Monreal-Pérez, Joaquín; Geldres-Weiss, Valeska V.

Article

A configurational approach to the impact of trade fairs and trade missions on firm export activity

BRQ Business Research Quarterly

Provided in Cooperation with:
Asociación Científica de Economía y Dirección de Empresas (ACEDE), Madrid

Suggested Citation: Monreal-Pérez, Joaquín; Geldres-Weiss, Valeska V. (2020) : A configurational approach to the impact of trade fairs and trade missions on firm export activity, BRQ Business Research Quarterly, ISSN 2340-9436, Sage Publishing, London, Vol. 23, Iss. 1, pp. 1-19, https://doi.org/10.1177/2340944420901045

This Version is available at:
https://hdl.handle.net/10419/261869

Regular Paper

Business Research Quarterly
Volume 23: 1–19

DOI: 10.1177/2340944420901045
journals.sagepub.com/home/brq
SAGE

A configurational approach to the impact of trade fairs and trade missions on firm export activity

Joaquín Monreal-Pérez[1] and Valeska V. Geldres-Weiss[2]

Abstract

Export promotion programmes (EPPs) are argued to support firms' export activity. However, the empirical evidence for the link between EPPs and exporting is inconclusive. We argue and demonstrate by using fuzzy set methods one can uncover configurations that combine the firm's participation in specific EPPs, namely trade missions and fairs, together with certain firm-specific characteristics. We base our analysis on a sample of 641 Chilean exporters (2010-2015), and show regression results are mostly insignificant and with a much lower model fit level compared with our fuzzy set analysis. Our main findings illustrate that small, young and non-export-experienced firms gain the most from trade fairs and trade missions, which supports the notion that EPPs provide the information required in export markets.

JEL CLASSIFICATION M160; M380; C120

Keywords

Export promotion programmes, Firm export activity, Trade missions, Trade fairs, Configurational approach

Received: 26 October 2017; accepted: 8 November 2018

Introduction

Fostering a firm's export activity by opening new markets and further developing the firm's exporting capacities is becoming increasingly important. Among the factors that may drive it, the learning process stands out, which is driven by both the internal processes of the company and government support for exporters (Leonidou et al., 2011). As highlighted by the Uppsala model, knowledge minimizes the risk and uncertainty of export operations (Eriksson et al., 2000; Johanson and Vahlne, 1977). Another argument stressing the positive role of exporting is given by the learning-by-exporting hypothesis: thanks to its exposure to competitive environments and a greater number of agents the company that exports, learns to be better (more productive, more innovative, etc.), which subsequently promotes more intense export activity through a self-selection effect (Monreal-Pérez et al., 2012).

Having emphasized the importance of exporting, we now focus on one of the main determinants of firms' export performance: export promotion programmes (EPPs) (Geldres-Weiss et al., 2011; Lages and Montgomery, 2005; Martincus and Carballo, 2010). Although most of the studies agree on the supportive role of EPPs, they have not sufficiently addressed, separately, two specific programmes that are commonly used and that we argue may exert a strong positive impact on firms' export competitiveness: trade fairs and trade missions.

We contribute to the literature on EPPs and export performance in several ways. First, we contribute empirically

[1]Facultad de Economía y Empresa, University of Murcia, Campus Universitario de Espinardo, Espinardo, Murcia, Spain
[2]Department of Business and Economy, Faculty of Law and Business, Universidad de La Frontera, Temuco, Chile

Corresponding author:
Joaquín Monreal-Pérez, Facultad de Economía y Empresa, University of Murcia, Campus Universitario de Espinardo, Despacho D1/02, Espinardo, Murcia, 30100, Spain.
Email: jomonreal@um.es

by considering specific EPPs, and by not evaluating them together, without distinguishing the individual effects exerted by any specific EPP (Seringhaus, 1987), unlike most of the literature. There are a few exceptions, like Spence and Crick (2001), Spence (2003), Álvarez (2004), and Wilkinson and Brouthers (2006) specifically evaluated trade missions while Shipley et al. (1993) studied trade fairs. Thus, we focus on trade fairs and on trade missions, since we argue that both EPPs are specific tools that aim to provide experiential knowledge to support the firm in international markets.

Second, since we argue that the lack of coincidence in the literature may be caused by the fact that the studies focus on individual effects rather than on the combination of using EPPs together with some other firm attributes, we propose a configurational approach that better reflects causal complexity when analysing firms' export performance, since such an approach addresses eventual, equifinal and asymmetrical causal relations (for a detailed description of the configurational approach, see Misangyi et al., 2017). Thus, we recoded our data as a fuzzy set and then carried out a set-theory procedure, a method that, by uncovering configurations of qualitative and quantitative attributes that lead to a given outcome, establishes relationships between the different configurations as a whole (Ragin, 2008). We argue that this configurational approach better reflects causal complexity when analysing firms' export performance, since it addresses eventual, equifinal and asymmetrical causal relations (for a detailed description of the configurational approach, see Misangyi et al., 2017).

Third, we link our findings theoretically with the resource based view (Barney, 1991), by highlighting the strategic importance of some resources in the export markets, and especially the knowledge-based view (Nonaka and Takeuchi, 1995), to stress the key role of EPPs in providing specific knowledge (Leonidou et al., 2015). Indeed, we argue that one reason for the lack of coincidence of the results is that the literature is not based on a common solid theoretical framework; most of the previous literature on EPPs evidence-based (Wilkinson and Brouthers, 2006).

Fourth, we offer our findings for Chile, an emerging but widely open economy (the top South American exporter relative to its population - CIA, 2012), which may serve as a suitable laboratory for further implementation of policies in emerging countries. Indeed, the results may serve as a guide for policy makers in charge of promoting Chilean firms export activity (namely, ProChile) and to Chilean firms' managers. Boosting the international competitiveness of its firms is of great importance since its demand is not very large (17,574,003 inhabitants) so Chilean firms need to internationalize to widen their sales. In this context, the results may be very useful as a recipe for what instrument to use to increase the means to be successful in export markets.

The remainder of this article is organized as follows. First, a theoretical review is conducted. This is followed by a description of the methodology and the data used. The variables used and their measurement and analysis are described next. Then the results are presented and discussed. The paper ends with some conclusions.

Literature review and development of hypotheses

Although a number of studies have stressed governmental EPPs[1] as an important governmental policy tool for motivating firms to consider exporting and for helping those that already export to remain in the international markets (Leonidou et al., 2015; Durmuşoğlu et al., 2012; Geldres-Weiss et al., 2011; Lages and Montgomery, 2005), not every empirical work has reached the same conclusion. To illustrate this confusion, Table 1 shows the results of the papers reviewed by the authors that disentangle the impact of EPPs on firms' export performance and that are described in this section.

Thus, in contrast, some papers found no significant relationship between the use of the programme and export sales (Geldres-Weiss and Carrasco-Roa, 2016; Gençtürk and Kotabe, 2001). A similar result was found by Martincus and Carballo (2010) for larger and experienced firms. Thus, EPPs were not instrumental in increasing export sales, but did significantly improve the competitive position of the firm.

Disentangling the overall effect of EPPs as a whole, Francis and Collins-Dodd (2004) also found no significant relationships between financial performance measures and the number of programmes used; the authors point out that due to the cross-sectional nature of the study, there is a possibility that there may be long-term effects of programmes that have not been addressed. Francis and Collins-Dodd (2004) compared exporters in different stages of export involvement; they found that sporadic exporters gained the most from EPPs, while there was little impact in the short term for more experienced international firms that derive most of their income from exporting. Alvarez (2004) analysed the impact of EPPs on sporadic and permanent exporters, and found that trade fairs and trade missions did not permanently affect the probability of exporting. Spence and Crick (2001) investigated two groups of firms using trade missions in psychologically distant countries; firms in the first group were 'new' to the markets, while the other group consisted of 'experienced' firms that had at least limited experience in the same markets. They found significant differences in trade mission outcomes and export performance between the two groups. Seringhaus and Rosson (1998) studied differences in the performance of exhibitors at trade shows that participated with government export assistance and those without, and concluded that on-site sales, contacts and leads were higher in the independent

Table 1. Summary of the papers reviewed on the link between EPPs and firm export performance.

Authors (year)	Journal	Type of study (quantitative, qualitative or descriptive)	Country	Period	Methodology	EPP instrument	Findings
Seringhaus (1989)	Management International Review	Descriptive/ Conceptual	Various countries	Various years	Meta-analysis	-Trade missions	Trade missions have a strong impact on export market entry.
Shipley et al. (1993)	Journal of Marketing Management	Quantitative	United Kingdom	1990	ANOVA	-Trade shows	Exhibitors apply sound selection criteria.
Gopalakrishna et al. (1995)	Journal of Marketing	Qualitative	USA	1993	Case study	-Trade shows	Trade shows favour sales.
Seringhaus and Rosson (1998)	International Marketing Review	Quantitative	Canada	Indefinite	Discriminant analysis	-Trade shows (comparing these with government support and independent ones)	The strategy and characteristics of government and independent exhibitors are different.
Álvarez and Crespi (2000)	Estudios de Economia	Quantitative	Chile	1992 –1996	Quasi- experimental approach	-EPPs in general	EPPs favour firm export performance.
Wilkinson and Brouthers (2000a)	Journal of International Business Studies	Quantitative	USA	1990 –1994	Regressions	-Trade missions -Trade shows	States with more FDI have greater success in their use of trade missions for FDI attraction and in their use of trade shows to promote high-tech exports.
Wilkinson and Brouthers (2000b)	Journal of Business Research	Quantitative	USA	1990 –1991	Regression	-Trade missions -Trade shows -Foreign offices -Objective market information programs	(1) Trade shows are positively related to direct exports; (2) missions are negatively associated with high-tech growth exports; (3) foreign offices are not associated with exports; and (4) objective market information programs are negatively associated with direct exports.
Gençtürk and Kotabe (2001)	Journal of International Marketing	Quantitative	USA	Indefinite	ANOVA	-EPPs in general	EPPs improve a firm's export competitive position.
Spence and Crick (2001)	Marketing Intelligence & Planning	Quantitative	United Kingdom	1995–1996	Longitudinal ANOVA	-Trade missions	Trade missions and experiential knowledge play an important role in foreign market entry.
Spence (2003)	Small Business Economics	Quantitative	United Kingdom	1996	Recursive regressions	-Trade missions	Overseas trade missions contribute to the generation of incremental sales in foreign markets by enhancing the relationship-building process between business partners.

(Continued)

Table 1. (Continued)

Authors (year)	Journal	Type of study (quantitative, qualitative or descriptive)	Country	Period	Methodology	EPP instrument	Findings
Francis and Collins-Dodd (2004)	International Marketing Review	Quantitative	Canada	Indefinite	ANOVA and Bivariate correlations	-EPPs in general	Sporadic and active exporters gain most from EPPs.
Álvarez (2004)	International Business Review	Quantitative	Chile	1990–1996	Cross-sectional probit regression.	-EPPs in general -Trade shows -Trade missions	EPPs favour the probability of exporting permanently, while trade shows and trade missions do not.
Lages and Montgomery (2005)	European Journal of Marketing	Quantitative	Portugal	1999	Structural equation modelling with WLS estimation	-EPPs in general	Non-significant total effects of EPPs on annual export performance improvement.
Wilkinson and Brouthers (2006)	International Business Review	Quantitative	USA	1992 –1999	Hierarchical regressions	-Trade missions -Trade shows -Programs identifying agent and distributors	Trade shows and programs identifying agent and distributors contribute to SME satisfaction with export performance.
Evers and Knight (2008)	International Marketing Review	Qualitative	New Zealand and Ireland	Any year between 2000 and 2008 (indefinite)	Case study	-Trade shows	Trade shows enable international networks.
Martincus and Carballo (2010)	Journal of Development Economics	Quantitative	Chile	2002 –2006	Quantile Treatment effect	-EPPs in general	EPPs have heterogeneous effects on firm performance: small firms benefit more from EPPs.
Leonidou et al. (2011)	Journal of International Marketing	Quantitative	United Kingdom	Indefinite	EQS structural equations	-EPPs in general	EPPs favour export-related resources.
Durmuşoğlu et al. (2012)	Industrial Marketing Management	Quantitative	Turkey	2005 –2008	MANOVA	-Diverse specific EPPs (trade shows, missions, etc.)	The use of at least one EPP favours a firm's export performance (financial, shareholder, strategic and organizational learning dimensions).
Geldres-Weiss and Carrasco-Roa (2016)	International Journal of Export Marketing	Quantitative	Chile	2002 –2011	Difference in Difference (DID) with matching	-EPPs in general	No difference in export performance between EPP users and non-users.
Leonidou et al. (2015)	In: Ghauri, P.N. and Kirpalani, V.H.M. (Eds.). Handbook of Research on International Entrepreneurship Strategy. Edward Elgar, UK.	Descriptive	Various countries	Various years	Meta-analysis	-Numerous EPPs (financial, informational, education/ training, legal, market targeting, marketing, and miscellaneous)	EPPs can help firms overcome international entrepreneurship hurdles and achieve superior export performance.

group, but that marketing learning was higher in the government group. The authors indicated that the government group was in an earlier phase of export development than the independents.

The direction of the impact of EPPs in general on firm export performance varies: most studies conclude that it is positive (for example, Álvarez and Crespi, 2000; Genccturk and Kotabe, 2001; Spence, 2003; Álvarez, 2004; and Leonidou et al., 2011, 2015); some find that this effect is non-significant (Lages and Montgomery, 2005; Geldres-Weiss and Carrasco-Roa, 2016), or even negative (Francis and Collins-Dodd, 2004). This contradiction may be due to the following reasons: (a) most of them focus on EPPs in general, with a few clarifying the effect of individual programmes (Seringhaus, 1989; Shipley et al., 1993; Gopalakrishna et al., 1995; Seringhaus and Rosson, 1998; Wilkinson and Brouthers, 2000a,b; Spence and Crick, 2001; Spence, 2003; Wilkinson and Brouthers, 2006; Durmuşoğlu et al., 2012); (b) the researchers employ different methodologies, with the majority being quantitative works that identify the individual effects. Nevertheless, there is a notable shortage of reviews of the combinations between specific EPPs and firm characteristics (as we provide in this work) which may better reflect the real impact of these instruments on firm export performance.

Another reason for all these mixed findings is that most come from empirically based studies that lack a specific theoretical framework (Wilkinson and Brouthers, 2006). Indeed, internationalization theory, especially on small firms, has been widely based on the 'Uppsala internationalization model' (Johanson and Vahlne, 1977), suggesting that firms move through stages as they internationalize, from being sporadic exporters to being actively involved in export markets. Nevertheless, given the importance of firms' resources as stressed by the RBV, and especially that of some internal resources, EPPs may change the logical sequence described by this model (Leonidou et al., 2015). Notable among all these resources is specific information about firms' performance, and specifically information on export activity (Geldres-Weiss et al., 2016), as the knowledge-based view predicts (Nonaka and Takeuchi, 1995). Many researchers describe how firms find that the lack of information is the main obstacle, and that firms therefore try to substitute this shortage with information provided by EPPs (Durmuşoğlu et al., 2012). Indeed, a number of empirical works link the internationalization stages with the utility of the EPP for the firm, finding that small, inexperienced firms in early stages of the internationalization process gain more from EPPs than their more experienced counterparts (Spence and Crick, 2001; Martincus and Carballo, 2010; Gençtürk and Kotabe, 2001; Francis and Collins-Dodd, 2004), and so speed up the path proposed by the Uppsala model. Consequently, in this research we rely on the strategic importance of knowledge in export markets (Eriksson et al., 2000). We argue that EPPs may impact positively on firm export activity since they may serve as reliable providers of the necessary specific knowledge (Gençtürk and Kotabe, 2001).

The impact of specific EPPs on firm export activity

Francis and Collins-Dodd (2004) stated that future research in export promotion should explore the impact of various individual programmes. Additionally, as mentioned previously, one of the main reasons for the inconclusive findings regarding the role of EPPs on firms' export performance is that most of the empirical works consider the EPPs as a whole, instead of studying the specific instruments.

Thus, to overcome this limitation, in this work, we concentrate on trade fairs and trade missions, which fall within trade mobility programmes (Leonidou et al., 2011), and are characterized as programmes that provide experiential knowledge. Both activities supply managers with the chance to investigate markets, meet buyers and distributors, discuss exporting with more experienced participants and make initial international business contacts (Wilkinson and Brouthers, 2006).

Trade fairs

Trade fairs are a marketing and information platform that enable firms to grow and expand internationally (Evers and Knight, 2008) and are an important promotional tool for marketing many products and services (Hansen, 2004). For firms participating in trade fairs assisted by government support, this experience is an intense marketing learning opportunity (Seringhaus and Rosson, 1998). A trade show consists of the firm participating as an exhibitor in an international fair, in order to present the product/service to all the participants and visitors, be they importers, distributors, wholesalers, opinion leaders or others, as well as to potentially conduct export business with potential clients (ProChile, 2017).

Trade fairs are positively related with firms' satisfaction and export performance, since firms using trade fairs sponsored by state governments is likely to have positive export performance outcomes (Wilkinson and Brouthers, 2006). This finding is in accordance with most of the export promotion literature, which reports that trade fair shows are positively related to aggregate state exports (Wilkinson and Brouthers, 2000a,b) and export sales at the firm level (Seringhaus and Rosson, 1998). Gopalakrishna et al. (1995) demonstrated that trade shows can entail a positive profit for the firm, through sales and product awareness.

All these arguments lead us to propose the following hypothesis:

H1a. A firm's participation in trade fairs is independently associated with the firm's export activity.

Trade missions

Trade missions provide experiential knowledge about foreign countries, and their aim is to encourage firms to enter or expand into foreign countries when their experience with a specific market is still limited (Spence, 2003). Their role is mainly market information acquisition (Seringhaus, 1989). ProChile (2017) has defined two types of trade missions: prospecting strategies and penetration strategies. Prospecting trade missions consist of the organization and subsequent execution of a visit to one or more markets with the purpose of getting to know them in the field (regulations, distribution channels, prices and competitors) and establishing initial contacts that tend to materialize in future business. Penetration trade missions consist of the organization and subsequent execution, after market knowledge, of a visit to one or more markets in order to concretize the commercialization of the products/services of the project companies, meeting with the main agents of the various marketing chains that exist, which can translate into future business.

Unlike previous studies, Wilkinson and Brouthers (2006), after controlling for some internal firm resources, found that the use of trade missions did not contribute significantly to a firm's export satisfaction. Spence (2003) analysed the impact of overseas trade missions on export success, and provided empirical evidence of the importance of such programmes in the generation of incremental sales in foreign markets that enhance the relationship-building process between business partners over an extended period. Another study by Spence and Crick (2001) analysed the differences in the performance of firms participating in trade missions, between firms that had previously visited the market and those that had not and showed that the outcomes of this instrument varied. The findings suggested that over the two years of the study, differences existed between the two groups' marketing strategies in the mission, allowing newcomers to catch up with experienced exporters in terms of the percentage of firms expecting to obtain sales in the 24 months following the visits.

Considering the previous arguments, we state the following:

> **H1b.** A firm's participation in trade missions is independently associated with the firm's export activity.

Configurational effect of trade fairs and trade missions on the export activity

Most empirical works studying specifically trade fairs and trade missions have considered the isolated impact of any single EPP on firms' export activity (Wilkinson and Brouthers, 2006; Spence, 2003; Spence and Crick, 2001; Seringhaus and Rosson, 1998). Also, from a theoretical point of view, according to all the arguments stated above it is possible to find an independent effect of the use of these two instruments (trade fairs and trade missions) on firm export performance.

Nevertheless, taking into account the determining importance of the specific instruments as stated above, but also being aware that some other firm attributes may moderate the relationship between EPPs and firms' export activity, as suggested by some authors (among others, Leonidou et al., 2011; Martincus and Carballo, 2010), we argue that the mixed and inconclusive findings may be caused by the lack of a common empirical method and may, specifically, be due to what in our opinion really matters: the combinations of these strategic options.

Thus, after taking into account this empirical evidence, we discuss which approach is more appropriate to disentangle the problem concerning the link between the impact of the two EPP instruments under consideration and firm export performance: the conventional one addressed to reflect mainly the single-effect approach or the set-theoretic study approach that includes fuzzy sets and is used to identify the configurational approach.

One of the main drawbacks of conventional regression analysis (like analyses based on the covariation among the variables, such as the OLS or the probit one) is that the underlying relationship is assumed to be precise, as it gives a precise value of response for a set of values of explanatory variables. However, in a realistic situation, the underlying relationship is not an estimated function of a given form; it contains some vagueness or imprecision. By assuming an estimated relationship, some vital information may be lost (Slowinski, 1998). In other words, this oversimplification of data could omit important information for the regressions model (Chang and Ayyub, 2001). Fuzzy numbers can be expressed as interval numbers with membership values. Thus, fuzzy regressions model data with fuzziness type of uncertainty.

Another important benefit of set theoretic analysis is that it is much more compatible with the analysis of causal complexity than conventional techniques. In situations of causal complexity, no single cause may be either necessary or sufficient, but a configuration including combinations of all variables (in our case, specific EPP instruments and firm particular characteristics) are necessary components to better identify these causal relationships (Ragin and Fiss, 2009).

In sum, the configurational perspective fully embraces causal complexity. The foundations for this neo-configurational perspective differ fundamentally from conventional linear regression approaches in how phenomena and causal relationships are conceptualized and analysed (Misangyi et al., 2017).

Given these arguments, we argue that we should rely more on the set-theoretic study (containing fuzzy variables)

than on a conventional regression technique. Thus, after testing the single effect approach for trade fairs (H1a) and trade missions (H1b), we adopt a configurational one for trade fairs (H2a, H3a and H4a, to study their combination with size, age and export experience, respectively) and for trade missions (H2b, H3b and H4b to explore the combinations of that instrument with the same firm characteristics as previously).

Configurational effect of being an SME and trade fairs/missions on the firm's export activity

Small firms are at a disadvantage when trying to compete internationally due to the complexity of the international business environment and the comparative scarcity of resources (Seringhaus, 1987; Fernández and Nieto, 2005). Indeed, EPPs are provided by governments to help firms, especially small and medium-sized ones, overcome export barriers (Durmuşoğlu et al., 2012; Francis and Collins-Dodd, 2004). Additionally, specific EPPs such as trade shows make an important contribution to the establishment and enhancement of a network infrastructure which enables small firms to grow and expand internationally (Evers and Knight, 2008).

Small firms do not encounter only drawbacks when going international. Geldres-Weiss et al. (2011) stress the advantages for this type of firm when going international - more agility regarding their reactions, more flexibility when having to adapt to foreign customers' responses. Taking into account that small firms, although representing a great majority of the Chilean total population, export much less than their larger counterparts (15% vs. 74%) and are not so successful when exporting (only 7% of them, versus 40%, are permanent exporters; Álvarez, 2004), we argue that favouring small firms' export activity through EPPs is key and that the joint effect on exports of being a small firm (namely a SME) and EPPs needs to be studied.

In sum, as Leonidou et al. (2011) argue, the association between the use of these programs and export performance is not direct but rather is achieved through an enhancement of the firm's resources and capabilities for the firm's size. Smaller firms have a greater need for EPPs (Leonidou et al., 2015; Martincus and Carballo, 2010). Thus, one can expect that the impact of EPPs on export performance may differ depending on the size of the firm, which leads us to the next two propositions:

H2a. Particular combinations of the firm's participation in trade fairs and being a SME are associated with the firm's export activity.

H2b. Particular combinations of the firm's participation in trade missions and being a SME are associated with the firm's export activity.

Configurational effect of firm age and trade fairs/missions on firm export activity

Specific EPP instruments, such as trade shows, are important tools to build the firm's image and reputation as well as for information gathering about the products of a firm (Hansen, 2004). Accordingly, young firms, since they are not as well-known as older ones, may use EPPs to gain recognition among potential partners and customers.

In this vein, young firms (particularly start-up firms) might do better to regard trade shows as an entry-point into long-term networks, from which sales will eventually emerge (Evers and Knight, 2008). In this sense, Faroque and Takahashi (2012) show how 'born global' firms do not follow the common internationalization stages and access to networks that may accelerate these processes through EPPs.

All this suggests that age may moderate the relationship between EPPs and export performance, which leads us to put forward the following hypotheses:

H3a. Particular combinations of a firm's participation in trade fairs and firm age are associated with the firm's export activity.

H3b. Particular combinations of a firm's participation in trade missions and firm age are associated with the firm's export activity.

Configurational effect of firm export experience and trade fairs/missions on firm export activity

The basic objective for EPPs is to act as an external resource for firms to gain experience that is vital for successful foreign market involvement (Gençtürk and Kotabe, 2001).

Firms having different degrees of export experience have different needs (Francis and Collins-Dodd, 2004). In the early export stages, firms can use assistance to become aware of exporting opportunities and benefits, and hence become motivated to export. Later on firms require information about exporting and export planning support. In the third and final export stage, firms need assistance in conducting exporting activities, such as selling their products in export markets (Diamantopoulos et al., 1993).

Moreover, export experience enables the firm to accumulate more foreign market knowledge than is often acquired by firms through collaboration with others who have this knowledge (Evers and Knight, 2008). Additionally, export experience has an impact on knowledge that is important for further exports (Geldres-Weiss et al., 2016). According to this, assuming that specific EPPs are also addressed to gain specific knowledge on export markets, both variables (the firm's export experience and EPP tools) may feed each other and may interact to boost the firm's export competitiveness. Furthermore, export assistance expenditures to experienced exporters

Table 2. Sample description: use of trade missions/trade fairs depending on the firm's characteristics.

Year	Trade missions (%)[a]				Trade fairs (%)[a]			
	All firms	SMEs	Young firms[b]	Non-export experienced firms[b]	All firms	SMEs	Young firms[b]	Non-export experienced firms[b]
2010	74 (11.54)	27(12.00)	40 (13.56)	41 (11.88)	51 (7.96)	14 (6.22)	23 (7.80)	19 (5.51)
2011	114 (17.78)	48 (21.33)	53 (17.97)	71 (20.58)	118 (18.41)	35 (15.56)	45 (15.25)	54 (15.65)
2012	74 (11.54)	27(12.00)	40 (13.56)	46 (13.33)	251 (39.16)	78 (34.67)	108 (36.61)	114 (33.04)
2013	78 (12.17)	25 (11.11)	45 (15.25)	48 (13.91)	153 (23.87)	53 (23.56)	69 (23.39)	74 (21.45)
2014	84 (13.10)	24 (10.67)	48 (16.27)	59 (17.10)	224 (34.95)	78 (34.67)	104 (35.25)	115 (33.33)
2015	98 (15.29)	37(16.44)	48 (16.27)	59 (17.10)	229 (35.73)	74 (32.89)	99 (33.56)	114 (33.04)
No. of firms	641							

[a]Proportion of firms participating.
[b]Lower than the mean value of the variable.

are more likely to result in more exports (Lages and Montgomery, 2005). What is clear from this is that export experience plays a key role in the impact of EPPs and firms' export performance, leading us to propose the following:

H4a. Particular combinations of a firm's participation in trade fairs and the firm's export experience are associated with the firm's export activity.

H4b. Particular combinations of a firm's participation in trade missions and the firm's export experience are associated with the firm's export activity.

Methodology

The data on 641 firms came from ProChile, which reports on the use of international trade fairs and trade missions by firms for each year of the period of study (2010–2015). Table 2 summarizes the sample and, specifically, the use of the two EPPs analysed (trade missions and trade fairs) according to the firms' characteristics.

From Table 2, we see that the proportion of firms that participated in both types of EPPs increased during the period examined (especially in the case of trade fairs: from 7.96% in 2010 to 35.73% in 2015). When looking at the evolution of the profile of the firms participating in the two tools, this behaviour can be observed for small, young and inexperienced firms as well as for their larger, older and more export-experienced counterparts. When comparing both groups of firms, the high growth of the former can be stressed in the specific case of trade fairs, from a low rate of participation (5.51–7.80% in 2010) to a high one (over 33% in 2015). This may be because their scarce resource endowment (Fernández and Nieto, 2005) makes them cautious when consuming resources initially, but once these firms observe that the EPP may work, they become more involved in its use.

Specification of the models

To test the proposed hypotheses considering a specific EPP's single effect (H1a and H1b), we carried out two data-panel analyses:

First, we performed a random effects tobit regression, since our dependent variable is a dichotomous variable indicating whether or not the firm belongs to the group of firms with a positive percentage change in exports from 2010 to 2015. We employed the following specification:

$$EXPORTS_{i,t} = \beta_0 + \beta_1\ EXPORT\ EXPERIANCE_{it-1} + \beta_2 AGE_{i,t-1} + \beta_3\ TRADE\ MISSIONS,_{i,t-1} + \beta_4\ TRADE\ FAIRS_{i,t-1} + \beta_5 SME_{i,t-1} + \varepsilon_i; \quad i = 1,\ 2,...,\ n$$

The dependent variable represents the exports (sales) of firm i in period t. All independent variables (export experience, SME, trade missions, fairs and SME) are for firm i (considering only established companies that operated during the period 2010–2015) and for the period $t-1$. α_i captures the unobservable differences between firms, and finally, ε_{it} is the error term. It is assumed that α_i and ε_{it} are uniformly, independently and normally distributed with a mean of zero and variance of $\sigma_\alpha^2\ and\ \sigma_\varepsilon^2$, respectively, and are independent of (x_{i1}, x_{j2}, , x_{iT}).

Second, we performed a random effects probit regression, since our outcome variable is a dichotomous variable indicating whether or not the firm belongs to the group of firms with a positive percentage change in exports from 2010 to 2015. Thus, we used the following specification:

$$EXPORTS\ \ GROWTH_{i,t} = \beta_0 + \beta_1\ EXPORT\ EXPERIANCE_{it-1} + \beta_2 AGE_{i,t-1} + \beta_3 TRADE\ \ MISSIONS,_{i,t-1} + \beta_4\ TRADE\ FAIRS_{i,t-1} + \beta_5\ SME_{i,t-1} + \varepsilon_i; \quad i = 1,\ 2,...,\ n$$

Again, all independent variables (export experience, SME, trade missions, fairs and age) are for firm *i* (considering only established companies that operated during the period 2010–2015) and for the period $t - 1$. α_i captures the unobservable differences between firms, and finally, ε_{it} is the error term. It is assumed that α_i and ε_{it} are uniformly, independently and normally distributed with a mean of zero and variance of and σ_α^2 *and* σ_ε^2, respectively, and are independent of (x_{i1}, x_{j2}, x_{iT}).

To deal with the self-selection effect (Wagner, 2007), i.e. the bias because only *a priori* more competitive firms (with more resources like size, experience, etc.) are *selected* to enter the export markets, so only the best firms export, in both models (tobit and probit), all explanatory variables were lagged by one-time period to account for the delay in the impact of these variables (Greenhalgh et al., 1994). Introducing these lagged variables reduces the likelihood of covariance problems and improves the probability of inferring a causal relationship (Bernard and Jensen, 1999; Baum, 2006).

To test the configurational impact of both specific EPPs (Hypotheses 2a, 2b, 3a, 3b, 4a and 4b), we relied on a set-theoretic method (Ragin, 2000, 2008). Since set-theoretic methods are a non-correlational approach, they do not need to make any a priori assumption about the underlying distribution of the variables, such as normality. In addition, set-theoretic models allow the researcher to address both quantitative and qualitative aspects of the phenomena researched. Unlike correlational linear approaches that disaggregate cases into independent, separate cases, set-theoretic analyses uncover configurations of qualitative and quantitative attributes that lead to a given outcome and establish relationships between the different configurations as a whole. Furthermore, rather than assuming linear causation and estimating the average effect of a given variable net of all other variables, set-theoretic analyses assume that a given causal condition is necessary or sufficient for an outcome, together with combinations of jointly sufficient causal conditions (Ragin, 2008). This last point implies that a causal condition found to be related in one configuration may even have an inverse relation in some other combination — that is, the effect of causal conditions is not necessarily symmetric (causal asymmetry).

Set-theoretic methods are based on Boolean algebra language, which allows for a formalization of the con-figurational hypotheses advanced earlier. Set theory uses set-subset connections rather than correlations between the variables in order to establish empirical links between the conditions. In terms of set theory, a causal condition is necessary when the outcome is a subset of the causal condition, and a causal condition is sufficient when this condition is a subset of the outcome (Ragin, 2008). It is possible to express these notions in a probabilistic way that is more suitable to empirical testing (Ragin, 2000). Because in the social sciences it is unusual to find perfect set-subset of connections that can apply to 100% of the observed cases, a threshold lower than 100% can be used, giving way to the notion of 'statistically necessary' and 'statistically sufficient' conditions. To compute the empirical strength of statistically necessary and sufficient conditions, researchers rely on consistency and coverage measures ranging from 0 to 1 (Ragin, 2008). Informally, the consistency can be regarded roughly as the proportion of cases that satisfy the condition and the coverage as a measure of the empirical relevance of the set-subset connection found. Formally, they are computed as follows:

$$\text{Consistency} \quad (X \subseteq Y) = \frac{\sum \min(X_i, Y_i)}{\sum Y_i}$$

$$\text{Coverage} \quad (X \subseteq Y) = \frac{\sum \min(X_i, Y_i)}{\sum Y_i}$$

where X_i is the degree of membership of individual *i* in configuration *X*, and Y_i is its degree of membership in outcome *Y*. A consistency above 0.75 is generally accepted as a valid threshold in empirical studies (Fiss, 2011), and it is the one used in this article. Because consistency is a proportion, probabilistic tests can be applied to check for statistical significance (Ragin, 2000: 108–112). We use a Wald test (which uses an *F* distribution) to find out which observed consistency scores are significantly greater than the benchmark value, given the total number of cases included in the sample (Garcia-Castro and Aguilera, 2014).

Measurement of variables

To measure the firm's export activity, we used two different variables: first, the firm's *exports* are appraised - this data is provided by ProChile and records the value of the total firm FOB exports in USD. Second, we calculated the *exports growth* rate, which is a dummy variable accounting for the variation between exports in 2015 and those in 2010. Then we created a rate by dividing the variation by the value in 2010 to ease its interpretation and to account for the volume of firms' exports (related to firm size). Finally, from this variation rate, we computed a dummy variable depending on whether the firm obtains a positive value (1) or a negative one (0).

Trade missions and trade fairs

To study the effect of EPPs, we differentiated between participation in these by using the method developed by Álvarez and Crespi (2000). Thus, we constructed dichotomous variables depending on whether the company took part in each of these two EPPs. Finally, we added the value from each year (2010–2015). Thus, the variable ranged within a scale from 0 to 6.

Table 3. Descriptive statistics and set calibration.

	Descriptive statistics			Membership criteria		
	Total firms	Mean	Standard deviation	Full membership	Crossover point	Full non-membership
Exports	512	2.08e+08	2.66e+09	5.49e+07	1.49e+07	3933339
Export growth[a]	511	60.06%	0.42		Crisp set (1,0)	
Trade missions	639	0.81	1.03	2	1	0
Trade fairs	639	1.60	1.41	3	2	1
Export experience	639	9.25	6.13	17	9	3
SME[a]	639	64.84%	0.48		Crisp set (1,0)	
Age	634	12.33	5.98	18	14	6

[a]These are dummy variables and their means refer to the percentage of cases where Export growth and SME take value of 1.

As the literature has recently considered a great number of control variables (Sousa et al., 2008) and because these determinants may exert a strong impact on the firm's export behaviour (Chetty and Hamilton, 1993), we controlled for the following determinants: first, *export experience*, which is a key factor for companies when acquiring knowledge about export markets (Geldres-Weiss et al., 2016). This has been approximated as the total number of years the company has been exporting (Oura et al., 2016). The second, firm age, is simply the number of years that have passed since the founding of the company. This is one of the most widely used variables in the literature on exports (Leonidou et al., 2007). And third, *Small and Medium Enterprises (SME).* Size matters since large firms have more resources to deal with internationalization, allowing them to meet the costs of exporting more easily than small firms (Fernández and Nieto, 2005; Katsikeas et al., 2000). This has been corroborated in most of the studies on export performance, reviewed by Chetty and Hamilton (1993). Indeed, in recent years, the literature on export performance has focused on small- to medium-sized firms (Sousa et al., 2008). To account for the size effect, and since, from the available information, we know which firms are enrolled in a specific programme for SMEs, we created a dummy variable indicating whether the firm is a large organization (value = 1) or a small one (value = 0).

Set calibration for the fuzzy-set model

Set-theoretic analysis requires a prior transformation of variables into sets that are calibrated regarding full membership, the cross-over point of maximum ambiguity and full non-membership regarding membership in the set of interest (Fiss, 2011; Ragin, 2000, 2008). These values are qualitative anchors that calibrate a measure with regard to substantively meaningful thresholds. This calibration is essential to any set-theoretic analysis because it determines which cases belong to each of the sets analysed and therefore the results obtained are sensitive to these calibration (Ragin, 2008). Only for dummy variables (0/1) can this calibration be exerted directly from the original variable into a crisp set, where 1 indicates full membership and 0 indicates full non-membership. We follow the direct method described by Ragin (2008). Thus, the non-dummy variables (trade missions, trade fairs and export experience) have been calibrated by using 20%, 50% and 80% percentiles to create a fuzzy set, following Fiss (2011) and Garcia-Castro and Aguilera (2014).

Next, we show how the calibration has been done for each variable in Table 3, together with a description of each variable included in both the probit and in the fuzzy-set models.

Results

Table 4 provides information about the correlations among the variables used in the basic econometric models. All the values are below 0.56, which is the maximum value recommended for the test of multicollinearity (Filipescu et al., 2009; Leiblein et al., 2002). Therefore, we can evaluate the impact of these correlations by testing for the inflation of variance (VIF), which obtained a maximum value of 1.34. These levels are considerably lower than 10, at which point the results are not biased by multicollinearity (Baum, 2006).

Next, to test the individual effect of single participation in specific EPPs (namely, trade fairs or trade missions) on a firm's exports while controlling for some firm-specific characteristics, as proposed in H1a and H1b, we ran a random effect (RE) longitudinal tobit regression for the considered period (2010–2015) when the dependent variable is the *Exports* of the firm and an RE probit regression when it is the *Exports Growth.* The results of both regressions are shown in Table 5. As can be seen in Table 5, none of the coefficients corresponding to the trade missions and trade fairs are significant. This may be due to three reasons: (1) the results of the participation of the firm in these two EPPs may be observed in a longer term than the

Table 4. Pairwise correlation values and VIF values.

	Model 1 ('Exports' as dependent variable)					
	1	2	3	4	5	VIF
1. Exports	1.0000					–
2. Trade missions	−0.0034	1.0000				1.01
3. Trade fairs	0.0291	0.0253	1.0000			1.02
4. Size	−0.0255	0.0077	0.0354	1.0000		1.07
5. Age	−0.0618*	0.0529*	0.0407	0.2136*	1.0000	1.31
6. Export experience	0.0761*	0.0629*	0.1294*	0.2363*	0.4728*	1.34
	Model 2 ('Exports growth' as dependent variable)					
	1	2	3	4	5	VIF
1. Exports growth	1.0000					–
2. Trade missions	0.0206	1.0000				1.01
3. Trade fairs	−0.0171	0.0253	1.0000			1.02
4. Size	0.0359	0.0077	0.0354	1.0000		1.07
5. Age	−0.0160	0.0529*	0.0407	0.2136*	1.0000	1.31
6. Export experience	−0.0554*	0.0629*	0.1294*	0.2363*	0.4728*	1.34

*$p < 0.01$.

Table 5. RE tobit/probit regression of the single effect of some EPPs (missions and fairs) on the firm export activity (2010–2015).

	Model 1: Dependent variable = Exports				Model 2: Dependent variable=Exports growth			
	Coefficient	Std. Err.	*t*	*P*> |t|	Coefficient	Std. Err.	*Z*	*P* > |z|
Trade missions	−2,259,051	2.12e+07	−0.11	0.915	0.061169	0.0595743	1.03	0.305
Trade fairs	1.79e+07	1.65e+07	1.08	0.279	−0.0325514	0.0464373	−0.70	0.483
Export experience	9,855,751	1318527	7.47	0.000	0.0135028	0.0037072	−3.64	0.000
SME	−3.09e+07	1.57e+07	−1.97	0.049	−0.1367282	0.0441279	3.10	0.002
Age	−9,171,596	1,387,289	−6.61	0.000	0.0013792	0.0038991	0.35	0.724
Constant	4.77e+07	1.96e+07	2.44	0.015	0.0993261	0.0549511	1.81	0.071
No. of observations	3810				3810			
Pseudo R^2	0.0005				0.0044			
LR $chi^2(5)$ (Prob > chi^2)	74.77 (0.000)				23.41 (0.000)			
Log likelihood	–81,294.644				–2,626.6864			

Note: The coefficients are marginal effects and represent the change in probability due to a standard deviation increase in the independent variable in the means of the other variables (or the change from 0 to 1 in the case of a dummy variable).

considered term of six years (2010–2015); (2) a firm that is already a consolidated exporter (once the firm is well recognized in the export markets and has a great deal of knowledge about exporting) and that therefore boosts its exports does not need these promotion instruments to increase its image and knowledge; and (3) what really matters is the combination of such use with the firm's characteristics, which we look at next. The results are quite similar for both models accounting for different explained variables, what suggests robustness.

Regarding the control variables shown in Table 5, the significant coefficient of the export experience is noted in both models, which corroborates the key role of this variable in acquiring knowledge (Geldres-Weiss et al., 2016). Moreover, being a small firm (namely an SME) restrains a firm's export intensity in the two models. This is in accordance with the vast majority of the literature and may be explained from an RBV by the scant resources for their internationalization that these small firms usually have (Fernández and Nieto, 2005). Finally, age appears to exert a negative impact on the firm's export activity. This may be interpreted according to the Chilean context, where traditional and old firms are usually more conservative and attached to past habits, while young ones show greater entrepreneurial spirit, are more innovative and therefore seek international opportunities to a greater extent.

Table 6. Necessity analysis.

	Model 1				Model 2			
	Exports		~Exports		Exportsg	Exports growth		~Exports growth
	Consistency	Coverage	Consistency	Coverage	Consistency	Coverage	Consistency	Coverage
Export experience	0.817471	0.750179	0.727701	0.665712	0.540286	0.761383	0.571034	0.238617
~Export experience	0.635724	0.700774	0.726918	0.798796	0.459714	0.783275	0.428966	0.216725
SME	0.638065	0.511250	0.611895	0.488750	0.691207	0.822384	0.503448	0.177616
~SME	0.361934	0.483333	0.388107	0.516667	0.308793	0.677130	0.496552	0.322870
Trade missions	0.240249	0.867606	0.248044	0.892958	0.145194	0.810502	0.114483	0.189498
~Trade missions	0.970357	0.564172	0.663225	0.558277	0.854806	0.765007	0.885517	0.234993
Age	0.728548	0.817863	0.691707	0.774081	0.469939	0.760927	0.497931	0.239073
~Age	0.798751	0.722144	0.837247	0.754584	0.530061	0.780723	0.502069	0.219277
Trade fairs	0.460218	0.781457	0.461660	0.781457	0.332106	0.839710	0.213793	0.160290
~Trade fairs	0.871294	0.618837	0.870893	0.616620	0.667894	0.741262	0.786207	0.258738

However, even when taking into account the results presented above, the extremely low R^2 (Pseudo R^2 =0.0005 in model 1 and 0.0044 in model 2) and the consequent poor model fit suggest that such a model may not be adequate to identify the effect of the specific EPPs being studied here (trade fairs and trade missions) on firm export performance, which (alongside the theoretical arguments discussed earlier) is why we argue that the configurational approach tested in the following analyses, rather than a single-effect one, may explain the impact of the considered EPPs on firm export activity better.

When examining the necessity analysis results (Table 6), only the consistency values of the absence of trade missions for the case of exports as the outcome (model 1) are greater than 0.90, the minimum threshold required to argue that a variable is a necessary cause for an outcome (this same variable is quite close to that value for 'Exports Growth' -model 2 – but does not reach this threshold), which implies that instances of the outcome will constitute a subset of instances of this cause (Ragin, 2006).

Below, we show the results obtained when carrying out the determination of the configurations to include in the analysis (Table 7). In doing so, we summarize the scores and description of each configuration considering trade fairs and those including trade missions for both dependent variables.

Following Ragin (2006), the frequency threshold is selected. The default number of cases is 1, but may be changed by typing the selected frequency threshold into the field. In the second field, the consistency threshold is selected. The default consistency is 0.8 by selecting the 'Default Automate' process of the fs/QCA2.0 software.

Thus, following Ragin (2006), the following modifications to the truth tables shown above in Table 7 are carried out to obtain the intermediate solution:[2]

1. applying a frequency threshold of 1 to the data and eliminating configurations that do not have any observations (two configurations); and
2. selecting a consistency threshold of 0.80 and placing a 1 in the 'Exports' Column for configurations with 0.80 consistency or greater (13 configurations) and a 0 for cases with lower consistency (two configurations).

Additionally, we have to follow the good practices stated by Schneider and Wagemann (2012), who argue that 'when the consistency values of a given cause for Y and for ~Y are quite similar, this indicates that the (Proportional Reduction in Inconsistency) PRI for this cause is low, so one should reject the idea that this configuration may be a subset of Y' (Schneider and Wagemann, 2012: 242). If not, the same condition leads to the contradictory result that it is neces-sary in obtaining two opposite outcomes. Taking into account this argument, we should discard every configuration with null PRI consistency. Thus, on coding with a 0 in the output column every row in which the PRI is equal to 0.0000, we did not select three configurations for the final solution (three when the output is 'Exports', and none when the output is 'Exports Growth').

Table 8 shows the results of our fuzzy-set analysis. We follow the notation recently introduced by Ragin and Fiss (2009) and Fiss (2011), in which full circles indicate the presence of a condition, while crossed-out circles indicate the absence of a condition. If a condition does not have a full or crossed-out circle, it means that this particular condition is not binding in that specific configuration.

Table 8 indicates all the paths leading the firm to achieve membership in 'Exports' (model 1). When disentangling trade fairs, our analysis uncovers three different configurations related to trade fairs that are statistically sufficient to indicate membership in the variable 'exports'. These three configurations are numbers4 (Young, SME

Table 7. Truth table.

Export exper.	Model 1 (Outcome = Exports)									Model 2 (Outcome = Exports									
	SME	Trade missions	Trade fairs	Age	#	Exports	Raw consist.	PRI consist.	SYM consist.	Export exper.	SME	Trade missions	Trade fairs	Age	#	Export growt	Rawconsist.	PRIconsist.	SYMconsist.
0	1	0	1	1	2	1	0.9700	0.4000	0.4000	0	1	1	1	1	3	1	0.8837	0.8837	0.8837
0	0	1	1	0	1	1	0.9583	0.5000	0.5000	1	1	1	1	1	4	1	0.8777	0.8777	0.8777
1	0	0	1	1	4	1	0.9551	0.5882	0.5882	0	1	1	0	0	4	1	0.8710	0.8710	0.8710
0	1	1	1	1	1	0	0.9551	0.0000	0.0000	0	1	0	1	0	18	1	0.8620	0.8620	0.8620
1	1	1	0	0	1	1	0.9529	0.5294	0.5294	0	1	1	0	1	1	1	0.8557	0.8557	0.8557
1	0	0	1	0	1	1	0.9430	0.5000	0.5000	1	1	1	0	0	1	1	0.8532	0.8532	0.8532
0	0	1	0	0	3	1	0.9416	0.4167	0.4167	1	1	0	1	1	74	1	0.8504	0.8504	0.8504
1	1	1	0	1	5	1	0.9412	0.4444	0.4444	0	1	0	1	1	8	1	0.8484	0.8484	0.8484
1	1	1	1	1	4	1	0.9406	0.5714	0.5714	1	1	0	1	0	17	1	0.8439	0.8439	0.8439
0	1	1	0	0	4	1	0.9405	0.3333	0.3571	1	1	1	0	1	9	1	0.8423	0.8423	0.8423
0	1	1	1	0	4	1	0.9293	0.3636	0.3636	0	1	0	0	0	52	1	0.8313	0.8313	0.8313
1	0	1	1	0	1	0	0.9286	0.0000	0.0000	0	1	0	0	1	37	1	0.8163	0.8163	0.8163
0	1	0	0	1	17	1	0.9244	0.4118	0.4118	1	1	0	0	0	34	1	0.8073	0.8073	0.8073
0	0	0	1	1	4	1	0.9145	0.2353	0.2353	1	1	0	0	1	145	0	0.7881	0.7881	0.7881
0	0	1	0	1	17	1	0.9103	0.5926	0.5926	0	0	1	1	0	1	0	0.7759	0.7759	0.7759
1	0	1	1	1	2	0	0.9067	0.0000	0.0000	0	0	0	1	1	5	0	0.7366	0.7366	0.7366
0	1	0	1	0	18	1	0.9003	0.2791	0.2927	0	0	0	1	0	13	0	0.7361	0.7361	0.7361
1	1	0	0	0	34	1	0.8996	0.6216	0.6258	1	0	0	1	1	8	0	0.7333	0.7333	0.7333
0	0	0	1	0	13	1	0.8907	0.4444	0.4571	1	0	0	1	0	2	0	0.7254	0.7254	0.7254
1	0	0	0	1	39	1	0.8835	0.5814	0.5814	1	0	1	1	1	2	0	0.7222	0.7222	0.7222
1	1	0	1	1	51	1	0.8834	0.5794	0.5794	1	0	1	1	0	1	0	0.7200	0.7200	0.7200
1	1	0	0	1	110	1	0.8698	0.6296	0.6296	0	0	1	0	0	3	0	0.6985	0.6985	0.6985
0	0	0	0	1	20	1	0.8628	0.3559	0.3559	0	0	0	0	0	75	0	0.6978	0.6978	0.6978
1	0	0	0	0	28	1	0.8571	0.4643	0.4643	1	0	1	0	1	1	0	0.6891	0.6891	0.6891
0	1	0	0	0	52	1	0.8290	0.3120	0.3451	0	0	0	0	1	29	0	0.6715	0.6715	0.6715
0	0	0	0	0	75	0	0.7368	0.3353	0.3791	1	0	0	0	0	28	0	0.6622	0.6622	0.6622
										1	0	0	0	1	55	0	0.6440	0.6440	0.6440

Table 8. Fuzzy set results (Intermediate solution).

Model 1 (Outcome = Exports)[a]							
	1 Old and trade mission non-participants	2 Export experienced trade mission non-participants	3 Young and non-export experienced trade mission participants	4 Young SME non-trade fair participants	5 Old, SME and export experienced	6 Trade mission and fair participants	7 Young and non-export experienced trade fair participants
Trade missions	⊗	⊗	●			●	
Trade fairs				⊗	●	●	●
Export experience		●	⊗				⊗
SME	●			●	●		
Age			⊗	⊗	●		⊗
Consistency	0.825735	0.761481	0.924342	0.798868	0.833103	0.795549	0.891733
Raw coverage	0.720749	0.801871	0.219189	0.439937	0.471138	0.446177	0.353353
Overall solution consistency				0.699464			
Overall solution coverage				0.914976			
Model 2 (Outcome = Exports growth)[b]							
	1 SME and non-export experienced	2 SME, young, and trad missions non-participants	3 e SME, young and trade fairs non-participants	4 SME, trade fair participants and trade missions non-participants	5 SME, trade mission participants and trade fairs non-participants	6 SME, old and trade fair participants	7 SME, old and trade mission participants
Trade missions		⊗		⊗	●		●
Trade fairs				●	⊗	●	
Export experience	⊗		⊗				
SME	●	●	●	●	●	●	●
Age		⊗	⊗			●	●
Consistency	0.845967	0.830614	0.819956	0.868976	0.859437	0.857914	0.855421
Raw coverage	0.283026	0.423313	0.292433	0.235992	0.087526	0.195092	0.087117
Overall solution consistency				0.842834			
Overall solution coverage				0.423313			

This table reports the configurations sufficient to cause the firm to be over the outcome cut-off point. The causal conditions are shown in rows. The resulting configurations are shown in columns. Full circles ● indicate the presence of a condition, and circles with ⊗ indicate its absence. Blank spaces indicate that the condition is not binding for that particular configuration (i.e. this condition may be present or absent). In crisp sets, the presence/absence of a condition means that the degree of membership in the set is exactly 1/0, whereas in fuzzy sets the presence/absence of a condition means that the degree of membership is over/below the crossover point (i.e. membership higher than 0.5). More details of the notation used can be found in the studies by Fiss (2011) and Ragin and Fiss (2009).

[a]Frequency cut-off: 1.000000 consistency cut-off: 0.829027.

[b]Frequency cut-off: 1.000000 consistency cut-off: 0.807264.

non-trade fair participants), 6 (Trade mission and fair participants) and 7 (Young and non-export experienced trade fair participants). Any one of these three solutions is sufficient by itself, reinforcing the idea of equifinality: different paths lead to the same outcome. Configuration 4 links being an SME with participation in trade fairs. This configuration shows a consistency of 0.798868: the degree to which solution terms and the solution as a whole are subsets of the outcome is rather high (Ragin, 2006). Nevertheless, this solution term coverage – how much of the outcome is covered by this solution term is not so high (0.439937) – means that the outcome is explained by other solutions. So, we have to analyse whether there is any combination that relates being an SME and trade fairs that impacts 'Export Growth' (model 2). As can be seen, all seven configurations include being an SME. Thus, according to Boolean logic, being a SME implies every configuration, not only these relating trade fairs and SME on the firm 'Export Growth' (3, 4 and 5), but each one which leads us to argue that there may be a mutual permutation bias.[3] Using Fiss (2011), the SME attribute may be a core element; it is a causal condition for which the evidence indicates a strong causal relationship with the gathering of 'Export Growth'. Thus, we can conclude that the findings that being an SME and participating in trade fairs build joint configurations that exert a strong effect on the firm's export activity are robust to both measures of firm activity, and H3a is accepted without doubt.

When analysing the link between being an SME and participating in trade missions (H3b), there are no configurations linking both variables that impact significantly on the outcome of firm 'Exports' (model 1). Nevertheless, when looking at the effect on 'Export Growth', as previously, we find three configurations that combine both variables and influence t firms' 'Export Growth' (4,5 and 7), which forces us to accept H3b, but only regarding firm 'Export Growth', but not firm 'Exports'. Please note that what was said previously about neutral permutations and SMEs again applies. In sum, we partially accept H3b.

On the other hand, we now focus on the combinations including the firm's age. When analysing configurations that also contain the variable 'trade fairs', which appear in the intermediate solution shown in Table 8 and in the outcome 'Exports' (model 1), we find two significant configurations (4 and 7), both linking the absence of membership in the variable 'Age' (i.e. being a young firm with the firm's participation in such EPP instrument, which will be discussed shortly). When considering a firm's ''Exports Growth'' as the outcome (model 2), configurations 3 and 6 now apply. Thus, we can conclude that age together with trade fairs impact significantly on the export activity, therefore accepting H4a.

When disentangling combinations of age and trade missions on the firm's export activity, two configurations result from the analysis, both for the outcome 'Exports' (1 and 3) and for 'Exports Growth' (2 and 7). All these results lead us to accept H4b.

Next, we focus on the configurations that combine a firm's 'Export Experience' with any of the two EPPs considered that impact significantly on a firm's export activity. First, we select a firm's 'Exports' to approach its export activity (model 1). As can be seen in Table 8, there is one configuration that relates the firm's export experience with trade fairs (configuration 7). However, there is no configuration that impacts on a firm's 'Export Growth' (model 2). Both findings suggest that we can accept H5a only partially.

Finally, we study the combinations that include a variable like firm's 'Export Experience', which interacts with trade missions to influence firm export activity. One configuration (number 2) of firms' exports indicates that experience together with non-participation in such an instrument exerts a significant impact on a firm's 'Exports'. Being young and non-experienced together with using a trade mission (configuration 3) impacts on firms' exports. Nevertheless, when looking at the effect on a firm's 'Exports Growth', no configurations are shown. Since we have two contradictory results, H5b is again partially accepted.

In short, we can stress the following overall results of the analysis: the high overall solution consistency of model 2 (0.842834) indicates that the set-subset connections found in it are strong and well supported by the data. Our analysis uncovers seven different configurations statistically sufficient to cause membership in the variable 'Exports Growth'. Any one of these seven solutions is sufficient in itself, reinforcing the idea of equifinality: different paths lead to the same outcome. Regarding the 'Exports' outcome (model 1), the high overall coverage can be underlined (0.914976). This implies that much of the outcome is explained by the solution as a whole (Ragin, 2006).

In brief, after carrying out a sufficient analysis to consider all the hypotheses, we now present a table (Table 9) that summarizes the results of these analyses.

Discussion

After showing the results and testing the hypotheses, we now discuss the results in light of previous literature. Overall, the configurations shown in Table 8 may explain the export activity of the firm to a great extent. However, to identify the role of specific EPPs (trade fairs and trade missions) we focus on the interplay between these instruments and other firm attributes.

The joint effect of being an SME together with trade fairs emphasizes different effects for exports and their growth. Only one configuration shows that being an SME with the absence of trade fair participation results in greater 'Exports', while for 'Exports Growth', all seven configurations contain both features (being an SME

Table 9. Hypotheses corroboration.

H1	Single effect of trade fairs on the firm's export activity.	Not accepted
H2	Single effect of trade missions on the firm's export activity.	Not accepted
H3a	Configurational effect between being an SME and trade fairs on the firm's export activity.	Accepted
H3b	Configurational effect between being an SME and trade missions on the firm's export activity.	Accepted partially
H4a	Configurational effect between age and trade fairs on the firm's export activity.	Accepted
H4b	Configurational effect between age and trade missions on the firm's export activity.	Accepted
H5a	Configurational effect between export experience and trade fairs on the firm's export activity.	Accepted partially
H5b	Configurational effect between export experience and trade missions on the firm's export activity.	Accepted partially

together with participation in trade fairs). All these configurations have in common that the effect is greater when the firm is an SME. The finding that SMEs benefit more from trade fairs and trade missions than big firms agrees with Gopalakrishna et al. (1995) and Spence (2003), who found that trade fair and trade missions favour export sales, especially for small firms, which have special problems when operating in export markets (Martincus and Carballo, 2010). Additionally, we may explain this result from a RBV perspective: small firms have fewer resources and therefore are less ready to export (Fernández and Nieto, 2005), but trade fairs and trade missions help the firms that need to develop the required export-related resources (Leonidou et al., 2015). This is clearer when the firm needs to increase its exports, rather than its absolute exports, which depends absolutely on its size and, consequently, on its resources. This finding suggests that the incidence of mutual permutation may be important since being an SME may be a core necessary cause in explaining a firm's export competitiveness (Fiss, 2011).

Regarding the interplay between firm age and specific EPPs, most configurations that include the participation of the firm at trade fairs and the age of the firm do it for the case of young firms (i.e. absence of age), while the configurations that join age and trade missions do so for old firms. This corroborates that trade fairs offer current and potential exporters (therefore young firms) a platform to exhibit and present their products/services to all participants and visitors to an international fair, with the possibility of conducting export business with potential clients (ProChile, 2017). Moreover, we have to interpret this finding in light of the awareness of the existence of born-global firms: these firms export from their foundation, accelerating in the internationalization stages predicted by the traditional sequential internationalization theories (Faroque and Takahashi, 2012). Thus, firms of this kind lack resources when entering export markets and therefore benefit from trade fairs, which are an important tool to build a firm's image (Hansen, 2004). The needs of old firms are different. These firms already have an image and resources; what they need is to enter foreign markets (Seringhaus, 1989; Spence and Crick, 2001) and, once there, to build trust-based relationships with foreign partners. Trade missions help with this (Spence, 2003).

Finally, we find that some configurations that relate lack of export experience and a firm's participation in the specific EPPs analysed are necessary conditions that favour exports (for the case of exports growth, no configurations result). Departing from the strategic key importance of some intangible resources, chiefly knowledge (Nonaka and Takeuchi, 1995), and being aware that knowledge acquisition is essential and that it usually happens through experience, especially in the export arena (Geldres-Weiss et al., 2016), non-experienced firms have to address a great limitation since they lack this experiential knowledge. Trade fairs may be the place where the firm overcomes this obstacle, since this EPP is an important promotion tool for marketing many products and services (Hansen, 2004).

Conclusions

When analysing the impact of EPP on firm export activity, there is general theoretical agreement in the literature in stressing that EPPs favour a firm's export competitiveness, and so we found that the empirical results are contradictory because most of them focus on EPPs in general, with few studies disentangling the effects of individual EPPs (e.g., Leonidou et al., 2011). Additionally, research has usually focused on individual effects rather than on the combination of EPP participation with other firm attributes. To overcome all these limitations, in this study we examine which effect matters most: the single-effect (explored through a conventional regression based on the covariation values) or the configurational one (carrying out a crisp-set/fuzzy-set analysis following the procedure proposed by Ragin, 2006), while focusing on the two specific EPPs most widely researched and most popular among the firms that want to succeed in the export markets, namely trade fairs and trade missions.

When comparing which effects matter most for firm export activity (approximated, to increase the robustness of the results, in a two ways: by firm total exports and firm exports growth), the low fit found for the conventional regressions (R^2 of 0.0005 and 0.0044) contrasts with the higher overall coverage values (0.914976 and 0.423313) obtained in the intermediate solution of the sufficiency

analysis of the configurational approach. Since these coverage values show to what extent the outcome is covered by the solution (Ragin, 2006), we argue that this difference suggests that the configurational effect explains the influence of specific EPPs on firm export activity better than the single-effects approach.

In sum, we find that a firm's use of specific EPPs impacts on its export competitiveness, but in combination with other determinants (namely, being a SME, the firm age and its export combination). Indeed, our real contribution is a methodological one: in addition to developing different methods, we do so through a longitudinal approach for the period 2010 – 2015. We argue that through the panel-data analysis combined with the lagging of all dependent variables in the tobit/probit regressions, we better identify the causality relationships among the variables (Baum, 2006), thereby minimizing some bias caused by the causality link among the variables, such as self-selection (i.e. the export markets *select* the *better* firms in advance; Wagner, 2007).

Regarding the main results found in the sufficiency analysis, overall the effectiveness of specific EPPs is greater for small, young and non-export experienced firms. As predicted by the RBV, these firms suffer from a lack of resources (Fernandez and Nieto, 2005), especially knowledge (Nonaka and Takeuchi, 1995). As previously found in the literature (Leonidou et al., 2015), SMEs that are young and without export experience may compensate for this deficit through trade fairs and trade missions and so broaden their resource platforms.

This study, and specifically the method on which we rely, has some limitations: fuzzy-set methods are sensitive to set calibration, and different crossover points might lead to different results. Given the lack of previous applications of fuzzy sets to the export promotion literature, it would be desirable to share best practices in set calibration, the most appropriate membership breakpoints, and so on. This would facilitate a comparison between different empirical works. By improving this calibration, researchers may learn more about the object under study because membership and non-membership in a given set has to be guided by some qualitative definition of the set and the conditions for membership in it instead of using just a traditional uncalibrated measure.

This study is limited in scope, which means that the results, like other investigations, should be treated with caution. These limitations restrain the generalization of the findings of this work. Among the main limitations, we would stress the following: regarding the selection of explanatory variables, other variables could have been relevant, such as controlling for the industry to which the firm belongs. This study is also limited to the investigation of trade shows and trade missions in Chile, and other countries should be explored in future research on exports and use of EPPs.

Moreover, the analysis concentrates on the mode of entry into international markets which is the most common and most appropriate for Chilean firms, namely exporting. However, it leaves untouched other types of activity that could be interesting areas of study, especially in relation to other industries, markets and international modes of entry (foreign direct investment strategies, alliances, licensing and joint ventures). In this sense, Salomon and Shaver (2005) have pointed out that although exporting facilitates information flow from the host market, it does not provide sufficient information flow to result in the expected effects. Under this condition, more involved methods of international expansion are required to source knowledge from the local environment, as FDI does. All these limitations are a consequence of the nature of the information available; in the future, using other methods of data collection, such as surveys and personal interviews, is recommended.

Finally, the effects on exports are more easily detected when the firm's exports go to a technologically much more developed country (Silva et al., 2010). That is why it is recommended to control for market destination, in order to consider the technological distance between both the country of origin and the destination of the exports. In sum, all the above-mentioned limitations should be overcome in future lines of research.

Regarding the implications of this work, we consider that the main objective of this study (to examine the relationship-specific, government-supported EPPs – trade missions and trade fairs – and export competitiveness) has been achieved. By concluding that what really matters is the configuration between EPPs and some firm-specific features, we point out the path to follow, showing that this may be an appropriate method for other studies that may also use a configurational approach to look at the EPP impact on firm export performance in different contexts. Additionally, public policy makers should address their efforts to those firms lacking resources (mainly small, young and non-experienced ones), with measures like facilitating access to these instruments for firms that would really benefit the most from them.

There are two implications of our findings for firm owners and managers. First, by developing a fully articulated empirical typology of firms based on their participation in some specific EPPs and some other firm-particular traits, managers can easily determine the category in which their firm falls. Making these differences in type of firm explicit will make it easier for practitioners to assess their opportunities and challenges. We can decide how the research findings apply to distinct firms. Secondly, owners and managers can determine the proximity of their firm to the ideal configurations depicted and what can be done to boost the firm's exports. The contingent analysis presented in this article illustrates how managers may benefit from more detailed maps and tools to decide when

it makes economic sense to transfer 'best practices' from one firm to another and when it does not. In this sense, managers and/or owners have to be aware that when the firm they direct/own is small, young and without export experience, specific EPPs like trade fairs or trade missions may enhance the firm's export competitiveness.

Funding

The author(s) disclosed receipt of the following financial support for the research, authorship, and/or publication of this article: This research was supported partially by "Universidad de La Frontera (Chile), Project DI18-0091."

Notes

1. In contrast to private traditional EPPs, governmental EPPS are funded exclusively with public/state financial resources.
2. This intermediate solution is recommended because it's the most conservative regarding treatment of the remainders (Ragin, 2008). It incorporates into the solution only remainders that are 'easy' counterfactual cases. The designation of 'easy' versus 'difficult' is based on user-supplied information regarding the connection between each causal condition and the outcome.
3. The authors want to thank the reviewers for this comment.

References

Álvarez, R.E., 2004. ''Sources of export success in small- and medium-sized enterprises: the impact of public programs''. Int. Bus. Rev. 13 (3), 383–402.

Álvarez, R., Crespi, G.C., 2000. ''Exporter performance and promotion instruments: Chilean empirical evidence''. Estud. Economía 27 (2), 225–241.

Barney, J.B., 1991. Firm resources and sustained competitive advantage. J. Manage. 17(1), 99–120.

Baum, C.F., 2006. An Introduction to Modern Econometrics Using Stata. Stata Press, Texas.

Bernard, A.B., Jensen, J.B., 1999. Exceptional exporter performance: cause, effect, or both? J. Int. Econ. 47 (1), 1–25.

Central Intelligence Agency (CIA), 2018. The World Factbook 2012, Retrieved from https://www.cia.gov/library/publications/the-world-factbook/index (last accessed 02.05.18).

Chang, Y., Ayyub, B.M., 2001. Fuzzy regression methods - a comparative assessment. Fuzzy Sets Syst. 119, 187–203.

Chetty, S.K., Hamilton, R.T., 1993. Firm-level determinants of export performance: a meta-analysis. Int. Market. Rev. 10 (3), 26–34.

Diamantopoulos, A., Schlegelmilch, B.B., Tse, K.Y., 1993. Understanding the role of export marketing assistance: empirical evidence and research needs. Eur. J. Market. 27 (4), 5–18.

Durmuşoğlu, S.S., Apfelthaler, G., Nayir, D.Z., Alvarez, R., Mughan, T., 2012. The effect of government-designed export promotion service use on small and medium-sized enterprise goal achievement: a multidimensional view of export performance. Ind. Market. Manage. 41 (4), 680–691.

Eriksson, K., Johanson, J., Majkgård, A., Sharma, D.D., 2000. Effect of variation on knowledge accumulation in the internationalization process. Int. Stud. Manage. Org. 30 (1), 26–44.

Evers, N., Knight, J., 2008. Role of international trade shows in small firm internationalization: a network perspective. Int. Market. Rev. 25 (5), 544–562.

Faroque, A.R., Takahashi, Y., 2012. Export assistance: the way back and forward. In: An Empirical Investigation into Developing Country ''Born Globals''. Springer, New York.

Fernández, Z., Nieto, M.J., 2005. Internationalization strategy of small and medium-sized family businesses: some influential factors. Fam. Bus. Rev. 18 (1), 77–89.

Filipescu, D.A., Rialp, A., Rialp, J., 2009. Internationalisation and technological innovation: empirical evidenc on their mutual relationship. Adv. Int. Market. 20, 125–154.

Fiss, P.C., 2011. Building better causal theories: a fuzzy set approach to typologies in organization research. Acad. Manage. J. 54 (2), 393–420.

Francis, J., Collins-Dodd, C., 2004. Impact of export promotion programs on firm competencies, strategies and performance: the case of Canadian high-technology SMEs. Int. Market. Rev. 21 (4/5), 474–495.

Garcia-Castro, R., Aguilera, R.V., 2014. Family involvement in business and financial performance: a set-theoretic cross-national inquiry. J. Fam. Bus. Strat. 5 (1), 85–96.

Geldres-Weiss, V.V., Carrasco-Roa, J.A., 2016. Impact evaluation of national export promotion programs on export firms using contrast groups. Int. J. Export Market. 1 (1), 77–95.

Geldres-Weiss, V.V., Etchebarne, M.S., Bustos, L.H., 2011. The impact of governmental export promotion on the firm's export performance. Academia, Revista Latinoamericana de Adminis-tración 47, 1–17.

Geldres-Weiss, V.V., Uribe-Borquez, C.T., Coudounaris, D.N., Monreal-Perez, J., 2016. Innovation and experiential knowledge in firm exports: applying the initial U-model. J. Bus. Res. 69 (11), 5076–5081.

Gençtürk, E.F., Kotabe, M., 2001. The effect of export assistance program usage on export performance: a contingency explanation. J. Int. Market. 9 (2), 51–72.

Gopalakrishna, S., Lilien, G.L., Williams, J.D., Sequeira, I.K., 1995. Do trade shows pay off? J. Market. 59 (3), 75–83.

Greenhalgh, C., Taylor, P., Wilson, R., 1994. Innovation and export volumes and prices: a disaggregated study. Oxfor Econ. Papers 46, 102–134.

Hansen, K., 2004. Measuring performance at trade shows: scale development and validation. J. Bus. Res. 57, 1–13.

Johanson, J., Vahlne, J.E., 1977. The internationalization process of the firm - a model of knowledge development and increasing foreign market commitments. J. Int. Bus. Stud. 8 (1), 23–32.

Katsikeas, C.S., Leonidou, L.Y., Morgan, N.A., 2000. Firm-level export performance assessment: review, evaluation and development. J. Acad. Market. Sci. 28 (4), 493–511.

Lages, F.L., Montgomery, B.D., 2005. The relationship between export assistance and performance improvement in Portuguese export ventures: an empirical test of the mediating role of pricing strategy adaptation. Eur. J. Market. 39 (7/8), 755–784.

Leiblein, M.J., Reuer, J.J., Dalsace, R, 2002. Do make or buy decisions matter? The influence of organizational governance

on technological performance. Strat. Manage. J. 23 (10), 817–833.

Leonidou, L.C., Katsikeas, C.S., Palihawadana, D., Spyropoulou, S., 2007. An analytical review of the factors stimulating smaller firms to export: implications for policy makers. Int. Market. Rev. 24 (6), 735–770.

Leonidou, L.C., Palihawadana, D., Theodosiou, M., 2011. National export-promotion programs as drivers of organizational resources and capabilities: effects on strategy, competitive advantage, and performance. J. Int. Market. 19 (2), 1–29.

Leonidou, L., Samiee, S., Geldres, V.V., 2015. Using national export promotion programs to assist smaller firms' international entrepreneurial initiatives. In: Ghauri, P.N., Kirpalani, V.H.M. (Eds.), Handbook of Research on International Entrepreneurship Strategy: Improving SME Performance Globally. Edward Elgar, Cheltenham, UK, pp. 239–252.

Martincus, C.V., Carballo, J., 2010. Beyond the average effects: the distributional impacts of export promotion programs in developing countries. J. Dev. Econ. 92 (2), 201–214.

Misangyi, V.F., Greckhamer, T., Furnari, S., Fiss, P.C., Crilly, D., Aguilera, R., 2017. Embracing causal complexity: the emergence of a neo-configurational perspective. J. Manage. 43 (1), 255–282.

Monreal-Pérez, J., Aragón-Sánchez, A., Sánchez-Marín, G., 2012. A longitudinal study of the relationship between export activity and innovation in the Spanish firm: the moderating role of productivity. Int. Bus. Rev. 21 (5), 863–877.

Nonaka, I., Takeuchi, H., 1995. The Knowledge Creating Company: How Japanese Companies Create the Dynamics of Innovation. Oxford University Press, New York.

Oura, M.M., Zilber, S.N., Lopes, E.L., 2016. Innovation capacity, international experience and export performance of SMEs in Brazil. Int. Bus. Rev. 25, 921–932.

ProChile (2017). http://www.prochile.gob.cl/minisitio/concursos/ (last accessed 09.02.17).

Ragin, C.C., 2000. Fuzzy Set Social Science. University of Chicago Press, Chicago.

Ragin, C.C., 2006. User's Guide to Fuzzy-Set/Qualitative Comparative Analysis 2.0. University of Arizona, Tucson.

Ragin, C.C., 2008. Redesigning Social Inquiry: Fuzzy Sets and Beyond. University of Chicago Press, Chicago.

Ragin, C.C., Fiss, P.C., 2009. Net effects analysis versus configurational analysis: an empirical demonstration. In: Ragin, C.C. (Ed.), Redesigning Social Inquiry: Set Relations in Social Research (190–212). University of Chicago Press, Chicago.

Salomon, R.M., Shaver, J.M., 2005. Learning by exporting: new insights from examining firm innovation. J. Econ. Manage. Strat. 14 (2), 432–460.

Schneider, C.Q., Wagemann, C., 2012. Set-theoretic Methods for the Social Sciences. A Guide to Qualitative Comparative Analysis. Cambridge University Press, Cambridge, UK.

Seringhaus, F.R., 1987. Using trade missions for export market entry. Ind. Market. Manage. 16 (4), 249–255.

Seringhaus, F.R., 1989. Trade missions in exporting: state of the art. Manage. Int. Rev. 29 (2), 5–16.

Seringhaus, F.H.R., Rosson, P.J., 1998. Management and performance of international trade fair exhibitors: government stands vs. independent stands. Int. Market. Rev. 15 (5), 398–412.

Shipley, D., Egan, C., Wong, K.S., 1993. Dimensions of trade show exhibiting management. J. Market. Manage. 9 (1), 55–63.

Silva, A., Africano, A.P., Afonso, O., 2010. Do Portuguese manufacturing firms learn by exporting? In: 36th EIBA Conference Proceedings, Porto.

Slowinski, R., 1998. Fuzzy Sets in Decision Analysis, Operations Research And Statistics. Springer, New York, United States.

Sousa, C.M.P., Martínez-López, F.J., Coehlo, F., 2008. The determinants of export performance: a review of the research in the literature between 1998 and 2005. Int. J. Manage. Rev. 10 (4), 343–374.

Spence, M.M., 2003. Evaluating export promotion programmes: UK overseas trade missions and export performance. Small Bus. Econ. 20 (1), 83–103.

Spence, M.M., Crick, D., 2001. An investigation into UK firms' use of trade missions. Market Intell. Plan. 19 (7), 464–474.

Wagner, J., 2007. Exports and productivity: a survey of the evidence from firm-level data. World Econ. 30 (1), 60–82.

Wilkinson, T.J., Brouthers, L.E., 2000a. An evaluation of state sponsored export promotion programs. J. Bus. Res. 47 (3), 229–236.

Wilkinson, T.J., Brouthers, L.E., 2000b. Trade shows, trade missions and state governments: increasing FDI and high-tech exports. J. Int. Bus Stud. 31 (4), 725–734.

Wilkinson, T., Brouthers, L.E., 2006. Trade promotion and SME export performance. Int. Bus. Rev. 15 (3), 233–252.