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# Early Internationalization Of New Ventures From Emerging Countries: The Case of Transition Economies

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**Abstract.** This article investigates the factors that influence early internationalization of new ventures in the context of emerging economies. More specifically, our research builds on the theoretical and empirical literature on International New Ventures (INV) to develop an original conceptual framework and formulate hypotheses concerning the environment, industry and firm-related factors that enhance or constrain rapid internationalization of new firms from emerging countries. We tested our hypotheses on a sample of more than 23000 firms from 27 transition countries in Central and Eastern Europe and Central Asia between 2002 and 2009. The empirical study shows that several factors are positively related to the probability that a firm will internationalize from inception: access to ICT infrastructure, being located in an EU country, industry competition, a better-educated workforce, networks in the home country and international networks. In contrast, early internationalization is negatively affected by insecurity and, more surprisingly, by a firm's knowledge intensity. These results contribute to a better understanding of the specificities of the internationalization of firms from emerging economies.

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Over the last two decades, there has been increasing evidence that numerous entrepreneurial firms are aiming at early internationalization, despite their small size and limited resources (Kuivalainen, Sundquist & Servais, 2007). These firms have typically been defined as International New Ventures (INVs) (Oviatt & McDougall, 1994, 2005) or Born Globals (Knight & Cavusgil, 1996). Theoretical and empirical studies have focused on the understanding of factors that determine the rapid-internationalization-oriented rather than domestic-market-focused behavior of these firms. These investigations have led to the identification of three main categories of factors (Aspelund, Madsen & Moen, 2007; Evers, 2011; Keupp & Gassmann, 2009; Rialp, Rialp & Knight, 2005): push or internal factors (characteristics of the entrepreneurs and firm resources), pull or external factors (features of the industry and of the competitive environment), and mediating or facilitating factors (such as entrepreneur's mental model, i.e. mindset, behavior, alertness). These different factors have been combined into the conceptual frameworks that have been put forward to explain the INV phenomenon (Johnson, 2004; Oviatt and McDougall, 2005; Zucchella, Palamara & Denicolai, 2007; among others).

However, although the literature on INVs or Born Globals has been growing rapidly, the existing empirical studies, both qualitative and quantitative, have mainly focused on one particular country (e.g. Andersson & Wictor, 2003; Chetty & Campbell-Hunt, 2004; Evers, 2010; Kuivalainen et al., 2007; Zucchella et al., 2007) or one particular sector (e.g. Evers, 2010). More importantly,

scholars have mostly investigated INVs from developed Western economies (Zhou, 2007) and have largely ignored such firms in other settings. In particular, the understanding of INVs in emerging economies remains limited (Kiss, Danis & Cavusgil, 2012; Yamakawa, Peng & Deeds, 2008). This is rather surprising because the liberalization of these economies and their integration into the global economy has triggered far-reaching changes, affecting markets and firms worldwide. Moreover, despite the fact that recent years have witnessed increasing interest in emerging market multinationals, entrepreneurial firms from these economies have not thus far been systematically analyzed. In consideration of the crucial role that entrepreneurial firms, and in particular INVs, play in stimulating the economic growth of emerging countries (Bruton, Ahlstrom & Obloj, 2008; Kiss et al., 2012) and of the fact that entering international markets can increase technological learning and performance (Jones, Coviello & Tang, 2011; Zahra, Ireland & Hitt, 2000), there is therefore an urgent need to develop insights into the factors that stimulate or hamper the emergence of early internationalizing firms in these countries.

In order to contribute to the understanding of INVs in emerging economies, this paper studies such firms in the context of transition countries in Central and Eastern Europe and Central Asia. Transition countries are considered as emerging economies because they are low/middle-income, because they are growing rapidly and because they use economic liberalization as their primary engine of growth (Hoskisson, Eden, Lau & Wright, 2000). The specific research question that we aim to answer in our study is the following: What factors influence the early internationalization of new ventures in transition economies? In other words, we aim to assess the impact of different factors on the probability that a firm will internationalize at or near inception, that is, the probability that a firm will be an INV. Our goal is to develop a better understanding of factors related to early internationalization of new ventures by taking into account not only those factors that enhance it but also those that impede it. To investigate our research question, we use the Business Environment and Enterprise Survey (BEEPS) data of the World Bank and the European Bank for Reconstruction and Development (EBRD). The data were collected through personal interviews with managers in more than 23000 firms in 27 transition countries for the years 2002, 2005, 2007 and 2009.

Expanding research on the determinants of new venture internationalization in transition countries deserves academic interest for several reasons. First, these economies have experienced profound changes over the past twenty years. The transition from planned to market-oriented economy has strongly influenced organizational behavior, entrepreneurship and the internationalization processes of firms (Gelbuda, Meyer & Delios, 2008; Li, 2013; Smallbone & Welter, 2001, 2012). When analyzing INVs in transition economies there is, therefore, a need to take into account the specific features of these countries that significantly impact INVs insofar as, very early in their existence, these firms need to solve numerous problems associated with entry to foreign markets (Shirokova & McDougall-Covin, 2012). Second, several transition countries have become members of the European Union (EU) over the last ten years and several others are official candidates. This increased market integration creates new opportunities and threats for the development of small firms (Aidis, 2005a). On one hand EU accession will create new export opportunities through the reduction of transaction costs, but on the other hand it increases competitive pressure and the burden of regulatory harmonization. Third, few studies investigate the determinants of internationalization in transition economies at firm level (Boermans & Roelfsema, 2012) and, to the best of our knowledge, none of them conducts a cross-country analysis of INVs. Fourth, as Kiss et al. (2012) argue, there is a strong need to assess to what extent theoretical perspectives developed in mature market contexts are valid in other

settings and to design novel integrative frameworks to better explain early internationalization in emerging markets. Last, but not least, understanding new venture internationalization in emerging markets is also important more generally, because the growing competition from these markets affects firms worldwide.

The paper is organized as follows. In the first section, we draw from the existing theoretical and empirical literature to build our conceptual framework and formulate our hypotheses. The second section describes the method and data used in our study. The findings are presented in the third and discussed in the fourth section. The final section concludes.

## THEORETICAL FRAMEWORK AND HYPOTHESES

The internationalization process of entrepreneurial and small-sized firms has mainly been analyzed through two kinds of approach: so-called internationalization theories, among which the Uppsala model occupies a prominent place (Johanson & Vahlne, 1977); and the INV (Oviatt & McDougall, 1994, 2005) and Born Global approaches (Knight & Cavusgil, 1996). While the first stream points to slow, gradual involvement in foreign markets, the second stream analyzes the existence of an increasing number of firms characterized by high internationalization speed and involvement in foreign markets from the early stages of their existence. This article pertains to the INV approach and, in particular, to the research that identifies the factors that affect early internationalization. In order to relate our research to previous studies, we adopt the widely-used definition of INVs (Andersson & Wictor, 2003; Servais, Madsen & Rasmussen, 2007) as firms that make at least 25% of their annual sales abroad in the first three years following their official registration.

Oviatt and McDougall (2005) propose an integrated model of the forces influencing the speed of new venture internationalization. They argue that speed is enabled by technology, motivated by competition, mediated by the entrepreneur's perceptions and moderated by the firm's knowledge intensity and international networks. This model is important for our research insofar as it identifies several variables that influence the early internationalization of new ventures, beyond the particular focus on speed, conceptualized as a three-dimensional phenomenon in the model (time between the discovery of an opportunity and the first foreign market entry; speed at which the range of countries in which a firm operates is increased, and international commitment, i.e. the speed of foreign revenue increase). This model therefore constitutes the point of departure on which we build our conceptual model on the determinants of INVs in transition economies.

To analyze early internationalization of new ventures in transition economies, we adopt a multi-level approach, considering not only variables inherent to the firm but also those stemming from the context in which INVs operate. In particular, we argue that three levels of influences impact early internationalization: those related to the environment in which new ventures operate; those related to industry conditions, and those related to the firm and the entrepreneur.

### THE ENVIRONMENT

In their model, Oviatt & McDougall (2005) identify technology as one of the determinants of early new venture internationalization. This refers to access to technology rather than the technology developed within a firm and is regarded as a feature of the environment in which firms operate. In many emerging economies, including those of transition countries, the technological infrastructure

lags behind that of developed economies (Kiss et al, 2012). In particular, access to high-speed Information and Communication Technology (ICT), especially the Internet, remains rather unequal between countries. ICT is important for new ventures because it facilitates the transmission of information and culture (Friedman, 2005), and because it allows for the transfer of knowledge between firms (Cukor & McKnight, 2001; Feldman, 2002). The role of the Internet has been particularly highlighted in the case of internationalization of small and medium-sized companies (Loane, 2006). Thanks to the Internet, entrepreneurs in rural and remote areas can access clients and suppliers (Cumming & Johan, 2010), thus diminishing the effects of distance. Moreover, it has been argued that the level of "internetization" strongly determines the internationalization of firms in emerging economies (Etemad, Wilkinson & Dana, 2010). Accordingly, we formulate the following hypothesis:

> *H1. In transition economies, access to ICT infrastructure is positively related to the probability that a firm will internationalize at or near inception.*

While Oviatt & McDougall (2005) identify technology as the only determinant stemming from the environment, recent studies dealing with emerging countries emphasize the importance of institutions in these countries (Kiss et al., 2012; LiPuma, Newbert & Doh, 2013; Peng, Wang & Jiang, 2008; Volchek, Jantunen & Saarenketo, 2013). Built on the work of North (1990) and Scott (1995), the institution-based view (Baumol, Litan & Schramm, 2009; Peng et al., 2008) has been recognized as one of the key theoretical foundations in the analysis of emerging countries (Aidis, Estrin & Mickiewicz, 2012; Peng et al., 2008; Welter & Smallbone, 2011; Yamakawa, Khavul, Peng & Deeds, 2013). According to this view, internationalization is considered as "the outcome of the dynamic interaction between organizations and institutions" (Yamakawa et al., 2008: 64). In emerging countries, the characteristics of the context or the institutional environment in which firms operate significantly impact their ability to identify and exploit entrepreneurial opportunities, in particular with respect to developing operations abroad. In line with this argument, several recent studies have pointed to the role of institutions in export performance, in particular for small or entrepreneurial firms (Ketkar & Acs, 2013; Li, 2013; LiPuma et al., 2013). However, some other studies emphasize that there is still limited knowledge about the ways institutions influence firms' internationalization, arguing that the institution-based view could be one of the theoretical lenses applied to the study of INVs in emerging economies (Szyliowicz & Galvin, 2010; Yamakawa et al., 2013; Yamakawa et al., 2008).

In developed market economies, institutions play an important role as they facilitate the effective functioning of market transactions without incurring excessive costs and risks to firms (North, 1990). However, market-supporting institutions in emerging economies are typically underdeveloped or even absent (Meyer, Estrin, Bhaumik & Peng, 2009). This leads to "institutional voids", that is, spaces that are deprived of efficient institutions, such as a non-transparent judicial system, bureaucratic red tape, corruption, ambiguous laws and poor enforcement of the rule of law (Gao, Murray, Kotabe & Lu, 2010; Luo & Tung, 2007). Consequently, the institutional framework in these economies holds a number of challenges for entrepreneurs engaging in international operations (Khanna & Palepu, 2010; Volchek et al., 2013).

The institutional context, as well as the informal institutional environment, greatly impact new venture creation and the ensuing trajectories of new venture evolution (Ahlstrom & Bruton, 2002; Manev & Manolova, 2010; Smallbone & Welter, 2006; Welter & Smallbone, 2011). According to Tonoyan, Strohmeyer, Habib & Perlitz (2010), the poor quality of legal institutions impedes firms' operations in Russia and other Eastern European countries. Tsukanova &

Shirokova (2012) find that institutional hostility negatively impacts the propensity of Russian firms to internationalize. Similarly, it has been pointed out that corruption negatively affects internationalization (Estrin, Korosteleva & Mickiewicz, 2013; Shirokova & Tsukanova, 2012). In particular, bribing customs officials constitutes an additional tax on trade, which increases trade costs (Dutt and Traca, 2010). Moreover, corruption exerted by customs officials or by government agencies for the delivery of permits or licenses means that managers spend more time and effort on dealing with procedures, which constitutes an additional cost for the firm (De Rosa, Gooroochurn, & Görg, 2010). Corruption also increases the risk and uncertainty of international operations and deters some businessmen from getting involved in them. Along with corruption, one of the consequences of institutional voids is the extent to which the security of goods and capital is guaranteed, which is typically low in those countries with weak institutional frameworks. Previous work has found that insecurity of goods and capital has a great impact on early internationalization. Indeed, according to Anderson & Marcouiller (2002), insecurity acts as a hidden tax on trade, which suggests that inadequate institutions negatively impact cross-border operations of firms from emerging countries. In line with these insights from the literature, we formulate the following hypotheses:

*H2. In transition economies, insecurity is negatively related to the probability that a firm will internationalize at or near inception.*

*H3. In transition economies, bribery is negatively related to the probability that a firm will internationalize at or near inception.*

Notwithstanding what has been discussed above, in some transition economies, institutions are improving in parallel with the transition from a centrally-planned to a market economy. In particular, the process of accession to the European Union (EU) has favored institutional development, driven on the one hand by the need to meet the conditions for entry to the EU and on the other hand by the demand for institutional change stimulated by economic actors, namely entrepreneurs (Smallbone & Welter, 2012). The EU has thus become a positive agent for institutional change. In those countries that have recently joined the EU and those that are official candidates, numerous measures have been taken in order to improve the rule of law and to harmonize institutions with those of the mature European economies (Aidis, 2005a; Smallbone & Welter, 2012). Several previous studies (Aidis, Estrin & Mickiewicz, 2008; Danis & Shipilov, 2002; Manolova, Eunni & Gyoshew, 2008; Tominc & Rebernik, 2007) point out that countries like Hungary, Poland, Slovenia and Latvia have better institutional support for entrepreneurial firms than countries like Belarus, Russia, Ukraine or Moldavia. In addition, the accession of transition countries to the EU has made it easier for goods, services, capital and people to move from these countries to other EU members. Given that these processes act in favor of internationalization, we can therefore propose the following:

*H4. Being located in a country that is a member of the EU is positively related to the probability that a firm will internationalize at or near inception.*

## INDUSTRY CONDITIONS

While most of the literature on emerging countries has focused on institutions as external and firm resources as internal determinants of internationalization, industry characteristics have generally been neglected in these studies. However, we argue that industry conditions also play an important role in internationalization in emerging countries, as they do in developed

economies. Indeed, Oviatt & McDougall (2005) identify the competitive environment of the firm as an important, motivating determinant of the internationalization speed of new ventures. They argue that competition may encourage or even force an entrepreneur to internationalize. Tough competition, exerted by larger and more established companies, compels new ventures to conceive their business in international terms early on (Oviatt & McDougall, 1995). Thus, the greater the competition on the domestic market, the faster a new venture will go abroad to seize development opportunities, especially if the market is a small one (Oviatt & McDougall, 2005). Accordingly, we formulate the following hypothesis:

*H5. In transition economies, industry competition is positively related to the probability that a firm will internationalize at or near inception.*

## FIRM AND ENTREPRENEUR-RELATED FACTORS

Along with environment-related factors and industry conditions, firm and entrepreneur-related factors constitute the third block of factors that affect new venture internationalization in transition economies.

Among firm-level factors, Oviatt & McDougall (2005) identify knowledge as a strong determinant of the internationalization speed of new ventures. This is consistent with much of the INV literature that utilizes Resource-based and Knowledge-based views of the firm extensively to explain early internationalization (Dabic, Gonzales-Loureiro & Furrer, 2014). Early studies on INVs have already pointed out that accelerated internationalization is most associated with high technology and knowledge-based firms with a strong orientation toward innovation and technology (Autio, Sapienza & Almeida, 2000; Coviello & Munro, 1997; Knight & Cavusgil, 1996). Such firms are less constrained by distance and national boundaries and can exploit international opportunities more flexibly (Autio et al., 2000). We therefore formulate the following hypothesis:

*H6. In transition economies, knowledge-intensive new ventures are more likely to internationalize at or near inception.*

Along with knowledge related to technology and the manufacturing of products, human-capital-related factors are also generally believed to be catalysts for internationalization from the outset (Madsen & Servais, 1997; Oviatt & McDougall, 1997). Among these, a high level of education is believed to play an important facilitating role. It has been argued that better training favors the use of more advanced technology, enhances professionalism, and increases legitimacy for entrepreneurial initiatives (Peng, 2001). This suggests that a higher level of education of the firm's employees leads to enhanced skill levels, experience and knowledge within an organization. Researchers have argued that entrepreneurs in emerging economies with a socialist ancestry are often better educated (Smallbone & Welter, 2006), but, evidence is lacking on the impact of education on firm internationalization. Consequently, we formulate the following hypothesis:

*H7. In transition economies, high education levels for the entrepreneur and other employees in a firm are positively related to the probability that it will internationalize at or near inception.*

INV research has identified networks as one of the most important factors in the internationalization process (Andersson, 2000; Colovic & Lamotte, 2014;

Jones et al., 2011; Sharma & Blomstermo, 2003; Zucchella et al., 2007). Networks appear to be particularly important for INVs because these firms generally have fewer resources and international development capabilities than larger firms (Chetty & Blankenburg Holm, 2000; Coviello & Munro, 1995, 1997; Lu & Beamish, 2001, 2006; Sharma & Blomstermo, 2003). According to Zahra et al. (2000), firms that are embedded in networks can overcome their resource and knowledge constraints and internationalize in a manner that would not have been otherwise possible. It follows that network embeddedness can be "looked upon as a strategic resource influencing the firm's future capability and expected performance" (Andersson, Forsgren & Holm, 2002: 980). Entrepreneurial networks are thus considered as critical assets in the inception and development of INVs (Andersson & Wictor, 2003), as these firms often suffer from liabilities of newness and foreignness, and this may increase the likelihood of their failure (Mudambi & Zahra, 2007). Scholars argue that weak ties are more important for internationalization than strong ties (Oviatt & McDougall, 2005; Presutti, Boan & Fratocchi, 2007), because weak ties provide information, know-how and credibility that facilitate internationalization once an entrepreneur has identified an opportunity.

While the role of networks in firm internationalization is widely accepted, it can be argued that their impact on internationalization processes in emerging economies is even more critical. Entrepreneurs in emerging economies often face barriers related to "institutional voids" in their markets, which leads to the use of social networks as a way to overcome the deficiencies of formal institutions (Bruton, Ahlstrom & Li, 2010). This suggests that when the institutional framework is weak, actors tend to use alternative ways of reducing environmental uncertainty, namely through network linkages. Prior research has highlighted the importance of home country network ties in enabling firms in emerging countries to pursue international venturing (Yiu, Lau & Bruton, 2007; Zhou, Wu & Luo, 2007). Zhou et al. (2007) thus argue that home-based social networks are important for the internationalization of Born Globals in China. Studying the export performance of emerging market firms, Singh (2009) argues that affiliation to a business group is positively related to a firm's sales abroad. Based on these insights from the literature, we therefore postulate:

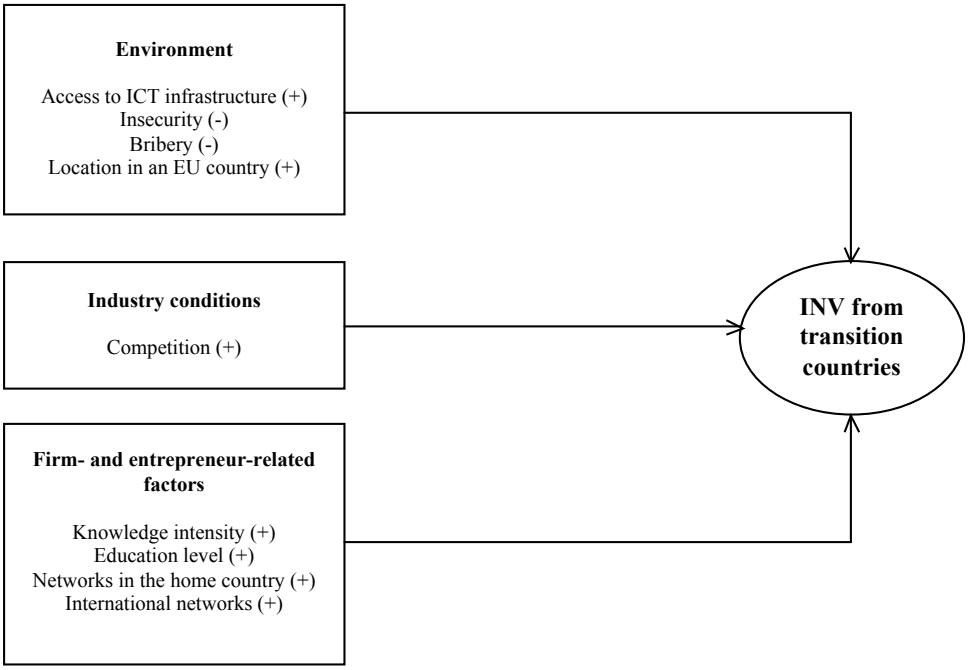
> *H8. In transition economies, involvement in networks in the home country is positively related to the probability that a firm will internationalize at or near inception.*

In many transition economies, because of the extremely limited number of firms authorized to establish international operations (mainly through exporting and importing) under centrally-planned systems, whole towns and regions had virtually no international experience until recently (Cieslik & Kaciak, 2009). Creating links with foreign business partners would appear to be a possible remedy to such a situation (Freeman, Edwards & Shroder, 2006). However, entrepreneurs from transition economies are often insufficiently prepared to search for such partners and create linkages with them. It follows that the entry of foreign capital to a firm might be an alternative way to find partners abroad, and to bring openness to new ventures as well as access to international networks. Moreover, prior research on firms in transition economies has pointed out that foreign investors' ownership and control over strategic decisions are positively associated with internationalization (Filatotchev, Stephan & Jindra, 2008). Accordingly, we formulate the following hypothesis:

> *H9. In transition economies, international networks developed through foreign ownership are positively related to the probability that a firm will internationalize at or near inception.*

Figure 1 depicts our conceptual model.

**Figure 1.** The conceptual model of the factors related to early internationalization of new ventures in transition economies




## METHODOLOGY

This section presents the data, the variables and the econometric techniques used in our empirical work. The aim of this research is to identify the factors related to early internationalization of new ventures in transition economies. We make use of the information contained in the Business Environment and Enterprise Performance Survey (BEEPS) of 6153 firms in 2002, 7699 firms in 2005, 1952 firms in 2007 and 7773 firms in 2009 covering 27 countries in Central and Eastern Europe and Central Asia[1]. The survey is a joint initiative of the World Bank and the European Bank for Reconstruction and Development and it aims to assess the environment for private enterprise as well as business development in transition countries. It is based on face-to-face interviews. The sample includes all the previously centrally-planned economies of Europe and the Former Soviet Union, which have undergone deep institutional transformations linked with the transition to a market economy. The group of former communist countries is extremely diverse, ranging from the lower-middle income economies of Central Asia, to upper-middle income Central European countries, which, as members of the EU, tend to have a fully developed market system. The BEEPS uses the same questionnaire for all countries and the sampling methodology is stratified random sampling. This means that all population units are grouped within homogeneous groups and simple random samples are selected within each group. The groups for BEEPS are based on firm size, business sector, and geographic region within a country, which guarantees the representativeness of the sample. Both the manufacturing and services sectors are included in the sample but sectors subject to government price regulation and prudential supervision are excluded. The data set includes a panel component for 1122 firms for 2002, 2005, 2007 and 2009 but this component is too small to allow robust relationships with a large set of

1. Albania, Armenia, Azerbaijan, Belarus, Bosnia, Bulgaria, Croatia, Czech Republic, Estonia, Georgia, Hungary, Kazakhstan, Kyrgyz Republic, Latvia, Lithuania, Macedonia, Moldova, Montenegro, Poland, Romania, Russia, Serbia, Slovakia, Slovenia, Tajikistan, Ukraine, Uzbekistan.

independent variables to be identified, especially when the dependent variable does not vary over time for most observations, as is the case for this research. We therefore exclude this component from our study. The study thus relies on pooled data for 2002, 2005, 2007 and 2009. Previous studies using BEEPS data in the field of cross-border trade include Gashi, Hashi & Pugh (2014), Gorodnichenko & Schnitzer (2013), Gorodnichenko, Svejnar & Terrell (2010)[2].

The explained variable, inv, is built from two variables: the age of the firm at the time it first made sales abroad and the share of foreign sales in total annual sales. The inv variable therefore identifies firms for which foreign sales represent at least 25% of their total annual sales within their first three years from establishment, which is consistent with the definition of early international firms used in prior studies (e.g. Cannone & Ughetto, 2014; Servais et al., 2007). The data on foreign sales is the only available information on presence abroad. No information is available on the number of countries in which the new venture is present. It is therefore impossible to include the scope dimension of internationalization in this research, as suggested by Kuivalainen et al. (2007).

The explanatory variables are operationalized as follows. Access to ICT infrastructure is measured as a binary variable, which indicates whether the firm has a high-speed broadband Internet connection on its premises. The insecurity variable is measured as the ratio (in percentage of annual sales) of losses due to theft, robbery, vandalism and arson. Bribery refers to making informal payments to a public official for the performance of an official task (De Rosa et al., 2010). In this research, bribery is therefore measured as the share of total annual sales paid in additional payments/informal gifts to get things done with regard to customs, taxes, licenses, regulations, and so on. Whether a particular firm is located in an EU country is operationalized by a dichotomous variable, which takes the value of one if the country of origin of the firm is an EU member at the time of first internationalization and zero if not. Industry competition is determined by a dichotomous variable, which takes the value one if the firm faces competition for its main product/product line and zero otherwise. Unfortunately, the dataset does not contain precise, homogeneous information on the number of competitors over the time span of the survey. Regarding knowledge, its tacit character makes it very difficult to measure (Nonaka & Takeuchi, 1995). That is why most of the studies to date have used alternative measures as a proxy for knowledge intensity, such as innovation or R&D investment (Ito & Pucik, 1993; Singh, 2009; Yiu et al., 2007). Innovation might not measure a firm's knowledge intensity properly because of the existence of various forms of innovation (product, process, organizational, social) and because innovation is a subjective concept when measured by surveys. R&D investment is commonly used as a proxy to identify the focus on technological and innovative activities in an organization (Singh, 2009), and, as previous research has demonstrated, there is a consistently strong correlation between R&D expenditure, patent count and the introduction of new products (Yiu et al., 2007). In this research, knowledge intensity is therefore measured as a dichotomous variable which takes the value one if the firm invested in R&D over the last three years before starting internationalization and zero otherwise. The higher education variable is operationalized by the proportion of employees (including managers) with a university degree. Membership of networks is measured as a binary variable that takes the value of one if the firm is member of a business association or of a chamber of commerce and zero if not. Using this variable as a proxy for networks in the home country market is consistent with previous studies on emerging economies (Singh, 2009). International networking through foreign ownership is measured as the share of the firm owned by private foreign individuals or companies.

Several control variables have been included in the model because their impact on internationalization has been demonstrated theoretically and

2. Additional information on the survey and the sampling frame is available on the World Bank Enterprise Survey website (http://www.enterprisesurveys.org/Methodology).

empirically. Firm size, expressed as the number of employees, generally has a positive impact on internationalization because entry into foreign markets requires resources that often depend largely on firm size (Calof, 1994; Majocchi, Bacchiocchi, & Mayrhofer, 2005), although its effect can be different in some specific sectors such as science-based industries (Pla-Barber & Alegre, 2007). Productivity is expressed as the ratio between sales and number of employees. Indeed, following Bernard, Jensen & Lawrence (1995), there is extensive evidence that more productive firms self-select into foreign markets (see Wagner, 2007, for a literature review), because only efficient firms can bear the sunk entry costs of foreign market entry. Both firm size and productivity variables are logged to reduce skewness. Country, year and sector dummies are also included in all regressions to control for differences in the factors related to early firm internationalization for each country over time and by sector. There are significant differences between the countries considered in this study, in particular because, as they moved away from a command economy they followed different development trajectories and rhythms. Moreover, the world economic situation changed radically over the decade under investigation. Consequently, it is necessary to control for shocks in the external environment of these countries. Sector dummies capture significant differences in the degree and the precocity of internationalization that may arise from sector specificities. The dataset is based on a classification of 18 sectors, including 11 manufacturing sectors and 7 services sectors[1]. Detailed definitions of the variables are presented in Table 1.

Because the primary explained variable is a dummy variable, we use a probit model to test the factors related to the probability that a firm is an INV.

The characteristics of the firms in the sample are presented in Table 2. The full sample includes 23577 firms, of which 5430 have foreign sales. These firms therefore make up 23% of the sample, which is comparable to a recent survey on the internationalization of European small and medium enterprises (SMEs), which found that 26% of European SMEs exported directly in 2009 (European Commission, 2010). Of this sample, 1660 firms are considered as INVs, as they made at least 25% of their annual sales abroad in the first three years following their inception. The distribution across countries indicates that the average share of foreign sales for firms ranges from 23.3% in Serbia to 53.9% in Albania and the average share of foreign sales for INVs ranges from 48.5% in Serbia to 92.7% in Montenegro. Interestingly, the share of total sales made abroad is higher on average for INVs (67.7%) than for other internationalized firms (40.6%), which could indicate that the speed of entry to foreign markets influences foreign sales performance. These figures are consistent with Naudé and Rossouw's (2010) study on Chinese firms.

Descriptive statistics and correlations are presented in Tables 3 and 4. An examination of the correlations among the variables (Table 4) shows that the explanatory variables are not highly correlated.

3. Manufacturing sectors include food, textiles, garments, chemicals, plastics and rubber, non-metallic mineral products, base metals, fabricated metal products, machinery and equipment, electronics, and other manufacturing. Service sectors include retail, wholesale, IT, hotels and restaurants, services of motor vehicles, construction, and transport.

**Table 1.** Definition of the variables

| Variable name | Description |
|---|---|
| | **Explained variable** |
| inv | Dummy variable; =1 if at least 25% of the firm's total annual sales are realized abroad within 3 years from inception, 0 otherwise |
| | **Explanatory variables** |
| broadband | Dummy variable; =1 if the firm has a high speed broadband Internet connection on its premises, 0 otherwise |
| insecurity | Losses (in percentage of total annual sales) due to theft, robbery, vandalism or arson |
| bribery | Share of total annual sales paid in additional payments/informal gifts to get things done with regard to customs, taxes, licenses, regulations etc. |
| EU | Dummy variable; =1 if the firm is located in an EU country, 0 otherwise |
| competition | Dummy variable; =1 if the firm faces competition in its main product/ product line, 0 otherwise |
| R&D | Dummy variable; =1 if the firm has invested in research and development (in house or outsourced) in the last three years, 0 otherwise |
| education | Percentage of employees at the end of a fiscal year with a university degree |
| business association | Dummy variable; =1 if the firm is a member of a business association or chamber of commerce, 0 otherwise |
| foreign ownership | Share of the firm owned by private foreign individuals/companies |
| | **Control variables** |
| firm size | Log of size of the firm measured by the number of employees |
| productivity | Log of (Sales in USD/Number of full time employees) |
| country | Dummy variable for the countries in the survey with Albania as the reference group |
| year | Dummy variable for the 4 years with 2002 as the reference group |
| sector | Dummy variable for the 18 sectors with food sector as the reference group |

All variables come from the World Bank-EBRD BEEPS Survey.

**Table 2.** Characteristics of the firms in the sample by country

| Country | # of firms | # of firms with foreign sales | Average share of foreign sales in total sales for firms with foreign sales (%) | # of INV | Average share of foreign sales in total sales for INVs (%) |
|---|---|---|---|---|---|
| Albania | 650 | 146 | 53.86 | 63 | 79 |
| Armenia | 748 | 113 | 44.19 | 38 | 75.5 |
| Azerbaijan | 726 | 76 | 39.42 | 18 | 52.95 |
| Belarus | 731 | 175 | 41.24 | 46 | 58.41 |
| Bosnia | 680 | 206 | 38.62 | 45 | 67.32 |
| Bulgaria* | 1646 | 470 | 51.41 | 233 | 74.88 |
| Croatia | 1049 | 402 | 37.67 | 108 | 67.04 |
| Czech Rep.* | 808 | 232 | 37.24 | 69 | 56.75 |
| Estonia* | 527 | 164 | 40.41 | 64 | 69.02 |
| Georgia | 621 | 86 | 48.29 | 22 | 79.14 |
| Hungary* | 1030 | 339 | 39.51 | 126 | 63.13 |
| Kazakhstan | 1242 | 110 | 28.55 | 31 | 50.17 |
| Kyrgyz Rep. | 499 | 73 | 46.09 | 27 | 73.62 |
| Latvia* | 541 | 136 | 42.85 | 49 | 72.78 |
| Lithuania* | 580 | 187 | 41.26 | 69 | 70.45 |
| Macedonia | 615 | 176 | 46.92 | 71 | 71.46 |
| Moldova | 727 | 172 | 51.34 | 52 | 83.78 |
| Montenegro | 149 | 19 | 24.94 | 3 | 92.66 |
| Poland* | 1773 | 433 | 31.44 | 84 | 54.15 |
| Romania* | 1240 | 238 | 53.47 | 111 | 74.64 |
| Russia | 2013 | 298 | 26.80 | 59 | 53.47 |
| Serbia | 746 | 238 | 23.26 | 33 | 48.47 |
| Slovakia* | 603 | 206 | 34.98 | 46 | 74.37 |
| Slovenia* | 555 | 274 | 38.15 | 61 | 56.63 |
| Tajikistan | 651 | 70 | 51.15 | 26 | 75.31 |
| Ukraine | 1641 | 307 | 41.36 | 78 | 61.52 |
| Uzbekistan | 786 | 84 | 42.83 | 28 | 72.76 |
| Full sample | 23577 | 5430 | 40.64 | 1660 | 67.75 |

* indicates countries that became EU members in 2004 or 2007.

**Table 3.** Descriptive statistics

| Variable | # obs. | Mean | SD | Min | Max |
|---|---|---|---|---|---|
| inv | 23353 | 0.07 | 0.26 | 0 | 1 |
| broadband | 16574 | 0.59 | 0.49 | 0 | 1 |
| insecurity | 14159 | 0.97 | 3.94 | 0 | 95 |
| bribery | 14720 | 1.48 | 3.58 | 0 | 98 |
| EU | 24648 | 0.25 | 0.43 | 0 | 1 |
| competition | 17340 | 0.76 | 0.43 | 0 | 1 |
| R&D | 13805 | 0.30 | 0.46 | 0 | 1 |
| education | 20074 | 29.51 | 28.9 | 0 | 100 |
| business association | 13852 | 0.37 | 0.48 | 0 | 1 |
| foreign ownership | 23089 | 9.67 | 27.2 | 0 | 100 |
| firm size | 23462 | 3.29 | 1.60 | 0 | 9.81 |
| productivity | 17983 | 10.25 | 1.87 | 1.41 | 20.65 |

**Table 4.** Correlation matrix

| | (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) | (11) | (12) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| (1) inv | 1.00 | | | | | | | | | | | |
| (2) broadband | 0.11* | 1.00 | | | | | | | | | | |
| (3) insecurity | -0.02* | -0.03* | 1.00 | | | | | | | | | |
| (4) bribery | -0.01 | -0.06* | 0.11 | 1.00 | | | | | | | | |
| (5) EU | 0.13* | 0.23* | 0.00 | -0.10* | 1.00 | | | | | | | |
| (6) competition | 0.04* | 0.15* | 0.26* | 0.07* | -0.03* | 1.00 | | | | | | |
| (7) R&D | 0.05* | 0.16* | 0.00 | 0.02 | -0.11* | 0.30* | 1.00 | | | | | |
| (8) education | -0.03* | 0.12* | -0.01 | 0.06* | -0.23* | 0.09* | 0.10* | 1.00 | | | | |
| (9) business association | 0.07* | 0.22* | -0.02* | -0.03* | 0.01 | 0.15* | 0.18* | -0.02* | 1.00 | | | |
| (10) foreign ownership | 0.19* | 0.17* | -0.04* | -0.03* | 0.01 | 0.09* | 0.11* | 0.11* | 0.09* | 1.00 | | |
| (11) firm size | 0.12* | 0.26* | -0.01 | -0.04* | -0.01* | 0.16* | 0.29* | -0.14* | 0.27* | 0.17* | 1.00 | |
| (12) productivity | 0.07* | 0.26* | 0.00 | -0.03* | 0.20* | 0.07* | -0.07* | -0.08* | 0.19* | 0.05* | 0.05* | 1.00 |

* indicates parameter significance at the 1% level.

## RESULTS

Regression results are presented in Table 5. In column (1), the estimation includes only the control variables; in column (2), we include the explanatory variables to test the hypotheses on the full sample, and in column (3), we drop foreign-owned private firms from the sample to check the robustness of our results on domestic firms only. In accordance with Hoetker (2007), we report McFadden's and McKelvey & Zavoina's pseudo-R2, which conform to comparable empirical studies with similar data. However, pseudo-R2 in probit estimations cannot be interpreted as R2 in OLS because they do not correspond to the percentage of variance explained (Hoetker, 2007).

All estimated coefficients on the dependent variables are significant at the 10% level except bribery. This indicates that several factors play a role in the probability that a firm will internationalize early. To facilitate interpretation of the results, we compute the marginal values of the probit estimates of our baseline estimation.

Access to ICT infrastructure positively affects the probability that a firm will internationalize at or near inception, confirming Hypothesis 1. The marginal effects indicate that, ceteris paribus, having access to a high speed broadband Internet connection increases the probability that a firm will internationalize early by 1.6%. The effect of insecurity on the internationalization of new ventures is also in line with the theoretical literature as it predicts that a 1% increase in losses due to theft, robbery, vandalism or arson leads to a 0.2% decrease in the probability that a firm will internationalize early. Hypothesis 2 is therefore validated. In contrast, this research identifies no effect of bribery on the internationalization behavior of new firms, which refutes Hypothesis 3. This result does not imply that bribery has no effect on the internationalization of firms in general, only that it neither drives nor impedes early internationalization of new ventures in transition countries. It is also shown that being located in an EU country raises the probability that a firm will start internationalizing from inception.

**Table 5.** Probit regression results

| | (1) | (2) | (3) |
|---|---|---|---|
| broadband | | 0.2870*** | 0.2297*** |
| | | (0.0970) | (0.1077) |
| insecurity | | -0.0405** | -0.0374* |
| | | (0.0237) | (0.0244) |
| bribery | | 0.1369 | 0.0172 |
| | | (0.0430) | (0.0501) |
| EU | | 0.3520** | 0.0836* |
| | | (0.1893) | (0.2185) |
| competition | | 0.2760*** | 0.2955*** |
| | | (0.0884) | (0.0979) |
| R&D | | -0.1581* | -0.0340 |
| | | (0.0956) | (0.1033) |
| education | | 0.0026*** | 0.0035*** |
| | | (0.0013) | (0.0015) |
| network | | 0.1817*** | 0.2465*** |
| | | (0.0743) | (0.0842) |
| foreign ownership | | 0.0995*** | |
| | | (0.0204) | |
| firm size | 0.1406*** | 0.0658*** | 0.0813*** |
| | (0.096) | (0.0237) | (0.0275) |
| productivity | 0.0248*** | 0.1117*** | 0.1678*** |
| | (0.0116) | (0.0466) | (0.0553) |
| constant | -1.9114 | -3.9377 | -4.6732 |
| | 0.3164 | (0.6624) | (0.7961) |
| country dummies | Yes | Yes | Yes |
| year dummies | Yes | Yes | Yes |
| sector dummies | Yes | Yes | Yes |
| # obs. | 17867 | 5129 | 4499 |
| Wald Chi squ. | 1174 | 337.29 | 263.48 |
| Log likelihood | -3901.63 | -841.99 | -641.96 |
| McFadden's R2 | 0.199 | 0.172 | 0.165 |
| McKelvey & Zavoina's R2 | 0.346 | 0.306 | 0.297 |
| AIC | 0.443 | 0.353 | 0.313 |
| BIC | -166598.67 | -41584.61 | -36029.983 |

Models 1-3 report the results for probit estimations using the robust estimator of variance. All models are based on the 2002, 2005, 2007 and 2009 pooled data. Coefficients on country, year and sector dummies are not reported. Standard errors appear in parentheses. ***, ** and * indicate parameter significance at the 1%, 5% and 10% levels, respectively.

Hypothesis 4 is therefore validated. The result on the EU variable indicates that the probability that a new venture will internationalize within three years after inception is 0.02% higher for firms located in EU countries[4].

The findings indicate that industry conditions, and specifically the competitive environment, do affect early internationalization, confirming Hypothesis 5. The marginal effects indicate that competition in the industry increases the probability that a firm will internationalize early by 1.5%.

Our results indicate that all firm- and entrepreneur-level factors affect the internationalization of young firms. Surprisingly, the estimated coefficient of the R&D variable is significantly negative (the opposite of what was predicted), indicating that knowledge intensive firms in transition countries are less likely to internationalize at or near inception. As shown in column (3), the estimated coefficient is no longer significant when the sample is limited to domestic firms, in other words, when foreign-owned companies are excluded. Hypothesis 6 is thus refuted. As far as the other firm and entrepreneur-related variables are concerned, the results are as expected: Hypotheses 7, 8 and 9 are validated. The

4. Joining the EU may have an impact several years before membership because, during the accession process, several changes occur at the country level that may affect firms. For this reason, we lagged the EU variable for up to three years in unreported robustness checks. The results were robust to these changes.

effect of education level on the probability of early internationalization is positive: the marginal effect indicates that a 1% increase in the number of employees with a university degree increases the probability that a new firm will internationalize within three years from inception by 0.01%. Networks, both domestic and international, also play an important role in the early internationalization of new ventures. Ceteris paribus, being a member of a business association or a chamber of commerce increases the probability of internationalizing within three years after inception by 1.1%. Similarly, a 1% increase in the share of foreign ownership in a new venture increases the probability that it will internationalize rapidly by 0.6%.

Firm-specific control variables are also significant and in line with the literature. The estimated coefficients of firm size and productivity are positive, indicating that entry into foreign markets requires resources that often depend largely on firm size, and that more productive firms are more likely to start international operations soon after inception. These results are reported in Table 5. The results in column (3), based on the sub-sample of domestic firms, largely confirm the results of our baseline estimation (column 2). A summary of the results is provided in Table 6.

**Table 6.** Summary of the results

| | |
|---|---|
| H1. In transition economies, access to ICT infrastructure is positively related to the probability that a firm will internationalize at or near inception. | Validated |
| H2. In transition economies, insecurity is negatively related to the probability that a firm will internationalize at or near inception. | Validated |
| H3. In transition economies, bribery is negatively related to the probability that a firm will internationalize at or near inception. | Refuted |
| H4. Being located in a country that is a member of the EU is positively related to the probability that a firm will internationalize at or near inception. | Validated |
| H5. In transition economies, industry competition is positively related to the probability that a firm will internationalize at or near inception. | Validated |
| H6. In transition economies, knowledge-intensive new ventures are more likely to internationalize at or near inception. | Refuted |
| H7. In transition economies, high education levels for the entrepreneur and other employees in the firm are positively related to the probability that a firm will internationalize at or near inception. | Validated |
| H8. In transition economies, involvement in networks in the home country is positively related to the probability that a firm will internationalize at or near inception. | Validated |
| H9. In transition economies, international networks developed through foreign ownership are positively related to the probability that a firm will internationalize at or near inception. | Validated |

## DISCUSSION

The purpose of this research was to develop better understanding of INVs from emerging economies. We adopted a multi-level approach and examined how factors at environment, industry, firm and entrepreneur levels influence early internationalization of new ventures in transition countries.

Regarding the environment, our results highlight the importance of access to ICT, and in particular the Internet in the early internationalization of new ventures. Indeed, ICT can facilitate access to foreign market information, clients, and opportunities, and it reduces the liabilities of newness and foreignness of new ventures. This implies that ICT serves as a backbone for internationalization, and

that it is a prerequisite for competing internationally. This result is in line with previous research studying the relationship between the new technologies and firm internationalization (Etemad et al., 2010; Loane, 2006). As Etemad et al. argue, "internetization is evolving to encompass internationalization with richer values and faster speed than before by higher reliance on internet-assisted technologies and processes, without which the modern competitive international production and commerce would remain relatively ineffective, if not impossible" (2010: 339).

In this research, we also analyzed the influence of the institutional environment in transition economies on early internationalization. While our findings suggest that bribing public officials has no influence on the early internationalization of new ventures, we show that the pace at which new ventures expand internationally is constrained by insecurity. This finding implies that the lack of rule of law in transition economies hampers firms' international development, and is consistent with previous research focusing on the impact of a weak institutional environment on entrepreneurial behavior (Aidis et al., 2008, 2012). We also find support for the fact that being located in an EU country improves the chances of early internationalization, suggesting the positive impact of institutional changes triggered by EU accession. Our study therefore highlights the importance of incorporating the institutional component into traditional INV theory.

At industry level, not surprisingly, our findings support the view that competition in the domestic market stimulates early internationalization, as suggested by Oviatt & McDougall (2005). Indeed, competition in the domestic market might trigger the search for opportunities elsewhere.

Our findings also demonstrate that several firm and entrepreneur-related factors affect early internationalization in transition economies. In particular, they highlight the importance of the level of education of the entrepreneur and the employees, and of home country and international networks in facilitating internationalization. We provide evidence that a more educated staff constitutes a significant advantage for early internationalization. Previous studies have analyzed the role of the education level of the entrepreneur in early new venture internationalization, but the results had not been conclusive thus far. Zucchella et al. (2007), for example, find no link between the entrepreneur's education level and early internationalization. In our study, we broaden the analysis of education level as a factor related to INVs by expanding our analysis to all the employees in the firm. Indeed, one can argue that a lower level of education for the entrepreneur could be compensated by a higher level of education for the staff. This then suggests that what is important for early internationalization is a higher level of education for the firm as a whole. Beyond its impact on productivity, higher education levels provide the workforce with the necessary skills to reach out to foreign markets, such as open-mindedness, adaptability, proficiency in languages, and the ability to collect and analyze foreign market information and understand the expectations of foreign partners.

Our findings also highlight the importance of network relationships, which can be regarded as a means to overcome the obstacles linked with "institutional voids" in transition economies, resulting from underdeveloped and/or ambiguous institutional frameworks. The role of networks has been widely documented in the internationalization literature (e.g. Bruton et al., 2010; Coviello & Munro, 1995; Sharma & Blomstermo, 2003; Singh, 2009; Zahra et al., 2000). However, it can be argued that the importance of informal network relationships might gradually decline as formal market institutions continue to develop with the transition from a planned to a market economy (Peng, 2003). Future studies using longitudinal data should therefore investigate this issue further.

Contrary to our prediction, our findings indicate that a firm's knowledge intensity, measured by investment in R&D, is negatively related to the likelihood

that it will internationalize from inception. This is the most surprising result of our study as it runs contrary to the large body of literature on INVs arguing that knowledge-based firms start internationalizing earlier than their counterparts do. Although our data does not allow us to provide a precise explanation for this result, a plausible explanation might be that it takes longer to get a return on investment in R&D in transition countries and that the delayed entry into foreign markets might be the consequence of this fact. This is consistent with the findings of Lamotte & Colovic (2013), who show that innovation has less impact on internationalization of new ventures in low-income countries than in high-income countries. This might be due to the type or the quality of R&D conducted in firms from transition countries, which may not allow fast entry to foreign markets, as is the case in mature economies.

From a theoretical standpoint, our study extends the literature on INVs by examining early internationalization as a complex phenomenon influenced by country-level, industry-level and firm-level features. We have developed a comprehensive framework drawing on the traditional perspective of INVs, on the literature on emerging economies, and on the entrepreneurship and internationalization literature. Building an original model suited for emerging market INVs therefore constitutes the core contribution of our study. Furthermore, a particular contribution of this research is its focus on the neglected topic of INVs in transition economies. These emerging economies exhibit several specific features linked with the transition from centrally-planned to market economy. We used rich firm-level data from 27 transition economies to test predictions about the early internationalization of new ventures, which increases the generalizability of our findings.

However, despite its contributions, this research is not without limitations, which also indicate directions for future research. First, the factors explored in our study are constrained by the characteristics of the data collected during the survey. More detailed responses concerning the firms' competitive environment or the entrepreneurs' characteristics would have been very useful to deepen our understanding of factors related to the early internationalization of new ventures. Second, as reforms aimed at transforming transition economies differ widely across countries, a more detailed analysis of the impact of the transition process on firms' internationalization would constitute an interesting research direction. Indeed, some studies have been conducted on the impact of structural reforms on entrepreneurship (Aidis, 2005b; Aidis et al., 2008) but none of them have focused on the internationalization of new ventures. More specifically, further research on the role of the different dimensions of EU membership in the performance of young firms would be useful, in particular in terms of policy issues. In addition, it would be meaningful to look into groups of similar countries and analyze outliers in order to deepen the analysis of differences as well as similarities between different transition economies. Third, this research highlights the influence of foreign ownership on the internationalization speed of new ventures. This opens up research avenues on the interactions between foreign capital and new ventures in transition countries and, more generally, in emerging countries. Fourth, the underlying hypothesis of our work is that institutional pressures affect entrepreneurial behavior, in line with the institution-based view which has frequently been used in research on emerging markets. However, it can also be argued that entrepreneurial behavior can affect institutions, by triggering institutional change (Welter & Smallbone, 2011). Oliver (1991) distinguishes five types of behavioral response to the institutional framework: conformity or acquiescence, compromise, avoidance, defiance, and manipulation. While conformity and compromise acknowledge the existing institutional framework, avoidance, defiance, and manipulation reflect, to differing degrees, nonconformity in relation to the prevailing institutions. Further research should expand the understanding developed in this study by examining how

entrepreneurs' responses to the existing institutional framework shape the internationalization of new ventures in emerging economies. Last, but not least, analyzing the role of R&D expenses in internationalization with a more precise measure for these expenses would be interesting to develop, as it is possible that R&D expenses have a significant effect on internationalization above a certain threshold level.

## CONCLUDING REMARKS

International New Ventures play a fundamental role in the economic development of emerging countries. Expanding our understanding of the factors that affect the emergence of such firms is therefore critical. More importantly, it is essential to build and test frameworks that take into account the elements of the context in which these firms operate (Kiss et al., 2012). Furthermore, there is a need to question whether existing frameworks, which are designed for developed markets, can explain the internationalization strategies of firms in emerging markets. This research is an attempt to contribute to the literature in this sense.

Our study has several fundamental policy and managerial implications. As far as policy implications are concerned, our findings suggest that creating a favorable environment for young firms is essential to improving their prospects for internationalization and competitiveness. In the sample of firms under investigation in this research, EU-located new ventures demonstrate much better performance in terms of internationalization. This implies that structural reforms aimed at facilitating the movement of goods, services, capital, and people, and at creating opportunities for international development play a significant role in the performance of new ventures. Moreover, a strong commitment to fight insecurity in everyday business practices is necessary to stimulate the development of young entrepreneurial firms. Our study also implies that facilitating foreign participation in the capital of young ventures, the creation of joint ventures between domestic and foreign firms, and, more generally, interaction between firms would greatly benefit domestic firms in emerging economies. Indeed, such measures would allow ventures from emerging countries to benefit from spillovers in terms of knowhow, technology, and access to networks, which could significantly improve their performance.

Concerning managerial implications, our study highlights the importance of education, for both owners and employees, in increasing the likelihood of early internationalization. This suggests that business owners should invest in training programs and in upgrading the competences and skills of their employees. We also find that involvement in networks positively affects the early internationalization of young firms from emerging countries. Openness both to the local surrounding environment and to international linkages should therefore be aimed for in order to increase the likelihood of early international expansion.

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