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THE INTERNATIONALIZATION OF SMALL AND MEDIUM-SIZED FIRMS: THE ROLE OF ORGANIZATIONAL LEARNING EFFORT AND ENTREPRENEURIAL ORIENTATION

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ABSTRACT

This paper contributes to the existing research by integrating the notions of organizational learning and entrepreneurial orientation into the body of international entrepreneurship. Our primary framework combines learning theory and the new venture theory of internationalization to study the extent to which small and medium-sized companies engage in international activities. In order to focus on firms likely to engage in significant cross-border activity, we used a survey instrument to collect data from small and medium-sized firms located in Belgium. We found that the firms' international learning effort and entrepreneurial orientation are positively associated with internationalization intent whereas domestic learning effort is negatively related with internationalization intent. Overall, our results suggest (1) that intensive knowledge renewal and exploitation regarding foreign markets and the internationalization process itself may increase internationalization by affecting the perceptions of opportunities offered by further international expansion, and (2) that firms with an entrepreneurial mindset may be more likely to develop a long-term, substantial presence in the international arena, compared to firms that are more reactive or conservative. However, our results also suggest that firms that invest in domestic learning activities, as opposed to international learning activities, may be less likely to internationalize further.

INTRODUCTION

Previous researchers have examined why firms internationalize and at what pace they engage in cross-border activities (Berra, Piatti, and Vitali, 1994; Caloff and Viviers 1995; Crick, Chaudhry, and Batstone, 2001; Johanson and Vahlne 1977; Johanson and Vahlne 1990). Also, prior research has examined the impact of learning-oriented factors in explaining a firm's commitment to international activities (Ogbuehi and Longfellow 1994; Autio, Sapienza, and Almeida 2000; Burpitt and Rondinelli 2000). For instance, Burpitt and Rondinelli (2000) found that firms may be more likely to increase their exporting activities when they consider the amount of learning resulting from international activities as being highly valuable. In this study, we partly rely on the behavioral view of the firm to further examine learning-based antecedents of a firm's internationalization intent (Cyert and March 1963).

The behavioral view of internationalization focuses on the impact of international experience on the pace and direction of subsequent internationalization (Johanson and Vahlne 1977). An important theme in the behavioral view is the role of organizational knowledge in the internationalization process. In this study we use organizational learning theory for examining a firm's propensity to invest in future cross-border activities (Cohen and Levinthal 1990; Autio, Sapienza, and Almeida 2000). Whereas prior research has often operationalized a firm's degree of internationalization as its level of export (for example, Campbell 1996; Crick, Chaudry and Batsone 2001), we define "internationalization intent" as a firm's propensity to expand its cross-border activities in terms of the intensity (for example, level of export) and the scope (for example, number of countries to which the firm exports) of such activities. One contribution of our study lies in our creating a measure for organizational learning effort as an antecedent of internationalization intent. We define organizational learning effort as activities aimed at exploiting existing knowledge and exploring new knowledge with regard to domestic and foreign markets.

Some researchers have criticized the behavioral view for over-emphasizing the impact of organizational experience on internationalization efforts (Aharoni 1966). That is, it has been argued that Johanson and Vahlne's framework does not explain why some firms engage in cross-border activities early on or why they proceed rapidly once first internationalization has taken place. For instance, McDougall, Shane, and Oviatt (1994) argued that firms may internationalize early because a top management team with previous international experience may be willing and able to pursue new combinations of key resources across national borders early on in the firm's existence. In short, some researchers have recognized more explicitly the role of a firm's strategic choice and entrepreneurial character in the decision to enter the international arena. (Child 1972; McDougall and Oviatt 2000). This recent stream of research, the new venture theory of internationalization, examines how competencies influence a firm's strategic choice to engage in cross-border activities (McDougall 1989; McDougall and Oviatt 2000).

Our primary framework combines learning theory, with its roots in the behavioral theory of the firm, and the new venture theory of internationalization (Cyert and March 1963; Cohen and Levinthal 1990; McDougall and Oviatt 2000). First, we look explicitly at how knowledge development and renewal with regard to foreign and domestic activities may have an impact on perceptions about the opportunities offered by further internationalization. Second, we examine the effect of entrepreneurial orientation on a firm's internationalization intent. We draw our analysis on small Belgian firms that have engaged in cross-border activity. As with prior research on firm internationalization in small European countries (Johanson and Vahlne 1977; Autio, Sapienza, and Almeida 2000), Belgium provides an interesting setting in which to examine internationalization in that cross-border activity is often a necessity given the limited domestic market size, yet many firms still avoid starting or expanding international activities for a significant period of time (Eriksson, Johanson, Majkgård, and Sharma 1997; Autio, Sapienza, and Almeida 2000).

THEORETICAL FRAMEWORK AND HYPOTHESES

As mentioned earlier, the behavioral theory of internationalization assumes that international expansion can be described as a process in which the firm goes through incremental steps that reduce the uncertainty embedded in cross-border activity (Aharoni 1966; Prasad, 1999). Basing their arguments on the experience of Swedish companies, Johanson and Vahlne (1977; 1990) explained both the pace and direction of subsequent international activities. For instance, they argued that a firm might change gradually the nature of its activities *within* a foreign country, that is, from only export to fully-owned overseas production investments, as well as *across* countries by expanding over time to countries that are more physically and culturally distant. Similarly, Calof and Viviers (1995) found that Canadian and South African firms preferred to gradually learn about the international arena by entering first markets that are perceived to be less risky – that is, being geographically and culturally close to the domestic market – before entering “more risky” distant markets. In short, the behavioral approach towards internationalization focuses on a firm’s gradually increasing international involvement through a series of incremental steps. An important driver for increasing international commitment is the development of knowledge relevant to foreign markets. In this study we argue that prior research in organizational learning theory may provide a good framework for explaining in detail how activities aimed at knowledge development and renewal may foster cross-border activity.

We posit that organizational learning effort pertains to activities aimed at both building on existing knowledge and developing new knowledge (Cohen and Levinthal 1990). This description of learning effort is consistent with prior research that argued that organizational learning includes two modes, that is, exploitation and exploration (Levinthal and March 1993). Exploration involves the search for new knowledge, skills and processes, whereas exploitation involves the incremental improvement of existing knowledge, skills and processes. Levinthal and March (1993) indicated that exploitation by itself may not be sufficient in the long run to maintain a competitive advantage, since the environment in which an organization operates changes over time. Therefore, we conceptualize organizational learning effort as the extent of effort to both exploit existing knowledge and to explore for new knowledge. Such effort may be aimed at learning inside home country borders (that is, domestic learning effort) or outside these borders (that is, international learning effort).

We hypothesize that international learning effort has a positive impact on a firm’s propensity to expand cross-border activity. Several arguments may be given for such positive relationship. First, when firms get more comfortable with the particular situations encountered in foreign markets, the uncertainty related to further increasing the intensity and scope of international activities may diminish. Eriksson, Johanson, Majkgård, and Sharma (1997) posited that, over time, knowledge about foreign markets may reduce perceptions of the cost of further internationalization, which may lead to more intense commitment to those markets.

Also, in their study on how U.S. small firms perceive export activities, Ogbuehi and Longfellow (1994) suggested that as firms get more information regarding foreign markets through accumulated export experience, they become more committed to engage in further export activities and emphasize more the importance of company growth.

Second, the more knowledge a firm has gained through intensive learning efforts, the more willing it will be to utilize and exploit this knowledge through subsequent international activity. In other words, the more intensively a firm engages in activities aimed at updating its current knowledge base with regard to foreign markets, the greater its store of foreign market knowledge will be, so that the return from acting upon new foreign investment opportunities is enhanced. Also, more intense, repetitive processing of foreign market knowledge may improve the efficiency of information retrieval in new but similar international environments, and therefore increase the propensity to expand cross-border activity (Cohen and Levinthal 1990; Autio, Sapienza, and Almeida 2000). Therefore, we present the following hypothesis:

> Hypothesis 1: A firm's international learning effort is positively related to its internationalization intent.

Few researchers have examined how a firm's overall learning orientation affects its willingness to further internationalize. We argued that international learning effort should increase a firm's propensity to further invest in cross-border activities. In order to examine the impact on future internationalization of how much emphasis a firm places on learning activities in general, we also examined the effects of *domestic* learning effort on a firm's internationalization intent. We suggest a positive relationship between domestic learning effort and the propensity to internationalize further. The arguments are similar to the rationale given for the first hypothesis.

First, as firms intensively engage in learning activities with regard to the domestic market, the uncertainty embedded in further internationalization may decrease. That is, a firm that spends significant time in updating its knowledge base with regard to competitors in the domestic market or domestic regulations, may take on a "learning attitude," which involves a continuous search about how to adapt to novel situations. In other words, by emphasizing domestic learning activities, the firm may indirectly become more knowledgeable and confident about how to learn from its current and potential stakeholders (for example, personnel, customers or suppliers) in the domestic market. This confidence may decrease the uncertainty embedded in further international expansion, especially when potential employees, customers, and suppliers in new foreign markets share business and/or cultural characteristics with those encountered in domestic activity.

Second, we argue that knowledge obtained from domestic learning may increase the potential return from increased future cross-border activity, and therefore increase the propensity to engage in such activity. In other words, we believe that as firms acquire knowledge in their domestic market, their knowledge base may expand such that it provides the firm with better insights into how to leverage future cross-border activities. For instance, when a domestic retail chain becomes more experienced in expanding its domestic activities through the creation of multiple stores in a short period of time, ideas relevant to solving international issues such as how to start-up and manage a new local distribution network in a foreign country may become more accessible to the firm, and the expected success of international activities may increase. Thus, we hypothesize:

> Hypothesis 2: A firm's domestic learning effort is positively related to its internationalization intent.

In contrast to the behavioral view which focuses on the impact of organizational experience and knowledge on a firms' internationalization intent, the new venture theory of internationalization focuses on the role of firms' competencies in driving future cross-border activity. This theory builds upon the strategic choice view of organizational decision making as it focuses on the firm's pursuit of specific goals as an important motive for the pace and direction of internationalization (Child 1972). More specifically, a firm may decide to increase its international activities when this strategic action is consistent with the resources and capabilities available to the firm (Barney 1991; Baird, Lyles, and Orris 1994). Also, prior research has suggested that a firm's strategic direction may have firms skip or compress stages in the internalization process and contribute to the decision to rapidly increase the scope of foreign activities (Sullivan and Bauerschmidt 1990; Wolff and Pett 2000).

We extend the new venture theory of internationalization by examining the effects of entrepreneurial orientation on a firm's intent to further expand its cross-border activities. Consistent with prior research, we define entrepreneurial orientation as the combined level of a firm's innovation, proactiveness, and risk-seeking (Miller 1983; Lumpkin and Dess 1996). We argue that a firm's entrepreneurial orientation will affect plans for extending internationalization. More specifically, we posit that firms that are higher in entrepreneurial orientation have a higher propensity to expand their cross-border activities in terms of the scope of their foreign markets or the intensity of activities within a foreign market.

First, in contrast to the behavioral view of internationalization, the notion of entrepreneurial orientation suggests that some firms are more willing than others to continually search for opportunities and solutions outside the realm of their current activities (McDougall, Shane, and Oviatt, 1994; Lumpkin and Dess 1996). Decisions with regard to international expansion imply a high level of uncertainty as the firms enter physically or culturally distant markets or become more dependent on revenues generated in markets different from the more familiar domestic market (Calof and Viviers 1995). Since firms high in entrepreneurial orientation are willing to undertake *risky* decisions (Miller 1983; Lumpkin and Dess 1996), they may more readily accept the uncertainty embedded in further increasing cross-border activity. Furthermore, we argue that the perceived uncertainty in foreign markets may be overcome by exchanging information with organizations who are more familiar with the specific local context (Acs, Morck, Shaver, and Yeung, 1997; Zaheer and Mosakowski 1997). Therefore, when a firm *proactively* seeks for additional foreign suppliers, customers, and alliance partners (e.g., existing multinationals) in a given country, a firm may overcome the uncertainty that arises when increasing the intensity of its activities in that market.

Second, we argue that, all else being equal, firms high in entrepreneurial orientation are a in better position to take advantage of additional foreign opportunities, and therefore will be more willing to act upon such opportunities. For instance, the notion of *proactiveness* reflects the firm's propensity to undertake a continuous search for opportunities, especially opportunities that do not pertain to the firm's current activities. Therefore, a proactive firm may monitor environmental changes in a variety of countries on a frequent basis, even if it has not undertaken any formal business transactions in those countries yet or does not intend to do so in the short term (Lumpkin and Dess 1996). However, when environmental changes beneficial to a firm's (increased) activities in those countries do arise (for example, the legal restrictions on foreign direct investment become much more flexible), such a firm may be confident that it can leverage the knowledge gained from its prior screening activities and, therefore, decide to expand its cross-border activities. Similarly, the degree of *innovative* activity may also increase the firm's potential to leverage its existing capabilities by increasing the intensity of its activities in current foreign markets or by entering new foreign markets. For instance, a firm that has spent significant effort in R&D-related activities may be more willing to enter additional overseas markets as a means of leveraging its knowledge. In summary, the above arguments lead to the following hypothesis:

> Hypothesis 3: A firm's entrepreneurial orientation is positively related to its internationalization intent.

METHODOLOGY

Sample and data collection

The sample in our study was drawn from a database maintained by the Center of Entrepreneurship at the Vlerick Leuven Gent Management School in Belgium. The sample includes firms that are independent (that is, they are not subunits of a large organization) and owner-managed. We considered only firms with fewer than 500 employees to be included in the study, a figure consistent with Seringaus (1993) and Moini (1995) for the definition of small and medium-sized enterprises. In the Spring of 2000, we collected the data based on surveys mailed to the owners or top executives of 500 firms randomly selected from the database; we received 92 completed surveys, which represents a response rate of 18% (the survey items appear in the Appendix). In order to test for possible non-response bias, early respondents were compared with late respondents, as it has been suggested that late respondents, especially after follow-up, may be relatively similar to non-respondents (Armstrong and Overton 1977; Churchill 1991). We found no statistically significant differences between early and late respondents for the variables under study. In addition to the survey data, we also undertook exploratory interviews with some of the respondents in order to facilitate the interpretation of the quantitative results (see discussion section). Finally, we also collected sales data for 1999 from a database maintained by the National Bank of Belgium.

Measures

Internationalization intent (dependent variable): We measured the firm's internationalization intent through a multi-dimensional approach (Sullivan 1994; Fisher and Reuber 1997). We asked the respondents to mention their firm's *projected* degree of internationalization in 2004 for three dimensions; that is, (1) foreign sales as a percentage of total sales, (2) the percentage of employees that spend a significant part of their time on international activities, and (3) the geographic scope of foreign sales. For the last dimension, we calculated a single, weighted score for each respondent by counting the categories (each of 12 representing one country or a group of countries) in which the firm *projected* to realize foreign sales. Weights assigned to the categories represented the geographic and cultural distance from the firm's domestic market: a weight of "one" was assigned to the five countries bordering Belgium (including the United Kingdom), "two" to other countries within the European Union, "three" to other European countries and North America, and "four" to other countries. Because the measurement scales were different for the various dimensions, the items were standardized, then averaged. The Cronbach's alpha for this measure was .78.

International learning effort (independent variable): Consistent with prior research (Eriksson, Johanson, Majkgård, and Sharma 1997), we measured learning effort in foreign markets via items asking to what extent the firm engages in efforts to *exploit* general international procedures and systems (that is, two items regarding internal procedures and reward systems were used) and specific factors in its most significant foreign market (that is, four items regarding local competitors, competitive agreements, legislation, and business norms were used). Six parallel items focused on efforts to *explore* general international procedures and systems and specific factors in the most significant market. Factor analysis indicated that the two subscales could be combined into a single international learning scale (with an alpha of .85). On a scale from one to five, responses ranged from 1 to 4.50 with a mean of 2.84 (see Table I). To examine convergent validity, we conducted a confirmatory factor analysis of the 12 items. All items but one had a factor loading higher than .35 thereby demonstrating good convergent validity (Saxe and Weitz 1982).

Domestic learning effort (independent variable): For the sake of comparability, we measured domestic learning effort in a manner consistent with our operationalization of international learning effort. We employed similar activities to assess domestic exploitation and exploration as in the international setting. Again, factor analysis indicated that the exploitation and exploration items could be productively combined into a single domestic learning scale (with an alpha of .92). On a scale from one to five, responses ranged from 1 to 4.75 with a mean of 3.10 (see Table I). Confirmatory factor analysis revealed that all 12 "domestic" items had factor loadings higher than .35, demonstrating good convergent validity.

Entrepreneurial orientation (independent variable): We used the five-item scale developed and validated by Miller (1983) to gauge a firm's entrepreneurial orientation. The items capture the firm's innovation, proactiveness, and risk taking. This measure had a Cronbach's alpha of .65, which is marginally lower than the cut-off value of .70 suggested by Nunally (1978). However, researchers in entrepreneurship have argued that the construct "entrepreneurial orientation" is made up of dimensions that do not always covary (Lumpkin and Dess 1996); thus, the result we got on this measure is to be expected. On a scale from one to five, responses ranged from 1.71 to 5.00 with a mean of 3.22 (see Table I).

Insert Table I About Here

Current degree of internationalization (control variable): We also controlled for a firm's *current* degree of internationalization as our model intends to capture a change in international commitment, that is, the propensity to further expand cross-border activities given the current level of these activities. We operationalized current degree of internationalization (that is, pertaining to the year 1999) similarly to internationalization intent. The Cronbach's alpha for this measure was .81.

Current sales volume (control variable): We included the firm's total current sales as a control variable in our model. The behavioral theory suggests that performance level or past success may diminish risky strategic actions, such as expansion of international activities (Cyert and March 1963). Firms' sales (calculated in Euro) in 1999 may be seen as a proxy of firms' relative market power or accumulated success.

Industry (control variable): We also controlled for industry sector since firms in certain industries may be more inclined to internationalize than in other industries based on, for example, the level of domestic and global competition within the industry, or the extent to which the product can or needs to be adapted to foreign markets. We assigned the firms to seven categories corresponding with seven SIC divisions (agriculture, construction, manufacturing, transportation, wholesale trade, retail trade, and service). The different industries were coded with dummy variables.

RESULTS

An analysis of the bivariate correlation coefficients provides some interesting results (Table I). First, international learning effort and domestic learning effort are strongly positively correlated, which indicates that learning activities pertaining to international versus domestic markets are complementary rather than substitute activities. Second, for both the foreign and domestic markets, organizational learning effort is positively correlated with entrepreneurial orientation; this suggests that firms that are proactive and willing to take risks invest much energy in activities aimed at learning about new and existing markets.

All hypotheses were tested using multiple regression analysis. The results are summarized in Table II. We found strong support for Hypothesis 1: the relationship between international learning effort and internationalization intent is positive and significant. We found no support for Hypothesis 2. In fact, we found a weak but *negative* relationship between domestic learning effort and internationalization intent. Finally, we found support for Hypothesis 3: all else being equal, firms with a high entrepreneurial orientation are more likely to further internationalize than firms low in entrepreneurial orientation.

Insert Table II About Here

The inclusion of the control variables provided the following results. First, and not surprisingly, we find that firms that have already a high degree of internationalization are more willing to further engage in international activities compared to firms that have been less international so far. We also regressed a difference score for degree of internationalization (that is, internationalization intent minus current degree of internationalization) against our independent variables and control variables. The nature of the results was similar to the findings reported in Table II. Second, we found a mildly negative relationship between a firm's sales volume and internationalization intent. Finally, we found no significant relationships between the industry group and internationalization intent.

DISCUSSION

The positive relationship between international learning effort and internationalization intent indicates that efforts aimed explicitly at knowledge renewal and exploitation with regard to specific foreign markets and the internationalization process in general increase the propensity to expand cross-border activities. As mentioned earlier, the rationale for this positive relationship may lie in the role of foreign knowledge in diminishing the uncertainty embedded in international expansion, or in increasing the willingness to leverage this knowledge in additional cross-border activities. The quantitative support for this relationship was also confirmed by the exploratory interviews with some of the sampled firms. For instance, Sarens, a firm active in renting and selling movable cranes for the construction sector, had developed deep organizational knowledge with regard to safety regulations and planning of construction projects in countries that were geographically close to the domestic market. This knowledge motivated the firm, then, in further competing for large-scale projects worldwide; that is, even for unknown distant countries, the firm's top management believed that the specific knowledge of individual workers and the organizational know-how was strong enough to bring such projects to a successful end.

We extended prior research that examined the effect of learning on future international activities (for example, Caloff and Viviers 1995; Burpitt and Rondinelli 2000) by examining the combined effect on the intent to further internationalize of learning activities undertaken in foreign markets *and* in the domestic market. Interestingly, we observed no support for the hypothesis that domestic learning effort is positively related to plans to increase international activities. As may be observed in Table II, we found that the relationship between a firm's domestic learning effort and its internationalization intent is mildly significant but in the opposite direction as hypothesized. One possible explanation for this finding is that cross-border activity asks for information specifically related to the foreign market or the internationalization process; that is, knowledge renewal and development in the domestic market may be too "general" to reduce uncertainty associated with overseas investments. Another explanation is that organizations are boundedly rational; that is, their ability to process information efficiently is limited (March & Simon, 1958). More specifically, even if the willingness to undertake future international activities depends in part on intense and repetitive processing of knowledge pertaining to both the foreign and domestic markets, the knowledge gained from activities in the domestic market may require more time to be assimilated in order to be useful for future internationalization. However, the interesting aspect of our results is that the level of domestic learning effort was found to have a negative rather than neutral effect on the intent to further internationalize. In other words, we found that too much of a focus on learning aimed at the domestic market may actually diminish the firm's attention to future internalization possibilities.

Our results regarding the positive relationship between entrepreneurial orientation and internationalization intent complements prior research that looked at the effect of a firm's entrepreneurial character on organizational performance (Lumpkin and Dess 1996). In this study we argued that entrepreneurial orientation may reflect the firm's strategic choice to further expand cross-border activities, all else being equal. In other words, substantial and successful presence in foreign markets may partly depend on a firm's moving proactively into new markets or taking on an innovative and risk-seeking posture. The bias-for-action that is suggested within an entrepreneurial orientation may help overcome the general reluctance to change associated with cross-border activities (Aldrich 1979) as well as stimulate the willingness to build partnerships with existing international players (Acs, et al., 1997). Consequently, entrepreneurially-oriented firms may experiment more freely and thereby be more willing to adopt an "international orientation." Our exploratory interviews also provided support for the positive effect of entrepreneurial orientation on future internationalization. For instance, Arplama, a family-owned domestic supplier of accessories to car manufacturers underwent a drastic change when the firm's management came under control of the second generation.

Specifically, the firm's focus changed from being a domestic niche player with only limited international activities to becoming an innovative company with strong international growth objectives. As a result, the more "entrepreneurial" second generation management changed the firm's scope from being mainly a local supplier towards being a global player with production units in both Belgium and Germany and sales units in various countries including the US.

Further, we found that a firm's current sales volume is negatively related to its internationalization intent. This finding is somewhat surprising because one could expect that a higher level of (financial) resources may enhance a firm's capability to overcome the costs related to future international activities (Barney 1991; Baird, Lyles, and Orris 1994). Also, prior research has argued that beyond learning motives, economic factors such as the financial success of a firm's prior international experience are important for explaining the propensity of small firms to continue exporting. One explanation for our results regarding the role of sales volume may be found in the behavioral theory of the firm (Cyert & March 1963), in that this theory posits that firms avoid uncertainty unless certain shortfalls (such as lack of market power) motivate intensive search activities. In other words, firms with stronger sales may be less likely to undertake searches for new risky strategic actions. (Cyert & March 1963; Miller & Leiblein 1996). On the other hand, firms lagging in sales or market power may be more willing to take the risks of investing in expanding foreign operations (Cyert & March 1963).

Finally, we did not find significant effects for any of the industry variables. This may be surprising since one could expect that some industries are characterized by "more internationalization" compared to other industries. One of the possible reasons for our results is that since we had 92 cases and 7 industries (and therefore about 13 observations on average per industry), the statistical power to detect a difference from such a small number was quite low. Perhaps more importantly, we were looking to explain the *change* in internationalization extent in each of these industries – that is, we predicted internationalization intent while controlling for current degree of internationalization. We could therefore expect to see few effects of industry on the amount of change in internationalization (i.e. when predicting internationalization intent and controlling for current degree of internationalization) but rather to find correlations between industry and the *absolute* extent of internationalization.

Additional analyses indeed showed a positive correlation between internationalization intent and the manufacturing industry category ($r = .35$; $p < .001$) and a negative correlation between internationalization intent and the retail trade ($r = -.23$; $p < .05$) and service ($r = -.22$; $p < .05$) industry categories.

CONCLUSION

The results of this study may clarify the factors leading to or inhibiting additional international activity among small firms in an economy with limited domestic opportunities for growth. Our results suggest that intensive knowledge renewal and exploitation regarding foreign markets and the internationalization process itself may increase internationalization by affecting the perceptions of opportunities offered by further international expansion. Also, firms that engage in radical innovation, undertake bold, aggressive actions, or are willing to assume risks, may be more likely to develop a long-term, substantial presence in the international arena, compared to firms that are more reactive or conservative. Finally, our results suggest that international and domestic learning activities are complementary: they tend to covary, and they tend to be related in the same ways with entrepreneurial orientation; however, our results also suggest that firms that invest in domestic learning activities, as opposed to international learning activities, may be less likely to internationalize further; this may ultimately hamper firm success in the long term

We acknowledge that our study has some limitations that need to be taken into account when interpreting the results. Given the lack of public data on virtually all of the key variables, we relied mostly on self-reported data. Although many of our constructs may perhaps best be measured by a survey instrument, outside proxies for organizational learning effort and entrepreneurial orientation could complement our data and need to be pursued whenever possible. Further, obtaining information from multiple respondents for each firm could have helped to demonstrate the validity of the data. In order to guard against some of these limitations, we used previously validated scales wherever possible (for example, entrepreneurial orientation, internationalization intent). In terms of the external validity of our study, our narrow focus on one small country, Belgium, calls into question the applicability of our results to other domains. However, we have no reason to believe that the principles upon which the theory for our hypotheses were built should operate any more fully in Belgium than in other moderate-sized countries. Finally, one could argue that our results, despite the relatively small sample size, attests to the robustness of the obtained results, in that they made the statistical tests used in this study conservative.

Future researchers may examine the process through which entrepreneurial orientation helps to overcome organizational fear of intensive cross-border activity. Further, the factors which cause highly entrepreneurial firms to fail in foreign markets could be studied. Although we emphasized the beneficial effects of entrepreneurial actions, such actions often fail. Future research should include both surviving and non-surviving firms. For instance, one could examine whether the pitfalls for firms with an entrepreneurial orientation are the same as they are for firms that proceed cautiously and incrementally. Finally, the inclusion of firm performance as an outcome variable would be interesting; that is, when and how is learning actually converted to competitive advantage and what factors might inhibit such conversion in foreign markets is an interesting area for future research efforts.

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TABLE I

Variable means, standard deviations, ranges, coefficients alpha, and correlations (with p-values) among the variables

	1	2	3	4	5	6
1. International learning effort						
2. Domestic learning effort	.523**					
3. Entrepreneurial orientation	.379**	.301**				
4. Current degree of internationalization	.265*	-.125	.058			
5. Current sales volume	.119	-.017	.290	.382*		
6. Internationalization intent	.327**	-.099	.137	.901**	.257	
Mean	2.84	3.10	3.22	.00	32,637	.00
Standard deviation	.68	.80	.59	.85	69,758	.83
Minimum	1.00	1.00	1.71	-.99	364	-1.09
Maximum	4.50	4.75	5.00	2.07	334,089	1.92
Alpha	.85	.92	.65	.81	-	.78

** p = .01, * p = .05; two-tailed tests.

TABLE II

Regression results

Dependent variable →	Internationalization intent
H1: International learning effort	.119**
H2: Domestic learning effort	-.076*
H3: Entrepreneurial orientation	.077*
Current degree of internationalization	.858***
Current sales volume	-.072*
Construction (SIC division C)[1]	-.051
Manufacturing (SIC division D)[1]	-.037
Transportation (SIC division E)[1]	-.044
Wholesale trade (SIC division F)[1]	.005
Retail trade (SIC division G)[1]	-.054
Service (SIC division I)[1]	-.030
Adjusted R^2	.812
F-value (11,80)	36.63**

*** p = .01; ** p = .05, * p = .10; one-tailed tests.
[1]The base industry is Agriculture, forestry and fishing (SIC division A)

APPENDIX[1]

Internationalization intent. Please give the following information regarding your international activities as you envision them in 2004:

1. Total revenues ________; Revenues outside Belgium ______.
2. Percentage of employees who spend significant time in activities pertaining to international markets: _____%.
3. Which of the following (groups of) countries will belong to your international markets (Netherlands, Luxembourg, France, Germany, UK, Other EU countries, Other countries outside the EU, North-America, South-America, Asia, Africa, Australia)? Please circle all those that are appropriate.

International learning effort. Please indicate the extent to which your firm undertakes significant effort in:

1. Exploiting current internal procedures regarding your international activities.
2. Exploiting current reward systems regarding your international activities.
3. Developing new internal procedures regarding your international activities.
4. Developing new reward systems regarding your international activities.

For your most important foreign market, please indicate the extent to which your firm undertakes significant effort in:

1. Exploiting current knowledge regarding local competitors.
2. Exploiting current knowledge regarding local cooperative agreements in your industry.
3. Exploiting current knowledge regarding local laws that affect your business.
4. Exploiting current knowledge regarding local business norms in your industry.
5. Developing new knowledge regarding local competitors.
6. Developing new knowledge regarding local cooperative agreements in your industry.
7. Developing new knowledge regarding local laws that affect your business.
8. Developing new knowledge regarding local business norms in your industry.

Domestic learning effort. Please indicate the extent to which your firm undertakes significant effort in:

1. Exploiting current internal procedures for managing the domestic market.
2. Exploiting current reward systems regarding your domestic activities.
3. Exploiting current knowledge regarding domestic competitors.
4. Exploiting current knowledge regarding domestic cooperative agreements in your industry.
5. Exploiting current knowledge regarding domestic laws that affect your business.
6. Exploiting current knowledge regarding domestic business norms in your industry.
7. Developing new internal procedures for managing the domestic market.
8. Developing new reward systems regarding your domestic activities.
9. Developing new knowledge regarding domestic competitors.
10. Developing new knowledge regarding domestic cooperative agreements in your industry.
11. Developing new knowledge regarding domestic laws that affect your business.
12. Developing new knowledge regarding domestic business norms in your industry.

[1] The learning effort items and the entrepreneurial orientation items were all on one-to-five scales.

Entrepreneurial orientation. Please indicate the extent to which the following characterizes your firm's activities:

1. Our firm spends more time on long term R&D (3+ years) than on short term R&D.
2. Our firm is usually among the first to introduce new products in the industry.
3. Our firm rewards taking calculated risks.
4. Our firm shows a great deal of tolerance for high-risk projects.
5. Our firm uses only “tried and true” procedures, systems, or methods.
6. Our firm challenges, rather than responds to its major competitors.
7. Our firm takes bold, wide-ranging strategic actions rather than minor changes in tactics.

Current degree of internationalization. Please give the following information regarding your international activities in 1999:

1. Total revenues ________; Revenues outside Belgium ______.
2. Percentage of employees who spent significant time in activities pertaining to international markets: _____%.
3. Which of the following (groups of) countries belonged to your international markets (Netherlands, Luxembourg, France, Germany, UK, Other EU countries, Other countries outside the EU, North-America, South-America, Asia, Africa, Australia)? Please circle all those that are appropriate.