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Export diversity or focus? What strategy is best for first-time internationalizing SMEs from an emerging market?

Desislava Dikova¹, Andreja Jaklič², Anže Burger³ and Aljaž Kunčič⁴

Abstract

The question how much internationalization is beneficial for emerging-market small and medium enterprises (EM SMEs) remains challenging for both international business (IB) scholars and managers. We explore export strategies of first time exporters and focus on the scope of EM SMEs internationalization activities. We tackle the question whether more focused or more diversified internationalization through exporting is beneficial for EM SMEs. We examine the impact of foreign market (geographic) diversification, product diversification and export intensity on firm performance of an entire population of EM SMEs from an emerging east European economy. In addition, we test whether a complex export strategy—an export strategy of simultaneous product- and geographic export diversification—is beneficial for EM SMEs. We use a panel population data of first time Slovenian exporters in the period 1994-2012. We find that diversified internationalization, both in terms of product- and foreign market diversity, and export intensity significantly improve productivity and sales performance for EM SMEs. Furthermore, EM SMEs with complex export strategies enjoy significantly improved productivity and sales performance.

Key words: first-time exporters, export performance, export diversification

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1. Introduction

International expansion as a growth strategy is of particular importance for small and medium enterprises (SMEs) originating from emerging markets (EMs). Governments in emerging economies have increasingly stimulated local firms to actively export and compete in foreign markets (Aulakh, Kotabe, & Teegeen, 2000; Kotler, Jatusripitak, & Maesincee, 1997; Luo, 2000). However, SMEs in general have lesser financial and managerial resources to devote to internationalization than large multinational organizations (Lu & Beamish, 2001). In addition, EM SMEs typically lack experience in marketing their products abroad (Gao et al., 2010) and are frequently affected by their ‘different cultural underpinnings...and often highly regulated political environment’ (Zhou et al., 2012: 30). It is therefore imperative for EM SMEs to fully understand the risks and opportunities of internationalization (Bruneel, Yli-Renko & Clarysse, 2010). Regardless of the importance of this issue, there have been only a few empirical studies focused on studying the export behaviors of firms from emerging economies (e.g., Aulakh et al., 2000). This represents a notable research gap in exporting literature (Gao et al., 2010) which we intend to address in the current paper.

The determinants of export performance have been examined in many empirical studies (e.g., Fernández & Nieto, 2006; Filatotchev et al., 2001; Zhao & Zou, 2002; Zou & Stan, 1998). The *scope* of SMEs exporting activities, however, has received far less attention in international business and marketing literature. In particular, the question *how much* internationalization is beneficial for EM SMEs has been addressed by only a few studies. An earlier study on Hungarian SMEs’ internationalization strategy suggested that export activity was in fact detrimental for the firm survival (Lyles, Saxton & Watson, 2004). An exploratory study of Polish exporting SMEs suggested that a balanced strategy, focused on a limited number of key export markets, is a viable and beneficial alternative that is superior to a

strategy focused on one export market or to a broadly diversified export strategy (Cieslik, Kaciak & Welsh, 2012). We add to this fragmented literature by examining the performance outcome of export strategies of an entire population of first-time exporters from an emerging east European economy. We study the internationalization of Slovenian SMEs in the period 1994-2012 which marks the early years of market liberalization to current days. Our study contributes to the IB and entrepreneurship literature by providing important insights into the internationalization behavior of EM firms (Musteen & Datta, 2011).

In this paper we investigate what constitutes a profitable international strategy for first-time internationalizing EM SMEs: a more focused or a more diversified export strategy. Our interest centers on examining the performance consequences of exporting not in explaining the decision to internationalize. Albeit scarce, research on SMEs scope of exporting, regardless of their country-of-origin, points to three possible outcomes. One, there is no relationship between the number of foreign export destinations (markets) and firms performance (Piercy, 1981). Two, there are performance benefits for SMEs following a focused export strategy (Brouthers et al., 2009). Three, there are performance benefits for SMEs taking a diversified approach to exporting (Pangarkar, 2008). In an attempt to consolidate past research and before we stipulate about expected performance effects of exporting, we first revisit the way exporting scope is captured in past studies.

As a measure of export scope of SME studies in the past have mostly considered the number of foreign markets (geographic diversification) and the exporting volume in each foreign market (export intensity). Albeit informative, this measure of exporting scope is incomplete. The far richer research on MNEs' internationalization focused not only the number of foreign markets served but also the number of products offered to foreign markets (Tallman & Li, 1996; Kim, Hwang & Burgers, 1989). We therefore add a third dimension of

exporting scope, in addition to geographic scope of exporting, and exporting intensity—we consider also the product scope of exporting, that is, the number of exported products to foreign markets (and their volume respectively). In doing so, we present a more comprehensive examination of the performance effect of exporting scope for EM SMEs. Ultimately, we aim at addressing the following specific research questions: Does exporting to more foreign markets (geographic diversification) lead to better EM SME performance? Does exporting more products (product diversification) lead to better EM SME performance? Does greater exporting intensity (export volume per market/product) lead to better EM SME performance? Does complex export diversification (both geographic and product) lead to better EM SME performance?

We build our theory on the premises that exporting contributes to EM SMEs growth and profitability by providing them with exposure to new markets and new opportunities. Our hypotheses suggest that more exported products (product diversification) and more international presence in terms of the number of foreign markets (geographic diversification) and the degree of involvement in these foreign markets (export intensity), is beneficial for EM SMEs. From a theoretical standpoint, we expect that our study will shed light on the importance of organizational learning and economic efficiency for internationalizing EM SMEs. Given their entrepreneurial orientation and organic structures, EM SMEs are able to quickly recognize, acquire and assimilate knowledge about foreign markets (Autio et al., 2000). In fact, this ability to learn faster and more efficiently is what enables EM SMEs to compete successfully in international markets by taking a more diversified approach to internationalization. Furthermore, from an economic efficiency point of view, exporting multiple product varieties and establishing a prominent presence abroad by offering greater export volumes allows for reaping the benefits of economies of scope. As a result, EM SMEs can not only improve their performance but also secure a long-term growth strategy. This is

especially important in such contexts where the opening of home markets to foreign competition as a result of market liberalization has forced EM SMEs to seek new opportunities in international markets (Musteen & Datta, 2011). Next, we review the literature on SMEs' internationalization through exporting and develop our arguments based on organizational learning theory and economic efficiency theory to explain the link between diversified- and complex exporting strategy and performance of EM SMEs.

2. Literature review and theoretical framework

Exporting is a relatively easy and fast way to enter foreign markets because it requires relatively low level of resource commitment and exposes the firm to lesser risks than foreign direct investment. It is less risky an expansion strategy because the firm can rely on its existing products to penetrate new markets and can easily withdraw from a foreign market in the case of macroeconomic downturn or a decline in demand for its products. Exporting is in addition relatively easy to implement because the firm does not have to deal with the complexities of setting up a foreign subsidiary (Lu & Beamish, 2006). These characteristics of exporting make it a key internationalization strategy for SMEs because SMEs typically face resource constraints and are generally unable to pursue growth strategies involving high investment risks. Through exporting SMEs not only gain fast access to foreign markets at very little capital expense but they have the opportunity to gain valuable international experience (Root, 1994; Zahra et al., 1997; Lu & Beamish, 2001).

There are several economic benefits stemming from exporting. The first and most obvious of all is the gains related to economies of scale and scope achieved through selling larger volumes of production across geographical markets (Kogut, 1985; Grant, Jammine & Thomas, 1988). Exporting expands the market over which profits can be earned and this gives the SME the possibility to recoup fixed costs such as R&D and overhead expenses over larger sales volumes (Ganotakis & Love, 2012). Second, exporting provides greater incentives for

SMEs to invest in R&D and innovation (Ganotakis & Love, 2012). This is particularly relevant for emerging-market SMEs facing stronger competition in foreign markets which forces them to improve their products and processes to stay competitive (Love & Mansury, 2009). Third, in the process of exporting SMEs become exposed to superior foreign knowledge and technology which can ultimately boost productivity (Grossman & Helpman, 1991). Fourth, the presence in multiple geographic markets can lead to advantages related to increases in market power (Kim et al., 1993), gains from diversification of revenues (Ramaswamy, 1992), escaping harsh competition in their home markets by capitalizing on opportunities in others (Lee et al., 2012), enhancing firm growth and the likelihood of survival especially when domestic markets are small, mature or highly competitive (Coviello & Munro, 1995). Finally, exporting can be used as a stepping stone for future international expansion through foreign direct investment (Erminio & Rugman, 1996). Past literature clearly points to a great number of benefits accruing to exporting firms, but the answer to the question how much exporting is beneficial for SMEs remains unclear.

2.1. The process theory of internationalization and SMEs

One of the most dominant frameworks used to explain SMEs' internationalization is the process theory of internationalization by Johanson and Vahlne (1977) (e.g., Brouthers et al., 2009). It proposes a positive relationship between market knowledge and market commitment in the process of internationalization: exporters gradually gain experience while adding new export markets (Cieslik, Kaciak & Welsh, 2012). The process of internationalization is considered incremental because the uncertainty of a new foreign market entry is reduced through the accumulation of knowledge (experience) from previous international activities (Sapienza et al., 2006). The process theory stresses on the importance of incremental (gradual) international growth. An incremental approach to internationalization seeks to avoid uncertainty (risk) while simultaneously pursuing growth (Sapienza et al., 2006).

Despite the number of studies in the 1970s and 1980s that corroborated the predicted gradual patterns of internationalization (Buckley et al., 1978; Engwall & Wallenstal, 1988), more recent studies show that incremental expansion patterns, aiming at reducing the failure rate of internationalization, may not necessarily increase the overall firm profitability (Delios & Beamish, 2001). We start the development of our concepts with the counter-argument that gradual (incremental) international expansion allowing for a lower risk of every individual foreign expansion may not always be good for firms (Barkema & Drogendijk, 2007). Many SMEs need not only acquire new market knowledge (Johanson & Vahlne, 1977) but also develop basic organizational capabilities. Prior literature highlighted that exporting not only impacts firm growth (sales) but it also facilitates the development of new capabilities which in turn enhance organizations' ability to pursue growth opportunities (Sapienza et al., 2006). In a similar vein, Lages et al. (2006) suggested that the learning process accelerates with the number and diversity of foreign markets served through exporting. Furthermore, SMEs seeking to become global players try to internationalize and to learn faster than their competitors (Barkema et al., 2002; Doz et al., 2001). Hence, risk-averse SMEs following a gradual step-wise internationalization are likely to lose the 'learning race' (Barkema & Drogendijk, 2007). To address the new realities of accelerated organizational learning and risk-taking international behavior, we employ a knowledge- and efficiency-based internationalization perspective to explain the relationship between export scope and performance of EM SMEs.

2.2. *Emerging market SMEs (EM SMEs)*

Despite their heterogeneity and often rapid change, emerging economies typically have the following common characteristics: 1) they have undergone a process of liberalization and have opened their domestic markets to foreign investment and trade (Hoskisson et al., 2000), 2) they lack reliable institutions and stable institutional commitments (Meyer & Peng, 2005)

and 3) they are less sophisticated than developed economies (Khanna & Palepu, 1997; Mody, 2004). With certain obvious exceptions, many emerging markets are ‘tiny to small when compared to advanced economies’ (Contractor et al., 2007: 405). As a result, international expansion is considered a powerful complement to local market size enabling firms achieve scale economies (Lall, 1983). EM SMEs operate in relatively high-risk economies subject to uncertain structural and institutional changes (Nachum, 2004). The rapidly changing socio-economic environment of emerging economies has a profound effect on firm competitiveness—EM SMEs must remain flexible in order to survive (Guillen & Garcia-Canal, 2009) and they must consider international expansion as a way of minimizing home market failure (Rugman, 1979). Under the pressure of intensified competition at home and driven by ubiquitous globalization forces, many EM SMEs enter foreign markets as latecomers. In a study of EM firms from the Asia-Pacific region, Mathews (2006) shows that internationalization of EM firms is very rapid and different from that of conventional western multinationals. Studies on the internationalization of firms from Central and Eastern Europe also demonstrate rapid and innovative “leapfrogging” patterns of internationalization (Jaklič & Svetličič, 2003; Svetličič & Rojec, 2003; IEDC, 2011).

Mathews and Zander (2007) describe this phenomenon as ‘accelerated internationalization’. EM SMEs are able to pursue rapid internationalization ‘owing to their distinctive ability to come up with organizational and strategic innovations compensating for their lack of financial and managerial capabilities’ (Contractor et al., 2007). The challenging environmental conditions at home such as weak institutions, demanding yet price sensitive customers and fierce competition have urged EM SMEs develop unique competences which they can successfully use in foreign markets (Sinha, 2005). In addition, strong entrepreneurial-oriented leadership in activities such as international expansions (Yamakawa et al., 2008) and explorative learning (Barkema & Drogendijk, 2007) allows EM SMEs

pursue aggressive internationalization. We maintain that EM SMEs exporting a relatively large number (and volume) of product varieties to a relatively large number of foreign markets have advantages over limited-product-variety firms exporting to a few markets. These advantages stem from faster organizational learning, flexibility and the materialization of economies of scope (economic efficiency).

2.3. *Geographic diversification*

Several authors have suggested that learning-by-exporting has a positive effect on internationalization and can ultimately speed up the process of internationalization (Golovko & Valentini, 2011; Love & Mansury, 2009; Filipescu et al., 2013). Typically, exposure to international markets and greater competitive pressures stimulates organizational learning in the sense that firms strive to constantly upgrade their products and adapt to new market conditions (Filipescu et al., 2013). When a firm is involved in multiple international markets and/or more deeply involved in its international markets (e.g. by exporting great volumes in each market), it can more proactively acquire new knowledge about foreign competitors, markets, products, customers all of which is information that is not directly available in the home market. This implies that the more diverse the gathered information is, the more versatile in its responses to competition and macro-economic changes the firm becomes which in turn reduces internationalization risk and positively affects overall firm performance.

We do recognize that rapid rather than gradual EM SME internationalization may exacerbate liabilities of smallness, for example by introducing additional complexity (Lee et al., 2012), by exhibiting shortage of managers with international experience (Coviello & Martin, 1999) or by struggling to secure the financial resources required for successful internationalization (Brouthers et al., 2009). However, learning-from-exporting is a factor that facilitates building strong organizational capabilities; this in turn enables the implementation of comprehensive strategies and contributes to accelerated growth (Lu & Beamish, 2006;

Sapienza et al., 2006). Accelerated growth frees up additional resources that EM SMEs can use for further internationalization and for refining the respective processes and strategies. Furthermore, organizational learning is accelerated by the number and diversity of the foreign markets served through exporting (Lages et al., 2006). Serving multiple foreign markets and a deeper involvement in these markets brings an additional economic advantage—the broader market scope and the more intensive market presence stabilizes EM SMEs' earnings due to the imperfectly correlated economic cycles in the export destinations (Cieslik et al., 2012).

Widespread (geographic) internationalization can be challenging for EM SMEs. When EM SMEs first export to a foreign market they are faced with the tasks of creating entirely new routines and adapting some of the existing routines (Sapienza et al., 2006). Routine generation and adaptation are resource-intensive processes that require substantial investment (Zott, 2003). This can cause temporary resource shortages, not only financially but also managerial resources can be stretched in the process of initial internationalization. For example, the top manager will have to divert his or her attention to the 'modalities of entry', new personnel may have to be hired and new relationships have to be established and nurtured (Sapienza et al., 2006: 919). However, the costs associated with the creation of new routines and processes are likely to decrease over subsequent foreign expansion because internationalizing EM SMEs can reconfigure their resources 'thereby creating a new capability for international entry' (Sapienza et al., 2006: 919).

We suggest that at first-time internationalization, this newly established capability can be quickly leveraged as a platform for expanding the geographical scope of exporting, providing a stimulus for rapid growth. Exporting provides the EM SME with first-hand knowledge of the foreign market and connects the firm with competitors, customers and innovation centers outside the home market and in such a way the EM SME begins to build its advantages in the new market. These initial experiences give the EM SME a basis to identify more opportunities

for growth in other foreign markets and increase the number of application for its resources (Zahra et al., 2000). The access to multiple foreign markets and deeper involvement in these markets not only increases EM SMEs' ability to expand operations and build a strong revenue base but also develops capabilities that can be leveraged to improve core business at home (Sapienza et al., 2006). EM SMEs can enhance their competency base by learning from their interactions with international markets and competitors (Filipescu et al., 2013), and as a consequence improve their innovative capacities and general competitiveness. In sum, broader geographic expansion is beneficial for EM SMEs as it can stimulate growth and diversify sources of income which in turn positively affects performance. Furthermore, deeper foreign market involvement (e.g., through exporting greater volumes in each market) stimulates on the one hand learning and capability building and on the other hand generates steady revenue allowing for committing more resources to further geographic expansion. This gives us

Hypothesis 1a: Exporting to multiple international markets has a positive effect on EM SME performance.

Hypothesis 1b: Exporting greater volumes per international market has a positive effect on EM SME performance.

2.4. *Product diversification*

Firms exporting multiple products are reported to have larger export sales than single-product firms (Andersson, 2012). For example, firm A supplying twice as many export varieties than firm B will have twice the export value of firm B if we assume that the quantity supplied and the price is the same for each and every variety in the global market. Applying economic efficiency theory logic, we expect that EM SMEs exporting multiple products will earn higher profits because such firms can materialize scope economies (Andersson, 2012). There is a large economics literature showing that the penetration of foreign markets is

associated with market-specific sunk entry costs (Tybout, 2003; Greenaway & Kneller, 2005). Under such circumstances, multi-product exporters are better off—if several products can rely on the same entry-market cost, the cost per volume unit will be lower for multi-product exporters (Andersson, 2012). Many firms do indeed export a set of related products even if they may produce a single basic product (Dunne et al., 1988). For example, Nikon supplies a wide range of different cameras with the associated accessories; Nokia and Motorola, among many others, typically offer a number of different mobile phones in each foreign market (Andersson, 2012). This can be best explained with the characteristics of the modern ‘lean’ manufacturing (Milgrom & Roberts, 1990). Firms typically maintain broad product lines which are frequently updated. Technical innovations such as programmable multitask production equipment lowers the cost of maintaining broader product lines by implying a higher extent of economies of scope (Andersson, 2012). In sum, manufacturing flexibility and high product variety can contribute to the competitive edge of firms regardless of their size.

Often the survival of EM SMEs is ascribed to their adaptability and speed of response to environmental change (Levy & Powell, 1998). Smaller firms are perceived as being significantly more flexible than larger firms as they can respond readily to customers’ changing needs (Levy & Powell, 1998). Flexibility is key to the survival of EM SMEs facing small domestic markets, limited purchasing power at home, and strong competition from MNEs selling powerful global brands. We propose that multi-product EM SMEs can materialize economies of scope and increase the extent of their export activities. Compared to single-item exports, a larger spectrum of exported products will generate greater sales volume and positively affect firm performance. The learning-by-exporting argument advanced earlier is particularly relevant here—exporters receive valuable marketing, technological and customer knowledge while supplying broad product varieties. To take advantage of new market opportunities, EM SMEs often pursue market adaptations by offering customized

products or by engaging in rapid product and/or process developments (Zahra, Ireland & Hitt, 2000). Both the ability to acquire and process new knowledge and the flexibility to adapt to customer needs translates into improved competitiveness abroad (Filipescu et al., 2013). From an organizational learning point of view, flexible firms with flatter organizational structures such as EM SMEs (Levy & Powell, 1998) are quicker to absorb knowledge about dealing with diverse customers in various product markets and subsequently change their processes to accommodate the needs of these markets more efficiently (Autio et al., 2000). These capabilities can be leveraged across multiple product offerings creating economies of scope, and positively influencing performance. In addition, larger export volumes for a range of products decrease the market entry sunk costs, which in turn reduces the financial burden on the EM SME and ultimately has a positive impact on its performance. Broader product lines enable firms to meet consumer needs more closely leading to higher market share (Bagozzi, 1986; Cravens & Woodruff, 1986). A differentiated product line reduces sales uncertainty (Kekre & Srinivasan, 1990) and as firms attempt to capture untapped opportunities, product breath increases (Shapiro, 1977). This leads us to

Hypothesis 2a: Exporting multiple product varieties has a positive effect on EM SME performance.

Hypothesis 2b: Exporting larger volumes of multiple product varieties has a positive effect on EM SME performance.

2.5. *Interaction effects of geographic diversity and product diversity*

Applying a learning perspective, Hitt et al. (1997) argue that product diversification gives experience with managing multiple product-markets which can be exploited in multiple international markets to give positive interaction effects on performance. They find a positive interaction effect showing that greater product diversification reduces the negative effects of

high levels of geographic diversification. Kim et al. (1989) maintain that the impact of product diversification on performance is contingent on the degree of internationalization. They show that more product diversified firms perform better when they are more geographically diversified. In a more recent study, Gabrielsson et al. (2006) confirm that gaining foreign business experience allows firms to introduce a wider assortment of more sophisticated products abroad. Despite the lack of respective research on EM SMEs, and the limited research on the breath of product offerings in the context of foreign expansion of firms (Gabrielsson et al., 2012), we chose to adopt a similar logic and extend it to EM SMEs. We therefore suggest that a complex internationalization strategy based on exporting multiple products to multiple markets has a positive effect on EM SMEs' performance.

Since both effects of product and geographic diversification are conceptually primary independent variables, the choice of moderator is somewhat arbitrary and artificial. Our predictions are based on economies of rents and learning effects. We therefore suggest learning based advances in performance increase when a set of EM SME's product capabilities are spread over multiple new markets. Flexible EM SMEs exporting a great variety of products gain major benefits from economies of scope by integration of activities across various production lines and reducing market entry sunk costs. Increasing levels of geographic diversity should improve the performance levels of EM SMEs exporting a great variety of products—learning from multiple foreign markets further improves competitiveness by stimulating innovation and prompting an efficient response to geographically diverse customer demands. This leads us to

Hypothesis 3: Exporting multiple product varieties to multiple international markets has a positive effect on EM SME performance.

3. Data and methods

3.1. *Sample*

The empirical analysis of our set of hypotheses (Figure 1 in the Appendix) is based on a firm level panel data compiled by the Slovenian Customs Administration (CARS). This data is linked to financial statements published by the Agency of Republic of Slovenia for Public Records and Related Services (AJPES) and information on direct (inward and outward) investment recorded by the central bank (Bank of Slovenia, BS). These institutions gather data from all sectors of the Statistical Classification of Economic Activities in the European Union (NACE). This recently compiled panel enables an in-deep longitudinal study of growth, performance and cross-border activities of firms, as it provides rich information about balance sheet and income statements, detail information on export (export volume, number of exported products, and destination of exports) as well as information on foreign ownership and direct investments abroad. The initial data comprises of more than 140000 Slovenian manufacturing firms. Close to 40,000 observations are available for new exporters for the period from 1994 to 2012 and data are compiled on a yearly basis.⁵

Slovenia is an appropriate empirical setting to analyse strategies of new EM exporters, due to several peculiarities: it represents a country with a small domestic market, it is very export-orientated, and has experienced numerous changes in the home business environment, a result from the country's transition from centrally planned to market economy, rapid liberalization and a recent integration into the European Union (the accession to the European Union took place in 2004, which divides the studied period in two). As we cover detailed population data, we are confident that the findings of this study are widely generalizable to different sectors in emerging and transition economies.

⁵ There is a break in the series from Slovenia's accession to EU in 2004 due to a changed system of recording trade flows. After the 1st of May 2004, only flows of firms with trade exceeding 100 000 Euros on an annual level were recorded, while before that all trade flows were recorded by CARS. The smaller firms with lower values of total yearly exports are not able to make the cut, although they might still be exporting. This curtails the sample on one side.

3.2. Variables

Dependent variables. Our data allows us to use two indicators of performance⁶; *productivity (value added)* and *total sales revenues*. *Productivity (value added)* is calculated as a difference between sales revenues and production costs (Verma, 2012; Croce, Marti & Murtinu, 2013; Eggert & Tveteras, 2013), while *Total sales* captures total annual sales revenues (Moini, 1995; Martincus, Carballo, & Jerónimo, 2010; Wagner, 2012). Both dependent variables are taken as logarithm values and used in all models.

Independent Variables. In order to test the impact of growing volume and complexity of exports on SME's performance over time we include a set of independent variables depicting disaggregated export activity on a yearly basis. Export complexity which captures both foreign market and product (portfolio) diversity is measured through an extensive and intensive margin, as in Eaton et al. (2004), Chaney (2008) and Lawless (2010). *Extensive margin* consists of the exporter's diversity of exporting in terms of number of markets and number of exported product varieties (Eaton et al., 2004; Chaney, 2008). *Intensive margin* is captured by export intensity on one or both of the extensive margins (Lawless, 2010; Buono & Lalanne, 2012). We perform the following three decompositions of exports into an extensive and intensive margin. *Number of exporting countries* is a discrete variable measuring geographical diversification or the number of export markets per firm (Castellani et al., 2010; Silva et al., 2013). *Exports per country* is a discrete variable that measures the average value of export per foreign market (i.e. export intensity in a foreign market). It is calculated as the total value of export divided by the number of export markets (Castellani et al., 2010). *Number of product varieties* is a discrete variable that measures the total number of varieties of products that are exported (Silva et al., 2013; Muuls & Pisu, 2009). *Exports per product variety* is a discrete

⁶ We consider our quantitative and objective measures of performance an advantage, especially in a longitudinal study, as many studies are based on survey data and predominantly use perceptual data about export performance.

variable calculated as the total value of export divided by the number of products exported (Silva et al., 2010; Muuls & Pisu, 2009). *Exports per country times product* is the interaction term between the number of markets and products a firm exports calculated as total value of export divided by number of markets and number of products. Product varieties are desegregated to a 6-digit NACE classification level.

Control Variables. We control for firm-specific resources and experience in international markets. Physical capital (K) measures the value of tangible fixed assets possessed by a firm. Employment (L) measures the total number of employees in a firm. Average wage captures average income per employee and provides a proxy for skill intensity. Similar approach in expanding production function and selection of control variables is applied by Van Biesebroeck (2005). We use the total value of exported goods for *Exports* (Van Biesebroeck, 2005), and dummies for foreign direct investment (FDI) (Engel & Procher, 2012). Inward foreign direct investment (iFDI) controls for foreign ownership. It is a dichotomous variable that takes the value of 1 when a focal SME has reported some degree of foreign ownership and a value of 0 in the case no registered foreign direct investment. Outward foreign direct investment (oFDI) controls for a focal SME direct investments in foreign markets. This is also a dichotomous variable that takes the value of 1 when a SME has direct investment abroad and the value of 0 in the case of no foreign direct investment.

In all regressions, we control for aggregate time-specific shocks by including year dummies and for industry-specific effects by adding industry dummies. All regressions also have firm age dummies included (but not reported), and a dummy for the year 2004 to allow for any structural breaks upon Slovenia's accession to the EU in 2004 and the parallel changes in statistical reporting to the Customs Office of the Republic of Slovenia. All specifications are estimated with correction for heteroskedasticity.

Methods of Analysis

Typically, (firm) performance and productivity studies assume output (measured by deflated revenue or value added) to be a function of inputs (usually capital and labor) and firm's productivity (Katayama et al., 2009). The measure of total factor productivity (TFP), obtained as a residual in the functional relationship between the output and the inputs, is often used in literature to capture the effects of changes in different policy measures and firm strategic choices such as the role of foreign ownership (Javorcik, 2004), trade (Pavcnik, 2002; Amiti & Konings, 2007; De Loecker, 2007) and innovation (Cassiman & Golovko, 2011). Instead of TFP measure, some authors have used labor productivity (value added per worker or revenue per worker) as a proxy for firm efficiency (see Wagner, 2012). This productivity indicator however is sensitive to the use of non-labor inputs and is thus inferior to TFP when firms from the same industry combine inputs in different ways (see Syverson, 2011).

The model we used for evaluating the impact of export diversification on performance is derived from the firm's production function. Our point of departure is the following Cobb-Douglas production function:

$$Y_{it} = A_{it} K_{it}^{\alpha} L_{it}^{\beta} H_{it}^{\gamma} e^{\epsilon_{it}} \quad (1a)$$

where Y , K and L denote output, physical capital and (raw) labor, respectively, and H_{it} is human capital that measures the quality of employed workers. The error term ϵ captures the effects of unknown factors, measurement errors and other unobservable disturbances such as managerial capability. Subscripts i and t indicate the firm and time period under consideration.

Taking natural logarithms of the multiplicative equation (1a), we arrive at an estimable additive equation (1b), where we are especially interested in the term A_{it} .

$$\ln(Y_{it}) = \ln(A_{it}) + \alpha \ln(K_{it}) + \beta \ln(L_{it}) + \gamma \ln(H_{it}) + \epsilon_{it} \quad (1b)$$

A_{it} denotes total factor productivity, which is a function of the international activities of the SME – exporting and foreign direct investments. Foreign direct investment involvement is divided into inward FDI (foreign ownership), and outward FDI (direct investment activities abroad). A_{it} can therefore be expressed as:

$$A_{it} = f(EX_{it}, iFDI_{it}, oFDI_{it}), \quad (2)$$

where EX_{it} denotes export revenue, $iFDI_{it}$ is a dummy variable for foreign ownership, and $oFDI_{it}$ indicates whether a SME has engaged in foreign direct investment.

We disaggregate exporting activity further into an extensive and intensive margin. The former consists of exporter's diversification in terms of the number of foreign markets and the number of exported product varieties, whereas the latter is captured by export intensity on one or both of the extensive margins. We perform the following three decompositions of exports into an extensive and intensive margin:

$$EX_{it} = C_{it} \frac{EX_{it}}{C_{it}}, \quad (3a)$$

$$EX_{it} = V_{it} \frac{EX_{it}}{V_{it}}, \quad (3b)$$

$$EX_{it} = C_{it} V_{it} \frac{EX_{it}}{C_{it} V_{it}}, \quad (3c)$$

where C_{it} is the number of countries SME i exports to, V_{it} is number of the distinct 6-digit product varieties the SME is exporting, $\frac{EX_{it}}{C_{it}} \equiv INT_{it}^C$ is the export intensity per export market,

$\frac{EX_{it}}{V_{it}} \equiv INT_{it}^V$ is the export intensity per export variety, and $\frac{EX_{it}}{C_{it} V_{it}} \equiv INT_{it}^{CV}$ is the export intensity

per product-market. We bring all three decompositions of exports to the empirical analysis, where we assume the following relationship between the natural logarithm of TFP and its determinants:

$$\ln(A_{it}) = \delta_1 \ln(C_{it}) + \delta_2 \ln(INT_{it}^C) + \delta_3 iFDI_{it} + \delta_4 oFDI_{it}. \quad (4a)$$

$$\ln(A_{it}) = \delta_1 \ln(V_{it}) + \delta_2 \ln(INT_{it}^V) + \delta_3 iFDI_{it} + \delta_4 oFDI_{it}. \quad (4b)$$

$$\ln(A_{it}) = \delta_1 \ln(C_{it}) + \delta_2 \ln(V_{it}) + \delta_3 \ln(INT_{it}^{CV}) + \delta_4 \ln(C_{it}V_{it}) + \delta_5 iFDI_{it} + \delta_6 oFDI_{it}. \quad (4c)$$

Coefficients δ capture the contributions of the extensive and intensive trade margins to the productivity (or sales revenues), namely the number of export markets, number of export varieties, export intensity, and the contributions of inward and outward foreign direct investment. Equation (4c) provides the most disaggregated look as it includes both the number of export markets and the number of export varieties representing the two ways of export diversification. One of the key hypotheses (H3) in this study is that geographic and product diversification (e.g. the dual way of capturing the scope of exporting) exhibit complementary effect on EM SME performance. In order to test for the existence of such synergic influence, we also include an interaction term between the number of export markets and export products of a focal SME: $C_{it}V_{it}$. Coefficient δ_4 in Equation (4c), provided it is statistically significant and positively signed, identifies complementarities between the geographic and product diversification of export on EM SME performance.

Substituting Equations (4a-4c) into (1b) gives us the following estimable specification:

$$\ln(Y_{it}) = \alpha \ln(K_{it}) + \beta \ln(L_{it}) + \gamma \ln(H_{it}) + \delta_1 \ln(C_{it}) + \delta_2 \ln(INT_{it}^C) + \delta_3 iFDI_{it} + \delta_4 oFDI_{it} + \mu_t + \theta_k + \omega_i + u_{it}, \quad (5a)$$

$$\ln(Y_{it}) = \alpha \ln(K_{it}) + \beta \ln(L_{it}) + \gamma \ln(H_{it}) + \delta_1 \ln(V_{it}) + \delta_2 \ln(INT_{it}^V) + \delta_3 iFDI_{it} + \delta_4 oFDI_{it} + \mu_t + \theta_k + \omega_i + u_{it}, \quad (5b)$$

$$\ln(Y_{it}) = \alpha \ln(K_{it}) + \beta \ln(L_{it}) + \gamma \ln(H_{it}) + \delta_1 \ln(C_{it}) + \delta_2 \ln(V_{it}) + \delta_3 \ln(INT_{it}^{CV}) + \delta_4 \ln(C_{it}V_{it}) + \delta_5 iFDI_{it} + \delta_6 oFDI_{it} + \mu_t + \theta_k + \omega_i + u_{it}, \quad (5c)$$

where the error term ϵ_{it} is split into period specific effects μ_t , industry specific effects θ_k , time-invariant unobserved individual specific effects ω_i , and the idiosyncratic errors u_{it} .

4. Results / summary statistics and regression results

Here we present the summary statistics, some indicative scatter plots and our regression results. Table 1 shows the summary statistics for our main variables. There are almost 40,000 observations available for new exporters, and a little over 70,000 for non-exporters, which are added simply for comparison and are not used further in the analysis focused solely on exporters. The comparison of exporters to non-exporters reveals that on average, exporters are much more productive, have more physical capital, more employees as well as more human capital (e.g. more than twice the average wage).

Table 1: Summary statistics for exporting and non-exporting manufacturing firms, 1994-2010, in EUR (mean values, 1994 prices)

	Exporters		Non-exporters	
	Mean	St. Dev.	Mean	St. Dev.
Total sales	4,102,602	20,472,713	172,139	1,116,956
Value added	1,151,728	5,187,808	56,289	302,617
Capital	1,916,024	8,577,429	86,061	551,941
Employment	81.0	247.4	5.1	31.6
Average wage	8,992	136,944	3,989	10,054
iFDI	11.0%	31.3%	2.5%	15.7%
oFDI	9.9%	29.9%	0.4%	6.6%
Exports	2,558,333	17,291,667	0	0
Number of ex. countries (markets)	6.2	9.2	0	0
Exports per country	196,250.0	845,833.3	0	0
Number of product varieties	13.3	24.7	0	0
Exports per product variety	112,916.7	357,083.3	0	0
Exports per country*product	25,949.3	130,416.7	0	0

Note: Values are in 1994 prices and expressed in euros, calculated by official exchange rate at the changeover from Slovene tolar to euro (€ 1=SIT 239.64), while in the rest of the analysis, they are in real local currency, for more accuracy.

Figures 2, 3 and 4 show simple scatter plots and thus imply the nature of unconditional (bivariate) correlation between value added and export markets, products and product-markets, both with and without natural logarithms. There are several observations that can be made on the scatter plots, keeping in mind that only the simple bivariate relationship is

explored visually. The Figures reveal that both export markets and exported products, as well as product-markets, have a positive relation to value added, which, however, does not seem to be linear, but approaches linearity much more when the variables are in natural logs. Secondly, the dispersion of data in the left hand sides of figures, where the variables are without logs, is much higher than on the right hand side of the figures, with the logs, implying that the relationship between the value added and export measures is much less susceptible to outliers when logs are used. These two reasons, in addition to the fact that our theoretical model has to be in natural logarithms in order to be estimated as an additive equation in (1b), are the reasons while most of the subsequent analysis uses the natural logarithmic transformations of variables.

Figure 2: Value added and number of export markets

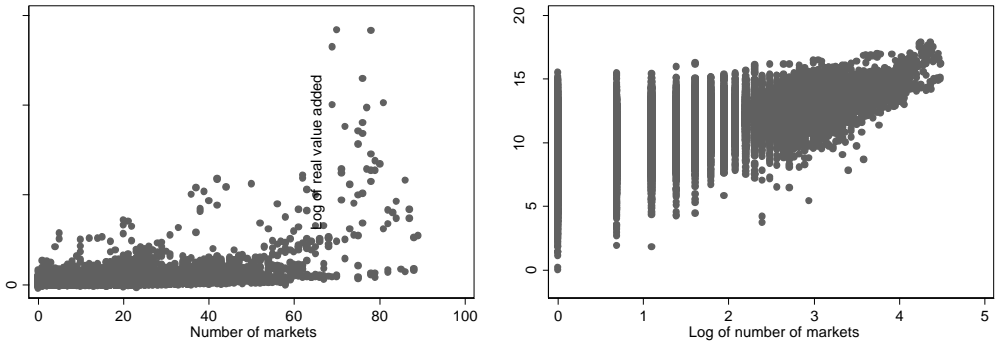


Figure 3: Value added and number of export products

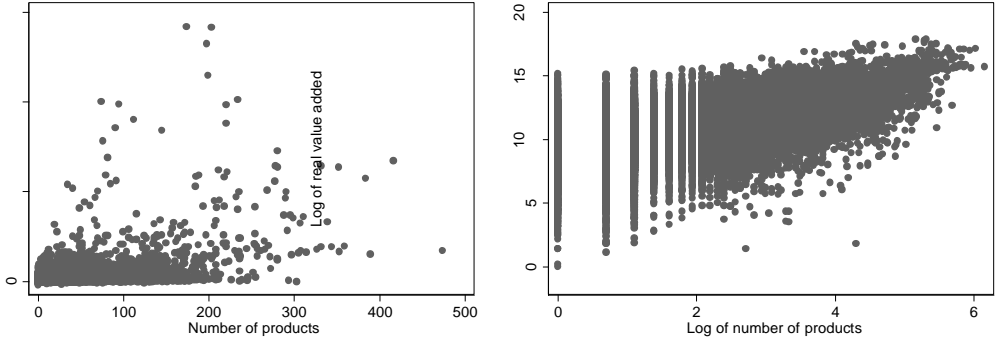
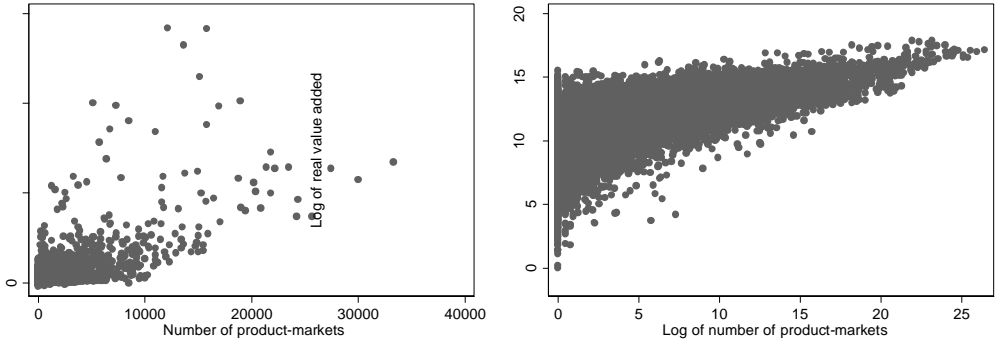


Figure 4: Value added and number of product-markets



The basic results are presented in Table 2, where column 1 shows the standard production function regressions with the inclusion of total exports, column 2 shows Equation (5a), column 3 Equation (5b), and column 4 Equation (5c). In order to allow for ω_i to be arbitrarily correlated with the regressors, we mostly (unless otherwise specifically noted) run FE regressions (within regressions). Looking only at the production function coefficients of physical capital - $\ln(K)$, labor - $\ln(L)$ and human capital - $\ln(\text{wage})$, the table implies very stable semi-elasticities, that is, the partial effects of these three factors are very consistent and highly significant across the four specifications, with labor being the most important, followed closely by human capital, and then physical capital. All the factors have a positive partial effect. Additionally, inward FDI does not seem to contribute to a higher value added, which could be a consequence of not enough variation for the effect to be statistically significant. Reversely, outward FDI does contribute positively to a higher value added: a EM SME that has a subsidiary abroad increases its value added by more than 4%.

Regression 1 in Table 2 also shows the marginal effect of exports on productivity (value added), which is positive and significant as suggested in hypothesis 1. Regressions 2 – 3 further disentangle the main effect of exports as in Equations (3a), (3b) and (3c). In all three regressions, both the extensive margin as well as the intensive margin (export intensity), all have positive and significant marginal effects on productivity. Regression 3, which is the most

disaggregated, implies that an increase in the number of export markets by 10% would lead to an average increase in value added by 0.8%, while the same increase in number of exported varieties or export intensity would increase the EM SME's productivity by around 0.5%.

Table 2: The basic effects of export strategies on EM SME productivity

dep. variable: ln(value_added)	1	2	3	4
ln(K)	0.0790*** (0.00435)	0.0787*** (0.00435)	0.0790*** (0.00435)	0.0787*** (0.00435)
ln(L)	0.684*** (0.0108)	0.681*** (0.0109)	0.684*** (0.0109)	0.681*** (0.0109)
ln(wage)	0.604*** (0.0210)	0.603*** (0.0210)	0.604*** (0.0211)	0.603*** (0.0210)
iFDI	0.0186 (0.0186)	0.0184 (0.0186)	0.0186 (0.0186)	0.0185 (0.0186)
oFDI	0.0442*** (0.0139)	0.0415*** (0.0139)	0.0441*** (0.0140)	0.0422*** (0.0140)
ln(exports)	0.0576*** (0.00268)			
ln(countries)		0.0776*** (0.00621)		0.0807*** (0.00687)
ln(exports/countries)		0.0538*** (0.00287)		
ln(products)			0.0581*** (0.00440)	0.0497*** (0.00489)
ln(exports/products)			0.0574*** (0.00295)	
ln(exports/products*countries)				0.0546*** (0.00303)
Constant	1.469** (0.573)	-0.0846 (0.668)	1.471** (0.573)	1.475** (0.575)
Observations	37,357	37,357	37,357	37,357
R-squared	0.963	0.963	0.963	0.963
Year FE	YES	YES	YES	YES
Industry FE	YES	YES	YES	YES
Firm FE	YES	YES	YES	YES

Notes: Robust standard errors in parentheses. *** p<0.01, ** p<0.05, * p<0.1.

In order to specifically show the curvilinear effects of export activities, Table 1 in the Appendix shows the same regressions as in Table 2, with the inclusion of non-logarithmic export variables and their squared terms. In all cases, the partial coefficients on the exports terms are significant and positive in their first term, and negative in their squared term, implying there are clear diminishing returns for EM SME productivity in exports, number of markets, number of products, number of product-markets, and all different formulations of

export intensities. Additional export activity thus helps, but in a decreasing way. All the other coefficients remain largely unchanged.

The results in Table 3 allow us to focus on the interaction term between number of export products and number of export markets, as specified in Equation 5 (c). We also show the results of pooled OLS (POLS), without specifically controlling for firm specific effects; every odd numbered regression is POLS, and every even numbered regression FE, using the same specification as in preceding odd numbered regression. In general, we find that the production function variables have the expected positive and significant effect on productivity and remain so with little changes in magnitude when using a POLS specification or controlling for firm level fixed effects. The international activity variables in the form of extensive and intensive trade margins are all positive and significant, as well as outward FDI. Inward FDI is generally not significant when firms' fixed effects are included. Regressions 1 to 4 present the baseline results, while regressions 5 to 8 serve as robustness checks for possible endogeneity effects.

Regressions 1 and 2 examine the effects of international activity of EM SMEs on their productivity without firm fixed effects. Regressions 3 and 4 add the interaction term between the number of exported products and the number of export markets (countries). We find that the interaction term is positive and significant in both the pooled OLS estimation in regression 3 as well as in the within regression estimates in column 4, with practically no changes in either significance or magnitude. Examining regression 4 in more detail, we can see that a 10% change in the extensive trade margins leads to around 0.3% and 0.25% change in the productivity of EM SMEs when the number of countries or products increases, respectively. Similarly, a 10% increase in the intensive trade margins leads to a 0.58% increase in the productivity. The effect of an EM SME having a foreign affiliate abroad is also almost 3% ($e^{0.028}-1$), while as in other within regressions, we cannot statistically detect any effect of

foreign ownership on EM SME productivity (perhaps due to the fact that there is little within firm variation in foreign ownership). The interaction effect between the number of export markets and export varieties implies that increasing the export-product mix by 10% leads to an increase in productivity by almost 0.3%. There are thus clear complementary effects on the productivity of EM SMEs expanding both their exporting product scope and geographical dispersion.

An important econometric issue has to be taken into account when dealing with non-random variables such as export activity, inward and outward FDI. It is quite common to consider these strategic choices endogenous since they are positively correlated with unobserved and unobservable firm characteristics or outside shocks. For example, productivity is higher among those EM SMEs that export because they self-select into exporting after they have already reached a sufficient level of productivity. Apart from learning from exporting and knowledge spillovers from internationalization that we aim to identify here, we have to acknowledge the possibility of a reverse causality link from higher productivity to the decision to enter a new export market or introduce a new export variety. Similarly, foreign-owned EM SMEs are not a random sample of firms but most of the time cherry-picked by foreign MNCs that are attracted to high-productivity sectors and more productive firms. Likewise, investing abroad is performed by EM SMEs that outperform their domestic rivals in terms of productivity, size, technological capabilities and know-how.

This potential bias might be problematic in the interaction term, where increasing the number of export products and number of export markets at the same time can be spurred by a contemporaneous increase in productivity and would thus lead to a false positive partial coefficient on our interaction variable of interest. To alleviate this potential bias we run regression specifications 3 and 4 again, this time including the lagged values of the interaction term, instead of its contemporaneous values. In regression 5, using a pooled OLS, and

regression 6, using the within regression controlling for firm fixed effects, we find that there is a considerable upward bias, confirming there is an effect from the interaction to the value added. The interaction coefficient in regression 6 is only about a quarter of the size of the interaction coefficient in regression 4, but what is more important is that it remains positive and highly significant.

Table 3: The specific effects of export strategies on EM SME productivity

dep. variable: ln(value_added)	1	2	3	4	5	6	7	8
ln(K)	0.105*** (0.00445)	0.0787*** (0.00435)	0.105*** (0.00446)	0.0785*** (0.00435)	0.108*** (0.00528)	0.0767*** (0.00504)	0.112*** (0.00562)	0.0851*** (0.00586)
ln(L)	0.752*** (0.00668)	0.681*** (0.0109)	0.749*** (0.00674)	0.677*** (0.0109)	0.747*** (0.00798)	0.684*** (0.0138)	0.765*** (0.00856)	0.703*** (0.0168)
ln(wage)	0.756*** (0.0191)	0.603*** (0.0210)	0.759*** (0.0191)	0.603*** (0.0209)	0.815*** (0.0272)	0.601*** (0.0276)	0.855*** (0.0283)	0.638*** (0.0328)
iFDI	0.0409** (0.0174)	0.0185 (0.0186)	0.0393** (0.0172)	0.0135 (0.0186)	0.0504*** (0.0176)	0.0130 (0.0176)	0.0653*** (0.0176)	0.0478** (0.0196)
oFDI	0.105*** (0.0165)	0.0422*** (0.0140)	0.0755*** (0.0174)	0.0269* (0.0141)	0.0841*** (0.0177)	0.0369** (0.0143)	0.0628*** (0.0180)	0.0177 (0.0177)
ln(countries)	0.0565*** (0.00726)	0.0807*** (0.00687)	0.0165* (0.00997)	0.0312*** (0.00884)	0.0443*** (0.00833)	0.0734*** (0.00719)	0.0339*** (0.00871)	0.0373*** (0.00839)
ln(products)	0.0525*** (0.00532)	0.0497*** (0.00489)	0.0328*** (0.00595)	0.0251*** (0.00577)	0.0536*** (0.00590)	0.0459*** (0.00531)	0.0395*** (0.00606)	0.0217*** (0.00568)
ln(exports/prod.*countries)	0.0405*** (0.00306)	0.0546*** (0.00303)	0.0432*** (0.00314)	0.0578*** (0.00308)	0.0479*** (0.00359)	0.0636*** (0.00361)	0.0353*** (0.00369)	0.0334*** (0.00351)
ln(countries*products)			0.0193*** (0.00325)	0.0280*** (0.00328)				
L.ln(countries*products)					0.00542** (0.00234)	0.00779*** (0.00192)	0.00632*** (0.00235)	0.00743*** (0.00217)
Constant	1.274*** (0.161)	1.475** (0.575)	1.214*** (0.161)	1.451** (0.568)	0.0286 (0.258)	0.687 (0.448)	-0.127 (0.281)	2.340*** (0.368)
Observations	37,357	37,357	37,357	37,357	29,940	29,940	26,837	26,837
R-squared	0.925	0.963	0.925	0.963	0.930	0.968	0.931	0.966
Year FE	YES	YES	YES	YES	YES	YES	YES	YES
Industry FE	YES	YES	YES	YES	YES	YES	YES	YES
Firm FE	NO	YES	NO	YES	NO	YES	NO	YES

Notes: Robust standard errors in parentheses. *** p<0.01, ** p<0.05, * p<0.1. In regressions 7 and 8, the variables ln(products), ln(countries), ln(exports/products*countries), ln(products*countries), L.ln(products*countries), iFDI and oFDI are additionally lagged by one period to exclude possible endogeneity.

Moreover, we control for the wider endogeneity problem arising from contemporaneous feedback of internationalization variables to value added by additionally lagging all internationalization variables in regressions 7 and 8, where the interaction term is

potentially the most problematic and is hence lagged by two periods. We find that most partial coefficients of the internationalization variables decrease in magnitude, but remain highly significant and positive, whereas the interaction term remains as it was in regressions 5 and 6.

To test our second dependent variable, we repeat the estimations in Table 3 using natural logarithm of real sales instead of value added. The results in Table 2 in the Appendix confirm all our findings on the partial effects of export activities on EM SME productivity. We also redo the regressions of Equation (5c) as in Table 3, but with less strict restrictions imposed on the coefficients from the production function by allowing for industry-specific capital, labor and human capital effects. The results confirm our findings in Table 3 and are shown in Table 3 in the Appendix. Finally, we also run the entire set of regressions separately for the period 1994-2003 and 2004-2012 in order to check whether the structural break upon Slovenian EU accession drives the results. The coefficients on the variables of interest remain significant and of similar values, and are available upon request.

In sum, our results appear robust and show consistent impact of export market diversification and product diversification on both performance measures. Geographic (market) and product export diversification significantly increase productivity and sales. There are clear complementary effects on productivity of EM SMEs expanding the scope of their exporting both in terms of products and foreign markets. Thus, our results rendered support to all our hypotheses.

5. Discussion, limitations and conclusions

In this paper we set up to examine what constitutes a profitable international strategy for first-time internationalizing EM SMEs: a more focused or a more diversified export strategy. Our point of departure was past literature that reported contradictory and inconclusive outcomes of exporting: some suggested no relationship between the number of foreign export

destinations (markets) and firms' performance (Piercy, 1981), others found that a focused export strategy is more beneficial to SMEs than a diversified strategy (Brouthers et al., 2009), and finally, some suggested that there are performance benefits for SMEs taking a diversified approach to exporting (Pangarkar, 2008). With this study we attempted a consolidation of past research by relying on a new theoretical model that incorporates current developments in international business and recent data on export strategies of an entire population of first-time exporters from an emerging market.

We apply organizational learning theory and economic efficiency logic to study a phenomenon previously described as 'accelerated internationalization' (Mathews & Zander, 2007). We develop our theory on three key premises. First, the challenging environmental conditions at home such as weak institutions, demanding yet price sensitive customers and fierce competition urge EM SMEs to develop unique competences which they can successfully use in foreign markets (Sinha, 2005). Second, EM SMEs are able to pursue rapid internationalization because of their distinctive ability to develop organizational and strategic innovations that compensate for their lack of financial and managerial capabilities (Contractor et al., 2007). Entrepreneurial-oriented leadership also plays a critical role in activities such as international expansions (Yamakawa et al., 2008). Third, internationalization through exporting is associated with market-specific sunk entry-costs. EM SME exporters are better off if several products can rely on the same entry-market cost because in such case the cost per volume unit will be lower for multi-product exporters (Andersson, 2012). In sum, the EM SMEs unique competences, their advantages in faster organizational learning and flexibility, coupled with the benefits from economies of scope allow them to profitably export a relatively large number (and volume) of product varieties to a relatively large number of foreign markets. Increasing levels of geographic (market) and product diversity allows EM

SMEs to learn faster from multiple foreign markets, further improve their competitiveness by stimulating innovation and efficient response to geographically diverse customer demands.

We presented a comprehensive examination of the performance effect of exporting scope for EM SMEs by focusing on export product diversification, export market diversification and export intensity. Our results revealed that an increase in the number of export markets, an increase in the number of exported product varieties and an increase in export intensity improved the EM SME's performance in terms of productivity (value added) and total sales. Our results demonstrated clear complementary effects on productivity of EM SMEs expanding the scope of their exporting both in terms of products and foreign markets. By controlling for EM SMEs' foreign direct investment (that is, having established foreign affiliates) we discovered further complementarities in internationalization strategies. Our results demonstrated that a direct presence in a foreign market (through a foreign affiliate) significantly improved productivity and sales of new exporters.

Our results rendered support to all our hypotheses and showed that EM SMEs revealed new patterns of internationalization through a growing aspiration to compete in new international markets. Our study points to two interesting findings: first, EM SMEs internationalization is more likely to be complex than risk-averse and second, EM SMEs show similar patterns of internationalization to MNEs. EM SMEs from our eastern European transition economy do not seem to follow an incremental, step-wise, resource-minimization type of internationalization as suggested by past literature. Furthermore, the results from our specifications with lagged interaction term in particular emphasize the importance of speed; the faster the export diversification, the larger its impact was on productivity. Our study is the first to show that EM SMEs are capable of and willing to pursue international growth in a similar fashion to large MNEs from developed economies.

The implications of this study are several. Firstly, based on our results we call for a re-evaluation of the notion of risk in internationalization through exporting and a reconsideration of export diversification (e.g., product and market) as a strategy of tolerable risk for SMEs. Managers of EM SMEs in particular must decide on an internationalization strategy, choose the foreign markets, the product portfolios and determine the volume of exported goods in each market. Pursuing a focused internationalization strategy - though frequently recommended - may not be the most profitable option. Dealing with rapid internationalization and pursuing complex diversification poses several distinctive managerial challenges, not present in relation to a single export location or a single export product. However, push factors such as small market size, acute home-market competition and demanding and sophisticated home consumers often leave EM SMEs' managers little room for growth in the home market. In addition, as late comers to the global market-space, EM SMEs do not have the luxury of resorting to a cautious, incremental internationalization strategy in order to secure sustainable organizational growth. Under such circumstances, it seems reasonable to revisit the question what is a more risky internationalization strategy for EM SMEs, an incremental (focused) or a more diversified exporting strategy?

Secondly, the study suggests implications for future research on SMEs' internationalization. Future studies should consider alternative internationalization theory models to the dominant gradual process models. Perhaps applying theory and models with a different take on diversification and risk is a good start. For example, we should be aware that the total firm performance is likely to be influenced by an individual export market and an individual export product variety if their number is relatively small. In this case, a failure in one foreign market or a failure with one export product is likely to be detrimental to overall performance yet it may be much less harmful for the firm performance in the case of a diversified approach to internationalization. In this sense, an incremental and gradual

internationalization process can lead to financial losses, missed opportunities or wasted organizational resources considering that EM SME have flexible organizational structures, can learn faster and enhance their capabilities to manage successfully a broad scope of export activities.

Thirdly, the internationalization patterns identified in this research may also be of value for policymakers seeking to support the export sector in emerging economies. Current policy prescriptions often focus on the creation of property-based resources in the form of patents and technical skills (Williams et al., 2014). This perspective assumes that firms build a resource combination from local resources that enables internationalization. The findings in our research indicate that SMEs *learn by internationalizing*; that is, they likely develop and advance organizational capabilities through their interaction with foreign customers. Support measures for exporters therefore need to reflect this finding in order to be effective. The development of an export-focused institution, an approach already adopted by Ireland, Finland, and Malaysia (Rios-Morales & Brennan, 2009) may be of value. The proposed institution could support EM SMEs by facilitating interactions between current and potential exporters, domestic organizations, and international expertise that can enable exports.

The limitations of this study stem from the focus on SME from a single, small-sized emerging market. As a result, further research is required to confirm the theoretical findings in alternative contexts and build research propositions that can examine further empirical validity. Despite the limitations, this study presents a fresh point of view on the link between first-time internationalization and performance of SMEs that moves away from the traditional process (focused) model of internationalization by suggesting that export diversification and a complex export strategy can be more beneficial to EM SMEs.

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Appendix

Figure 1: Conceptual model

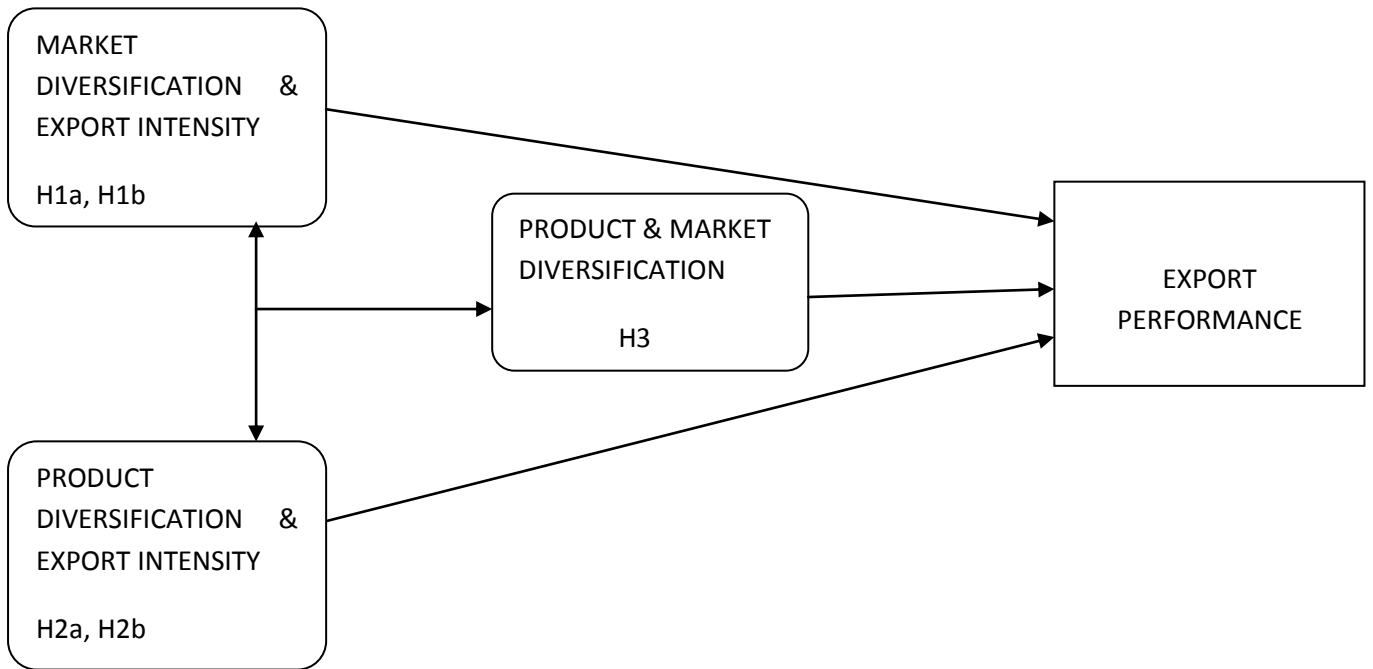


Table 1: Explicitly capturing the curvilinearity

dep. variable: ln(value_added)	1	2	3	4
ln(K)	0.0888*** (0.00359)	0.0804*** (0.00438)	0.0819*** (0.00438)	0.0812*** (0.00439)
ln(L)	0.716*** (0.00873)	0.690*** (0.0108)	0.702*** (0.0108)	0.696*** (0.0108)
ln(wage)	0.598*** (0.0167)	0.618*** (0.0211)	0.620*** (0.0212)	0.619*** (0.0212)
Ifdi	0.0413** (0.0195)	0.00857 (0.0188)	0.0180 (0.0188)	0.0188 (0.0190)
oFDI	0.0476*** (0.0153)	0.0267* (0.0142)	0.0343** (0.0141)	0.0236 (0.0144)
Exports	4.36e-11*** (3.08e-12)			
exports*exports	-1.88e-22*** (2.39e-23)			
Countries		0.0226*** (0.00156)		0.0190*** (0.00161)
countries*countries		-0.000199*** (2.42e-05)		0.000174*** (2.47e-05)
exports/countries		7.89e-10*** (5.50e-11)		
(exports/countries)*(exports/countries)		-8.60e-20*** (1.30e-20)		
Products			0.00499*** (0.000368)	0.00265*** (0.000352)
products*products			-1.05e-05*** (1.56e-06)	-5.30e-06*** (1.29e-06)
exports/products			1.70e-09*** (1.10e-10)	
(exports/products)*(exports/products)			-6.54e-29*** (8.67e-20)	
exports/prod.*countries				2.54e-09*** (2.19e-10)
(exports/prod.*countries)*(exports/prod.*countries)				-1.22e-18*** (1.43e-19)
Constant	2.066*** (0.507)	2.121*** (0.571)	2.171*** (0.559)	2.134*** (0.568)
Observations	53,578	37,357	37,357	37,357
R-squared	0.957	0.963	0.963	0.963
Year FE	YES	YES	YES	YES
Industry FE	YES	YES	YES	YES
Firm FE	YES	YES	YES	YES

Notes: Robust standard errors in parentheses. *** p<0.01, ** p<0.05, * p<0.1.

Table 2: Robustness check 1

dep. variable: ln(sales)	1	2	3	4	5	6	7	8
ln(K)	0.0900*** (0.00632)	0.0658*** (0.00526)	0.0898*** (0.00632)	0.0656*** (0.00528)	0.0869*** (0.00753)	0.0624*** (0.00670)	0.107*** (0.00970)	0.0982*** (0.0119)
ln(L)	0.584*** (0.00986)	0.515*** (0.0126)	0.579*** (0.00998)	0.509*** (0.0128)	0.576*** (0.0123)	0.514*** (0.0167)	0.630*** (0.0146)	0.684*** (0.0275)
ln(wage)	0.613*** (0.0237)	0.393*** (0.0194)	0.617*** (0.0238)	0.393*** (0.0193)	0.695*** (0.0356)	0.358*** (0.0329)	0.747*** (0.0501)	0.429*** (0.0611)
iFDI	0.150*** (0.0313)	0.0817*** (0.0194)	0.148*** (0.0311)	0.0736*** (0.0194)	0.150*** (0.0323)	0.0528*** (0.0196)	0.159*** (0.0336)	0.0936*** (0.0292)
oFDI	0.152*** (0.0266)	0.0643*** (0.0154)	0.108*** (0.0275)	0.0403*** (0.0151)	0.121*** (0.0274)	0.0441** (0.0178)	0.0938*** (0.0284)	0.0601*** (0.0171)
ln(countries)	0.137*** (0.0116)	0.154*** (0.00768)	0.0769*** (0.0165)	0.0768*** (0.00954)	0.108*** (0.0138)	0.141*** (0.00852)	0.0850*** (0.0150)	0.0917*** (0.0108)
ln(products)	0.182*** (0.00917)	0.126*** (0.00586)	0.153*** (0.00996)	0.0874*** (0.00639)	0.181*** (0.0103)	0.127*** (0.00696)	0.142*** (0.0113)	0.0543*** (0.0101)
ln(exports/prod.*countries.)	0.0791*** (0.00549)	0.0991*** (0.00406)	0.0831*** (0.00567)	0.104*** (0.00416)	0.0946*** (0.00670)	0.112*** (0.00512)	0.0646*** (0.00706)	0.0541*** (0.00541)
ln(countries*products)			0.0289*** (0.00557)	0.0437*** (0.00419)				
L.ln(countries*products)					0.0155*** (0.00388)	0.0114*** (0.00263)	0.0113*** (0.00423)	0.00735*** (0.00259)
Constant	3.384*** (0.249)	4.281*** (0.647)	3.354*** (0.247)	4.267*** (0.638)	2.505*** (0.292)	4.695*** (0.278)	1.834*** (0.391)	4.971*** (0.561)
Observations	38,109	38,109	38,109	38,109	30,403	30,403	27,305	27,305
R-squared	0.857	0.959	0.857	0.959	0.867	0.965	0.844	0.952
Year FE	YES	YES	YES	YES	YES	YES	YES	YES
Industry FE	YES	YES	YES	YES	YES	YES	YES	YES
Firm FE	NO	YES	NO	YES	NO	YES	NO	YES

Notes: Robust standard errors in parentheses. *** p<0.01, ** p<0.05, * p<0.1. In regressions 7 and 8, the variables ln(products), ln(countries), ln(exports/products*countries), ln(products*countries), L.ln(products*countries), iFDI and oFDI are additionally lagged by one period to exclude possible endogeneity.

Table 3: Robustness check 2

dep. variable: ln(value_added)	1	2	3	4
iFDI	0.0108 (0.0180)	0.00638 (0.0180)	0.0126 (0.0172)	0.0435** (0.0188)
oFDI	0.0359*** (0.0136)	0.0220 (0.0138)	0.0382*** (0.0142)	0.0220 (0.0175)
ln(countries)	0.0734*** (0.00665)	0.0265*** (0.00872)	0.0696*** (0.00707)	0.0370*** (0.00797)
ln(products)	0.0450*** (0.00469)	0.0216*** (0.00558)	0.0409*** (0.00515)	0.0169*** (0.00548)
ln(exports/prod.*countries)	0.0488*** (0.00289)	0.0518*** (0.00294)	0.0580*** (0.00345)	0.0294*** (0.00330)
ln(countries*products)		0.0267*** (0.00326)		
L.ln(countries*products)			0.00739*** (0.00191)	0.00728*** (0.00213)
Constant	0.869 (0.939)	0.770 (0.934)	4.503 (3.822)	1.273 (0.892)
Observations	36,950	36,950	29,720	26,650
R-squared	0.965	0.965	0.969	0.967
Year FE	YES	YES	YES	YES
Industry FE	YES	YES	YES	YES
Firm FE	YES	YES	YES	YES

Notes: The variables ln(wage), ln(L) and ln(K) are interacted with 23 industry dummies and resulting in industry specific elasticities, which are included in the regression but not reported. Robust standard errors in parentheses. *** p<0.01, ** p<0.05, * p<0.1. In regression 4, the variables ln(products), ln(countries), ln(exports/products*countries), ln(products*countries), L.ln(products*countries), iFDI and oFDI are additionally lagged by one period to exclude possible endogeneity.