

EXPLORING THE RELATION BETWEEN INTERNATIONAL EXPERIENCE AND CROSS-BORDERS INNOVATION COLLABORATION: CASE OF SMEs FROM ADRIATIC REGIONS OF ITALY¹

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1. Introduction

For many decades the smallness of Italian firms had been perceived as a “trademark” to be proud of, especially in Italian North-Eastern and Central regions (Becattini, 1979; Brusco *et al.*, 1981; Fuà & Zacchia, 1983; Piore & Sabel, 1984). Although already in the past a criticism to such “model of capitalism” had started (see a review of Italian capitalism in: Barca, 1997), it has increased only as a result of the economic crisis. Over the last years the Italian SMEs, as well as those from other Southern European countries, have faced severe problems for growth: the drop in the domestic market sales together with the credit crunch have affected the performance and also the survival of many SMEs (Costa & Margani, 2009; Monducci *et al.*, 2010); other SMEs have been acquired by larger firms and multinationals (also from emerging countries, see: Pietrobelli *et al.*, 2011). As it often happens, the crisis has been interpreted by some Italian firms as a forced opportunity to change and look for new markets. Therefore, expanding to external markets outside the home country has been perceived as an enabler for the continuation of SMEs growth (Majocchi & Zucchella, 2003). However, “which markets” can be regarded as an enabler for the Italian SMEs expansion, is still a question to be studied (Paoloni *et al.*, 2005).

In the internationalization process, SMEs suffer from two liabilities more than larger firms: the liability of foreignness and liability of smallness (Freeman *et al.*, 1983). While the latter is related to all SMEs and will hinder in particular their innovation activities, the former is a barrier for their success in the international markets. Extant literature acknowledges that the ability of SMEs to overcome the liability of foreignness is related to the acquisition of experiential market knowledge that allows SMEs to understand the causal linkages between actions and outcomes within the inter-

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national environment (Johanson & Vahlne, 1977; Johanson & Wiedersheim, 1975; Majocchi *et al.*, 2005). Within this learning perspective, international experience can be considered as the result of prior managerial decisions with regard to selection of markets (scope), and dependence on foreign markets (intensity) (Lages *et al.*, 2008).

On the other hand, SMEs often have to compensate for internal resource deficiencies (Hewitt-Dundas, 2006) emanating from their liability of smallness (Freeman *et al.*, 1983) by seeking external resources both at the home location but also across the national boundaries (Colombo *et al.*, 2012; Lasagni, 2012; Muscio, 2007). While not limited to SMEs, previous research has highlighted the positive impact of external sourcing of knowledge across the firm boundaries for firm innovation (Laursen & Salter, 2006; Pagano, 2009). In this regard, more recent evidence also shows that while external sourcing of knowledge is crucial, there is a higher benefit from collaborating with actors (suppliers, customers, competitors, universities etc.) that are also geographically distant (Fitjar & Rodríguez-Pose, 2012). Recent work has also shown that a more specific international collaboration – that is in R&D and innovation with foreign counterparts – has a positive impact on SMEs performance (Ebersberger & Herstad, 2013; Hottenrott & Lopes-Bento, 2014). In this regard, the learning by exporting research (Cassiman & Golovko, 2010; Golovko & Valentini, 2011) have particularly recognized the knowledge that can be acquired as a subsequence of exporting in new markets.

While both views on learning from and for exporting are complementarity, their crossing impact measured through international growth is an effect still to be studied. Our paper aims at providing an understanding of the combinative effect of cross-border collaboration for innovation and international experience on international sales growth.

In dealing with the research questions, this paper draws upon unique firm level survey data collected in 2014 across the Adriatic regions of Italy. This is an interesting case as on one hand it represents an economy made of SMEs that are trying to survive and on the other hand, they have a vast border with the “new” emerging markets defined as those countries from South-East Europe across the Adriatic.

The paper is structured as follows. In the next section, we provide the background and literature review. In section 3, we present the data on which the analysis is based. Section 4 contains the main results, and we conclude the paper with a discussion and suggestions for further research.

2. Literature review

It is widely accepted that exporting firms as compared to non-exporting firms are superior in terms of productivity, capital intensity, wages and size (Damijan *et al.*, 2010). In international business literature, internationalization process of Small and Medium Enterprises (SMEs) is widely considered as an incremental process that relies on an increasing experiential knowledge (Chetty *et al.*, 2006; Johanson & Vahlne, 1977). Internationalization is an important means of learning by doing (Zahra *et al.*, 2000) and exporting firm's growth gravitates around its cumulative experience, in terms of exposure to and direct involvement with customers in international markets (Zahra *et al.*, 2000). Experiential knowledge provides a vehicle for acquiring knowledge of external opportunities and internal capabilities. The knowledge about markets and international operations generated by international experience (Eriksson *et al.*, 1997) can be used by managers to define gradual adjustments and take new decisions on current and future international activities (Lages *et al.*, 2008; Özsoy & Gençtürk, 2003). In this regards, Gankema *et al.* (2000 p.16) stated that internationalization consists in "a gradual acquisition, integration and use of knowledge about foreign markets and operations and a [...] successively increasing commitment to foreign markets".

The persistence of international operations is also a crucial point. It is a long acknowledged fact, that exporting in itself has a positive impact on further internationalization of firms (Johanson & Vahlne, 1977; Johanson & Wiedersheim, 1975). By increasing their experience in international operations and management, firms progressively sharpen their ability to recognize, seize and capture new market opportunities abroad (Eriksson *et al.*, 1997; Hilmersson & Jansson, 2012).

2.1 Learning from exporting: the innovation impact

There is little doubt about the fact that the internationalization of the firm can exert a significant influence on its innovation process. Indeed, through entering new markets, firms can understand better foreign markets characteristics as well as specificities of local demand. That, in turn, is expected to impact the innovation strategies of the firm. First and foremost, the product innovation strategies, through the adaptation of the firm's offering (Theodosiou & Leonidou, 2003). However, the literature has found impact well beyond the product dimension. For example, Bortoluzzi *et al.* (2015) found that western firms entering emerging markets, significantly innovate their distribution strategies and that, in turn, the learning process provoked by these activities can provide beneficial outcomes also to the organization of the distribution in more advanced markets.

Using Slovenian data from medium and large firms, Damijan *et al.* (2010) show that exporting leads to productivity improvements, furthermore exporting increases the probability of becoming a process- rather than product-innovator. Sousa *et al.* (2008) have been looking at the relationship between price adaptation (a side of innovation) and export performance.

Finally, the complementarities between innovation and exporting have been further explored by Golovko & Valentini (2011) whose study reveal that innovation and export are in fact complementary strategies for the SMEs' growth.

In more general terms, studies adopting a "learning by exporting" lenses have highlighted the positive impact that internationalization through exporting has on the learning outcomes of the firm and on innovation (Cassiman & Golovko, 2010; Damijan *et al.*, 2010; Salomon, 2006). The basis is that the exporters have access to a more diverse knowledge inputs that may not be available in the domestic market and therefore this knowledge spills back to the focal firm and results in increased innovation (Salomon, 2006 p.136). In this perspective the "learning" is the result of access to a variety of knowledge inputs.

2.2 Learning from and for exporting: international collaboration in innovation

Interfirm cooperation – such as R&D collaboration, strategic alliance and joint venture – has become important instrument to improve the competitiveness of SMEs (Lipparini, 1995; Ricciardi, 2004). In this time of globalisation and radical technological change this form of cooperation represents an attractive possibility both for the enhancement of SMEs' innovativeness (Bianchi *et al.*, 2010; Van de Vrande *et al.*, 2011) and for going international (Lu & Beamish, 2001; Caroli & Lipparini, 2002; Cerrato *et al.*, 2016).

Scholars have observed that to overcome the lack of internal resources. SMEs can set up collaborative innovation project (Colombo *et al.*, 2012; Lasagni, 2012; Lee *et al.*, 2010). By networking outside their boundaries, SMEs can complement their limited internal knowledge and R&D with competences generated by external actors and obtain access to external resources

In order to benefit from the external actors in an external market, an absorptive capacity is required (Cohen & Levinthal, 1990). This is particularly crucial in the case of SMEs, firms suffering from liability of smallness and lack of resources. In this regard, perhaps expansion to markets such as those of the emerging markets, can be regarded as more efficient for future growth (Dana & Wright, 2004). Understanding the mechanisms behind the impacts of "collaboration for innovation" is a highly researched topic, in particular, by relying on innovation surveys (among others: Lasagni, 2012; Laursen & Salter, 2006; Nieto & Santamaría, 2007). Given the structure of these questionnaires, scholars have been able to use this variable to evalu-

ate the impact of both national and international collaborations on various innovative and performance outcomes (Fitjar & Rodríguez-Pose, 2012; Grillitsch & Trippel, 2014).

Limiting here to studies on Italian firms, we can recall: Castellani and Zanfei (2007) find that “increasing commitment to international operations is associated with higher innovative effort, higher propensity to innovate, and a higher propensity to engage in technological collaboration within group” (page 170); collaboration within Italian industrial districts leads to augmented productivity of firms (Cainelli & De Liso, 2005); cooperation is one of the explaining factors of the innovativeness of foreign multinationals’ subsidiaries in Italy (Balcet & Evangelista, 2005); collaboration is a key variable in re-shaping the regional innovation systems existent in Italy (Evangelista *et al.*, 2002).

A crucial advantage in these analyses has been the breakdown of the collaboration variable due to the structure of the questions in the Community Innovation Survey (CIS). The CIS is a harmonized survey of innovation activity in European enterprises. It is designed to provide information on the different types of innovation and on various aspects of the development of innovative activities. It is conducted every two years by EUROSTAT. The CIS is not limited on whether firms collaborate on innovation, but also with which type of partner they are collaborating: other firms in the same group, competitors, clients, suppliers, universities and etc. Often, it is further asked whether the collaboration has taken place at the national or at the international level.

A handful of studies conducted in other countries in the Adriatic region are based on CIS data. They mostly target the influence of exporting on innovation and vice versa (Damijan *et al.*, 2010) within the framework of a small open economy like Slovenia. They are significantly different than the results of innovation activities in mature markets of Western Europe. Although the data provide some encouragement in terms of innovation outputs, unfavourable structure of innovation expenditures, widespread occurrence of intra-organizational constraints (Černe *et al.*, 2013) to innovation and failures in commercialization of innovations corroborate the assumptions that the movements towards a knowledge-driven economy in Adriatic Countries are still quite weak. Thus, these results emphasize the need for policy improvements (Hashi & Stojčić, 2013). Nevertheless, there are some encouraging signals that internationalization in these countries does serve as a factor leading to their growing innovativeness.

Given the paucity of empirical evidence related to this specific geographical area, more studies are needed to better understand under which conditions firms coming from more advanced Western and Central European Countries can activate business and innovation-related relationships with companies based in the Adriatic area and what are the consequences

of the activation of such relationships. Our empirical contribution is positioned along this path and aims at providing an understanding, even if on an exploratory basis, of the combinative effect of cross-border collaboration for innovation and international experience on international sales growth.

3. Data and methodology

3.1 Data collection and sample

The empirical analysis relies on a quantitative survey. We used a multi-industry sample that focuses on small- and medium-sized firms active in Italy in manufacturing industries and knowledge-intensive services. Firms with an annual export turnover below €1 million were excluded.

A stratified sample of 7,763 small and medium firms (in terms of industries, sales volume, and regional location) were generated on the basis of Aida Bureau van Dijk database. These firms were contacted by phone and or by email to participate in the study. To collect data we used the questionnaire technique, administered through Computer Assisted Web Interviewing (CAWI) conducted in the period between October 2014 and January 2015. In total, 711 firms answered to the questionnaire (response rate above 9%). Four hundred and thirty-four (434) SMEs completed the questionnaire, while 307 firms were excluded because they filled less than 60% of the form. Since our unit of analysis was international ventures, we focused on 230 exporting firms out of 434 complete questionnaires (53% of the original sample).

The possibility of non-response bias was checked by comparing the characteristics of the respondents with those of the original sample. The t-statistics for the number of employees, sales volume, and age of the company are all not significant, suggesting that there is no statistical difference between the respondent and non-respondent groups.

To identify the key informant and to verify his/her correct profile to ensure data validity (Kumar et al., 1993), we measured: (1) how long the informant had been working for the current firm, and (2) how she/he deemed to be knowledgeable regarding their firm's international activities (5.64 on a seven-point Likert scale; SD = 0.71). The resulting key informant profile offered reliable information for our study. Of the respondents, 58% were either the CEO or a member of the board of directors; the remaining 42% were senior executives, such as foreign sales or marketing director and ad-hoc alliance managers. The average size of firms is above 11 million Euro and around 55 employees. The ratio of foreign turnover to total turnover in 2013 averages at 39% and a relatively broad range of country-markets are covered (almost 12 markets on average).

3.2 Measures

The measures we used were developed on the basis of the existing international business literature and adapted to the current study.

Dependent Variable

In order to obtain a measure of international sales growth, we drew on the change in international sales during the period 2010-2013 (Autio, Sapienza, & Almeida, 2000; Fombrun & Ginsberg, 1990). International sales were defined as sales revenue derived from exports and other international activities. International sales growth has been operationalized as the difference of the logarithmic transformations of the absolute international sales in 2013 and 2010.

The international sales data were obtained from respondents firms, as no public databases were available in Italy.

Independent Variables

The definition and operationalization of international experience relies on the contributions provided by previous studies (Hultman, Katsikeas, & Robson, 2011; Qian & Delios, 2008). International experience has been approximated by two dimensional measure composed by international scope, and international intensity. Scope (Int_Scope) refers to the extent of the export activity carried out by the firm in international markets and was measured through the natural logarithm transformation of the number of international markets served through export in 2010.

Intensity (Int_Intens) refers to strength of the export activity carried out by the firm in international markets, and it's based on the ratio of export sales to total sales ratio reached in 2010.

To approximate the cross-borders linkages developed by Italian SMEs we used several variables.

Firms were asked to indicate the market-based partners (customers, suppliers, competitors, consultancy companies) with whom they had actively collaborated in the past three years (2010-2013), and their geographical locations. The geographical locations were divided into:

- Local partners: dummy variable that takes value 1 if firms indicated collaboration with clients, suppliers, competitors or consultancy companies on a local scale;
- Adriatic partners: dummy variable that takes value 1 if firms indicated collaboration with clients, suppliers, competitors or consultancy companies within the Adriatic Region (that encompass Croatia, Bosnia & Herzegovina, Serbia, Montenegro, Albania, and Greece);

- Other European partners: dummy variable that takes value 1 if firms indicated collaboration with clients, suppliers, competitors or consultancy companies within other European countries;
- U.S. partners: dummy variable that takes value 1 if firms indicated collaboration with clients, suppliers, competitors or consultancy companies in U.S.A.;
- BRIC partners: dummy variable that takes value 1 if firms indicated collaboration with clients, suppliers, competitors or consultancy companies within the BRIC countries (Brazil, Russia, India, and China);
- Other emerging markets partners: dummy variable that takes value 1 if firms indicated collaboration with clients, suppliers, competitors or consultancy companies in other emerging markets countries.

It must be noted that these dichotomous variables are not mutually exclusive in terms of geographical location of collaborative activities. Therefore, the likelihood that firms could indicate market-based collaborations at the different geographical levels, from local to global, is quite high (Table 1).

Control variables

Finally, we included seven control variables in the study: firm size (natural logarithm of the number of employees) to control for potential economies of scale; firm age (its natural logarithm) to control for those experience and capabilities that older firms might possess; firm location to control for the geographical distance from the Adriatic Region (binary variable); firm industry, to control for specific industry (manufacturing vs. services) effect; firm profitability, to control for the effect of previous performance (average ROA of the last three years); and inward and outward R&D to control for the capacity to absorb external knowledge (internal and external R&D expenses on total turnover).

Table 1 – Descriptives and Correlation Matrix

N	Variables	Mean	St. Dev.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
1	Int_Growth	,49	,84	1,00																		
2	Firm_Age	2,82	,71	,07	1,00																	
3	Firm Size	8,50	1,22	,26**	,17*	1,00																
4	Region1	,287	,45	-,04	,03	-,02	1,00															
5	Region2	,45	,45	,02	-,06	-,03	-,58**	1,00														
6	Region3	,10	,31	,01	,02	,05	-,22*	-,31	1,00													
7	Region4	,16	,36	,01	,03	,03	-,27**	-,39	-,15	1,00												
8	Industry	,79	,41	,12	,19*	-,03	-,05	,02	,07	-,01	1,00											
9	ROA	1,49	1,07	-,04	-,08	-,08	,13	-,01	-,02	-,13	-,19*	1,00										
10	Rd_In_Turn	1,15	1,16	-,03	,07	-,13	-,07	,10	,07	-,11	,03	,12	1,00									
11	Rd_Out_Turn	,50	,89	-,06	,08	-,11	-,01	-,01	,11	-,06	-,08	,18*	,52	1,00								
12	Int_Scope	1,74	1,19	,16	,11	,42**	-,03	,01	,04	,00	,01	-,12	,08	,00	1,00							
13	Int_Intensity	-,05	1,31	,30**	,07	,28	-,06	-,04	,12	,03	,05	-,09	,10	,03	,59	1,00						
14	Loc_Collab	,26	,44	,07	-,01	,03	,04	-,04	-,01	,02	,09	,07	,15	,05	,04	,02	1,00					
15	Adr_Collab	,05	,21	,13*	-,12	,03	,08	-,16	-,01	,13	-,04	,04	,06	,10	,09	,01	,38**	1,00				
16	EU_Collab	,14	,34	,13*	-,05	-,02	,06	-,10	,03	,04	,11	,11	,19*	,11	,10	,10	,66**	,45**	1,00			
17	US_Collab	,05	,22	,11*	-,04	,08	,02	,02	-,08	,01	,07	,04	,22*	-,01	,08	,12	,39**	,13	,48**	1,00		
18	BRIC_Collab	,04	,18	,02	-,05	-,03	,09	-,08	,01	-,02	,10	-,05	,09	-,02	,09	,05	,32	,29	,48	,28	1,00	
19	OEM_Collab	,07	,25	,04	-,06	,01	,03	,01	-,03	-,02	,05	,00	,19	,02	,05	,07	,44	,27	,51	,49	,62	1,00

4. Results

A hierarchical multiple regression analysis was performed to analyse the effects of both international experience and global collaborative linkages in innovation on the international sales growth of Italian SMEs (Table 2).

Model 1 is the baseline model with the results of only control variables. Model 2 contains only variables related to international experience. Models 3, 4, 5, 6, and 7 expand the analysis to include collaborative linkages in innovation with market-related partners at the local (Model 3) and global level: Adriatic (Model 4), other Europe (Model 5), U.S. (Model 6), BRIC countries (Model 7), and other emerging countries (Model 8).

Due to the high correlation between the local and global linkages on innovation (Table 1), we decided to not use these variables in the same

regression models. The variance inflation factor (VIF) and indicator of multicollinearity were checked and all found to be below 2.

In synthesis, econometric tests show that both international experience and international collaboration in innovation are positively associated to international sales' growth. More in particular, for our sample of Italian SMES, innovative collaboration with Adriatic partners matters.

In line with the literature on export and multinational experience, our results show that the growth in international sales is mostly driven by former international experience of firms. In fact, after performing the most common controls on firms' size, age and performance, it appears all the models in table 2 show a positive and significant coefficient of the international intensity. It is confirmed that firms with a higher international profile, at the beginning of the period, are also more likely to further increase such export behaviour.

Exploring the relation between international experience and cross-borders innovation collaboration:
Case of SMEs from Adriatic regions of Italy

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Predictor Variables	Dependent variable International Sales Growth															
	Model 1		Model 2		Model 3		Model 4		Model 5		Model 6		Model 7		Model 8	
	St. Coeff.	t	St. Coeff.	t	St. Coeff.	t	St. Coeff.	t	St. Coeff.	t	St. Coeff.	t	St. Coeff.	t	St. Coeff.	t
Constant		-2,73		-1,76		-1,74		-1,79		-1,798		-1,69		-1,77		-1,76
Control Variables																
Firm Age	0,00	,05	,01	,08	,01	,13	,03	,43	,018	,279	,068	,117	,007	,101	,007	,109
Firm Size	0,26**	3,91	,22**	3,02	,21**	2,97	,21**	2,98	,220*	3,092	,258**	2,917	,217**	3,027	,216**	3,008
Region1	-0,04	-,53	-,04	-,54	-,04	-,59	-,06	-,87	-,05	-,751	-,042	-,608	-,039	-,562	-,038	-,549
Region2	-0,02	-,32	-,05	-,75	-,05	-,75	-,06	-,85	-,06	-,839	,006	-,676	-,051	-,755	-,049	-,734
Region3	-0,00	-,06	-,02	-,28	-,02	-,34	-,05	-,70	-,03	-,505	,014	-,325	-,020	-,287	-,019	-,283
Industry	0,12	1,83	,11	1,73	,11	1,62	,11	1,71	,10	1,433	,117	1,718	,112	1,697	,113	1,709
ROA	0,01	,16	,02	,33	,02	,24	,02	,26	,01	,095	-,040	,362	,023	,339	,022	,331
RD_IN_Turn	0,01	,08	-,02	-,31	-,03	-,44	-,03	-,41	-,05	-,588	-,033	-,568	-,026	-,339	-,029	-,370
RD_OUT_Turn	-0,03	-,32	-,02	-,31	-,02	-,29	-,04	-,50	-,023	-,364	-,061	-,168	-,022	-,292	-,022	-,285
Ind. ariables																
Int_Scope			-,099	-1,195	-,101	-1,217	-,119	-1,441	-,112	-1,363	,163	-1,183	-,100	-1,209	-,099	-1,192
Int_Intesity			,297**	3,785	,298**	3,800	,307**	3,950	,292**	3,752	,297**	3,680	,297**	3,778	,296**	3,761
Local_ollab					,060	,942										
Adriatic_Collab							,148*	2,280								
Eu_Collab									,130*	1,986						
Usa_Collab											,992	,322				
Bric_Collab													,016	,245		
Other_ollab															,020	,304
R ²		,084		,144		,147		,164		,159		,148		,144		,144
Δ R ² (step3-step1)				,060												
Δ R ² (step3-step2)						,003										
Δ R ² (step4-step2)								,020**								
Δ R ² (step5-step2)										,015**						
Δ R ² (step6-step2)											,004					
Δ R ² (step7-step2)												,000				
Δ R ² (step8-step2)																,000
Δ F-value		2,253		7,593		,887		5,198		3,943		,984		,060		,092
N. bservations		230		230		230		230		230		230		230		230

**p<0,01; *p<0,05 T-value in Italics

However, in the eight different models we have also tested separately the effect of different types of collaboration in innovation on the growth of export. As already anticipated in the methodological section, it is possible to break down the sample by both typology and geographical residence of organisations collaborating with our sample of Italian SMEs. In models 3 to 8 it is tested whether the collaboration on innovation is undertaken with market-based partners (customers, suppliers, competitors) from the following geographical

areas: same local area, Adriatic area, Europe, US, BRIC countries and other emerging countries. Interestingly, the highest and most significant coefficient is found in model 4, where the collaboration with Adriatic countries is tested. Also collaboration with European countries is positive and significant, but with a slightly lower coefficient (model 3). All the other models show no significance in this variable. We can interpret it in two different ways: on the one side, collaboration with local partners give no advantage in fostering the export behaviour of Italian SMEs; on the other side, collaboration with far partners (ranging from the US to all distant emerging countries) is too difficult and resource-expensive to be undertaken positively by firms in our sample. Concerning the first issue, descriptive statistics tell us that one-quarter of the sample is involved in local and global collaboration on innovation (Table 3). This rate is a signal of a pretty low involvement in open innovation activities. Given that the question is not “exclusive” (firms can respond they collaborate with partners in none to all areas), we found that a bulk of Italian SMEs, around 15% of the sample, is the “virtuous ones”, collaborating at the local and at the international level. Then, there is a second group collaborating in innovation only locally (11,4%). Finally, three-quarter are not collaborating at all. In fact, we can show some associations both in correlations and in absolute values. In terms of correlation, it is more likely that firms engaging collaboration locally are also collaborating with European partners. As regards the Adriatic area, correlations are low apart from the one on collaboration at the European level. This might suggest that SMEs collaborating in Europe consider the Adriatic area fully as part of Europe. The low correlation with the BRIC and other emerging countries might be explained in two different ways:

- either SMEs decide alternatively to invest in the Adriatic area or in other emerging countries,
- or SMEs investing in the Adriatic area and in other emerging countries belong to a small group of “advanced SMEs” with a foreign attitude.

Table 3 – Types of collaboration

Type of collaboration	Number of firms (total 230)	%
Local only	27	11,7%
Local and International	33	14,3%
International only	0	0%

In principle, both ways support the idea of this area perceived as a “learning experience” within their international expansion. In the first case, the Adriatic area might be a first step to learn how to compete on foreign markets, before stepping in the future to the harsh competition in other emerging areas further away. In the second case, this might have been done in the past and this bulk of firms might have been already able to undertake this jump.

5. Conclusions and Discussions

Departing from the international business and innovation management literature, in this paper we have examined the influence of international experience and external sources of experiential knowledge on Italian SMEs' international growth. Given the long-term stagnant situation of the domestic market, the growth of Italian SMEs is nowadays driven mainly by foreign markets (Caroli & Lipparini, 2002). Among foreign markets, the ones that are driving more the global economic growth are without any doubts emerging markets. Emerging markets are difficult to enter for western-based firms (Bortoluzzi *et al.*, 2014). Even after entering, western-based firms must face several difficulties for establishing their distribution network and grow there (Bortoluzzi *et al.*, 2015).

Our preliminary results indeed has shown that Italian SMEs are increasingly drawing in experiential knowledge, from both external sources and direct experience, in their internationalization paths. Furthermore, those SMEs that are able to manage various resources at an international scale are also more likely to accelerate their growth in the international arena. Based on our exploratory research, we can claim that opportunities lie beyond western Europe in countries that are not geographically distant from Italy, but perhaps more culturally distant, such as Adriatic countries. Adriatic Countries represent markets sharing an interesting ambiguity: they are geographically close markets for Italian firms, but at the same time psychologically far markets. This is for many reasons that are mainly historically grounded, but also culturally related. The most effective way for overcoming psychic distance is accumulating knowledge about such markets. And the best way of doing it, is doing it from within, in terms of both international sales and innovation activities.

The results of this research also have policy implications related to the development of the Adriatic macro region. At the Adriatic level, cross-border cooperation between companies in the R&D base has been poor because of the low propensity of Adriatic companies to be engaged in projects that require such cooperation and their limited ability to effectively collaborate on ambitious project (Krajewski, 2014). Thus, the progress of all Adriatic Countries into a knowledge-driven economy will require smart policy intervention. Its aim will be to facilitate the learning processes within companies that will allow them to increase productivity (Damijan *et al.*, 2010). In order to overcome actual constraints, these learning processes can be started with opening of the companies through internationalization. Open cooperation and collaboration with export partners often also spreads to their innovation activities. Companies from the region would benefit from using regional cooperation to prepare themselves for expansion beyond this region, so all policies that would support innovation collabo-

ration within the region would also help them internationalize. Examples of such policies could be regional innovation vouchers, networking events or event grants for joint innovation activities, perhaps connected to similar schemes at the EU level.

6. Limitation and Future Research

This study suffers from some limitations that suggest new directions for further research. First, the sample is based on Italian exporting SMEs. The possibility remains that the results are unique to this specific context, and thus the generalizability of the findings should be taken cautiously. Thus, further research should broaden the sample to different SMEs in the Adriatic Area. Second, we considered only a measure of export performance, i.e. international sales growth. Further studies should contemplate multiple measures of it to maximize the impact of each indicator and to minimize the impact of their shortcomings (Sousa, Martínez-López, & Coelho, 2008). Third, in this paper we limit the analysis to the combinative effect of international experience and cross-border collaborations in innovation. Future studies could consider also the moderating role of international experience (Hultman et al., 2010) in enhancing the effectiveness of cross-border collaborations on international performance.

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Abstract

In the internationalization process, SMEs are constrained in two ways: liability of foreignness and liability of smallness. While the former is a barrier for all firms the latter is particularly related to SMEs. Extant literature acknowledges that the ability of SMEs to overcome the liability of foreignness is related to the acquisition of experiential market knowledge that allows SMEs to understand the causal linkages between actions and outcomes within the international environment. Furthermore, SMEs often have to compensate for internal resource deficiencies originating from their liability of smallness by seeking external resources both at the home location but also across the national boundaries. While both views on learning from and for exporting are complementary, their crossing impact measured through international growth is an effect still to be studied. Our paper aims at providing an understanding on the combinative effect of cross-border collaboration for innovation and international experience on international sales growth. In dealing with the research questions, this paper draws upon unique firm level survey data collected in 2014 across the Adriatic regions of Italy. Our results show how both international experience and international collaboration in innovation are positively associated to international sales' growth. More in particular, for Italian SMEs, innovative collaboration with partners from Adriatic countries matters.

Riassunto

Il processo di espansione internazionale delle Piccole e Medie Imprese (PMI) è caratterizzato da due fattori limitanti, la *liability of foreignness* e la *liability of smallness*. Mentre il primo elemento fa riferimento allo svantaggio di non conoscere il nuovo mercato e riguarda tutte le imprese che intraprendono un percorso di internazionalizzazione, il secondo è un fattore tipico delle PMI e della loro limitata dotazione di risorse e competenze.

La letteratura di *international business* ha evidenziato come le PMI, attraverso un processo di apprendimento che permette di acquisire una conoscenza diretta e stabilire nessi causali tra azioni e risultati all'interno dei nuovi mercati, possono superare la prima barriera. La limitata dotazione di risorse interne, invece, può essere colmata facendo ricorso a fonti esterne di conoscenza, che possono essere situate oltre i confini nazionali.

Questa duplice prospettiva di analisi, sebbene complementare nello spiegare la crescita internazionale delle PMI è stata limitatamente utilizzata a livello empirico. Questo articolo, quindi, ha l'obiettivo di indagare empiricamente l'effetto combinato dell'esperienza sui mercati internazionali e dei legami esterni transnazionali, focalizzati sulle attività innovative, sulla crescita internazionale delle PMI. A tal fine, un'indagine quantitativa è stata condotta su un campione di PMI appartenenti alle regioni italiane dell'area Adriatica (FVG, Veneto, E-R, Marche). I risultati dimostrano come l'esperienza internazionale e la presenza di collaborazioni internazionali nelle attività innovative siano positivamente correlati con la crescita delle vendite sui mercati stranieri delle PMI. Inoltre, si evince come un ruolo particolarmente rilevante sia rivestito dai legami collaborativi sviluppati con attori della Macro-Regione Adriatica.

Keywords (Parole chiave): Cross-borders innovation collaboration, international experience, international sales growth, SMEs, Adriatic region

JEL Classification: F23 (International Business); M16 (International Business Administration)