argues that firms can sell and buy required
resources to implement strategies through strategic factor markets, but that acquisition of resources can only be the source of competitive advantage (i.e., above normal return) if strategic factor markets are imperfectly competitive resulting from the heterogeneous expectations about the future value of these strategies between firms that seek to acquire resources (strategizers) and firms that currently own or control these resources (controllers); and these heterogeneous expectations are in turn rooted in the firm’s information advantage (i.e., firms that have more accurate expectations concerning the future value of a particular strategy than other firms) or in luck (i.e., when several firms underestimate the potential return of a strategy). Dierickx and Cool (1989) argue, however, that certain resources and capabilities are nontradeable, and that firms should internally build or accumulate these resources and capabilities. The firm’s asset accumulation can be defined as a process by which “strategic asset stocks are accumulated by choosing appropriate time path of flows over a period of time” (Dierickx and Cool, 1989: 1506; emphasis added). This strategic process can therefore be the source of sustained competitive advantage because its competitors cannot replicate these resources and capabilities merely by purchasing and selling through strategic factor markets. In other words, resource accumulation will create the phenomenon of incomplete strategic factor markets that coexist with the phenomenon of imperfect strategic factor markets.

It would be a mistake to say that only the resource-based view insists on the role of resource investment as the source of sustained competitive advantage and that the industry-based view does not. In fact, Porter (1979: 215; emphasis added) argues that, the strategic differences between firms within an industry, hence strategic groups, “emerge in a variety of ways, reflecting initial differences among firms in their tangible or intangible assets and other factors”. On the one hand, “performing an activity requires tangibles and intangibles assets that are internal to the firm ... performing an activity, or a group of linked activities, also creates [internal and external tangible and intangible] assets ... to the firm ... without reinvestment, however, both the external and internal intangible [and tangible] assets attached to activities or groups of activities deprecate”; and that, on the other hand, “maintaining or enhancing these assets demands reinvestment through performing activities (Porter, 1991: 102-103; emphasis added). Both internal and external assets are not valuable in and of themselves, however, but because they fit industry structure and a particular strategy. Activities perform poorly, or inconsistently with buyer needs, can create liabilities not assets. At the same time, technological and other industry changes can nullify assets or turn them into liabilities”. In other words, the industry-based view also insists on resource investment and reinvestment as source of sustained competitive advantage, but it mainly focuses on the relationship of resource investment/reinvestment - industry structure – activities - sustained
competitive advantage rather than the relationship of resource investment - resource’s attributes - sustained competitive advantage as the resource-based view does. Furthermore, it is interesting to recognize that both the resource-based view and the industry-based view do not consider resource’s attributes and industry structure, respectively, as direct sources of value creation and therefore of competitive advantage but as sources of sustained competitive advantage: on the one hand, the ultimate function of industrial analysis is “to explain the sustainability of profits against bargaining and against direct and indirect competition” (Porter, 1991: 100; italic original); on the other hand, the resource-based view “as currently constituted, contains a theory of sustainability but not a theory of competitive advantage (i.e., value creation)” (Priem and Butler, 2001b: 64; italic original). In responding to many criticisms on the resource-based view (e.g., Priem and Butler, 2001a; Priem and Butler, 2001b), Barney (2001a: 52-53) himself also recognizes that “the value of a firm’s resource must be understood in the specific market context within which a firm is operating”, and that the resource-based view often neglects the issues of strategy implementation, i.e., various activities through which competitive advantage is directly created. This consists with the empirical evidences provided by Ahuja and Katila (2004) who from evolutionary perspective demonstrate that the resource heterogeneity often results from the firms’ responding to external stimuli (in the form of problems or opportunities) in their idiosyncratic situation.

In sum, the firm’s value and therefore its competitive advantage, is directly created by the firm’s various activities that are in turn configured by the firm’s competitive strategy whose success depends on how it relates on the firm’s external (i.e., industry structure) and internal (i.e., resources and capabilities) conditions. In this dynamic cycle of creating and sustaining competitive advantage, resource investment, as a component of business strategies (Chrisman, Hofer and Boulton, 1988: 414), plays a critical role because it reflects both the firm’s internal and external conditions, competitive strategies, and various activities. Based on the insights above, we can now define resource investment as the firm’s intended or deliberate and consistent policies of assets (i.e., both tangible and intangible assets) formation through different methods (i.e., acquisition and/or accumulation) by choosing an appropriate path of flows or strategic expenditures (e.g. time, money, cognitive efforts, etc.) that enable the firm to conceive and implement competitive strategies that improve its efficiency and effectiveness over a period of time. This definition requires however some discussions.

First, resource investment is a strategic decision because its purpose is to create a certain degree of available resource and capabilities that will enable the firm to conceive and implement its future competitive strategies; and vice versa, any existing resources and capabilities that enable the firm to
conceive and implement its current competitive strategies should mainly derive from its investment decisions that were made in the past (Maritan, 2001). Such a strategic decision is of course very important because it involves many actions taken, resources committed, and strongly influence the heath and survival of the firm (Eisenhardt and Zbaracki, 1992). The strategic implication of resource investment can be reflected by its objectives: (i) to maintain/replace/add an existing stock of resources and capabilities; (ii) to upgrade/expand/build new resources and capabilities (LaDue, Miller and Kwiatkowski, 1991; Maritan, 2001; Porter, 1991). The difference between these two types of strategic objectives in resource investment is that “maintain and add investments require no qualitative change to a firm’s capabilities stock. They are investments decision makers make to preserve or to increase the “quantity” of a capability, with the intent of leveraging existing capabilities and competencies. In contrast, new investments represent a qualitative change to the firm’s capability stock, and decision makers enact this change with the intent of broadening the opportunity set available to the firm” (Maritan, 2001: 515; italic original).

Second, the decision making process of resource investment is deliberate and involves several strategic efforts in choosing: (i) the resource investment methods (acquisition and/or accumulation) that are the means by which the firm can own or control its required strategic resources: normally, resources accumulation requires more resources (i.e., time, money, cognitive efforts) and therefore involves more risk and uncertainty than resource acquisition (Barney, 1986b; Dierickx and Cool, 1989); (ii) the types of resource to invest in: normally, investment in intangible assets requires more resources (i.e., time, money, cognitive efforts, etc.) and therefore involves more risk and uncertainty than investment in tangible assets because the former relates more to organizational learning that is time consuming (Zollo and Winter, 2002); (iii) the resource expenditures devoted to investment that includes (a) choice of degree of resources (i.e., tangible and intangible assets) devoted to investment, and (b) choice of sources of resources devoted to investment including internal resources owned or controlled by the firm (e.g., retained earnings) or external resources mobilized by different methods (e.g., debt, equity, strategic alliance): normally, the higher the degree of resources devoted to investment and the more important the external source of these resources is, the more likely the firm will be to bear commitments and risks (Johnson, McMillan and Woodruff, 2002b; Teisberg, 1993); (iv) the resource investment timing, meaning the firm and its entrepreneurs have an expected rate of return on their investment over a certain period of time, and not indefinitely, and that this expectation can be qualitatively classified as short-term or long-term resource investment: normally, the longer the time of an investment is, the more likely the firm is to confront risk and uncertainty about the return potential of its investment (Jeong, 2002; Teisberg, 1993).
Assumptions and propositions

The importance of resources and capabilities for competitive advantage and economic performance at both macro and micro level has been well theoretically and empirically documented in the economic and strategic literature (e.g., Bharadwaj, 2000; Gomes, 2007; Roberts and Dowling, 2002; Schultz, 1961). However, does resource investment always lead to competitive advantage, sustained competitive advantage and performance? The answer is not necessarily. As mentioned above, the major ex-ante purpose of resource investment is to create a certain level of available resources and capabilities owned or controlled by the firm that enable it to conceive and implement its competitive strategies. Nevertheless, at the moment that a firm conducts its competitive strategies through various activities, there is perhaps an ex-post difference, either positive (excess) or negative (deficit), between the resources currently owned and controlled by this firm and the resource demands of its current business. This will create the phenomenon of resource slack, i.e., positive slack when the firm owns or controls resources that exceed its resource demands in current business and negative slack when the firm owns or controls resources that do not meet its resource demand in current business. This phenomenon could have both a positive and a negative impact on the firm’s competitive advantage because of problems such as adding complexity and therefore costs in resource management, entrepreneurial motivation, and especially resource stickiness (Mishina, Pollock and Porac, 2004; Nohria and Gulati, 1996). Resource stickiness, or the degree of discretion in the language of evolutionary economics (Mishina et al., 2004), or ‘asset specificity’, ‘transaction-specific investment’ in the language of transaction costs economics (Williamson, 2002, 2005), refers to “the ability to convert [resource] slack to other uses should the need or opportunity arise … the more specific a resource is to a particular use, the less discretion management has in deploying excess amounts to alternative uses” (Mishina et al., 2004: 1183; brackets added). Resource stickiness can derive from the nature of a resource: for instance, human resource are typically context-dependent and thus more difficult to transfer across task situation than generic financial resources (Mishina et al., 2004). More importantly, resource stickiness can derive from resource investment: if a firm does not appropriately invest in its resources, it could have difficulties in converting or transforming its invested resources for alternative uses in its current business activities.

Empirically, for instance, Knott, Bryce and Posen (2003) argue that the asset accumulation process (i.e., resource investment method) significantly contributes to the firm’s competitive advantage and performance, but that it cannot be a source of sustained competitive advantage because the firm’s competitors can rapidly reach its steady state of asset stocks by investment too. However, Knott et al. (2003)’s finding is
only correct if it satisfies two conditions: (i) the firm only makes a constant annual investment in order to maintain its existing stock, and (ii) the firm’s competitors know exactly which resources needed to invest in, when to invest in, and with what degree of resources are needed to devote to investment. In fact, it is difficult to imagine that the firm constantly invests in certain types of resources for merely maintaining the value of its existing asset stock (i.e., avoiding the problem of asset erosion or depreciation), and that the firm’s competitors can easily access all correct information related to its resource investment. On the other hand, as mentioned above, the firm’s resource investment is not the direct source of the firm’s competitive advantage and sustained competitive advantage. That is the role of the firm’s formulation and implementation of its competitive strategies through various activities. In their panel analysis of Swedish firms, Heshmati and Lööf (2008) go one step further by arguing that there is a two-way causal relationship between investment and performance and that this relationship strongly varies with the firm’s size. In sum, these spare empirical evidences confirm the significant relationship between resource investment and the firm’s competitive advantage and performance. Thus, by assuming that the firm (i) appropriately invests in its resources (i.e., having an appropriate degree of resource slack); (ii) efficiently and effectively deploys its resources (i.e., quasi-zero-resource-stickiness in formulating and implementing its competitive strategies); and (iii) there are positive transaction costs (e.g., information cost) for the firm’s competitors to get its resource investment information, we propose that:

**Proposition 1:** The firms will be likely to gain competitive advantage and sustain this competitive advantage when they (i) strategically invest in resources and capabilities; (ii) mainly invest in order to build new resources and capabilities; (iii) mainly invest in resources and capabilities by accumulation method; (iv) invest more in intangible assets; (v) devote more both tangible and intangible assets to resource investment; (vi) mobilize both internal and external sources for resource investment; and (vii) focus more on long-term resource investment.

**Contextualizing EE&TE**

Institutions, together with other standard constraints of economic theory – i.e., technology and market (prices and tastes or preferences) - are the competitive bases of economies that determine opportunities and incentive structures in a society (North, 1990: 7). The impact of technology and market on the firm’s strategy and performance are obviously important. As Barney (1986c: 797; emphasis and brackets added) discussed on the
Schumpeterian conceptions of competition, the revolutionary innovation in product, market, or technology “defines the character of competition in an industry by defining the technological and market bases of competition, the organizational resources and assets that are strategically valuable, and the organizational resources and assets that are irrelevant … by defining what skills and abilities are strategically valuable … [and therefore] also defines which firms are likely to be successful early on, which firms must modify their resources base to become successful, and which firms are likely to not survive”. North (1990: 83-91) also insists on changes in prices (factors and products) and tastes or preferences as major sources of institutional changes. In other words, institutions, technology and market and their changes are interrelated and they all influence the firm’s behaviors by providing both constraints and opportunities. However, in the context of EE&TE that are defined as economies whose governments adopt the free-market system and favor policies of economic liberalization, but whose formal market-supporting institutions are lacking or weakness (Hoskisson et al., 2000; Peng, 2003), it is reasonable to argue that institutions, as compared with other elements of the competitive bases, are the most crucial element that characterize the transitional nature of EE&TE (McMillan, 1995, 2007; Peng, 2003). Thus, although we recognize the important effects of other competitive bases (i.e., technology and market) on the firm’s behavior and competitive advantage, our attention in the current work is devoted to the institutional element of competitive bases. This work inevitably requires a more detailed and systematic investigation on institutions, their components, their changes and their effects on the firm’s behavior.

Concepts and scope

Institutions are defined as “the rules of the game in a society or, more formally, are the humanly devised constraints that shape the human interaction. In consequence they structure incentives in human exchange, whether political, social, or economic…. They can be either … formal constraints – such as rules that human beings devise – and … informal constraints – such as conventions and codes of behaviors.” (North, 1990: 3-4). Institutions differ from organizations: both provide a structure to human interaction but “the purpose of the rules (i.e., institutions) is to define the way the game is played … [while] the objective of the team (i.e., players or organizations including business organizations) within that set of rules is to win the game – by a combination of skills, strategy, and coordination” (North, 1990: 4-5; brackets added). Institutions can be classified into two levels: institutional environment that is defined as “the set of fundamental political, social and legal ground rules that establishes the basis for production, exchange and distribution. Rules governing elections, property rights, and the right of contract are examples of ground of rules that make up the economic environment”; and institutional arrangement or
The institutional environment strongly influences the institutional arrangement because the former “is about the rules of the game” while the latter “is about the [play of the] game itself” and “the rules have a great impact on how the game is played” (Pejovich, 1990: 3; Williamson, 1998: 75; brackets added). The institutional environment influences the institutional arrangement through two main ways: firstly, because the institutional environment determines the incentive structures of the economies, it determines the direction (productive, unproductive, or destructive) of the entrepreneurial activities (Baumol, 1990; North, 1990: 9; 1994: 361); secondly, the nature and changes of the institutional environment strongly influence the comparative costs of different forms of institutional arrangement or governance, i.e., market, hybrid, and hierarchy (Williamson, 1991: 287; 1994a: 174-175; 1994b: 80).

The institutional environment and institutional arrangement consist of both formal and informal constraints: at the institutional environment level, there are for example sanctions, taboos, customs, traditions, and codes of conducts – i.e., informal institutional environment - or polity, judiciary, laws of contract and property – i.e., formal institutional environment (North, 1991). At the institutional arrangement level, there are written (formal institutional arrangement) and unwritten contracts (informal institutional arrangement) between transaction parties. As mentioned above, EE&TE are often in situation of lawlessness (Williamson, 2005) because their formal market-supporting institutions are often lacking or weak (Hoskisson et al., 2000), especially in their early phase of transition (Peng, 2003). In this context, among the two levels of institutions – i.e., institutional environment and institutional arrangement – and among the two dimensions of institutions – i.e., formal and informal institutions – the formal dimension of institutional environment is central because: (i) as mentioned above, that is the institutional environment that determines the institutional arrangement (Pejovich, 1990: 3; Williamson, 1998: 75), and (ii) only when the formal institutions fail, the informal institutions will play a larger role in societies and economies – i.e., the compensatory structure of institutions (Peng et al., 2009: 68). In addition, among elements of the institutional environment, the institutional environment also includes social, political and judicial institutions that strongly interrelate with economic institutions (North, 1991). However, as we will explain in the next section, clarifying the attributes of the social, political and judicial institutions is not our subject in the current work that focuses on identifying the attributes of the formal economic institutions (i.e., property rights and contracting institutions) and their impact on the firm’s competitive and resource investment behaviors. We only analyze the role of judicial institutions (i.e., courts) as an enforcement mechanism of property rights and contracting institutions. Some basic understandings of the judicial attributes (e.g., judicial independence)
property rights and contracting institutions are central because they determine incentive structure and the transaction costs of an economy (North, 1990). Our attention is therefore devoted to two key elements of the formal economic institutional environment: property rights institutions and contracting institutions (Figure 1).

The property rights or rights of ownership of an asset (both tangible assets such as land, capital or intangible assets such as intellectual capital) can be defined as “relations among men that arise from the existence of scare goods and pertain to their use” (Pejovich, 1990: 27). In a market-based economy, the structure of property rights mainly bases on private property rights that contain four elements: (i) the right to use the asset, (ii) the right to capture benefits from that asset, (iii) the right to change its form and substance, and (iv) the right to transfer all or some of the right specified under (i), (ii), and (iii) to others at a mutually agreed upon price (Furubotn and Richter, 1991: 6; Pejovich, 1990: 28). The property rights institutions and their impact on economic performance can be found in the work of Klerman (2007). A fundamental understanding of the relationship between political and economic institutions can be found in the work of Acemoglu, Johnson and Robinson (2005), some detailed measurements of political attributes can be found in the works of Knack and Keefer (1995), Brunetti and Weder (1998), Svensson (1998). Some basic understanding of the relationship between social institutions, economic structures and economic outcomes can be found in the works of Granovetter (1985, 2005) and Zucker (1985).

4 Used as interchangeable with ‘contractual rights institutions’ (Klerman, 2007): property rights (or right of ownership) and contractual rights (or right to contract) are two fundamental rights in economic life, and they belong to the more general concept of “human rights” that encompass other rights in political and social life (Pejovich, 1990: 27).

5 A basic and crucial understanding of the difference and interaction between different types of goods, rights, and owners can be found in the works of McKean (2000) and Ostrom, Gardner and Walker (1994: 7). Our current work focuses on the private property and its institutions that are crucial for industrial firms. However, this does not mean that we adopt the view that private property is superior to others forms of property rights (i.e., public and common property) because, as Ostrom (2000) and McKean (2000) demonstrated, the functioning of the property rights (either private, common or public) is interrelated with the types of goods and owners. As we will investigate and explain in the next section, our concern is the question of what are the major attributes that the property rights institutions of EE&E should have in order to produce their positive effects and outcomes at both micro and macro levels.

6 For common-pool resources or common property, certain political scientists such as Ostrom (2000) and Ostrom and Hess (2007) argued that the common property regimes or the property rights arrangements of common property should clearly recognize or define five major rights: (i) access (the right to enter a defined physical area and enjoy non subtractive benefits); (ii) withdrawal (the right to obtain resource units or products of a resource system); (iii) management (the right to regulate internal use patterns and transform the resource by making improvements); (iv) exclusion (the right to determine who will have access rights and withdrawal rights, and how those rights may be transferred); and (v) alienation (the right to sell or lease management and exclusion rights). The common property regimes and their cousins, i.e., property rights arrangements of private and pure public properties, are all however configured by the property rights institutions at macro or environmental level.
are “the rules and regulations protecting citizens against the power [and therefore the risk of expropriation or appropriation] of the government and elites” (Acemoglu and Johnson, 2005: 955; brackets added) and against the expropriation or appropriation of other citizens – e.g., leakage and hold-ups by commerce with rivals, suppliers, customers (Klein, 1996; Williamson, 1991). The property rights institutions structure economic behaviors of entrepreneurs and firms by three important ways: “exclusivity (i.e., the first two elements of property rights) provides incentives for those who own assets to put them into the highest-value uses; transferability (i.e., the third and forth element of property rights) provides incentives for resources to move from less-productive to more-productive owners [through contracting institutions]; and the constitutional guarantee of ownership separates the accumulation of economic wealth from the accumulation of political power” (Pejovich, 1990: 29; brackets added). The contracts are “means by which people seek, identify, and negotiate opportunities for exchange” (Pejovich, 1990: 30). The contracting institutions are “the rules and regulations governing contracting between ordinary citizens, for example, between a creditor and a debtor or a supplier and its customers” (Acemoglu and Johnson, 2005: 955). In a market-based economy, the economic actors are free to seek, identify, negotiate and contract with partners for exchange. Finally, the rules and regulations related to property rights and contractual rights can be defined as any legal and administrative rules created, applied and enforced by state institutions (i.e., legislative, executive, and judiciary) at local, national, and international level (Kitching, 2006; Shleifer, 2005).

The property rights institutions and the contracting institutions differ from each other but they also interrelate: on the one hand, “while the rights of ownership create incentives for people to seek the most productive uses for their assets, the freedom of contract reduces the cost of identify them” (Pejovich, 1990: 30); on the other hand, because “a contractual agreement … represents the effective means by which the bundles of rights are exchanged” (Furubotn and Richter, 1991: 15; italic original), the rules and regulations that determine how bundles of rights can technically be transferred through contractual agreements – i.e., the contracting institutions – is obviously constrained by the rules and regulations that determine what bundles of rights can legally be transferable through contractual agreements – i.e., the property rights institutions (Furubotn and Richter, 1991; Pejovich, 1990). In other words, by contrasting with neoclassical economics that view transactions in the marketplace as exchanges of physical commodities or services, the new institutional economics (i.e., the economics of property rights) view such transactions as exchanges of two bundles of rights that attaches to these physical commodities or services (Alchian and Demsetz, 1973; Demsetz, 1967; Foss and Foss, 2005). Thus, in a contractual arrangement that is configured by contracting institutions, while the purpose of exchange is independent of the prevailing property rights institutions, the
extent of exchange and terms of trade are not because “any deviation of contractual agreement from the prevailing property rights [will] not be enforceable” (Furubotn and Richter, 1991: 6, 16; Pejovich, 1990: 30).

Both property rights and contracting institutions need to be enforced in order to fully define the incentive structure of economies (North, 1994: 360). Enforcement mechanisms are themselves institutions by which other institutions are efficiently and effectively guaranteed. The functioning of a market-based economy requires that the private property rights and the freedom of contract should efficiently and effectively be recognized and guaranteed. As institutions, the enforcement mechanisms of property rights and contracting rights can also either be formal - i.e., by public ordering such as courts and other institutions of state - or informal - i.e., by private ordering such as immediate or third parties and affiliates to a transactions, or reputation-based mechanisms (Klerman, 2007; McMillan and Woodruff, 2000; Williamson, 1994a: 174). However, the feasibility of different enforcement mechanisms are very different: in the case of contracting institutions, the economics actor can alter the enforcement mechanisms - e.g., by ex-ante methods such as raising interest rate in credit relationships (Acemoglu and Johnson, 2005) or by scrutinizing prospective trading partners before beginning to transact (McMillan and Woodruff, 1999), or by ex-post methods such as community and private sanctions (Klein, 1996; McMillan and Woodruff, 1999) because these institutions only concern the interactions between citizens; in the case of property rights institutions, it is however almost impossible for the economic actor to alter the enforcement mechanisms of these institutions because the elites that control political power always use the state and its monopoly of legitimate violence to protect the prevailing property rights institutions (Acemoglu and Johnson, 2005; Acemoglu et al., 2005).

In sum, property rights and contracting institutions are two fundamental components of the formal economic institutional environment that determine the incentive structure and the transaction costs of an economy. Property rights and contracting institutions are also the crucial institutional issues of EE&TE in their transitional period. The next section deepens the transitional nature of property rights and contracting institutions, their attributes and their impact on the firm’s competitive and resource investment behaviors in the context of EE&TE.

**Institutional attributes and firm’s investment behaviors**

“The major role of institutions in a society is to reduce uncertainty by establishing a stable (but not necessarily efficient) structure to human interaction” (North, 1990: 6). In all economies, institutions are however changing because of several sources, either external or internal or both
North, 1990; Pejovich, 1990). The institutional change creates in turn institutional uncertainty that can be defined as the economic actors’ perceived inability to predict institutions (i.e., their state, their effect and their required response) in an accurate manner (Milliken, 1987). In the context of EE&TE, the institutional change mainly means the transition from non- or less-market-supporting institutions to the more-supporting ones (McMillan, 1995, 2007), i.e., from non- or less-supporting private property rights and free contractual rights institutions to the more-supporting ones (Besley, 1995; Johnson et al., 2002b; McMillan and Woodruff, 1999). This transitional nature not only causes the problem of institutional uncertainty (i.e., unstable institutional infrastructures and unpredictable institutional changes) but also incentive problems because economic actors often do not have the full rights of ownership and the freedom of contract, and their economic interests are often inefficiently and ineffectively protected from both public and private expropriation risks by formal enforcement mechanisms. As a consequence, the firms can be reluctant to invest in their resources. This incentive problem of investment was very summarized by Johnson et al. (2002b):

“Secure property rights [and contractual rights] are necessary … and also sufficient for investment… The issue is not whether entrepreneurs have enough resources, but rather whether they want to invest their retained earning [and other resources] or instead consume these earnings [and other resources], perhaps outside the country … [Thus] certain market-supporting institutions will work only after other institutions have been built.” (Johnson et al., 2002b: 1336; brackets and italic added)

But how institutions (i.e., property rights and contracting institutions) influence the firm’s investment behavior, by what ways or mechanism, and to what extent? The existing literature often describes institutions either by (i) type of activities in doing business such as starting business, hiring and firing workers, enforcing contracts, getting credit, and closing a business (e.g., Djankov et al., 2002, 2003; World Bank, 2004) or by (ii) societal sectors such as economic, political, judicial, and social (e.g., Acemoglu and Johnson, 2005; The Heritage Foundation, 2006-2012; World Bank, 2002). While these approaches could be useful to make a comparative analysis of different institutional frameworks at the macro level, it could however be inappropriate to evaluate the impact of these institutional frameworks on the firm’s behaviors because the direction and the extent to which institutions matter depend on the way by which individuals (i.e., the firm’s managers) perceive and interpret their institutional reality. We therefore need to clarify some key institutional attributes that scholars can use to capture the extent to which individuals use their mental constructs relative to their institutional environment to conduct their behaviors
Based on the insights of prior studies (e.g., Acemoglu and Johnson, 2005; Besley, 1995; Brunetti and Weder, 1998; Djankov et al., 2002, 2003; Knack and Keefer, 1995; Malesky and Taussig, 2009; Svensson, 1998; Teisberg, 1993), there are four key institutional attributes that emerge: specificity, stability, predictability, and enforceability. The nature, existing measurements, and implications of these institutional attributes for the firm’s competition and investment behaviors is discussed in detail below.

**Specificity**

The institutional specificity is the extent to which the private property rights of ownership and the freedom of contract are recognized or defined by prevailing rules and regulations. This institutional attribute determines the *de jure* incentive of economic actors because it formally structures the extent to which they can do with their assets. Surprisingly, for a few exceptions such as Besley (1995: 914, 933-936), in prior studies, scholars often worry about whether property rights are efficiently and effectively enforced but neglect to verify to what extent property rights and contractual rights are recognized or assigned by the prevailing legal system of different countries. For instance, Acemoglu and Johnson (2005) used three measures of ‘constraint on the executive’ provided by Polity IV, ‘protection against government expropriation’ provided by Political Risk Services, and ‘private property protection’ provided by Heritage Foundation. These constructs aim to measure the risk of appropriation, and therefore the effectiveness of property rights enforcement, through evaluating the degree of executive constraint, the effectiveness of protection for private foreign investment and private property rather than to measure the extent to which property rights are recognized or defined. This is not right because, as mentioned above, the property rights institutions determine what bundles of rights can legally be transferable through contractual agreements. In other words, we need to

---

7 We do not mean that the institutional attributes identified in the current work are the ‘true’ ones that individuals use to build their subjective model about their institutional environment. However, such conceptual instruments are necessary for scholars to unbundle the way by which the institutional reality enters in the individual’s decision making process. As we all know, identifying the attributes of the phenomenon studied - either at environmental, industry, organizational, transaction, or individual level – is common in social sciences such as entrepreneurship (e.g., Covin and Slevin, 1991), transaction costs economics (e.g., Williamson, 1996), or strategic management (e.g., Barney, 1991; Porter, 1980). It seems therefore that the more important issues are how to identify the ‘right’ attributes and how to properly measure them rather than whether or not is identifying institutional attributes necessary. This point will be discussed more in the part of Discussions.

8 Also used in Gwartney, Hall and Lawson (2012: 222) concerning ‘protection of property rights’: this indicator however combines the definition of property rights and their protection into a single scale.
know what rights are legally recognized, defined or assigned before knowing how they are legally enforced or protected.

The fact is that in many EE&TE in Africa (Besley, 1995) and Asia such as Viet Nam, private property rights are recognized but not as the “cornerstone” of property rights and individuals only have limited rights of ownership of an asset such as land. In this context, asking entrepreneurs about what property and contractual rights they hold and therefore what they can do to create, appropriate, and sustain value from their resources is very different from asking them how well these rights are enforced or protected (Foss and Foss, 2005). In its turn, the measurement of contractual rights’ specificity is more developed. For instance, the works of Djankov et al. (2002) and World Bank (2004) provide certain good measures of the freedom of contractual rights through a proxy of barriers and complexities (e.g., the number of official procedures, official time, and official costs) that the firm confronts in various activities (e.g., starting a business, hiring and firing worker, getting credit, closing a business, etc.): the higher the barriers the firm confronts in these activities, the lower its degree of freedom of contractual rights.

**Stability and Predictability**

The institutional stability is the extent to which the rules and regulations concerning property rights and contracting institutions changed in the past, whereas the institutional predictability is the extent to which the future change of rules and regulations concerning property rights and contracting institutions can be predicted. As North (1990: 6) argued, the major role of institutions is to reduce uncertainty by establishing a relative stable framework of institutions that facilitates exchanges between economic actors. If individuals perceive that this framework is not relatively stable or its changes cannot be predicted, it will be extremely difficult for them to estimate the costs and benefits of their transactions with other parties, and as a consequence, they can delay or only invest in smaller and shorter projects (Jeong, 2002; Teisberg, 1993). The institutional predictability differs from institutional stability because the former relates to the firm’s concern about the future state of rules and regulations, while the latter relates to the firm’s experience about the state of rules and regulations in the past. However, these two institutional attributes are also interrelated because the firm’s past experience should influence its perception of the future to a certain extent.

---

9 Viet Nam’s Constitution 1992: Art. 15 states that the country’s ownership structure involves ownership of the entire people, collective ownership and private ownership, of which the first and the second are the cornerstones.

10 Viet Nam’s Law on Land 2003: Art. 5 states that individuals, households, and organizations are ‘user’ of land for a certain period of time that are leased out by state that is considered as the representative owner of the entire people.
Both attributes are however supposed to influence the firm’s perceived degree of uncertainty and incentive. Surprisingly, the measurement of institutional stability and predictability is still underdeveloped: prior studies often insist on the stability/instability of political institutions rather than on economic institutions, i.e., property rights and contracting institutions (e.g., Brunetti and Weder, 1998; Feng, 2001; Svensson, 1998), and only contain a limited number of measurement of institutional predictability (e.g., Acemoglu and Johnson, 2005: 992).

Enforceability

The institutional enforceability is the extent to which the private property rights of ownership and the freedom of contract are efficiently and effectively protected or guaranteed by regulatory authorities/agencies through formal enforcement mechanisms (i.e., courts and other institutions of state). In other words, institutional enforceability concerns a citizen’s asset security in his/her relations with the state (property rights) and with other citizens (contractual rights); it relates to the ability of formal enforcement mechanisms (i.e., courts and other institutions of state) to protect citizens’ assets against expropriation by government and expropriation by commerce (Acemoglu and Johnson, 2005; Djankov et al., 2003; Williamson, 1991). As mentioned above, institutional enforceability is the attribute that has been investigated the most by prior studies because it is perhaps the one that determines the de facto or effective incentive. For instance, the existing measures of this indicator relative to property rights are “constraint on executive”, “protection against expropriation” by government, and “private property right protection”; while the ones relative to contracting institutions are “legal formalism”, “enforcing contract” (procedures, time, cost), or “resolving insolvency”, etc. (Acemoglu and Johnson, 2005; Djankov et al., 2003; Gwartney et al., 2012; Knack and Keefer, 1995; World Bank, 2004).

In sum, we can expect that the higher the degree of specificity, stability, predictability and enforceability of the rules and regulations concerning private property rights and contractual rights, the more likely the firm’s degree of uncertainty will be lower and its degree of incentive higher. This will, in turn, theoretically influence its resource investment behavior. However, to our knowledge, prior empirical studies only provide a limited evidence of the impact of institutional attributes, especially the ones of property rights and contracting institutions, on the firm’s investment behavior. For instance, Feder and Onchan (1987) and Hayes, Roth and Zepeda (1997) successfully demonstrate that the specificity of property rights, i.e., land ownership and tenure security, significantly influences the farm’s propensity and expenditure of investment in capital equipment, land improvement, and nonagricultural activities (i.e., investment types). One
important reason that explains the role of institutional specificity is that the titled land allows farms to access institutional credit (Feder and Onchan, 1987). Johnson et al. (2002b) go one step further by arguing that when the firms perceive property rights as less secured, they are reluctant to use their profit (i.e., their retained earnings) to reinvest even when external sources – i.e., bank loans – are available. The works of Teisberg (1993) and Jeong (2002) clearly show that the regulatory uncertainty significantly influences the firm’s investment timing: firms will be reluctant to invest, delay their investment, or only invest in smaller and shorter projects if policy and regulation are difficult to predict. Finally, some works, like the ones of Djankov et al. (2003) and Acemoglu and Johnson (2005), successfully demonstrate that the enforceability of property rights and contracting institutions matter for the firm’s investment (i.e., private investment/GDP ratio). Based on these theoretical and empirical evidences, we propose that:

**Proposition 2**: In the context of EE&TE, the higher the degree of specificity, stability, predictability and enforceability of property rights and contracting institutions is, the more likely the firms are to (i) strategically invest in resources and capabilities; (ii) mainly invest in order to build new resources and capabilities; (iii) mainly invest in resources and capabilities by accumulation method; (iv) invest more in intangible assets; (v) devote more both tangible and intangible assets to resource investment; (vi) mobilize both internal and external sources for resource investment; and (vii) focus more on long-term resource investment.

As the “rules of the game”, institutions (i.e., property rights and contracting institutions) also define the character of competition in an industry by defining: (i) the structure of competition (i.e., the number and type of competitive forces); (ii) the means and direction of competition (i.e., the choice of competitive strategies); and (iii) the intensity of competition (i.e., the extent to which competitive forces mobilize their resources to pursue their competitive strategies). For instance, in many developing countries, small-firms cannot grow their businesses because they cannot use their assets as collateral to secure access to credit (World Bank, 2002), start-ups cannot enter business because they do not have enough required resources (e.g., money, time, information) to deal with high costs of entry (Djankov et al., 2002). As a consequence, the industry structure in these economies is undiversified and is lacking in mid-sized firms (McMillan, 2007). In the context of EE&TE, Peng (2003: 283) argues that the structure of competitive forces involves three types of organizational forms: (i) incumbent firms (primarily business groups, state-owned enterprises, and privatized firms), (ii) entrepreneurial start-ups, and (iii) foreign entrants. These competitive forces pursue different competitive strategies because they confront different institutional pressures (i.e., regulative, normative and
cognitive pressures) in different phases of transition. However, Peng (2003)’s dynamic model does not provide theoretical instruments to understand how such diversified structure of competitive forces (incumbents, entrepreneurial start-ups, and foreign entrants) emerge, and what the concrete sources (e.g., what are the effective formal rules and regulations that are lacking in early phase of transition) of the institutional pressures that competitive forces confront are. Our model fills this gap by proposing:

**Proposition 3:** In the context of EE&TE, the higher the degree of specificity, stability, predictability and enforceability of property rights and contracting institutions is, the more likely the industries’ (i) competitive structure will be diversified; (ii) competitive forces will pursue differentiation and hybrid strategies; (iii) competitive forces will intensify their competition.

Finally, as the industry-based view argues, the industry as the firm’s nearest environment should have a certain impact on its strategic choices (Porter, 1980). More precisely, the industry’s competitive characteristics concerning its structure of competitive forces, its dominant competitive strategies, and its competitive intensity are expected to have influences on the firm’s resource investment behavior. For instance, Matluck (1983: 187) clearly demonstrates that the firm’s business investment is not only a function of current and past changes in sales, the cost of capital and the level of capital stock as neoclassical economics propose, but also a function of the firm’s business strategy “attempting to put their resources in areas where competitors will not be able to imitate them”. In other words, the competitive variables relative to the firm’s competitive environment and its competitive strategies provide more insightful explanations about the firm’s investment behavior than the macro variables such as market growth rate, interest rate or tax policies because they directly reflect the firm’s expectation about its strategic position vis-à-vis its competitors. Röller and Tombak (1993) also argue that firms in industries with high production differentiation, high concentration, and large sales are more likely to adopt new manufacturing technologies. We therefore propose that:

**Proposition 4:** In the context of EE&TE, firms that operate in industries that have (i) a more diversified structure of competitive forces, (ii) differentiation and hybrid as dominant competitive strategies, and (iii) more intensive competition will be more likely to (i) strategically invest in resources and capabilities; (ii) mainly invest in order to build new resources and capabilities; (iii) mainly invest in resources and capabilities by accumulation method; (iv) invest more in intangible assets; (v) devote more both tangible and intangible assets to resource investment; (vi) mobilize both internal and
external sources for resource investment; and (vii) focus more on long-term resource investment.

Discussion

In the above paragraphs, we outlined the main features of an incentive-based model on the firm’s competitive advantage by integrating the institutional context (i.e., property rights and contracting institutions) of EE&TE into our analyses. In the next paragraphs, we first position our model by briefly discussing both the differences and complements of our model with other institution-based models, and with models rooted in other theoretical schools in strategy (i.e., the industry-based view, the resource-based view, and the transaction costs economics). We next move to detail some methodological issues concerning the measurement of institutional attributes in order to make our model operational. We then show how our incentive-based model can be applied through briefly suggesting some examples.

Positioning the incentive-based model

As all can see, our conceptual model mainly builds on the institution-based view on the firm’s strategy and competitive advantage. However, our model differs from other institution-based models and from models rooted in other theoretical schools in strategy (i.e., the industry-based view, the resource-based view, and the transaction costs economics) by two distinct points: first, it insist on the institutional attributes rather than other strategic attributes as antecedents of the firm’s uncertainty and incentive; second, it integrates rather than disentangle the impact of the firm’s external (i.e., environment and industry) and internal (i.e., resources and capabilities) conditions on its strategic choices and competitive advantage through a unique mechanism of resource investment.

First, our model differs from other institution-based models. For instance, Foss and Foss (2005) and Kim and Mahoney (2002) successfully demonstrate that the implicit assumption of secured property rights in the resource-based view is inaccurate, and that a firm’s ability to create, appropriate and sustain value from its resources depends on property rights.

Barney (2001b: 643) argues that “positioning an argument relative to the received literature is, perhaps, the most difficult part of writing a theoretical essay. Not only does positioning help define and limit an argument’s contribution, it also goes a long way in determining the structure of that argument and the issue that it will and will not address”. Our work here cannot be considered as “positioning” in the strict sense of Barney’s argument but we try nevertheless to demonstrate both differences and complements of our model to existing models in strategic management. A typical positioning can be found for example in the work of Conner (1991).
that the firm holds. However, these institution-based models that are embedded in property rights economics only prove ‘property rights matter’ without identifying ‘how property rights strategically matter’. For their part, Oliver (1997)’s and Yamakawa et al. (2008)’s institution-based models are mainly embedded in sociological institutional theory and they insist more on the firm’s motivation, selection and utilization of resources as consequences of normative and cognitive legitimacy (at individual, organizational, and inter-organizational levels) rather than of coercion, and they neglect the creation aspect of resource value. In sum, these institution-based models that are still “sticking” too much to their theoretical roots (i.e., the property rights economics and the sociological institutional theory) fail to make a conceptual “break” in order to become “first class” strategic models (Peng et al., 2009: 75). We believe that such break requires a deeper investigation of institutional attributes that allow scholars to capture in a more exhaustive manner factors influencing individuals’ (i.e., managers) imperfect subjective models that in turn configure their firm’s strategic choices and competitive advantage.

Second, our model also differs from non-institution-based models in strategic management. We complete the set of strategic attributes previously identified by existing literature: for instance, the industry-based view provides conceptual instruments (e.g., five forces and value chain frameworks) that can be used to indentify industrial attributes – i.e., the basic competitive forces and the strength of each in shaping industry structure – that can serve as parameters for the firm’s strategic positioning (Porter, 1979, 1980, 1991). The resource-based view provides a deep understanding about the firm-specific attributes of resources and capabilities (value, rare, imperfectly imitable, and not substitutable) that can be sources of sustained competitive advantage (Barney, 1986a, 1991). The transaction costs economics aims to identify the transaction attributes (uncertainty, frequency, and especially assets specificity) that can be used to determine the appropriate mechanisms of governance (Williamson, 1991, 1998, 2002, 2005). We go one step further by proposing that (i) because institutions matter, we need to identify their major attributes that can be used to capture the nature of institutional environment and its impact on the firm’s strategic choices, and that (ii) the institutional attributes interact with other strategic attributes through a unique mechanism of resource investment incentive.

12 In our model, the relationship of institutional attributes with industry’s attributes, and resource’s attributes is more visible than with transaction attributes: we hypothesize that the higher the degree of specificity, stability, predictability, and enforceability of property rights and contracting institutions is, the more likely firms in EE&TE are to (i) adopt accumulation method (i.e. choice of “make” or “buy”); (ii) mainly invest in intangible assets (i.e. increasing degree of resource stickiness or “asset specificity”); (iii) mobilize both internal and external sources (i.e. hybrid form of governance). These hypotheses integrate, to a certain extent, the logic of economics of governance that has recently been extended to integrate the influence of
Measurement of institutional attributes

The institutional attributes (i.e., specificity, stability, predictability, and enforceability) can be measured by objective or subjective methods. For instance, (i) the specificity of property rights can be objectively measured by analyzing the extent to which rules and regulations recognize or define private property rights (i.e., the right to use the asset, to capture benefits from that asset, to change the form and substance of that asset, and to transfer rights); the specificity of contracting institutions can be measured, as prior studies often did, by verifying the official procedures, time, and cost of various transactions that are imposed by rules and regulations; (ii) the stability of property rights and contracting institutions can be measured by counting the number and estimating the degree of changes in rules and regulations concerning these institutions in the past; (iii) the enforceability of property rights and contracting institutions can be measured by verifying the official costs (procedures, time, money) that related actors (litigants and courts) should bear in order to resolve disputes and the effectiveness of formal enforcement mechanisms. The advantage of the objective approach is straightforward because it provides crude evidences about the efficiency and effectiveness of property rights and contracting institutions. Its disadvantage is however the difficulty to have required objective information (e.g., historical documents and changes) and especially its indirect link with individuals’ perception and their strategic choices.

On the other hand, the institutional attributes can be measured by subjective means by directly asking entrepreneur about his/her perception of (i) the extent to which he (she) holds rights or he (she) can do with his/her assets — i.e., institutional specificity (Hayes et al., 1997: 373); (ii) the degree of stability/instability of rules and regulations concerning property and contractual rights of his/her assets in the past — i.e., institutional stability; (iii) the degree to which he/she can predict the future changes of rules and regulations in his/her field of business — i.e., institutional predictability; (iv) the degree of efficiency and/or effectiveness of courts in the case that he (she) need to resolve disputes with transaction partners — i.e., institutional enforceability. The subjective method has a number of limits especially relative to the respondent’s biases resulting from his/her insufficient information and motivation. But the advantage of this measurement institutional environment (e.g., Meyer et al., 2009; Oxley, 1999; Williamson, 1991). Note however that our model focuses on local firms rather than foreign firms operating in EE&TE, or firms operating in DE.

13 Certain studies used experts’ opinion as the key sources of institutional evaluation (e.g., Djankov et al., 2003; World Bank, 2004). We name this the hybrid approach of institutional measurement because it relates to the expert’s perception of institutional environment and is therefore ‘subjective’, but it is also ‘objective’ in the sense that it does not directly reflect the entrepreneur’s perception of institutional environment.
approach is the fact that it directly reflects the entrepreneur’s current knowledge and attitude that can be considered as a form of his/her perceived behavioral controls which in turn strongly influence his/her intention and behavior (Ajzen, 1991). In addition, this measurement approach is perhaps more appropriate in the context where it is difficult to access and gather objective and sensitive information about property rights and contracting institutions, as the case of EE&TE (Johnson, McMillan and Woodruff, 2002a; Johnson et al., 2002b; McMillan and Woodruff, 1999, 2000). Ideally, combining objective and subjective methods to measure institutional attributes will help scholars to better evaluate the impact of institutional environment on the firm’s behavior.

Finally, it is important to distinguish between de jure and de facto rights not only at macro level (Acemoglu et al., 2005) but also at micro level (Besley, 1995: 934): there are perhaps certain differences between the formal rights (i.e., property and contractual rights) that are recognized or defined by prevailing rules and regulations or rules-in-form, the perceived rights that economic actors believe to hold, and the effective rights that economic actors carry out in their discrete exchanges or rules-in-use (Ostrom and Hess, 2007: 50). This distinction is necessary to understand the so-called compensatory structure of formal and informal institutions: “in situations where formal constraints are unclear or fail, informal constraints will play a larger role in reducing uncertainty, providing guidance, and conferring legitimacy and rewards to managers and firms” (Peng et al., 2009: 68). For instance, when the courts are not efficient, firms in certain EE&TE often rely on reputation mechanisms to enforce private contract, or make extra payments (e.g., briberies) to governmental official and even illegal organizations (e.g., mafia) in order to be protected (Johnson et al., 2002a, 2002b; McMillan and Woodruff, 1999, 2000). In this case, the enforceability of the formal property rights and contractual rights institutions (i.e., public order) should be therefore distinguished from the one of informal institutions (i.e., private order that is either spontaneous or organized) in order to disentangle their individual and interacted impact on the firm’s behaviors.

14 However, even in developed economies (DE) whose market institutions are well established, economic actors still rely on private order but as a complement for public order if the transaction costs of using private order are smaller than of using the courts; by contrast, in EE&TE whose market institutions are lack or dysfunctional, economic actors rely on private order as a substitute for public order that are ineffective in enforcing contracts; which type of private order exists in any given institutional system depends therefore to a certain extent on the efficiency and effectiveness of formal enforcing institutions, i.e., courts and other state organizations (Johnson et al., 2002a; Klein, 1996; McMillan and Woodruff, 2000: 2445).
Applicability of the model

The relationship between institutional attributes, strategic choices (i.e., resource investment behavior) and competitive advantage developed in the current work can be applied to explain and predict several strategic and entrepreneurial phenomena. In this section, we briefly present two examples in international business studies to show how our model can serve as a theoretical framework for empirical studies: the first is relative to the internationalization of firms from EE&TE to DE and other EE&TE, and the second is relative to the entry strategy of foreign firms from DE into EE&TE. In both cases, we try to show how our model can complement and extend, rather than reject, existing models.

Internationalization and competitive advantage of firms from EE&TE

The firms from EE&TE are raising their importance in the global economy (Bruton et al., 2008; Wright et al., 2005) through common internationalization strategies such as exporting (Aulakh, Kotabe and Teegen, 2000) or foreign direct investment (Yamakawa et al., 2008). What factors drive firms from EE&TE to internationalize? And what factors determine the international success and failure of firms in EE&TE? There is a growing of consensus that institutions matter not only to foreign firms in EE&TE but also to local firms in EE&TE: for instance, Yamakawa et al. (2008) argue that the three dimension of institutions (i.e., regulative, normative and cognitive) can be drivers of the internationalization of firms from EE&TE. Aulakh et al. (2000) demonstrate that firms in EE&TE should adapt their export strategies in order to enhance their export performance in different export markets, i.e., DE and other EE&TE. However, the question is why the regulative environment, for example, of many EE&TE becomes discriminatory between state-ownership and private firms and thus becomes a factor that pushes firms in EE&TE to internationalize? Why do firms in EE&TE use certain types of export strategies rather than other as they did? Prior frameworks do not allow us to answer these questions. Our model suggests that the regulatory environment of EE&TE becomes discriminatory (between foreign and domestic firms or between state-ownership and private firms) when it is not effectively and efficiently specific, stable, predictable and enforceable. In addition, the ability of firms in EE&TE to pursue different international competitive strategies is determined by their available resources and capabilities that are determined by their resource investment. The firm’s resource investment behavior is in turn configured by its perceived institutional risk and uncertainty in either domestic or foreign markets, or both. We could therefore deepen the drivers of the internationalization and the origins of the international success and failure of firms from EE&TE by unbundling the attributes of their institutional contexts.
Entry strategy of firms from DE in EE&TE

Since the 1990s, many firms from DE have begun to enter EE&TE such as East and Central European countries, China and Viet Nam, through Foreign Direct Investment - FDI (Buckley and Casson, 1998). For FDI, there are different modes of entry: Greenfield, acquisition, joint venture (Meyer et al., 2009). Prior studies often focused on factors relative to location, internalization, finance, culture, market structure, etc. as determinants of the firm’s foreign market entry strategies (Buckley and Casson, 1998). Recently, certain authors such as Meyer et al. (2009) have demonstrate that, in the context of EE&TE, foreign investors also take institutional factors as key parameters into their decision making process: the stronger the market-supporting institutions of EE&TE are, the more likely foreign investors are to use joint-venture rather than Greenfield or acquisition to enter the market; and under conditions of strong market-supporting institutions, foreign investors that need to access intangible assets in EE&TE will use acquisition or joint-venture rather than Greenfield as their main entry strategy. Within the institutional context of an EE&TE like Viet Nam, Meyer and Nguyen (2005) show that the market-supporting institutions at sub-national level (i.e. provincial) also matter for the location and entry mode choice of foreign investors: regions that have stronger market-supporting institutions receive more FDI, and foreign investors enter these regions by Greenfield rather than by joint-venture. However, these prior studies only investigate the impact of different components of institutions rather than the different attributes of each institutional component. Thus, they do not allow us to unbundle mechanisms by which and the extent to which institutions matter for the foreign investors’ decision making process concerning entry mode choice. In addition, these studies measure the degree of market-supporting institutions either at the aggregate level (Meyer et al., 2009) or by indirect method (Meyer and Nguyen, 2005). Our framework complements and extends this trend of research by providing conceptual tools that allow us to directly measure the institutional attributes of each formal institutional element: a country and its sub-national unites are said to have strong market-supporting institutions when their institutions (i.e., property rights and contracting institutions) are more specific, stable, predictable and enforceable. Our model also suggests that the effect of institutional attribute on the foreign investors’ entry mode choice can be moderated by their investment objective (Meyer et al., 2009), and on the competitive pressures in the host market (Meyer and Nguyen, 2005). We could therefore deepen the institutional drivers of the entry strategy of firms from DE in EE&TE by unbundling the attributes of the institutional context in their host markets.
Conclusion

The purpose of strategic management, as the institution-based view argues, is to analyze the triangle of interactions between institutions, organizations (i.e., business organizations), and strategic choices as determinants of competitive advantage (Peng, 2002; Peng et al., 2009). While the sides of institutions - strategic choices side (i.e., the direct effects of formal and informal constraints on strategic choices) and the organizations - strategic choices (i.e., the effects of industry structure and firm-specific resources on strategic choices) are well studied, the side of the dynamic interaction between institutions - organizations (i.e., the interacted effects of institutions, industry structure and the firm’s resources on strategic choice) is still relatively undeveloped (Figure 4). In this paper, we contribute to the existing literature by providing a unique mechanism that underlies this dynamic interaction by unbundling the role of institutions as drivers that structure the firm’s behavioral incentives in competition and resource investment. More precisely, we propose a model that (i) operationally defines resource investment and institutional attributes; (ii) conceptually links institutional environment, industrial competition, and the firm’s resource investment; and (iii) contextually focuses on firms in EE&TE. Our work has some implications for future research and policy makers.

There is a growing thought that the contextual conditions, including institutional environment, are not merely background conditions but do influence the firm’s strategy and performance (Meyer et al., 2009; Peng et al., 2009) and we need therefore to contextualize the studied phenomena (Welter, 2011; Welter and Smallbone, 2011) especially the strategic and entrepreneurial phenomena in EE&TE that see their role growing in the global economy (Bruton et al., 2008; Hoskisson et al., 2000; Wright et al., 2005). However, when scholars try to integrate the broad environmental conditions into their analyses in order to avoid the “myopic” problem, their models ironically bear the risk of lacking operationality (Porter, 1991: 98-99). Integrating institutions into analysis, as Williamson (1994a: 193; italic added) argued, is really challenging: “…Taking institutions seriously is the first step. Working out the microanalytic logic of economic organization is the second. Explicating the mechanisms comes next”. In responding to this theoretical gap, we identify and develop measurements of four institutional attributes (i.e., the degree of specificity, stability, predictability, and enforceability of property rights and contracting institutions) that can be used as conceptual tools to capture the institutional context of the strategic and entrepreneurial phenomena without losing the operationality of the models by linking them with individuals’ perceived uncertainty and incentive. In addition, we propose a short definition of resource investment as an important mechanism through which the three legs of strategy tripod
Our conceptual model can be applied to explain and predict certain strategic and entrepreneurial phenomena but it also has some limitations. First, the investment and the possession of resources themselves do not directly create value for the firm. That is the role of resources deployment by implementing competitive strategies (Barney, 2001a; Porter, 1991; Priem and Butler, 2001a; Priem and Butler, 2001b). However, because we aim to indentify the mechanism that can integrate the strategy tripod, our model does not investigate the sub-relationships between resource investment and competitive strategies. Second, competitive advantage itself is not the final end of firms. It is the performance or the firm’s commercialization of its values that determines the firm’s success or failure (Newbert, 2008). Thus, future research can go one step further by investigating the causal chain from resource investment to performance. Finally, in the current model, the industrial competition plays a mediating role through which the institutional environment influences the firm’s resource investment and competitive advantage. However, in the context of DE whose market-supporting institutions are well established, the firm’s resource investment would be mainly influenced by its industrial environment rather than the broad institutional environment. In that case, the current model should be modified and industrial competition would be moderating factor meaning that there is perhaps no strong relationship between the institutional environment and the competition in the industry.

The implication for policy makers stemming from our work is very straightforward. Today, it is hard to neglect the role of entrepreneurs and entrepreneurship in socioeconomic development, both in DE and EE&TE (McMillan and Woodruff, 2002). The past experience of many transition economies (e.g., the former Soviet Union countries, Eastern Europe countries, China, and Viet Nam) demonstrates itself that the socioeconomic development will only achieve its full potential when economic actors have full rights and therefore full behavioral incentives. The fact that many EE&TE that grow rapidly in the first period of reform fail to overcome the “middle-income trap” (Ohno, 2009) or more generally the “points of inflection” (Peng, 2003). The main cause is that these economies lack efficient and effective market-supporting institutions that can protect and promote more sophisticated (i.e., complex and specialized) transactions within a more diversified competitive structure that resulted from the early reforms (McMillan, 1995; McMillan and Woodruff, 2002; World Bank, 2002). Among market-supporting institutions, the property rights and contractual rights institutions are fundamental because without them other market-supporting institutions cannot work (Johnson et al., 2002b). The property rights and contracting institutions should be specific, relatively
stable, predictable, and efficiently and effectively enforced in order to minimize uncertainty and to maximize incentive of economic actors. It is clear that “not everything has to be set right at once” (McMillan, 1995) but the major challenges have been identified, and policy makers should clearly identify their own “rights”, i.e., their own constraints and incentives, in these long and difficult institutional reform processes.

Acknowledgments

The authors gratefully acknowledge the financial support of the PIC-CUD project. They are also grateful to Amélie Jacquemin for the discussions and suggestions on the concept of regulation. The perspectives presented in this paper belong to the authors.
Appendices

**Figure 1.** Levels and dimensions of institutions, their interactions and the crucial institutional elements of EE&TE

<table>
<thead>
<tr>
<th>Formal institutions</th>
<th>Informal institutions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Institutional environment</td>
<td>Property rights and contracting institutions</td>
</tr>
<tr>
<td>[X]</td>
<td>[X]</td>
</tr>
</tbody>
</table>

**Figure 2.** An incentive-based model on firm’s competitive advantage

<table>
<thead>
<tr>
<th>competitive bases</th>
<th>competitive behaviors</th>
<th>competitive outcomes</th>
</tr>
</thead>
<tbody>
<tr>
<td>property rights institutions</td>
<td>industrial competition - structure - strategy - intensity</td>
<td>↓ competitive advantage</td>
</tr>
<tr>
<td>contracting institutions</td>
<td>resource investment - propensity - objective - method - type - expenditure - timing</td>
<td></td>
</tr>
</tbody>
</table>
**Figure 3.** Institutional Environment, Institutions of Governance, and Individual

**Figure 4**: Institutions, Organizations, and Strategic Choices

![Diagram of Institutions, Organizations, and Strategic Choices](image)

Source: Peng et al. (2009: 67)

**Figure 5**: The three legs of strategy tripod

![Diagram of the three legs of strategy tripod](image)

Source: Peng et al. (2009: 64)
References


Essay 4. Institutional Attributes, Competitive Pressures, Resources and Capabilities Investment, and Competitive Advantage: the Case of Vietnamese Exporters

Abstract

In this study, we provide a conceptual model that unbundles the impact of different institutional attributes (i.e., the degree of perceived specificity, stability, predictability, and enforceability of property rights and contracting institutions) on the firm’s resources and capabilities investment and competitive advantage under different degree of competitive pressures in domestic and overseas markets. We empirically test this model with a sample of 109 exporting firm in an emerging and transition economy, i.e., Viet Nam. The statistical results show that there are strong relationships between the domestic institutional environment and the firm’s export-related resources and capabilities investment, and between export-related resources and capabilities investment and export competitive advantage. Nevertheless, the relationship between the firm’s competitive pressures and its investment behavior is not strongly supported. Implications for researchers, managers and policy makers are suggested.

Keywords

Competitive advantage, export, transition, Viet Nam
Introduction

The firms from emerging and transition economies (EE&TE) are raising their importance in the global economy (Bruton, Ahlstrom and Obloj, 2008; Wright et al., 2005) through common internationalization strategies such as exporting (Aulakh, Kotabe and Teegen, 2000) or foreign direct investment (Yamakawa, Peng and Deeds, 2008). In the era of globalization, the international success of domestic firms in overseas markets is a crucial source of national income that explains, to a certain extent, the high growth rate of many EE&TE in the last three decades. However, success in the past does not guarantee the same thing in the future, especially in the context of high changing and unpredictable global economy. How do firms from EE&TE to gain and sustain their international success? This fundamental question attracts attention of policy makers, managers and researchers not only from EE&TE but also from developed economies (DE) because economies are more and more tied to each other at bilateral, as well as multilateral (i.e., regional and international) levels. Strategically, the success of firms from EE&TE, like their counterparts in DE, mainly depends on their competitive advantage that in turn results from the firm’s conception, formation and implementation of its competitive strategies in overseas markets, such as export strategies, in order to gain export performance (Aulakh et al., 2000). However, we need to go a step further to unbundle not only “the origins” of the firm’s competitive advantage and success, i.e., its conception, formation and implementation of competitive strategies, but also “the origins of the origins” (Porter, 1991), i.e., the factors that affect the firm’s ability to pursue its competitive strategies in order to gain and to sustain their competitive advantage and success in the long-run.

1 At macro level, the causal relationship between export, productivity and growth is mixed and inconclusive in prior studies (e.g., Marin, 1992; Medina-Smith, 2001; Yang, 2008). However, it is evident that the international success of individual firms – i.e., their engagement, survival and growth in foreign markets either by export or other modes of internationalization - is an important source of national income. For this reason, several attempts have been made by governments around the world in order to reduce barriers and to support “going abroad”, especially the outward-oriented export-led growth policies of many EE&TE (Aulakh et al., 2000; Leonidou, Paliwadana and Theodosiou, 2011).

2 The current global crisis strongly decreases the world demand, especially in the two major markets of the United States and the European Union, and conduct to the reassessment of the role of export-led growth and, more generally, of trade liberalization and economic openness policies (Razmi and Hernandez, 2011). In the current work, we adopt the view that openness and exchange bring more benefits than costs and that inward-orientation or domestic consumption is not the solution for long-run growth and development at both macro and micro levels; and that the question is not whether to “remain open” or to be looking inward but how to manage openness in a more challenging context, how to balance activities in domestic and foreign markets, and how to diversify export markets by going beyond traditional markets (i.e., US and EU), by discovering new opportunities in other emerging markets, e.g., the South-South trade flow. (Haddad and Shepherd, 2011).
A firm’s ability of pursuing its competitive strategies depends largely on its owned or controlled resources and capabilities (Amit and Schoemaker, 1993; Barney, 1991). Without required resources and capabilities, the firm cannot conceive and implement its competitive strategies, neither in domestic nor in foreign markets. The firm should invest and reinvest, either by accumulation and/or acquisition methods, in order to have its required strategic resources and capabilities (Barney, 1986; Dierickx and Cool, 1989). Because resources and capabilities are scarce, the firms should compete to possess, protect, and reinforce their strategic resources and capabilities. This leads to the idea that the industrial competition (i.e., the structure of competitive forces, their bargaining power and their competitive intensity), either within or between industries in which a firm operates, strongly affects its resources and capabilities investment behaviors (Porter, 1979, 1980, 1991). Emerging and transition economies are defined as economies whose governments adopt the free-market system and favor policies of economic liberalization, but whose formal market-supporting institutions are lacking or weak (Hoskisson et al., 2000; Peng, 2003). In other words, the formal institutional bases of EE&TE do not work smoothly and, for this reason, their effects on the way by which firms exchange and compete in order to possess, protect, reinforce and deploy their strategic assets is conspicuous (McMillan, 1995, 2007). This leads to the ideas that, compared to the two other legs of strategy tripod (i.e., the industry- and resources-based view), the institution-based view is central to explain and predict the firm behavior in the context of EE&TE (Hoskisson et al., 2000; Peng et al., 2009; Wright et al., 2005). Understanding the relationships between the domestic institutional environment, the industrial competition, and the firm’s resources and capabilities investment behaviors is therefore critical to understand the ability of firms in EE&TE in pursuing their competitive strategies in order to gain and sustain their competitive advantage and success, either in domestic or foreign market.

In this paper, we aim to test the above relationship with a sample of exporting firms in an EE&TE of Southeast Asia, i.e., Viet Nam. More precisely, our research question is “How does the domestic institutional environment of EE&TE influence their firms’ resources and capabilities

---

1 In other words, if we consider the impact of the institutional environment (i.e., market-supporting institutions) on the firm’s behaviors going from \([-\infty]\) to \([\infty+\)]), this impact would be close to the middle (i.e., zero \([0]\)) in the context of DE whose institutions, at least the formal ones, are very well established and do not significantly matter for (i.e., low institutional transaction costs) the firm’s behavior. In other words, the institutional environment could be assumed as “background” (Peng et al., 2009) and the firm’s strategic choices and success are mainly influenced by its internal resources and capabilities rather than by external institutional environment. In the context of EE&TE, however, this impact cannot be neglected because it significantly constrains/troubles \([-\infty]\) or enables/facilitates \([\infty+\)] the firm’s strategic choices and therefore its success.
investment and competitive advantage under different degree of competitive pressures in domestic and overseas markets?” By answering this research question, we aim to fill three major gaps in prior studies. First, we adopt, extend and re-test the conceptual model on the role of national export-promotion programs as drivers of organizational resources and capabilities that was developed and tested by Leonidou et al. (2011). On the one hand, like these authors, we argue that the firm’s resources and capabilities determine its ability to conceive and implement export strategies that in turn create export competitive advantage and export performance. On the other hand, we argue that in the context of EE&TE, beside the direct assistance such as national export-promotion programs, the most important role of governments of these countries, whose resources are very limited, is to create a favorable domestic institutional environment that induces domestic firms to invest themselves in order to have the required resources and capabilities and to pursue their business opportunities, either in domestic or overseas markets. In addition, as a consequence of their institutional reforms, the domestic market of EE&TE is deeply changing. There has been a more diversified structure of different competitive forces – i.e., incumbent, entrepreneurial start-ups, and foreign firms (Peng, 2003). The local firms from EE&TE are also more and more involved in the global market (Yamakawa et al., 2008). We therefore introduce the competition in domestic and overseas markets as moderating factors that alter the effects of domestic institutional environment on the firm resources and capabilities investment behaviors.

Second, there is a growing belief that combining the strategy tripod - i.e., the industry-based, resource-based, and institution-based views - will bring more insightful explanations and implications to strategic management (Peng et al., 2009). However, prior studies still fail to identify the mechanisms that links these three strategic perspectives and make the institutional variables operational. For sure, the question of how to disentangle the individual effects of industrial competition, firms’ resources, and institutional conditions on export strategic choices (i.e., export behaviors) in order to know what factor has effect beyond and above other factors, is important (Gao et al., 2010). The most important questions are however the following ones: what are the mechanisms that integrate these three factors and how does the interaction of these three factors impact on the firm’s strategic choices? In the current work, we will integrate the strategy tripod through the mechanism of investment incentive that has been developed in historical and political economics (Acemoglu and Johnson, 2005; Acemoglu, Johnson and Robinson, 2005; North, 1990). Based on the insights of prior studies (e.g., Acemoglu and Johnson, 2005; Besley, 1995; Brunetti and Weder, 1998; Djankov et al., 2002, 2003; Knack and Keefer, 1995; Svensson, 1998; Teisberg, 1993), we will also try to make the institutional variables operational by identifying some key institutional
attributes (i.e., the degree of specificity, stability, predictability, and enforceability of property rights and contracting institutions) that can be used to evaluate the effects of institutional environment on the firm’s investment behavior.

Third, EE&TE are heterogeneous, not only by their context of development, i.e., their socio-economic, political and cultural conditions (Hoskisson et al., 2000; Wright et al., 2005), but also by their process of development - i.e., their degree or phase of development (Meyer et al., 2009; Peng, 2003) - and entrepreneurs in different EE&TE behave differently to deal with problems in their own institutional environment, like the problem of bureaucracy, for instance (Luo and Junkunc, 2008). However, when prior studies look at EE&TE, they often focus on China, Brazil, South Africa, Russia or countries in Central and Eastern of Europe (Aulakh et al., 2000; Calof and Viviers, 1995; Christensen, Rocha and Gertner, 1987; Gao et al., 2010; Shinkle and Kriauciunas, 2010; Zhao and Zou, 2002) and ignore other EE&TE. As a consequence, our existing knowledge in entrepreneurship, that is often considered as the most important engine of rapid growth and development of EE&TE in the last decades, is still far from exhaustive (Bruton et al., 2008; Hoskisson et al., 2000; Wright et al., 2005). By focusing on firms in the context of an EE&TE in Southeast Asia, i.e., Viet Nam (Arnold and Quelch, 1998; Ellis, 2010), that is seen as a promising research context to validate and enrich the institution-based view (Peng and Heath, 1996), but that has been understudied (e.g., McMillan and Woodruff, 2002; Meyer and Nguyen, 2005), we enlarge the scope of investigation in strategic and entrepreneurial studies beyond the usual studied EE&TE and complement, hopefully, our existing knowledge in the strategic and entrepreneurial phenomenon of EE&TE.

The rest of this paper will be organized as follows: in the next section, we develop a conceptual model that links the domestic institutional environment, the firm’s resources and capabilities investment and its export competitive advantage. The third section describes our research methods. The research results and discussions are presented in the fourth and fifth sections, respectively. The sixth section concludes this paper, stresses our study’s contributions, limitations and its implications for future research, managers and policy makers.

Theories and hypotheses

In this section, based on the insights of the strategy tripod – i.e., the industry-, the resource-, and the institution-based views, we first examine the extent to which the firm’s resources and capabilities investment affects its export
competitive advantage. This is our re-test of the Leonidou et al. (2011)’s model. We then argue that because EE&TE are in a period of transition, their domestic institutional environment should have to a certain extent influence on the firm’s resources and capabilities investment behavior. This proposition itself is not new but our contribution will be to unbundle the mechanism by which the domestic institutional environment of EE&TE affects their firm’s resources and capabilities investment. Finally, we introduce the firm’s competitive pressures in domestic and foreign markets as moderating factors of the relationship between the institutional environment and the firm’s resources and capabilities investment behavior. These two latter parts are an addition to Leonidou et al. (2011)’s model.

**Investment and export competitive advantage**

In the strategic management literature, the firm’s resources are sometime distinguished from its capabilities (Amit and Schoemaker, 1993: 35) but, more often, they are used interchangeably and can be defined as a firm’s tangible and intangible assets (Barney, 1991: 101; 2001b: 54) including “all of the financial, physical, human, and organizational assets used by a firm to develop, manufacture, and deliver products or services to its customers” (Barney, 1995: 50). There are many resources and capabilities that are involved in the exporting processes but the most important ones are relative to financial, human, innovation and marketing (Leonidou et al., 2011; Morgan, Kaleka and Katsikeas, 2004). The possession of resources and capabilities does not automatically create competitive advantage but rather the exploitation of the firm’s resources and capabilities by implementing competitive strategies through various activities (Porter, 1991). A firm has “a competitive advantage when it is implementing a value creating strategy not simultaneously being implemented by any current or potential competitors” (Barney, 1991: 102). In the context of exporting, the implementation of export strategies, either generic strategies (Aulakh et al., 2000; Morgan et al., 2004) or functional strategies, i.e., marketing strategies (Cavusgil and Zou, 1994; Leonidou, Katsikeas and Samiee, 2002), can help the firm to archive three types of competitive advantage: cost, product, and service (Leonidou et al., 2011).

The question is, however, where do such resources and capabilities heterogeneities come from? Interestingly, both the industry-based view and the resource-based view argue that the firm should invest and reinvest in resources and capabilities to gain and sustain competitive advantage (Barney, 1991; Porter, 1991) but the former mainly focuses on the relationship of investment - industry structure – activities - sustained

---

4 As we adopt and extent Leonidou et al. (2011)’s model, we only define here our extended concepts, other key concepts can be referred in the work of these authors and their references.
competitive advantage (McGahan and Porter, 1997; Porter, 1979, 1980) rather than on the relationship of investment - resource’s attributes - sustained competitive advantage as the latter does (Barney, 1991, 2001a). Resources and capabilities investment (hereafter ‘investment’) can be defined as the firm’s intended or deliberate and consistent policies of assets formation, through acquisition and/or accumulation methods, by choosing an appropriate path of flows or strategic expenditures, in order to conceive and implement competitive strategies that improve its efficiency and effectiveness over a period of time (Barney, 1986, 1991; Dierickx and Cool, 1989; Ethiraj et al., 2005; Teisberg, 1993; Zollo and Winter, 2002). Thus, investment consists of several strategic choices: (i) whether to invest – i.e., investment propensity; (ii) investment methods (acquisition and/or accumulation) that are the means by which the firm can own or control its required strategic resources; (iii) investment structure or types of resources and capabilities to invest in; (iv) investment expenditure that includes (a) the choice of degree of resources (i.e., tangible and intangible assets) devoted to investment, and (b) the choice of sources of resources devoted to investment, including internal resources owned or controlled by the firm (e.g., retained earnings) or external resources mobilized by different methods (e.g., debt, equity, strategic alliance); (v) resource investment timing meaning the firm and its entrepreneurs have an expected rate of return on their investment over a certain, and not indefinite period of time and that this expectation can be qualitatively classified as short-term or long-term resource investment.

Some studies have demonstrated the relationship between export-related resources and capabilities and export competitive advantage, but to our knowledge, there are still no studies, theoretical or empirical, that investigate the “origins” of this relationship – i.e., the investment in export-related resources and capabilities and its impact on the firm’s export competitive advantage. For instance, like many other authors, Aulakh et al. (2000) investigated the direct relationship between export strategies (i.e., export generic business strategies, export marketing standardization strategies, and export diversification strategies) and export performance. These authors suggest that firms in EE&TE should adapt their export strategies in order to enhance their export performance in different markets: cost-based strategies only enhance export performance in developed countries’ markets while differentiation-based strategies positively affect export performance in other developing countries’ markets. Why firms in EE&TE use certain types of export strategies rather than other as they did? In their study, Leonidou et al. (2011) largely extend the causal chain of export performance by demonstrating that export-related resources and capabilities do matter: by adopting national export promotion programs (e.g., information, education and training, trade mobility and financial aid), a firm can reinforce its available export-related resources and capabilities that in turn enable it to conceive of and implement different export marketing
strategies and gain export competitive advantages and export performance. In other words, these authors did not only investigate the mediating role of export competitive advantage in the relationship between export strategies and export performance, but also the antecedents of export strategies – i.e., export-related resources and capabilities.

Nevertheless, national export promotion programs are out of the firm’s control. Strategically, the most important source of a firm’s resources and capabilities should be its own investment (Maritan, 2001). Thus, in the current study, we extend Leonidou et al. (2011)’s model by investigating the source of a firm’s export-related resources and capabilities – i.e., its resources and capabilities investment – that is still missing in prior export studies. We do not re-test all other sub-relationships between export-related resources and capabilities and export performance, but only focus on the relationship between investment and export competitive advantage because of two main reasons. First, by focusing on export investment and export competitive advantage, we capture the two most important points of the causal chain: the first is the direct source of a firm’s ability to conceive of and implement its export strategies, and the second is the direct source of a firm’s export performance. Second, as Chrisman, Hofer and Boulton (1988) argued, investment can be considered as a component of business-level strategies and it is therefore interrelated with other sub-strategies at the business-level (i.e., competitive strategies) and they all affect the firm’s competitive advantage. General empirical studies demonstrate that investing in resources and capabilities such as machinery and equipment (De Long and Summers, 1991), high-tech capital (Morrison, 1993), information technology capability (Bharadwaj, 2000), corporate reputation (Roberts and Dowling, 2002), etc. has a significant effect on the competitive advantage and economic performance at both national, industrial, and organizational levels. In the exporting context, certain resources (e.g., knowledge and experiences, working capital and financial liquidity, equipment, etc.) and capabilities (e.g., identification and evaluation of export opportunities, quickness and flexibility to respond to market changes, product development skills, customer relationship, technical support/after-sales services, etc.) are seen as major determinants of export competitive advantage and of export performance (Julien and Ramangalahy, 2003; Leonidou et al., 2011; Morgan et al., 2004; Sousa, Martinez-López and Coelho, 2008; Zou and Stan, 1998). However, exporting firms can only own these resources and capabilities if they invest in critical assets such as financial, human, innovation, and marketing assets, i.e., by adopting national export-promotion programs (Leonidou et al., 2011). The national export-promotion programs are exogenous and the financial assets are only means by which firms invest in other resources and capabilities. We therefore propose that:
Hypothesis 1: The firm’s investment in (a) human assets, (b) innovation assets, and (c) marketing assets has a positive effect on its export competitive advantage.

Institutional environment and investment

Investment in itself, as compared with non-investment, is risky because it is “present sacrifice for future benefit” that is especially sensitive to uncertainty (Hirshleifer, 2008). More importantly, risk and uncertainty differ widely in each strategic choice of investment. For instance, in most cases, investment by the accumulation method involves more risk and uncertainty than the acquisition method because it requires more resources and capabilities - i.e., time, money, cognitive efforts, etc. (Dierickx and Cool, 1989). Similarly, investment in intangible assets such as reputation, trust, routines, etc. involves more risk and uncertainty than investment in tangible assets because the former relates more to organizational learning that is time consuming (Zollo and Winter, 2002). The higher the degree of external resources and capabilities in the firm’s investment expenditure, the more likely the firm should be to commit to risks and uncertainty because it relies on resources and capabilities that are out of its control such as loans from bank compared with retained earnings (Johnson, McMillan and Woodruff, 2002b). Finally, the longer the time of an investment is, the more likely the firm will be to confront risk and uncertainty about the return potential of its investment because there would be more unanticipated upheavals that can affect the firm’s initial expected objectives (Teisberg, 1993). In sum, investment strongly requires that the competitive bases of economy – i.e., institutions – should be fundamentally established in order to reduce risk and uncertainty (North, 1990).

As mentioned above, EE&TE are economies whose governments adopt the free-market system and favor policies of economic liberalization, but whose formal market-supporting institutions are lacking or weak (Hoskisson et al., 2000; McMillan, 1995, 2007; Peng, 2003). In other words, EE&TE are in the situation of lawlessness (Williamson, 2005), especially in their early phase of transition (Peng, 2003). In this context, among the two levels of institutions – i.e., institutional environment that is defined as “the set of fundamental political, social and legal ground rules that establishes the basis for production, exchange and distribution” and institutional arrangement that is defined as “an arrangement between economic units that govern the ways in which these units can cooperate and/or compete” (Davis and North, 1971: 6-7) – and among the two dimensions of institutions – i.e., formal such as rules and regulations, and informal institutions such as conventions and codes of behavior (North, 1990: 3-4) – the formal dimension of institutional environment is central because: (i) it is the institutional environment – i.e., the “rule of the game” – that determines the
institutional arrangement – i.e., the “play of the game” (Pejovich, 1990: 3; Williamson, 1998: 75), and (ii) only when the formal institutions fail, the informal institutions will play a larger role in societies and economies – i.e., the compensatory structure of institutions (Peng et al., 2009: 68). And among the elements of the formal institutional environment⁵, property rights and contracting institutions⁶ are central because they determine incentive structure and the transaction costs of an economy (North, 1990).

The property rights or rights of ownership of an asset (both tangible assets such as land, capital and intangible assets such as intellectual capital) can be defined as “relations among men that arise from the existence of scare goods and pertain to their use” (Pejovich, 1990: 27). In a market-based economy, the structure of property rights mainly based on private property rights that contain four elements: (i) the right to use the asset, (ii) the right to capture benefits from that asset, (iii) the right to change its form and substance, and (iv) the right to transfer all or some of the right specified under (i), (ii), and (iii) to others at a mutually agreed upon price (Furubotn and Richter, 1991: 6; Pejovich, 1990: 28). The property rights institutions (i.e., the formal ones) are “the rules and regulations protecting citizens against the power [and therefore the risk of expropriation or appropriation] of the government and elites” (Acemoglu and Johnson, 2005: 955; brackets added) and against the expropriation or appropriation by other citizens (Klein, 1996; Williamson, 1991). The contracting rights are the rights to freely seek, identify, negotiate and contract with partners for exchange, and contracts are “means by which people seek, identify, and negotiate opportunities for exchange” (Pejovich, 1990: 30). The contracting institutions (i.e., the formal ones) are “the rules and regulations governing contracting between ordinary citizens, for example, between a creditor and a debtor or a supplier and its customers” (Acemoglu and Johnson, 2005: 955).

⁵ The formal institutional environment also includes social, political and judicial institutions that strongly interrelate with economic institutions (North, 1991). However, clarifying the attributes of the social, political and judicial institutions is not our subject in the current work that focuses on identifying the attributes of the formal economic institutions (i.e. property rights and contracting institutions) and their impact on the firm’s investment behaviors. We only analyze the role of judicial institutions (i.e. courts) as an enforcement mechanism of property rights and contracting institutions. Some basic understanding of the judicial attributes (e.g., judicial independence) and their impact on economic performance can be found in the work of Klerman (2007). A fundamental understanding of the relationship between political and economic institutions can be found in the work of Acemoglu et al. (2005), some detailed measurements of political attributes can be found in the works of Knack and Keefer (1995), Brunetti and Weder (1998), Svensson (1998). Some basic understanding of the relationship between social institutions, economic structures and economic outcomes can be found in the works of Granovetter (1985, 2005) and Zucker (1985).

⁶ Used as interchangeable with ‘contractual rights institutions’ (Klerman, 2007); property rights (or right of ownership) and contractual rights (or right to contract) are two fundamental rights in economic life, and they belong to the more general concept of “human rights” that encompass other rights in political and social life (Pejovich, 1990: 27).
Thus, the workability of a market-based economy largely depends on the extent to which its property rights and contracting institutions efficiently and effectively recognize, facilitate, and protect private property rights and the freedom of contract. If the property rights are not well defined and enforced by property rights institutions, the cost of establishing, maintaining and transferring the property rights are extremely high (Allen, 2000) and, as a consequence, it is also costly to prepare, conclude, monitor and enforce contracts that are the means by which the bundles of rights are exchanged (Furubotn and Richter, 1991). Because EE&TE are in transition, their property rights and contracting institutions are often incomplete or lacking, changing in an unpredictable way, and ineffective or even dysfunctional (Johnson, McMillan and Woodruff, 2002a; Johnson et al., 2002b; McMillan and Woodruff, 2000). This transitional nature not only causes the problem of institutional uncertainty - i.e. the economic actors’ perceived inability to predict institutional changes in an accurate manner (Miliken, 1987) - but also incentive problems because economic actors often do not have the full rights of ownership and the freedom of contract, and they are often confronted with public and private expropriation risks. This investment incentive problem related to property rights and contracting institutions of firms in EE&TE was very well summarized by Johnson et al. (2002b):

“Secure property rights [and contractual rights] are necessary … and also sufficient for investment… The issue is not whether entrepreneurs have enough resources, but rather whether they want to invest their retained earning [and other resources, either external or internal] or instead consume these earnings [and other resources], perhaps outside the country … [Thus] certain market-supporting institutions will work only after other institutions have been built.” (Johnson et al., 2002b: 1336; brackets and italic added)

But how does the domestic institutional environment (i.e., property rights and contracting institutions) of EE&TE influence the investment behavior of firms in general and the ones that internationalize (e.g., export) in particular? The existing literature often analyzes the institutional environment in general and property rights and contracting institutions in particular either by (i) type of economic activities such as starting business, hiring and firing workers, enforcing contracts, getting credit, and closing a business (e.g., Djankov et al., 2002, 2003; World Bank, 2004) or by (ii) societal sectors such as economic, political, judicial, and social (e.g., Acemoglu and Johnson, 2005; The Heritage Foundation, 2006-2012; World Bank, 2002). While these approaches may be useful to make a comparative analysis of different institutional frameworks at the macro level, it might however be inappropriate to evaluate the impact of the institutional environment on the firm’s behaviors because the direction and the extent to
which institutions matter depend on the way in which individuals (e.g., the firm’s managers) perceive and interpret their institutional reality, and then integrate it into their strategic behaviors. We therefore need to clarify some key institutional attributes that scholars can use to capture the extent to which individuals use their mental constructs relative to their institutional environment to conduct their behavior (Duncan, 1972; North, 1990).

Based on the insights of prior studies (e.g., Acemoglu and Johnson, 2005; Besley, 1995; Brunetti and Weder, 1998; Djankov et al., 2002, 2003; Knack and Keefer, 1995; Svensson, 1998; Teisberg, 1993; among others), there are four key institutional attributes\(^7\) that can be used to characterize the property rights and contracting institutions of an economy: (i) **specificity** is the extent to which the private property rights of ownership and the freedom of contract are recognized or defined by prevailing rules and regulations; (ii) **stability** is the extent to which the rules and regulations concerning property rights and contracting institutions changed in the past; (iii) **predictability** is the extent to which the future change of rules and regulations concerning property rights and contracting institutions can be predicted; (iv) **enforceability** is the extent to which the private property rights of ownership and the freedom of contract is efficiently and effectively protected or guaranteed by regulatory authorities/agencies through *formal* enforcement mechanisms (i.e., courts and other institutions of state). The firm’s strategic choices (i.e., its resources and capabilities investment behaviors) are therefore hypothesized as a function of the managers’ perception about the institutional attributes: the higher the degree of specificity, stability, predictability and enforceability of property rights and contracting institutions, the lower the managers’ perceived institutional risk and uncertainty, and as a consequence, the more likely they would be motivated to invest in resources and capabilities in order to pursue their competitive strategies, either in domestic or foreign markets.

There have been some empirical studies that demonstrate that the domestic institutional environment influences the investment behavior of firms, both in EE&TE and DE. For instance, in the context of the DE (i.e.,

---

\(^7\) We do not mean that the institutional attributes identified in the current work are the ‘true’ ones that individuals use to build their subjective model about their institutional environment. However, such conceptual instruments are necessary for scholars to unbundle the way by which the institutional reality enters in the individual’s decision making process. As we all know, identifying the attributes of the phenomenon studied - either at environmental, industry, organizational, transaction, or individual level – is common in social sciences such as entrepreneurship (e.g., Covin and Slevin, 1991), transaction costs economics (e.g., Williamson, 1996), or strategic management (e.g., Barney, 1991; Porter, 1980). It seems therefore that the more important issues are how to identify the ‘right’ attributes and how to properly measure them rather than whether or not the identification of institutional attributes are necessary.
USA), Teisberg (1993) argues that under the conditions of uncertain regulation (i.e., regulatory allowance), the firms rationally choose to delay investment or to invest in smaller and shorter projects in order to reduce risk and uncertainty relative to capital investment. In the context of EE&TE (i.e., Romania, Slovakia, Ukraine, and Russia), Johnson et al. (2002b) find that when the firms perceive property rights as less secured, they are reluctant to use their profit (i.e., their retained earnings) to reinvest even when external sources – i.e., bank loans – are available. However, these studies focus on investment behavior of firms that only operate in the domestic market rather than in overseas markets, and they do not identify different attributes of institutions. Compared to doing business in the domestic market, “going abroad”, and exporting in particular, involves more risk and uncertainty because firms will confront many export barriers and “distances” in both domestic and overseas markets (Johanson and Vahlne, 1977; Leonidou, 1995, 2000, 2004). This in turn causes two consequences: first, the firms that do international business such as exporting would need more resources and capabilities, in order to overcome export barriers in domestic and overseas markets, and to pursue their competitive strategies, than firms that only operate in the domestic market. In other words, the investment demand of the former is perhaps higher than the latter. Second, because they confront more barriers and therefore more risk and uncertainty, the firms that involved in international business are logically more sensitive to any forms of risk and uncertainty, including the institutional ones, than the firms that only operate in domestic market. Exporters are therefore a typical population for evaluating the effects of the domestic institutional environment on the firm’s investment behavior. Thus, we propose that:

**Hypothesis 2:** The more exporting firms perceive the institutional environment (i.e., property rights and contracting institutions) as specific, stable, predictable and enforceable, the more likely they are to invest in their (a) human assets, (b) innovation assets, and (c) marketing assets.

**Competition and investment**

The institutional reforms of EE&TE result in two major competitive phenomena. First, the competitive structure in the domestic market of these economies becomes more and more diversified with three major competitive forces: (i) incumbent firms (primarily business groups, state-owned enterprises, and privatized firms), (ii) entrepreneurial start-ups, and (iii) foreign entrants (Peng, 2003: 283). Second, the firms from EE&TE are more and more involved in the global market (both factors and products markets), not only because the private firms are now free to compete with state-owned firms in many sectors, but also because the increasing competition in domestic markets could become a factor that pushes local firms in EE&TE
to internationalize (Yamakawa et al., 2008). On the one hand, although the competitive environment in domestic markets of EE&TE has improved, the small local and private firms in these economies still face many institutional barriers in developing their business. For instance, because of weak property rights institutions (i.e., rights of private ownership are not well defined and enforced), small firms in EE&TE cannot grow their business because they cannot use their assets as collateral to access credit (World Bank, 2002), or startups cannot be created because they have not enough resources (e.g., money, time, information) required to deal with high costs of entry (Djankov et al., 2002). In this context of lack and inefficiency of formal property rights and contracting institutions, the informal institutions such as trust and connections are still very important to access resources like credit from bank and trading partners, for example (Malesky and Taussig, 2009b; McMillan and Woodruff, 1998). In addition, compared to their counterparts in DE, firms from developing countries still confront many barriers including environmental barriers in both their home and host markets (Leonidou, 2000). However, on the other hand, we can expect that competition, through its impact on the investment demand of firms in these economies, either in domestic and foreign markets, could be a factor that in turn pushes institutional reforms: the higher the competitive pressures that firms in EE&TE face in their domestic and foreign markets, the more likely they need to invest in resources and capabilities in order to enhance their strategic position and to reinforce their competitive advantage and, as a consequence, the more likely they are to require stronger institutional reforms both at micro and macro levels in order to efficiently and effectively deploy their invested resources and capabilities. By this way, entrepreneurship and entrepreneurs can also influence institutional development by asking and contributing to institutional change (Welter and Smallbone, 2011).

Prior empirical studies also provide some evidence about the effect of competition on the firm’s investment behavior: for instance, Matluck (1983: 187) clearly demonstrates that the firm’s business investment is not only a function of current and past changes in sales, of the cost of capital and of the level of capital stock, as neoclassical economics propose, but also a function of the firm’s business strategy “attempting to put their resources in areas where competitors will not be able to imitate them”. In other words, the competitive variables relative to the firm’s competitive environment and its competitive strategies provide more insightful explanations about the firm’s investment behavior than the macro variables such as market growth rate, interest rate or tax policies because they directly reflect the firm’s expectations about its strategic position vis-à-vis its competitors. Röller and Tombak (1993) argue that firms in industries with high production differentiation, high concentration, and large sales are more likely to adopt new manufacturing technologies. We therefore propose that:
Hypothesis 3: The effect of the perceived domestic institutional environment (i.e., the degree of specificity, stability, predictability and enforceability of property rights and contracting institutions) on the firm’s export-related resources and capabilities investment (i.e., investment on human, innovation, and marketing assets) is greater for firms that confront more competition in either (a) domestic market or (b) foreign markets, or (c) both.

Methods

As mentioned above, we conduct this study within the context of an emerging and transition economy in Southeast Asia, i.e. Viet Nam (Arnold and Quelech, 1998; Ellis, 2010). Like China, Russia, and Eastern European countries, Viet Nam is a transition economy because its economy formally transitions from a centrally planned to a market-based economy since 1986. Like China, Viet Nam has chosen a gradualist policy rather than shock therapies like Russia or Poland (Peng, 2003). Viet Nam is an emerging economy but its size is smaller and its phase of development is less advanced than China, Brazil, Russia, Indonesia, Thailand, Chile or Poland. Nevertheless, this country had archived a high rate of growth (an average of 7.2% in the period of 2000-2010), and became a middle income country in 2010 (about 1,130 USD/capital). Export plays a very important role for the Vietnamese economy because it accounts for about 77.5% of its GDP in 2010 (World DataBank). The most important export products of Viet Nam come from agriculture (e.g., rice, coffee, pepper, natural rubber, shrimp, and catfish, etc.), light industry (textile, footwear, etc.) and handicraft. However, the Global Recession strongly affects the growth strategy of Viet Nam (Pincus, 2009), and Vietnamese firms face more and more competition from their counterparts in other EE&TE. Thus, Viet Nam is a promising research context to evaluate the effects of institutional environment on the firm’s export-related investment and export competitive advantage.

Like many EE&TE, the industrial information in Viet Nam is not yet developed. In this study, we use two directories to identify Vietnamese exporters. The first is the directory of reliable exporters among Vietnamese companies selected and published by the Ministry of Industry and Trade. This directory started since 2004 and consists of more than 20 commodities and more than 621 exporters. However, because this directory only selects exporters that satisfy certain criterion such as having direct export sales and

9 The number of commodities changes for each year, but in general the major commodities do not change.

143
reaching at least a threshold of export sales for selected commodities\(^{10}\), it neglects smaller and indirect exporters. Thus, we use the second directory of exporters provided by Viet Nam Customs that consists of all firms having export activities from Viet Nam, including exporters from the first directory as complementary. We randomly select 43 domestic firms from the second directory. In total, our initial sample has 664 exporters. Our research instrument is a structured questionnaire consisting of questions related to three major constructs: (i) institutional environment (i.e., the specificity, stability, predictability and enforceability of property rights and contracting institutions), (ii) the firm’s investment on export-related resources and capabilities (i.e., human, innovation, and marketing assets), and (iii) export competitive advantage (i.e., cost, product, and service).

The specificity of property rights and contracting institutions is indirectly measured by asking entrepreneurs about the extent to which some phenomena concerning (i) the appropriation of intellectual assets and land, (ii) the disputes between firms and within firms (i.e., between employees and employers) exist in their operational field. The enforceability of property rights and contracting institutions is directly measured by asking entrepreneurs about the extent to which the above phenomena are effectively enforced by the formal institutions. Although there were some changes in the Constitution and some important laws and regulations relative to property rights (e.g., Law on Land and Law on Intellectual Rights), property rights institutions in Viet Nam are very stable since 1975. For this reason, we only evaluate the stability and predictability of contracting institutions by asking entrepreneur about the extent to which some major export-related rules and regulations (i.e., customs, quality controls, business tax, labor contract, environmental rules, interest rates and foreign exchange rates) changed in the past and can be predicted in the future.

The firm’s investment is measured by asking entrepreneurs about the extent to which their human, innovation and marketing assets changed over the last three years. The measurement of the firm’s investment in human asset is adapted from Schuler and Jackson (1987) and Gomez-Mejia (1988). The measurement of the firm’s investment in marketing and innovation assets is adapted from Morgan et al. (2004) and Leonidou et al. (2011). The firm’s competitive pressure in domestic markets is based on Peng (2003), and measured by asking entrepreneurs about the extent to which they face competition from different competitive forces. The firm’s competitive

\(^{10}\) For instance, in 2010, the threshold of export sales for rice is 6 millions USD, coffee (10), rubber (5), pepper (4), cashew nut (6), tea (1), fruits (2), meats (1), aquatic product (10), wood products (8), textile (15), footwear (20), handicraft (2), plastic (3), electronic (3), cable (5), materials for construction (3), mechanical products (3), drug and medical equipment (1), bags (3).
Pressure in overseas markets is measured by asking entrepreneur about the extent to which they face competition in their five major export markets (Cavusgil and Zou, 1994). Finally, the construct of export competitive advantage is based on Leonidou et al. (2011) and Morgan et al. (2004). All constructs and their measurement are reported in Table 1.

In the first round of the survey, we combined the two methods of post-mail and internet. We first contacted all firms in our sample by telephone in order to present the study and to ask them to participate. Almost all firms (554) accepted to participate. Beside the questionnaire, we also sent two other documents to these firms: a letter of introduction about the study (research objective, research institution, etc.) and a guide for responding that suggests who is the most appropriate person to fill the questionnaire (i.e., directors or export managers), and how to fill and return the questionnaire. One week after sending the questionnaire, we re-contacted all firms in order to know whether they received the documents and whether they have started filling the questionnaire. One week later, we called firms that were not contacted a week earlier, and firms that promised to fill questionnaires. At that time, some refused to participate.

We only received 29 questionnaires. Surprisingly, among these 29 questionnaires, almost all of them (24) came from exporters located in provinces/cities other than Ha Noi and Ho Chi Minh City – i.e., the two major economic centers in the North and the South, respectively, where Vietnamese exporters are often located. We decided to do the survey with the direct interviews in these two cities. There were two groups of researchers consisting of 5 people each. These researchers called and visited exporting companies in Ha Noi and Ho Chi Minh City contained in our list of 554 exporters that had initially accepted to participate in our study (excluding firms that had already returned questionnaires and the ones that refused to participate). At this time, there were still many firms that refused to provide information and we only got 54 more questionnaires in Ha Noi and 26 in Ho Chi Minh City. In total, we thus received 109 questionnaires after two rounds of survey with different methods (post-mail, internet, and direct interview) that were usable, representing a 16.4% response rate – i.e., a low rate of response, but an acceptable sample size in comparing with prior export studies that are mainly carried out in DE (Leonidou and Katsikea, 2010: 4).

---

11 The sub-website’s link is: www.agro.gov.vn/export
12 The members of the two groups consist of researchers and Master students belonging to the Institute of Sociology (Ha Noi) and to the Department of Sociology (University of Social Sciences, Ho Chi Minh City) who were familiar with doing surveys.
On average, the firms that answered to our questionnaire had been in business for 15.4 years, employed 243.4 people, and had a working capital of 6.7 billion VND (i.e., equivalent to about 320,000 USD). Almost all of them (91 firms or 83.5% of our sample) are located outside of an Industrial Park or an Export Processing Zone. The two major forms of ownership are 100% local private enterprise (68.8%) and private firms but with capital from public partners (26.6%), foreign partners (1.8%), and cooperative (2.8%). The majority of these firms export agricultural products (58.7%); 38.5% export handicraft products; and 2.8% export other products. These firms had about 12.3 years of export experience, export to about 10.9 foreign markets, and about 77.9% of their export sales come from direct mode. Our key informants are directors (26.6%), managers of export/marketing departments (38.5%), and export staffs (34.9%). Among informants, 56.9% are female, 85.3% have a university education, only 7.3% studied abroad, but 68.8% have at least been one time abroad.

Results

Because our conceptual model consists of many hypothesized relationship between several constructs, we use the Analysis of MOment Structure - AMOS (v.18) – a Structural Equation Modeling (SEM) software to test this model. In accordance with the basic steps of structural equation modeling (Arbuckle, 2009; Byrne, 2009) and experiences of prior studies (e.g., Leonidou et al., 2011; Morgan et al., 2004), we structure our analyses in three parts. First, we validate our measurement model through two steps of Exploratory Factor Analysis (EFA) and Confirmatory Factor Analysis (CFA). Second, we estimate our structural model by estimating our main hypotheses (H1a→H1c, and H2a→H2c). Third, we test the moderating hypotheses (H3a→H3c).

Measurement model validation

Exploratory Factor Analysis

The objective of EFA is to identify the appropriate number of factors (i.e., factor structure) that is necessary to explain the relations among a set of indicators (items) by testing the validity and reliability of this factor structure. Because our sample size consists of 109 cases, we use a threshold of .55 for the convergence validity - i.e., factor loading or exaction (Hair et al., 2010) based on which we exclude items that do not meet this threshold. We also verify that the exclusion of these items does not modify the original conceptual definition of any construct (Farrell, 2010; Leonidou et al., 2011). One important finding in this stage of our analysis is that the EFA
demonstrates that there are only two factors extracted from the items relative
to export competitive advantage: the first includes all items of cost-based
advantage while the second includes items concerning product and services
differentiation. We therefore need to analyze further by doing CFA in order
to determine whether our construct of competitive advantage is validated.
The result of the reliability test (Cronbach’s α) is presented in Table 1. Based
on the remaining items, we conduct a CFA in order to evaluate the degree of
fit of our proposed model with the observed model (i.e., the correlation
between variables in our dataset).

**Confirmatory Factor Analysis**

In general, the CFA demonstrates that our constructs satisfy the statistical
criteria of reliability test (Composite Reliability (CR) > .70), convergence
validity test (Average Variance Extracted (AVE) > .50 and CR > AVE), and
discriminant validity test (Maximum Shared Squared Variance (MSV) <
AVE and Average Shared Squared Variance (ASV) < AVE) (Hair *et al.*, 2010). However, the CFA also demonstrates that the service differentiation
does not satisfy the statistical requirements to become an independent factor
(i.e., MSV > AVE rather than MSV < AVE as required). Thus, we decided
to combine product and service differentiation into one factor relative to
differentiation-based competitive advantage as compared with cost-based
competitive advantage. In our final model, there is a second-order factor
(i.e., institutional environment) and nine first-order factors (i.e., the four
institutional attributes relative to specificity, stability, predictability, and
enforceability; the three types of export-related resources and capabilities
investment relative to human, innovation, and marketing assets; and the two
aspects of export competitive advantage relative to cost- and differentiation-
based). The CFA shows that our proposed model attains a modest
requirement of model fit index: $\chi^2(421) = 761.63; p < .001; CMIN/DF = 1.81;
CFI = .85; RMSEA = .08$. Given the facts that our sample size is relatively
small (109), that the number of observed variables in our proposed model is
relatively large (31), and that the measurement of institutional environment
by subjective methods is still under developed in the literature, these indexes
of model fit could be considered as acceptable (Arbuckle, 2009: 587, 590;

Because we collect our data through a self-reported questionnaire
within a cross-sectional research design, the common method variance (i.e.,
the variance that is attributable to the measurement method rather than to the
constructs that the measures represent) can cause systematic measurement
errors that can, in its turn, bias the relationship between our theoretical
constructs (Podsakoff, MacKenzie and Podsakoff, 2003). We therefore
tested for the common method variance in order to know whether this issue
impacts our interpretations of the results. We first used Harman's single
factor test by performing a principal component analysis on all items considered in the study with the factor extraction method based on both the eigenvalue (>1) and on the fixed number of factors (constrained to 1 factor). The eigenvalue method resulted in 8 factors with eigenvalue greater than 1, accounting for 76.08% of the variance, and the first factor explained only 23.32% of variance. The fixed number method also shows that even when all items were constrained to be fixed into a single factor, this factor only explained 23.32% of the variance (Leonidou et al., 2011: 17).

Since we did not obtain information from different raters and in different contexts, we used CFA with a single common method factor approach to test the issue of common method variance because we did not obtain information from different raters and in different context (Podsakoff et al., 2003). To do this, we created a latent common variance factor and restricted all items in our theoretical model to load on their theoretical constructs as well as on this latent common variance factor (Podsakoff et al., 2003: 891, 896, 898). We then ran the theoretical model with and without this latent common variance factor and compared the significance of the structural parameters. The results show that: first, the factor loading in both models (with and without the latent common variance factor) is significant and of similar magnitude. Second, the direction of the path coefficients remains the same in the two models, and their p-values are only slightly different (Shinnar, Giacomin and Janssen, 2012). Although it is difficult to say that there is no common method variance in our theoretical model, these tests however allow us to conclude that the common method variance cannot significantly bias our interpretation of results.

**Structural model estimation**

The results of structural model estimation (Table 2) demonstrate that our hypotheses are supported: with two exceptions concerning the relationships between investment in human assets and export competitive advantage by differentiation-based strategies, and between investment on marketing assets and export competitive advantage by cost-based strategies, all other investments in human, innovation and marketing assets have positive and significant effects on the firm’s export competitive advantage (H1a, H1b, H1c). The estimation also shows that all institutional attributes of the domestic institutional environment significantly influence the firm’s export-related resources and capabilities investment: the higher the degree of specificity, stability, predictability and enforceability of the domestic institutional environment is, the more likely the export firms are to invest in their human, innovation, and marketing assets (H2a, H2b, H2c).

In order to unbundle the contribution of each institutional attribute to the general impact of the institutional environment (i.e., property rights and
contracting institutions) on the firm’s investment behavior, we build second model in which there is no second-order factor (i.e., institutional environment) and where each institutional attribute (i.e., specificity, stability, predictability, and enforceability) is designed to directly influence the firm’s investment in each export-related resources and capabilities (i.e., human, innovation, marketing assets). The model fit indexes of this model are not as less good as the first one but still acceptable ($\chi^2(416) = 820.13, p < .001$; CMIN/DF = 1.98; CFI = .82; RMSEA = .09). This means that the institutional environment might influence the individual’s perception as a whole rather than as separate attributes. However, our objective is to unbundle the impact of these individual attributes and the results show that: (i) the enforceability of property rights and contracting institutions is the major contributor to the general effect of the institutional environment on the firm’s investment in human assets; (ii) the predictability and enforceability of property rights and contracting institutions are major contributors to the general effect of the institutional environment on the firm’s investment in innovation assets; (iii) the specificity and stability of property rights and contracting institutions are major contributors to the general effect of the institutional environment on the firm’s investment in marketing assets.

**Moderating effects assessment**

To test the moderating role of the firm’s competition in domestic and foreign markets on its investment behavior, we use the multi-group analysis techniques of AMOS by splitting our sample into two groups based on the degree of competition that the firm faces in its domestic or overseas markets, or both (H3a, H3b, H3c). In the context of Viet Nam, we measure the firm’s competitive pressure in the domestic market by asking entrepreneurs about the degree of competition that they face from five major forces (i.e., household, cooperative, private firm, state-ownership firm, and foreign firm). We use seven-point scale going from “no competition” to “severe competition”, where the minimum of total value for the firm’s competitive pressure in domestic market is 5 (i.e. no competition from any competitive forces) and the maximum is 35 (i.e. severe competition from all possible competitive forces). After summing the competitive pressure that firms in our sample confront, we use the mean value to split our sample into two sub-samples: (i) less competition (≤ mean) and (ii) more competition (> mean), with $n_1 = 49$ and $n_2 = 60$ (H3a). In a similar vein, we split our sample into two sub-samples by the mean value of the total competitive pressure that our firms face in their five major export markets with $n_1 = 50$ and $n_2 = 60$. The mean and median values are nearly the same so changing the value used to split our sample does not create significant differences in our analysis: 18.18 (mean) - 19 (median) for the competitive pressure in domestic market, and 23.35 (mean) – 23.36 (median) for the competitive pressure in overseas markets.
Finally, we split our sample into two sub-samples by the mean value of the total competitive pressure that our firms face in both domestic and overseas markets with \( n_1 = 72 \) and \( n_2 = 37 \) (H3c).

The results of the multi-groups analysis (Table 3) show that there are clear differences of path coefficients between two sub-samples: the investment behaviors of firms that belong to the “more competition” sub-sample - either in domestic or foreign market - are all (i.e., human, innovation, and marketing) significantly influenced by their perceived institutional environment. By contrast, the investment behaviors of firms that belong to the “less competition” sub-sample are not significantly influenced by their perceived institutional environment in any type of asset. More interestingly, by comparing t-values, the effect of competitive pressures in overseas markets is stronger than the one in domestic markets. In other words, it seems that (i) the firms that confront more competitive pressures, either in domestic or foreign markets, are more sensitive to institutional risk and uncertainty than those that confront less; and (ii) the competitive pressures in overseas markets have more impact on the firm’s sensitivity to institutional risk and uncertainty than the ones in domestic markets. Thus, although institutions matter, they are “necessary” but not “sufficient” conditions to induce the firms to invest (or to be reluctant to invest) in their resources and capabilities. Nevertheless, the results of multi-groups analysis also show that these differences in firms’ investment behavior are not statistically significant: the z-test of the difference between coefficients (\( \beta \)) across two sub-samples, for two-tailed test, does not attain the threshold - i.e., [1.96] - and therefore we cannot confirm these observed differences between two subsamples even with 95% confidence (\( p < .05 \)). The moderating role of competition is not statistically proven. However, we suppose that the main reasons lie in the small size of our sample or some methodological biases that do not enable us to statistically unbundle the difference of investment behavior between groups of firms under different

---

14 With two levels of competitive pressures - i.e., (less competition) = (0) and (more competition) = (1) in domestic and overseas markets, we have three major possibilities to split our sample into different groups by combining the firm’s competitive pressures in domestic and foreign markets:

(i) \( 0 = \text{sum}[(0,0)] \) and \( 1 = \text{sum}[(0,1), (1,0), (1,1)] \);

(ii) \( 0 = \text{sum}[(0,0), (0,1), (1,0)] \) and \( 1 = \text{sum}[(1,1)] \);

(iii) \( 0 = \text{sum}[(0,0)] \), \( 1 = \text{sum}[(1,0), (0,1)] \), and \( 2 = \text{sum}[(1,1)] \).

The first and the third possibilities are the cases in which our sample size is too small (i.e., \( n_{(0,0)} = 27 \)), and AMOS does not allow us to estimate our structural model. The second possibility is the case in which we have enough observations to estimate the structural model and the results are presented in Table 3. However, in this case, the difference between two groups is not so high because the first group also includes firms that confront more competition either in domestic or overseas markets. Ideally, we should compare the difference between \( n_{(0,0)} \) and \( n_{(1,1)} \).
competitive pressures. We further discuss this point as well as other results in the next section.

**Discussion**

Our first major finding is that the firm’s investment in export-related resources and capabilities significantly influences its export competitive advantage (H1a, H1b, H1c). More precisely, we find that investing in human assets significantly influences the firm’s cost-based advantage but not its differentiation-based advantage. What does this means? As we all know, like their counterparts in many other EE&TE, Vietnamese firms still mainly rely on cheap inputs including labor as their main source of a cost-based competitive advantage. In this context, we can suppose that the firm’s objective when investing in human assets (e.g., training, rewards, etc.) is mainly to keep a certain degree of stability in its labor forces and to provide certain kind of basic knowledge and skills. The finding relative to human assets is supported by the second finding: investing in innovation assets only significantly influences the firm’s differentiation-based competitive advantage, but not its cost-based competitive advantage. This means that when exporting, firms focus on the logic of differentiation-based competitive advantage (i.e., developing new products, adopting new ideas and technologies in production, diversifying the scope of products), they confront an opportunity cost and should commit to pursue this strategy by allocating their limited resources and capabilities (i.e. investment expenditure) to the flow of innovative assets. Finally, the third finding demonstrates that investing in marketing assets (i.e., advertising, branding, and market research) significantly influences both cost-based and differentiation-based competitive advantages, but has a higher impact on the latter. This finding confirms the two findings above: marketing assets are important for both cost- and differentiation-based competitive advantage, but because the latter requires more innovative assets and differentiation, its marketing demands (i.e., advertising, branding, and market research) are therefore stronger than the one of the former. In sum, as the resource-based view proposes (Barney, 1991) and as tested by some prior studies on exporting (e.g., Leonidou et al., 2011; Morgan et al., 2004), our results reconfirm the role of resources and capabilities that enable the firm to conceive and implement different competitive strategies in order to gain and sustain different types of competitive advantages. We extend the argument by examining the source of the firm’s current export-related resources and capabilities – i.e., investment – and the role of different types of resources and capabilities for the firm’s export competitive advantage.
Our second major finding is that the domestic institutional environment significantly influences the firm’s resources and capabilities investment (H2a, H2b, H2c). In general, we find that the institutional attributes affect the managers’ perception of risk and uncertainty, and therefore their strategic choices and implementation. More precisely, we find that among the institutional attributes, (i) the enforceability (of property rights and contracting institutions) is the main factor that influences the firm’s investment in its human assets; (ii) predictability and enforceability (of contracting institutions) are the main factors that influence the firm’s investment in its innovation assets; and (iii) specificity (of property rights and contracting institutions) and stability (of contracting institutions) are the main factors that influence the firm’s investment in its marketing assets. It seems therefore that among the institutional attributes, enforceability is perhaps the most important dimension. In prior studies, enforceability has also been the most investigated attribute because it determines the effective incentive of economies (Acemoglu and Johnson, 2005; Djankov et al., 2003; Gwartney, Hall and Lawson, 2012; Knack and Keefer, 1995; World Bank, 2004). Our finding thus reconfirms the role of the formal enforcement mechanisms. We also extend current knowledge by demonstrating that there are other institutional attributes that also matter for the firm’s strategic choices – i.e., specificity, stability and predictability. In sum, along with the first major finding, this finding clearly demonstrates not only that “institutions do matter” but also which institutional attributes matter, by which ways or mechanisms, and to what extent.

Our third major finding demonstrates that the institutional environment matters, but other factors such as competition in market places play an important role too (H3a, H3b, H3c). More precisely, among a same sample of export firms in a same institutional context, we find that exporting firms that perceive that they face more competitive pressures either in domestic market, overseas markets, or both, are more sensitive to institutional risk and uncertainty than firms that perceive that they face less competition. However, as mentioned on the introduction, our objective in the current work is not to demonstrate what factors – i.e., assets, competition or institutions – have the strongest impact on the firm’s strategic behavior and success, but to unbundle the mechanisms that link these factors and the impact of their interaction on the firm’s strategic behavior and success. There have been some theoretical and empirical studies that have identified the way by which institutions and institutional changes determine the structure, degree and intensity of competition (e.g., Djankov et al., 2002; Peng, 2003; World Bank, 2002; Yamakawa et al., 2008), and the individual impact of institutions, competition and resource factors on the firm’s export behaviors (e.g., Gao et al., 2010). Our study extends these studies by demonstrating that investment in the firm’s resources and capabilities could be an important mechanism through which the three pillars of the strategy
tripod interact. Nevertheless, we do not have a strong statistical evidence for this finding and the moderating role of competition is not confirmed. We recognize this limitation and discuss it as well as others, and then stress the implications of our study in the next section.

**Conclusion**

In this study, our objective was to demonstrate how institutions matter, through which mechanisms and to what extent? (Peng *et al.*, 2009: 65). We focus on the internationalizing firms located in EE&TE (i.e., Viet Nam) as target population because the formal institutional environment (i.e., property rights and contracting institutions) of these economies is in transition and its impact on the firm behaviors is more "visible". In addition, internationalizing firms (i.e., exporting) are typical because they are more sensitive to risk and uncertainties, including institutional ones, as compared with firms that only operate in their domestic market. We unbundle the institutional attributes (i.e., the degree of specificity, stability, predictability, and enforceability of property rights and contracting institutions) and investigate their impact on the firm’s investment in resources and capabilities. In addition, we introduce the firm’s competitive pressures in domestic and foreign markets as moderators to evaluate the extent to which the institutions matter to the firm’s strategic behavior. Finally, we link the institutional environment to the firm’s success through the impact of export-related resources and capabilities investment on export competitive advantage.

The most important theoretical contribution of our study is to provide conceptual tools (i.e., institutional attributes) to capture the impact of the formal institutional environment on the firm’s behavior and competitive advantage. There is a growing belief that the contextual conditions, including institutional environment, are not merely background conditions but directly influence the firm’s strategy and performance (Peng *et al.*, 2009) and we therefore need to contextualize the phenomena that we study (Welter, 2011; Welter and Smallbone, 2011), especially the strategic and entrepreneurial phenomena in EE&TE that are growing their role in the global economy (Bruton *et al.*, 2008; Hoskisson *et al.*, 2000; Wright *et al.*, 2005). However, when scholars try to integrate the broad environmental conditions into their theoretical models, ironically, their models bear the risk of lacking operationality (Porter, 1991: 98-99). Integrating institutions into analysis, as Williamson (1994: 193; italic added) argued, is really challenging: “…Taking institutions seriously is the first step. Working out the microanalytic logic of economic organization is the second. Explicating the mechanisms comes next”. As the latest and youngest leg of the strategy
tripod, the institution-based view is still in its infancy because its institutional variables are still too broad and encompassing (Peng et al., 2009: 75-77). In responding to this theoretical gap, we identify and develop measurements of four institutional attributes (i.e., the degree of specificity, stability, predictability, and enforceability of property rights and contracting institutions) that can be used as conceptual tools to capture the institutional context of the strategic and entrepreneurial phenomena. In addition, we propose a short definition of resources and capabilities investment as an important mechanism through which the three legs of strategy tripod can be combined as interactions rather than as separate factors affecting the firm’s behavior and success.

We tested our model empirically and, in general, our empirical findings support our hypotheses with some limitations. Our first limitation lies in the fact that we only focused on the exporting firm of one emerging and transition economy (i.e., Viet Nam). Emerging and transition economies are very heterogeneous, not only by their institutional context but also their phase of institutional transition (Hoskisson et al., 2000; Peng, 2003; Wright et al., 2005). Thus, our results are conditioned by the institutional context of Viet Nam. Second, the size of our sample is relatively small compared to the current tendency in export studies (Leonidou and Katsikea, 2010). We suppose that this limitation in turn strongly influences the third limitation concerning the degree of model fit and the degree of statistical significance of our results (H3a, H3b, H3c). However, as mentioned in the methodological section, gathering information about firms’ perception of the institutional environment in the context of EE&TE like Viet Nam is really a challenge. Fourth, our sample is randomly selected but not representative of the population of Vietnamese exporting firms, neither by industry nor ownership. Fifth, we only used the subjective method to measure our constructs and this inevitably includes some biases in the information gathered, and therefore our results. Finally, as we all know, the individuals’ perception does not only change not by context but also over time. Our cross sectional data do not allow us to conclude about the causal relationship between perceived institutional attributes and investment, and between investment and competitive advantage.

Nevertheless, future research can extend and improve our theoretical propositions and empirical findings by at least four major directions. First, the measurement of the four institutional attributes in the current study is still very simple and only based on subjective method. These institutional attributes can also be measured by an objective method. For example, (i) the specificity of property rights can be measured by analyzing the extent to which rules and regulation recognize private property rights; the specificity of contracting institutions can be measured, as prior studies often did, by verifying the official procedures, time, and cost of various transactions that
are imposed by rules and regulations; (ii) the stability of property rights and contracting institutions can be measured by counting the number and estimating the degree of changes in rules and regulations concerning these institutions in the past; (iii) the enforceability of property rights and contracting institutions can be measured by verifying the official procedures, time, and cost that related actors (litigants and courts) should bear in order to resolve disputes. The advantage of the objective approach is straightforward because it provides crude evidence about the efficiency and effectiveness of property rights and contracting institutions. Combining objective and subjective methods to measure institutional attributes would help scholars to better capture the impact of institutional environment on the firm’s behavior.\(^{15}\)

Second, the current study only investigates a limited dimension of resources and capabilities investment (i.e., the types and intensity of investment in human, innovation, and marketing assets). However, the firm’s activities consist of many types and dimensions of resources and capabilities whose impact can vary by industry, strategies and contextual conditions (Porter, 1991). Clarifying the impact of different resources and capabilities on the firm’s competitive advantage under different institutional and industrial constraints would therefore bring more theoretical and empirical implications for strategic and entrepreneurship studies. Third, as mentioned above, the current study does not re-test all sub-relationships of the causal chain between investment and performance, and does not directly investigate the relationship between institutional environment – perceived risk and uncertainty – investment. The possession of resources and capabilities does not directly create value for the firm, but the exploitation of resources and capabilities does (Barney, 2001a; Porter, 1991; Priem and Butler, 2001a; Priem and Butler, 2001b).\(^{16}\) A more exhaustive study that would consider all sub-relationships of the causal chain would bring more insightful theoretical and practical implications. Finally, a comparative study across different institutional contexts, either regional or international, is critical to validate

\(^{15}\) Certain studies used experts’ opinions as the key sources of institutional evaluation (e.g., Djankov et al., 2003; World Bank, 2004). We call this as the hybrid approach of institutional measurement because it relates to the expert’s perception of institutional environment and is therefore ‘subjective’ on the one hand, but it is also ‘objective’ in the sense that it does not directly reflect the entrepreneur’s perception of institutional environment on the other hand.

\(^{16}\) It is interesting to recognize that both the resource-based view and the industry-based view do not consider resources’ attributes and industry structure, respectively, as direct sources of value creation and therefore of competitive advantage, but as sources of sustained competitive advantage: the ultimate function of industrial analysis is “to explain the sustainability of profits against bargaining and against direct and indirect competition” (Porter, 1991: 100; italic original); the resource-based view “as currently constituted, contains a theory of sustainability but not a theory of competitive advantage (i.e., value creation)” (Priem and Butler, 2001b: 64; italic original) because “the value of a firm’s resource must be understood in the specific market context within which a firm is operating” (Barney, 2001a: 52-53).
the institution-based view. Recently, there has been growing efforts to establish the institutional profile of different countries and their impact on the strategic and entrepreneurial phenomenon from two major intellectual school of the new institutionalism, i.e., the sociological school (e.g., Busenitz, Gómez and Spencer, 2000; Descotes et al., 2011; Kostova, 1997; Manolova, Eunni and Gyoshev, 2008), and the economic school (e.g., Djankov et al., 2002; Djankov et al., 2003; World Bank, 2004). A similar effort that would combine subjective and objective methods of measurement of different institutional attributes could provide complementary valid proofs for the institution-based view in strategic, entrepreneurship and international business studies.

Our study also has some important implications for managers and policy makers. For managers, it stresses that: (i) firms should invest, either by acquisition or accumulation methods, in order to have required resources and capabilities that allow them to pursue opportunities in domestic and overseas markets; (ii) the types of resources and capabilities to invest in depends on the competitive strategy that firms would like to pursue: cost-based competitive strategies and differentiation-based competitive strategies require different types and degree of resources and capabilities. For policy makers, our study provides evidence that: (i) enhancing enforceability and predictability of rules and regulations could induce firms to invest more in innovation assets that are crucial to gain and sustain economic performance at both micro and macro levels in the era of globalization; (ii) firms are different in their behavior due to their competitive pressures in domestic and overseas markets, and institutional supports such as national export promotion programs should be “customized” for different target groups.

Acknowledgments

The authors gratefully acknowledge the financial support of the PIC-CUD project. They would like to thank AGROINFO/IPSARD for technical and administrative supports during the survey in Viet Nam from October 2011 to February 2012. The perspectives presented in this paper belong to the authors.
Appendices

Table 1. Constructs measurement and CFA results

<table>
<thead>
<tr>
<th>Research constructs</th>
<th>Standardized loading</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>1. Institutional environment</strong></td>
<td></td>
</tr>
<tr>
<td><strong>a. Specificity</strong></td>
<td></td>
</tr>
<tr>
<td>(seven-point scale, anchored by “none existing” and “prevalent” concerning different phenomena related to property rights and contracting rights) (**)</td>
<td></td>
</tr>
<tr>
<td>(\alpha = .80, \ CR = .87, \ AVE = .62, \ MSV = .03, \ ASV = .02)</td>
<td></td>
</tr>
<tr>
<td>- Counterfeit goods</td>
<td>.61</td>
</tr>
<tr>
<td>- Violation of intellectual property right (*)</td>
<td></td>
</tr>
<tr>
<td>- Economic and commercial disputes between enterprises</td>
<td>.87</td>
</tr>
<tr>
<td>- Disputes between enterprises and their employees</td>
<td>.86</td>
</tr>
<tr>
<td>- Enterprise’s land expropriation by local or central government</td>
<td>.79</td>
</tr>
<tr>
<td>- Unfair compensation for enterprise’s expropriated land (*)</td>
<td></td>
</tr>
<tr>
<td><strong>b. Stability</strong></td>
<td></td>
</tr>
<tr>
<td>(seven-point scale, anchored by “very stable” and “very unstable” concerning the stability in the past of laws and regulations relative to export activities) (**)</td>
<td></td>
</tr>
<tr>
<td>(\alpha = .92, \ CR = .81, \ AVE = .51, \ MSV = .08, \ ASV = .06)</td>
<td></td>
</tr>
<tr>
<td>- Custom’s procedures</td>
<td>.69</td>
</tr>
<tr>
<td>- Quality control of export product</td>
<td>.83</td>
</tr>
<tr>
<td>- Business tax laws and regulations</td>
<td>.72</td>
</tr>
<tr>
<td>- Exchange rates (*)</td>
<td></td>
</tr>
<tr>
<td>- Interest rates (*)</td>
<td></td>
</tr>
<tr>
<td>- Labor related regulations (e.g., wage, social security, etc.)</td>
<td>.61</td>
</tr>
<tr>
<td>- Environment related policies, regulations (*)</td>
<td></td>
</tr>
<tr>
<td><strong>c. Predictability</strong></td>
<td></td>
</tr>
<tr>
<td>(seven-point scale, anchored by “very easy” and “very difficult” concerning the predictability of changes in the future of laws and regulations relative to export activities) (**)</td>
<td></td>
</tr>
<tr>
<td>(\alpha = .80, \ CR = .85, \ AVE = .59, \ MSV = .12, \ ASV = .07)</td>
<td></td>
</tr>
<tr>
<td>- Custom’s procedures</td>
<td>.80</td>
</tr>
<tr>
<td>- Quality control of export product</td>
<td>.78</td>
</tr>
<tr>
<td>- Business tax laws and regulations</td>
<td>.78</td>
</tr>
<tr>
<td>- Exchange rates (*)</td>
<td></td>
</tr>
</tbody>
</table>
d. Enforceability
(seven-point scale, anchored by “very weak” and “very strong” concerning the effectiveness of legal enforcement on different phenomena related to property rights and contracting rights)
\( (\alpha = .85, \text{CR} = .93, \text{AVE} = .78, \text{MSV} = .13, \text{ASV} = .08) \)
- Counterfeit goods
- Violation of intellectual property right (*)
- Illegal breaking signed contract (*)
- Economic and commercial disputes between enterprises
- Disputes between enterprises and their employees
- Enterprise’s land expropriation by local or central government
- Unfair compensation for enterprise’s expropriated land (*)

2. Competition

a. Domestic market
(seven-point scale, anchored by “no competition” and “severe competition” concerning whether firm confronts competition from different forces in domestic market)
Source: Adapted from the theoretical proposition of Peng (2003)
\( (\alpha = .89, \text{CR} = .88, \text{AVE} = .60, \text{MSV} = .07, \text{ASV} = .05) \)
- Household .86
- Cooperative .91
- Private firm .68
- State firm .80
- Foreign firm .59

b. Overseas markets
(seven-point scale, anchored by “no competition” and “severe competition” concerning whether firm confronts competition in its five major export markets)
Source: Based on Cavusgil and Zou (1994)
\( (\alpha = .95, \text{CR} = .92, \text{AVE} = .69, \text{MSV} = .24, \text{ASV} = .15) \)
- Export market 1 .74
- Export market 2 .80
- Export market 3 .89
- Export market 4 .92
- Export market 5 .78

3. Resources and capabilities investment
(seven-point scale, anchored by “none” and “much increasing” concerning the firm’s investment in certain activities/domains over the last three years)
Source: Adapted from the work of Schuler and Jackson (1987), Gomez-Mejia (1988), Morgan et al. (2004), Leonidou et al. (2011)

a. Human
\( (\alpha = .85, \text{CR} = .87, \text{AVE} = .69, \text{MSV} = .47, \text{ASV} = .32) \)
- Number of labor trained .92
- Budget for labor training .91
- Bonus for middle managers when export sales increase 
- Bonus for labor when export sales increase (*)

b. Innovation
(α = .93, CR = .87, AVE = .69, MSV = .47, ASV = .41)
- Developing new products .84
- Improving/refining existing products (*)
- Adopting new ideas, process, technology in production/manufacturing
- Introducing new machinery, techniques of production (*)
- Diversifying scope of products .78

c. Marketing
(α = .86, CR = .84, AVE = .64, MSV = .35, ASV = .26)
- Advertising for export product .76
- Sales promotion for export product (*)
- Building brand identification for export product .79
- Building company image in export market (*)
- Market research, forecasting export market .84

4. Export competitive advantage
(seven-point scale, anchored by “much lower” and “much higher” compared with other firms that export the same products)
Source: Leonidou et al. (2011), Morgan et al. (2004)

a. Cost-based competitive advantage
(α = .89, CR = .90, AVE = .75, MSV = .02, ASV = .01)
- Cost of raw materials .97
- Labor cost .92
- Production cost per unit (*)
- Cost of goods sold (*)
- Transportation cost .70
- Selling price to end-user customer (*)

b. Differentiation-based competitive advantage
(α = .89, CR = .89, AVE = .72, MSV = .77, ASV = .39)
- Product quality .84
- Packaging (*)
- Design and style .83
- Brand awareness .88
- Product line breadth/dept (*)

Note: (*) Item excluded because of having low factor loading or causing problem of discriminant validity; (**) Scales should be reserved by minus by eight in order to have the same sign with other scales.
Table 2. Standardized Path Coefficients and t-Values for the Structural Model

<table>
<thead>
<tr>
<th>Hypothesis</th>
<th>Hypothesis Paths</th>
<th>Expected Sign</th>
<th>Standardized Coefficients</th>
<th>t-Value (C.R.)</th>
<th>Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>H1a</td>
<td>Investment in Human assets → Export competitive advantage (cost-based)</td>
<td>+</td>
<td>.41</td>
<td>2.73**</td>
<td>Supported</td>
</tr>
<tr>
<td></td>
<td>Investment in Human assets → Export competitive advantage (differentiation-based)</td>
<td>+</td>
<td>.10</td>
<td>.76</td>
<td>n.s</td>
</tr>
<tr>
<td>H1b</td>
<td>Investment in Innovation assets → Export competitive advantage (cost-based)</td>
<td>+</td>
<td>.25</td>
<td>1.54</td>
<td>n.s</td>
</tr>
<tr>
<td></td>
<td>Investment in Innovation assets → Export competitive advantage (differentiation-based)</td>
<td>+</td>
<td>.29</td>
<td>1.96*</td>
<td>Supported</td>
</tr>
<tr>
<td>H1c</td>
<td>Investment in Marketing assets → Export competitive advantage (cost-based)</td>
<td>+</td>
<td>.31</td>
<td>2.28*</td>
<td>Supported</td>
</tr>
<tr>
<td></td>
<td>Investment in Marketing assets → Export competitive advantage (differentiation-based)</td>
<td>+</td>
<td>.47</td>
<td>3.61***</td>
<td>Supported</td>
</tr>
<tr>
<td>H2a</td>
<td>Institutional Environment (degree of specificity, stability, predictability, and enforceability) → Investment in Human assets</td>
<td>+</td>
<td>.75</td>
<td>2.29*</td>
<td>Supported</td>
</tr>
<tr>
<td></td>
<td>Specificity → Investment in Human assets (M2)</td>
<td>+</td>
<td>.03</td>
<td>.26</td>
<td>n.s</td>
</tr>
<tr>
<td></td>
<td>Stability → Investment in Human assets (M2)</td>
<td>+</td>
<td>.10</td>
<td>.87</td>
<td>n.s</td>
</tr>
<tr>
<td></td>
<td>Predictability → Investment in Human assets (M2)</td>
<td>+</td>
<td>.18</td>
<td>1.71</td>
<td>n.s</td>
</tr>
<tr>
<td></td>
<td>Enforceability → Investment in Human assets (M2)</td>
<td>+</td>
<td>.30</td>
<td>2.93**</td>
<td>Main contributor</td>
</tr>
<tr>
<td>H2b</td>
<td>Institutional Environment (degree of specificity, stability, predictability, and enforceability) → Investment in Innovation assets</td>
<td>+</td>
<td>.88</td>
<td>2.29*</td>
<td>Supported</td>
</tr>
<tr>
<td></td>
<td>Specificity → Investment in Innovation assets (M2)</td>
<td>+</td>
<td>.07</td>
<td>.69</td>
<td>n.s</td>
</tr>
<tr>
<td></td>
<td>Stability → Investment in Innovation assets (M2)</td>
<td>+</td>
<td>.04</td>
<td>.35</td>
<td>n.s</td>
</tr>
<tr>
<td></td>
<td>Predictability → Investment in Innovation assets (M2)</td>
<td>+</td>
<td>.25</td>
<td>2.35*</td>
<td>Main contributor</td>
</tr>
</tbody>
</table>
Enforceability $\rightarrow$ Investment in Innovation assets (M2) + .28 2.66** Main contributor

<table>
<thead>
<tr>
<th>H2c</th>
<th>Institutional Environment (degree of specificity, stability, predictability, and enforceability) $\rightarrow$ Investment in Marketing assets</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Specificity $\rightarrow$ Investment in Marketing assets (M2) + .32 2.82** Main contributor</td>
</tr>
<tr>
<td></td>
<td>Stability $\rightarrow$ Investment in Marketing assets (M2) + .25 2.23* Main contributor</td>
</tr>
<tr>
<td></td>
<td>Predictability $\rightarrow$ Investment in Marketing assets (M2) + .11 1.04 n.s</td>
</tr>
<tr>
<td></td>
<td>Enforceability $\rightarrow$ Investment in Marketing assets (M2) + .16 1.54 n.s</td>
</tr>
</tbody>
</table>

Note: * p < .05; ** p < .01; *** p < .001; n.s = not significant; M2 = Model 2.

Fit statistics for structural model 1: $\chi^2_{(421)} = 761.63; p < .01; \text{CMIN/DF} = 1.81; \text{CFI} = .85; \text{RMSEA} = .08$

Fit statistics for structural model 2: $\chi^2_{(416)} = 820.13, p < .01; \text{CMIN/DF} = 1.98; \text{CFI} = .82; \text{RMSEA} = .09$
<table>
<thead>
<tr>
<th>Main Effect</th>
<th>Hypothesized Moderating Effect</th>
<th>Less Competition</th>
<th>More Competition</th>
<th>$\Delta \chi^2$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Institutional Environment (degree of specificity, stability, predictability, and enforceability) → Investment in Human assets</td>
<td>Effect is greater for firm that confront more competition in domestic market</td>
<td>$\beta = 9.64$</td>
<td>$\beta = 1.36$</td>
<td>1.06</td>
</tr>
<tr>
<td></td>
<td>t = 1.23</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Institutional Environment (degree of specificity, stability, predictability, and enforceability) → Investment in Innovation assets</td>
<td>//</td>
<td>$\beta = 7.37$</td>
<td>$\beta = 2.08$</td>
<td>.88</td>
</tr>
<tr>
<td></td>
<td>t = 1.24</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Institutional Environment (degree of specificity, stability, predictability, and enforceability) → Investment in Marketing assets</td>
<td>//</td>
<td>$\beta = 3.69$</td>
<td>$\beta = 1.73$</td>
<td>.61</td>
</tr>
<tr>
<td></td>
<td>t = 1.17</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**A. Competition in Domestic Market as Moderator**

**B. Competition in Overseas Market as Moderator**

Institutional Environment (degree of specificity, stability, predictability, and enforceability) → Investment in Human assets

Institutional Environment (degree of specificity, stability, predictability, and enforceability) → Investment in Innovation assets
C. Competition in both Domestic and Overseas Markets as Moderator

<table>
<thead>
<tr>
<th>Main Effect</th>
<th>Hypothesized Moderating Effect</th>
<th>Less Competition</th>
<th>More Competition</th>
<th>ΔΧ²</th>
</tr>
</thead>
<tbody>
<tr>
<td>Institutional Environment (degree of specificity, stability, predictability, and enforceability) (\rightarrow) Investment in Human assets</td>
<td>Effect is greater for firm that confront more competition in both domestic and overseas markets</td>
<td>(\beta = 17.91)</td>
<td>(\beta = .58)</td>
<td>(.67)</td>
</tr>
<tr>
<td>Institutional Environment (degree of specificity, stability, predictability, and enforceability) (\rightarrow) Investment in Innovation assets</td>
<td>(\beta = 15.36)</td>
<td>(\beta = 1.78)</td>
<td>(.54)</td>
<td></td>
</tr>
<tr>
<td>Institutional Environment (degree of specificity, stability, predictability, and enforceability) (\rightarrow) Investment in Marketing assets</td>
<td>(\beta = 8.21)</td>
<td>(\beta = 1.67)</td>
<td>(.61)</td>
<td></td>
</tr>
</tbody>
</table>

Note: * < .05; ** p < .01; *** p < .001; n.s = not significant.
References


CONCLUSION

The general purpose of our dissertation was to analyze the relationship between the formal institutional environment, the firm’s behavior and competitive advantage within the context of Viet Nam. To do this, we first did two exploratory studies to understand whether the domestic institutions matter: (i) the first study demonstrated that, in the context of Viet Nam, at least in the current period, it would be better to focus on the domestic environment, rather than on the difference between the home and the host markets, as major antecedents of the firm’s export behavior; (ii) the second study reaffirmed that the institution-based view is pertinent to explain and predict the behaviors of Vietnamese firms by clarifying both positive and negative impacts of the sub-national market-supporting institutions on their export behaviors. Based on the findings of exploratory studies, we attempted to theorize and empirically test the impact of the formal institutional environment on the firm’s behavior and competitive advantage in the two last studies: (iii) in the third study, we extensively reviewed the existing literature in economics, strategy and entrepreneurship and proposed a conceptual model that combined the three legs of strategy tripod (i.e., the industry-based, resource-based, and institution-based views) to explain and predict the behavior and competitive advantage of firms in EE&TE; (iv) in the fourth study, we empirically and partially tested this conceptual model within a sample of exporting firms in Viet Nam, and the results supported the proposed model: the institutional environment (i.e., property rights and contracting institutions) significantly influences the firm’s resources and capabilities investment that in turn significantly influences its competitive advantage.

In the lines below, we first summarize the contributions of our dissertation to the existing literature in strategy and entrepreneurship. We then stress the limitations of this dissertation. Based on these contributions and limitations, we suggest some implications of our dissertation for researchers, managers, and policy makers.
Contributions

Our dissertation has some important theoretical, methodological and empirical contributions to the latest and youngest leading theoretical perspective in strategy and entrepreneurship, i.e., the institution-based view.

Theoretically, this dissertation has two major contributions. First, although the importance of contextual factors in general and of the institutional environment in particular has been recognized for a long time in strategy and entrepreneurship (e.g., Baumol, 1990; Low and MacMillan, 1988), recently researchers began to call for paying more attention to these factors (Welter, 2011; Welter and Smallbone, 2011). Previous studies often looked at the task environment rather than at the broader institutional environment because most of them were realized in the context of DE whose market-supporting institutions are well established (McMillan, 2007; Peng et al., 2009). In this context, the institutional environment has been taken for granted and treated as a “background” or at best as “control variables” (Peng et al., 2009). Interestingly, it is the growing role of EE&TE that has induced researchers to look at the broader environment (Hoskisson et al., 2000; Wright et al., 2005). Ironically, when scholars try to integrate the broad environmental conditions into their analyses in order to avoid the “myopic” problem, their models bear the risk of lacking operationality (Porter, 1991). The main reason is that they lack conceptual tools to capture the impact of the institutional environment at the micro level. Integrating institutions into the analysis, as Williamson (1994: 193) argued, is really challenging: “…Taking institutions seriously is the first step. Working out the microanalytic logic of economic organization is the second. Explicating the mechanisms comes next”. To a certain extent, our dissertation filled this theoretical gap by identifying, defining, and measuring the four key attributes of the formal institutional environment (i.e., the degree of specificity, stability, predictability and enforceability of property rights and contracting institutions). These institutional attributes could be used as conceptual tools for capturing the institutional context of the strategic and entrepreneurial phenomena without losing the operationality of the models by linking them with individuals’ perceived uncertainty and incentive. Thus, beside the existing institutional variables such as “institutional profile” and “institutional distance” (Busenitz, Gómez and Spencer, 2000; Kostova, 1996), or the “quality of government” (La Porta et al., 1999), our dissertation introduced the concept of “institutional attributes” that is more appropriate to integrate the institutional variables into theoretical models at the micro level.¹

¹ At this point, we followed the tradition of organization studies. As we all know, identifying the attributes of the phenomenon studied - either at environmental, industrial, organizational, transactional or individual level – is common in social sciences such as entrepreneurship (e.g.,
Second, it is argued that “in combination with the industry-based and resource-based view that the institution-based view can add its values” (Peng et al., 2009: 76). However, when prior studies attempted to combine the three legs of the strategy tripod, they often applied the three strategic perspectives to analyze different dimensions of the firm’s strategy (e.g., internationalization strategies) rather than to identify the underlying mechanisms that link these three perspectives and their impacts on the firm’s strategic choices (Gao et al., 2010; Yamakawa, Peng and Deeds, 2008). Our dissertation filled this gap by demonstrating that such mechanisms are possible. First, the firm’s competitive advantage depends on its ability to conceive and implement its competitive strategies, and this ability is mainly determined by the firm’s internal resources and capabilities (Barney, 1991; Porter, 1991). Without investment and reinvestment, the firm’s resources and capabilities would however be rapidly depreciated and eroded, even become liabilities, especially because of competitive pressures (Dierickx and Cool, 1989; Porter, 1991). However, the firm’s investment incentive is a function not only of its competitive pressures but also of the institutional environment in which it operates because the institutional environment could be an important source of risk and uncertainty (Duncan, 1972; Milliken, 1987), especially in the context of EE&TE whose formal market-supporting institutions are still lacking or weak (Hoskisson et al., 2000; McMillan, 1995, 2007). The degree of institutional risk and uncertainty in turn depends on the individuals’ (i.e., managers) perception. Thus, the firm’s resources and capabilities investment is a key mechanism by which the three legs of the strategy tripod could be combined.

In terms of methodology, this dissertation has two major contributions. First, despite its exploratory nature, the second essay re-introduced the concept of institutional heterogeneity at the sub-national level - i.e., the sub-national market-supporting institutions (Luo and Junkunc, 2008; Malesky and Taussig, 2009a; Meyer and Nguyen, 2005), and attempted to measure it in a more systematic manner. Second, the third and fourth essays provided a first step to measure the institutional attributes (i.e., the degree of specificity, stability, predictability, and enforceability of property rights and contracting institutions) by a subjective method. This measurement is validated by both exploratory and confirmatory factor analysis.

Finally, by focusing on Vietnamese exporters, we extended the scope of empirical investigation of strategy, entrepreneurship and export studies beyond the usually studied EE&TE. As several authors questioned,
when prior studies looked at EE&TE, they often focused on certain countries such as China, Brazil, South Africa, Russia or countries in Central and Eastern of Europe (Bruton, Ahlstrom and Obloj, 2008; Hoskisson et al., 2000; Leonidou and Katsikea, 2010; Wright et al., 2005). This is somewhat surprising because EE&TE are heterogeneous, not only by their context of development, i.e. their socio-economic, political and cultural conditions, but also by their process of development, i.e. their degree or phase of transition and development (Peng, 2003). Viet Nam is an emerging and transition economy in Southeast Asia (Arnold and Quelch, 1998) and has been seen as a promising research context to validate the institution-based view (Peng, 2003; Peng and Heath, 1996). However, until now, there have only been a few responses that either focus on foreign firms that operate in Viet Nam (Meyer et al., 2009; Meyer and Nguyen, 2005) or on Vietnamese firms that only operate in the domestic market (Malesky and Taussig, 2009a, 2009b; McMillan and Woodruff, 1999; McMillan and Woodruff, 1998). This dissertation thus also extended the scope of studies on strategic and entrepreneurial phenomena in Viet Nam by focusing on Vietnamese exporters in order to understand the impact of institutional reforms of the domestic market on the firm’s internationalization.

**Limitations**

This dissertation also has some important limitations relative to theoretical, methodological and empirical aspects.

Theoretically, the major limitation of this dissertation is that our conceptual model is verbal rather than mathematical. The verbal way of theorization is very risky because it does not allow researchers to optimally eliminate possible errors in their arguments. The existing literature in strategy and entrepreneurship provides some evidences of this type of limitation such as the case of the resource-based view (Priem and Butler, 2001). In our model, the two institutional attributes of ‘stability’ and ‘predictability’ are very close, and it is not easy to avoid biases from respondents. In addition, one could ask if should evaluate the collective impact of all institutional attributes or the individual impact of each institutional attribute on the firm’s behavior? In our fourth study, we tried to evaluate both types of impact, but this methodological choice should have a more reliable theoretical foundation based on mathematical rationale. In a similar vein, all other theoretical propositions in our conceptual model should be carefully revised.

Second and related to the first limitation, our model implicitly assumes that there is a relationship between the perceived institutional
attributes and the entrepreneur’s perceived risk and uncertainty. However, institutions are only one of many possible sources (e.g., environment, organization, individuals) of risk and uncertainty. Third, our model did not investigate the whole chain of relationships between resources and capabilities investment – competitive strategies – competitive advantage – and performance. Only the relationship between investment and competitive advantage was proposed and tested. Finally, this dissertation investigated the role of institutional attributes as antecedents of the firm’s behavior and competitive advantage, but it did not investigate the antecedents of these institutional attributes, i.e., what the causes of the degree of specificity, stability, predictability, and enforceability of property rights and contracting institutions are? In other words, the institutional attributes are also outcomes and not a cause. There have been some suggestions at the macro level (e.g., Acemoglu, Johnson and Robinson, 2005; Klerman, 2007; La Porta, Lopez-de-Silanes and Shleifer, 2008; Shleifer, 2005), but much more works still need to be done in order to understand the “mechanism” of macro - micro interaction (Williamson, 1994: 193). Thus, “the origins of the origins” are still undefined (Porter, 1991).

In terms of methodology, the measurement of the four institutional attributes is still very simple: it would be better to separately measure the four attributes of property rights and contracting institutions, and to use more items to measure each institutional attribute. In addition, the model validation did not attain good indices of model fit because of measurement quality and sample size (i.e., essay 4). Furthermore, the data is cross sectional and does not allow concluding about the causal relationship between the institutional environment, the firm’s behavior and the competitive advantage. Empirically, this dissertation only investigates the exporting firms in Viet Nam and its findings cannot be generalized to context of other EE&TE.

Implications

The implications of our dissertation for researchers are straightforward: future research can enhance its contributions by replicating its conceptual tools and model, and overcome its limitations. For instance, it would be better to (i) explicitly introduce the variables relative to risk, uncertainty and incentive into the model in order to control the impact of other sources of risk and uncertainty on the firm’s investment behavior and competitive advantage; (ii) investigate the whole causal chain from the institutional environment to the firm’s performance, etc. We would like to concentrate more on the implications of our dissertation for managers and policy makers.
The first study demonstrated that the psychic distances or differences between the home country (i.e., Viet Nam) and the host countries (i.e., the export markets of Vietnamese firms) are not crucial factors that determine the export mode choice of Vietnamese exporters. This means that although there are many barriers (i.e., geographic and non-geographic distances) in overseas markets, it is however the internal and controllable factors relative to the firm’s resources and capabilities and the domestic institutional environment that have the strongest impact, at least in the current period, on the behavior and competitive advantage of Vietnamese exporters. This finding is supported by the second study that demonstrates that the provincial market-supporting institutions strongly influence the firms’ export behaviors, especially the smaller, younger and private ones. Managerial and policy efforts should therefore be allocated more to strengthening the firm’s internal capabilities and reducing barriers in the domestic market in order to enhance the firm’s competitive advantage in international market.

The first study also suggested another important implication: the biggest export market that is close to Viet Nam, not only in geographic terms, but also in terms of other dimensions of psychic distance - China - is the market with which Viet Nam has the biggest trade deficit. In next decades, beside the traditional export markets (e.g., the USA, EU and Japan), the Chinese market should be considered as one of the most promising overseas markets for Vietnamese firms because of its rapidly increasing income and living standards, and therefore increasing products and services demand. A more systematic support relative to market research and market information about China should be developed and integrated into national export-promotion programs. Vietnamese firms should take full advantage of their low costs of entry into the Chinese market, at least in terms of geographic and cultural distances, as well as the conditions provided by the ASEAN-China Free Trade Area (ACFTA). Strategic alliances with Chinese counterparts and partners in ASEAN or from Western countries could also be a feasible choice in order to enhance the ability of Vietnamese firms to pursue opportunities in the Chinese market.

More importantly, the third and fourth studies demonstrated how to reinforce the ability of Vietnamese firms in a sustainable manner. First, the firm’s strategic ability largely depends on its investment in its resources and capabilities. Second, firms would be more motivated to invest in human (e.g., training and rewards for labor), innovation (e.g., developing new products, introducing new technology, diversifying scope of products), and marketing (e.g., advertising, branding, and market research) assets when they face less risk and uncertainty in the domestic institutional environment. Third, the property rights and contracting institutions in the domestic market should be specific, relatively stable, predictable, and efficiently and effectively enforced in order to minimize uncertainty and to maximize the
incentives of firms. However, in Viet Nam, private ownership (such as land ownership) are still not fully recognized and protected by prevailing property rights institutions, and entrepreneurs still face many institutional barriers (e.g., bureaucracy) to start and grow their business, i.e., their freedom of contracting is still not fully recognized and protected by prevailing contracting institutions (Malesky and Taussig, 2009a, 2009b; McMillan and Woodruff, 1999; Ronnås and Ramamurthy, 2001). These institutional barriers should be eliminated by legal and administrative reforms in order to establish a strong system of market-supporting institutions.

Finally, the second study showed that institutions not only matter at the central level, but also at the sub-national level (i.e., provincial level). This means that there is a significant difference, at least in the context of Viet Nam, between policy formulation and policy implementation, and between central and sub-national rules and regulations. How to have strong market-supporting institutions at all administrative levels and in all provinces in order to more efficiently and effectively invest in and deploy national resources and capabilities? The fact is that at the provincial level, although the competition between 64 provinces could be an important source of institutional reforms, it also has costs, e.g., wasted investment in infrastructure and inefficient land use by local authorities in order to attract foreign and private investors. At the regional level, four “key economic areas” were established but they have two main shortcomings: (i) they only include a limited number of provinces (i.e., 24 provinces among 64 provinces); (ii) they are not supported by a strong administrative system (i.e., each individual province in “key economic areas” retains its own administrative system). We suggest that the issues related to the regional comparative advantage and the regional administration should be more investigated in designing the policy of regional sustainable development and institutional reforms.

---

The concept of “key economic areas” differs from the ones of “special economic zones”, “industrial zones” or “export processing zones” because the former is at regional level (i.e., groups of provinces) while the later is at provincial level (i.e., within a province).
References


