

Entrepreneurial orientation, networks and Latin American exporters

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Abstract

The speed of internationalisation of small firms has been one of the most heavily discussed topics in international business. Where firms export - the geographic scope of internationalisation - has however been overlooked, especially with regards to firms based in emerging markets. This study contributes to the literature on the regional and global internationalisation of small enterprises. It examines whether entrepreneurial orientation and the use of network resources are associated with firms that internationalised in multiple regions, using data from 110 entrepreneurial small firms based in Chile,

Key words: Chile, small firm internationalisation, regional and global international strategy, entrepreneurial orientation, networks

1. Introduction

Internationalisation theories were originally developed to explain the behaviour of large firms, typically multinational corporations (Johanson and Vahlne, 1977). Since the mid 1990s, several authors pointed to the existence of small firms that operate internationally in spite of having inferior resources than larger firms (Rennie, 1994; Madsen and Servais, 1997; Oviatt and McDougall, 1994). The internationalisation of small firms has three key dimensions: its speed, intended as the number of years between foundation and the achievement of a certain minimum threshold of exported sales; its intensity, generally measured as percentage of exports over total average annual sales; and its scope, or the markets penetrated (Crick, 2009). Within the international business literature most empirical studies discussed mainly one aspect of small firm internationalisation: speed. This led to the development of the born global theory (Knight and Cavusgil, 2004). Less attention has been dedicated to studying the geographic scope of small firms' internationalisation (Taylor and Jack, 2012).

A common item used to measure the scope of internationalisation is the number of export markets (Crick, 2009). However, this fails to capture a key aspect of internationalisation strategy: whether firms focus on conquering a set of markets within the same region, or enter markets located in multiple and diverse areas of the world. (Kuivalainen et al, 2007). Some scholars of born globals argue that the internationalisation of small firms is more global than that of larger firms, often targeting from inception several lead markets and multiple regions (Madsen and Servais, 1997). Other studies argue the opposite. They illustrate that firms that internationalise fast and intensively may first focus on a small range of markets (Taylor and Jack, 2012; Lopez et al, 2009). Critics of the born global concept point out that more evidence on the number of regions, such as Europe, Latin America, Asia, and North America, targeted by small international firms is needed to further the theory (Crick, 2009). This study aims to further the research agenda on small firms' internationalisation by analysing the factors that influence the diversity of economic regions they target. It examines whether firms that sell a higher percentage of their exports outside of their home region also succeed in penetrating a higher number of economic regions and discusses the factors that may explain this outcome.

Conventional internationalisation theories, such as the Upssala theory, discussed internationalisation by focusing on the resources of the firm (Johanson and Vahlne, 1977). Small firms, including new firms, rely on a more heterogeneous set of resources than large firms when pursuing their strategic objectives, such as internationalising (Brush et al, 2009; Madsen and Servais, 1997). A large share of small firms are entrepreneurial – they are led by the entrepreneur who founded them and her extended family. As a result, the characteristics of the entrepreneur, such as her skills, affect firm strategy and resources (Wright and Marlow, 2012). This linked the literature on small firms internationalisation to the literature on entrepreneurship (McDougall and Oviatt, 2000).

A growing body of empirical evidence illustrate that not only the general demographics of the entrepreneurs, such as their age and years of education, but also their entrepreneurial attitudes affect small firms' performance, including internationalisation (Kuivalainen et al, 2007; Wiklund and Shepherd, 2005). We use the concept of entrepreneurial orientation to capture different aspects of entrepreneurs' attitude, such as their adversity to risk, their aggressiveness, and their innovativeness (Lumpkin and Dess, 1996). Scholars have examined the effects of entrepreneurial orientation on internationalisation speed (Knight and Cavusgil, 2004). However, it is less clear whether firms with a stronger entrepreneurial orientation are likely to internationalise with a regional or global strategy (Lopez et al, 2009). This study extends the research agenda by examining how different aspects of entrepreneurial orientation affect the number of regions targeted by small firms. In empirical terms, most studies of small firms' internationalisation focus on a small range of countries and industries with very few examining emerging market firms, despite the increasing role of these markets in the world economy (Robson et al, 2012). There is an expanding stream of literature studying the internationalisation of emerging market multinationals but there still is very little evidence about small firms based in emerging markets (Zou and Ghauri, 2010). Within emerging markets, there is also a great disparity in terms of coverage: most empirical evidence tends to focus on the so-called BRICs (Brazil, Russia, India and China), and more specifically on China and India, whereas other economies, and especially Latin American and African economies, are grossly underrepresented in the international business and entrepreneurship literature (Perez et al, 2010). This study responds to calls for more

research on small firms' internationalisation in culturally and geographically diverse contexts. It focuses on small exporting firms based in Chile.

Chile is a mid-income country according to the World Bank, with a Gross domestic product based on purchasing-power-parity (PPP) per capita of USD \$16,172 (IMF, 2011, Banco de Chile, 2011). It is inhabited by 17 million people (estimated by 2012), and is characterised by its very long coastline along the Pacific Ocean. Chile is an important case for the Latin American region because it has been the first economy to liberalise and open its markets to competition, foreign direct investment and trade during the 1980s. Since the mid 1980s Chile has been the most stable economy in the region, with steadily improving economic and social indicators. Chile has several free trade agreements, notably with the USA, European Union, China, Israel and many Latin American countries. Additionally Chile is the first South American country to join the OECD.

According to the OECD (2012) it is the most open economy in Latin America. Given that several other countries in Latin America have signed free trade agreements or are in the process of doing so (e.g. Colombia has signed free trade agreements with the USA and South Korea in 2012), analysing the behaviour of entrepreneurial firms based in Chile holds important implications for the region at large and for other emerging markets that are adopting an export oriented development model (Nicholls-Nixon et al, 2011). Small and medium firms based in economies such as Chile thus operate in a highly competitive environment and in a relatively small market. Under these conditions, internationalising becomes an important mechanism to expand and find other profit drivers. Internationalising small firms are not only interesting from a management theory perspective; they also generate employment and contribute to local development (Blackburn and Smallbone, 2011). Chile is indeed an export-oriented economy, endowed with a broad range of internationalising SMEs in the fields of mining, food processing, wine, financial services, and software (Felzensztein et al., 2012). In section two, we develop theory and present the hypotheses relating to internationalisation. The data and methods utilised to test these hypotheses are discussed in section three. In section four the results are reported. This is followed by section five where the key findings and implications, and the limitations and avenues for additional research are identified. Lastly, a conclusion completes the paper.

2. Theoretical insights and hypotheses

2.1 Networks and small firms' internationalisation

The literature on born globals and international new ventures highlights that these firms rely not only on the personal skills and resources of the entrepreneur but also on network resources (Coviello, 2006). This is consistent with studies of small entrepreneurial firms (Jacks, 2008). Smaller firms suffer from having fewer resources than their larger competitors. For example, it may be too costly for them to advertise their product extensively in international markets in order to acquire new consumers. They compensate to their resource constraints by leveraging their contacts with trusted suppliers, clients, and allied firms (Peng and Luo, 2000).

The literature on international entrepreneurship illustrates that entrepreneurs use their personal contacts as firm-level resources, in particular when scanning for business opportunities in new foreign markets (Ellis, 2011). Entering new markets is a risky entrepreneurial act (Oviatt and McDougall, 2005). Smaller firms use network

resources to overcome the liability of their smallness, foreignness, and occasionally newness (Coviello, 2006). Several studies examine the effects of using networks on different aspects of performance (Peng and Luo, 2000; Zhou et al, 2007). There is however less evidence on whether using networks affects the market selection process of internationalising small firms, especially whether it leads them to focus on a small range of regional markets or helps them expand globally (Kuivalainen et al, 2007). Firms based in emerging markets use networks intensively (Zhou et al, 2007). This is partly due to cultural reasons, but it is also a strategy to compensate for the fact that they are based in business environments that are less stable, transparent and predictable than those of developed economies (Ellis, 2011). Leveraging networks can help emerging markets firms obtain superior performance (Peng and Luo, 2000). One of the empirical gaps in the literature is that evidence about the effects of using networks focuses mainly on China, whereas Latin American businesses are under-represented (Zhou et al, 2007; Nicholls-Nixon et al, 2011).

The main indicators of internationalisation performance are its speed, intensity and scope. Kuivalainen et al (2007) point that it is important to verify whether firms expand internationally only within a specific region, such as Europe or Latin America, or whether they have a globally diversified client portfolio. The network theory of internationalisation (Coviello, 2006) posits that small firms using networks can achieve superior performance, especially when based in emerging markets. We focused on the geographic scope of international performance and developed the following hypothesis:

H1: The greater the number of networks utilised to internationalise, the more likely the firms are to target export destinations located in multiple regions.

2.2 Regional Vs. global internationalisation strategy

The argument that firms internationalise gradually stemmed from the observation that multinational corporations tend to grow first domestically, then expand in markets that are geographically and culturally close, and finally become truly global (Johanson and Vahlne, 1977). Markets differ not only in terms of language, but also in terms of the way of doing business and their legal, macroeconomic and political context (Knight and Cavusgil, 2004). For this reason, the theory argued that firms' international expansion goes hand in hand with a gradual learning process, which helps them overcome linguistic, cultural and institutional differences (Johanson and Vahlne, 1977). The literature on born globals contradicted this, illustrating that there are firms that internationalise fast, even from their inception, sell a high percentage of their products and services abroad, and target markets that are not necessarily linguistically or culturally close to their homebase (Rennie, 1993).

The diversity of markets a firm targets is an important measurement of whether it is a truly global small firm or whether it is only a small firm that operates internationally (Crick, 2009). A firm could be exporting most of its output in only one market. It could also export to a high range of markets, all of them within the same region (Kuivalainen et al, 2007). This is a particularly important aspect for the internationalisation of Latin American firms because Latin America is an economic region characterised by strong inter-country similarities. The vast majority of countries in the region share the same colonial history, with Spanish and Portuguese being the spoken in all the major economies, most constitutions being based on the US model and legal systems following the continental European tradition. In

comparison to Asia and Europe, Latin America has been a very pacific region, with only a few minor international wars among its countries. Many countries, including Brazil, Chile, Colombia, Costa Rica, Mexico, and Peru, also share the same economic history: they moved from being protectionist closed markets to being liberalised market economies that sign new free trade agreements every year (Dominguez and Brenes, 1997).

Latin American firms focusing their internationalisation on the Latin American region have less linguistic and cultural barriers to overcome than small firms concentrating their exports within their region in Asia and Europe, which have a higher diversity and a long history of country-to-country conflicts. Small firms may choose different internationalisation strategies. Depending on their products, services, and endowment of networks, they may focus on penetrating first the markets within their region or target a broad range of diverse markets (Dimitratos et al, 2010). Evidence on Latin American internationalising small firms is scarce (Perez et al, 2010). A study by Lopez et al (2009) shows that firms targeting a high number of export markets tend to focus on their region as opposed to targeting lead markets and a diverse range of geographic areas. Firms that target multiple regions should be more likely to have a shallower regional presence, as they followed a global international strategy, overcoming the linguistic, cultural and institutional barriers to operating in diverse markets. This led us to develop the next hypothesis:

H2 The greater the proportion of sales which go out of the Latin American region the more likely the entrepreneurs' firms are to target multiple export destinations.

2.3 Entrepreneurial Orientation (EO)

The entrepreneur's demographics, for example whether she is a man or woman, her age, and level of education, can have important effects on performance (Brush et al, 2009; Cooper et al, 1994; Marlow and Patton, 2005). Generic demographics do not however capture whether entrepreneurs with similar backgrounds have different attitudes about the search for opportunities, or risk aversion (Dimitratos et al, 2010).

The most important elements of the entrepreneurial attitude are the willingness to risk, the propensity to innovate and the pro-activeness in pursuing new markets and new solutions, measured by Lumpkin and Dess (1996) with the entrepreneurial orientation construct. There is evidence that entrepreneurial orientation is associated with firms that perform better, and that internationalise faster (McDougall and Oviatt, 2000; Kuivalainen et al, 2007; Wiklund and Shepherd, 2005). Targeting multiple regions entails a higher level of risk and commitment than focusing on the home region only, as it means overcoming higher cultural, linguistic and institutional barriers (Crick, 2009). It may require firms to innovate more often their processes in order to suit their target markets (Knight and Cavusgil, 2004). Firms that are more pro-active in their internationalisation tend to target markets that they consider more promising as opposed to markets that are closer to their homebase (Madsen and Servais, 1997; McDougall and Oviatt, 2000; Dimitratos et al, 2010). We thus developed the following hypotheses:

H3a: The higher the level of risk-taking in the entrepreneurial orientation of the entrepreneurs the more likely the firms are to target multiple export destinations.

H3b: The higher the level of innovativeness in the entrepreneurial orientation of the entrepreneurs the more likely the firms are to target multiple export destinations.

H3c: The greater the level of proactiveness in the entrepreneurial orientation of the entrepreneurs the more likely the firms are to target multiple export destinations.

3.1. Data collected and research methods

3.1.1. Sample, data collection and respondents

The sample frame for the survey was assembled using data provided by the national Direction of Export Promotion, ProChile, that includes 7005 registered firms. Following established good practice the firms to be surveyed needed to meet the following criteria: the firms needed to be independent; the firms should have at most 100 employees; and, they should have an email address. The questionnaire was administered as an on-line survey between November 2010 to January 2011. The respondent, termed the entrepreneur was a founder/principal owner in the firms, and well placed to answer the questionnaire because they were the key decision-maker in the firms.

ProChile provided a database of 7005 firms. After applying the above criteria and cleaning the database this resulted in a sample framework of 3,456 firms. The entrepreneurs were contacted by email on three occasions and a total of 446 firms completed the questionnaire which provides a response rate of 12.9%. For this paper and the multivariate analysis the number of respondents who answered all of the questions utilised was 110. The average age of the respondents was 42 years old. The average age of the firms was 10 years. 35.5% of the firms are micro businesses with less than ten employees, 33.6% of the firms are small with ten to forty-nine employees, and 30.9% are medium sized with fifty to one hundred employees. 21.8% of the firms were started or purchased by only one person. 78.2% of the firms were team starts. 37.3% of the firms were started by two people, 13.6% were started by three people, and 27.3% were started by four or more people.

3.1.2. Sample representation

In order to ensure that sample representation was satisfactory a combination of parametric (i.e. Bonferroni) and also non-parametric tests (i.e. Mann Whitney and Chi-Square) were performed between respondents and non-respondents on the following characteristics: main industrial sector activity, the number of employees, and the age of the firms. These tests found no evidence of systematic statistical representation problems at the 0.05 level between respondents and non-respondents at the 0.05 level, or better. Given the results of the above statistical tests there is no evidence to believe that our sample of respondents is systematically different from the population.

3.2 Measures

3.2.1 Dependent variables

The owner-managers in each firm were asked, “What is the percentage of sales represented by each of the following markets to total sales (Chile, Other South American Countries, Rest of Latin America and / or Caribbean, United States and / or Canada, Europe, Asia, Other) (0-100%)”. The question was followed with grid boxes

for each of the aforementioned markets to enter the percentage values from 0 to 100%. Respondents who indicated a value greater than zero for Other South American Countries were recoded as '1' and those who gave a value of '0' were kept as '0' (SAmerica). Respondents providing values above zero for the Rest of Latin America and/or the Caribbean were recoded as '1' whilst the zeros were retained as '0' (Latin/Caribbean). Owner-managers who gave values above zero for the United States and/or Canada were recoded as '1' and the owner-managers who gave '0' remained as '0' (USA/Canada). Entrepreneurs who gave values in excess of zero for Europe were coded as '1' and the entrepreneurs who gave '0' remained as '0' (Europe). Owner-managers with the responses of values in excess of zero for Asia were recoded as '1' and the owner-managers who gave '0' remained as '0' (Asia). Entrepreneurs who provided exporting values of greater than zero for Other geographical markets were coded as '1' and those with zero remained '0' (Others).

35.5% of the entrepreneurs' firms exported to Europe. The corresponding value for exports to Asia was 30.0%. 34.6% exported to the USA and Canada. 70.9% of the entrepreneurs' firms exported to Latin America and/or the Caribbean.

3.2.2. Independent variables

Networks

In order to measure the importance of networks, the respondents were asked to name each organisation or individual that helped them through their internationalisation process, for example by introducing them to clients in new markets. The firms were required to specify exactly which organisation supported them¹. The variable "Networks" summarizes the results, showing the number of networks used by each firm.

Intensity of extra regional sales

The intensity of non regional sales is an indicator of the extent to which the internationalisation of the firm has targeted markets outside of the region where it is based, namely Latin America. We measured it via the proportion of sales which go outside of the Latin American region, which was calculated as the sum of sales which go to Europe, Asia, Canada/USA and Other non Latin America regions (Extra_RegS).

Entrepreneurial Orientation

Respondents were asked, "Please evaluate the following sentences by circling the appropriate number (1 means that the sentence on the left is valid, 5 that the sentence on the right is valid)". The respondents were then presented with two statements relating to Attitude to risk (EO_Risk).

The first was, "*When confronted in the international marketplace with decision-making situations involving uncertainty, my firm typically adopts a... Cautious, 'wait and see' posture in order to minimize the probability of making costly*

¹ More specifically the full question was as follows. "In the process of internationalisation of the company, which of the following bodies and organisations have been relevant to the development of internationalisation - Chilean Free Trade Agreements, National Exporters' Association (ASEXMA), Export Promotion Agency (ProChile), Chilean Economic Development Agency (CORFO) (e.g. ProChile, INNOVA CORFO, etc.), Support from private institutions (LUCIANO TRANSLATE PLEASE ej: ASEXMA u otro), Support from Universities, Alliance with international companies, alliance with national companies, Support from Incubators, None, Other Please Specify"

decisions” versus “*Bold*, aggressive posture to maximize the probability of exploiting potential opportunities.

Secondly, they were given, “In general, we believe that owing to the nature of the environment it is best to achieve the firm’s objectives in the international marketplace via... Favour *low risk* projects (with normal and certain rates of return)” versus “Favour *high risk* projects (with chances of a very high return)”. For each of these two statements the respondents were given a five point scale from 1 to 5.

The respondents were provided with three statements relating to innovativeness on international business (EO_Innov). The first was, “With regard to the activities of my firm in the international marketplace, we generally... Favour the *marketing of tried and tested* products or services” versus “Favour *research and technological leadership and innovations*”. The second was, “Again thinking about new lines of products/services has your firm marketed in the international marketplace in the past 5 years...the Changes in product or service lines have been mostly of a *minor nature*” versus “the Changes in product or service lines have usually been quite *major*”. The third was “How many new lines of products/services has your firm marketed in the international marketplace in the past 5 years? *No* new lines of products or services” versus “*Very many* new lines of products or services”. . For each of these three statements the respondents were given a five point scale from 0 to 5.

The owner-managers were given three statements relating to proactiveness to go to international markets (EO_Proact). The first was, “*When confronted in the international marketplace with decision-making situations involving uncertainty, my firm typically adopts an approach of...Typically seeks to avoid competitive clashes, preferring a ‘live-and-let-live’ posture*” versus “Typically adopts a very ‘beat-the-competitors’ posture”. The second was, “*In dealing with its competitors in the international marketplace, my firm...Is very seldom the first firm to introduce new products/services, administrative techniques and operating technologies*” versus “*Is very often the first firm to introduce new products/services, administrative techniques and operating technologies*”. The third was, “*In dealing with its competitors in the international marketplace, my firm...Typically responds to actions which competitors initiate*” versus “Typically *initiates* actions to which competitors then *respond*. For each of these three statements the respondents were given a five point scale from 0 to 5.

Three conceptually meaningful varimax rotated components relating to EO_Risk, EO_Innov and EO_Proact were identified. Appropriate statistical tests were carried out to ensure that the three components were robust. The Bartlett Test of sphericity was highly statistically significant at the 0.001 level ($\chi^2=1888$). The Kaiser-Meyer-Olkin (KMO) measure was 0.90. The KMO statistic measures the degree of intercorrelation between variables, and this has a range of values from 0 to 1 (Hair et al., 1995). Ucbasaran et al., (2006) indicate that the KMO measure can be interpreted along the following lines: 0.90, or above – marvellous; 0.80 to 0.89, meritorious; 0.70 to 0.79 – middling; 0.60 to 0.69, mediocre; 0.50 to 0.59, miserable; and measures below 0.50, unacceptable. In order to ensure the internal consistency, and reliability the Cronbach’s alpha coefficients were calculated. The Cronbach’s alphas attempts to measure the correlation between scale items. The Cronbach’s alphas relating to the EO_Risk, EO_Innov and EO_Proact SV scales were 0.84, 0.87 and 0.85, respectively. Accordingly, the component scores relating to each of these three valid and reliable learning scales were computed, and considered as measures of entrepreneurial orientation independent variables.

3.2.3. Control variables

Entrepreneurs with a greater level of human capital may be more likely to export goods and services to each of the exporting markets. Two general human capital variables were operationalised and included in the models: log of the age of the owner-manager in years (AgeEnt), and the log of the number of years of schooling (School). Entrepreneur-specific human capital was incorporated into the models by looking at the human capital of the team of entrepreneurs at start-up of the firms, and also the number of years of experience of exporting to international markets. A series of dummy variables was created for firms to capture the number of people in the start-up team: one person (OnePers), two persons (TwoPers), three persons (ThreePers), and four or more persons (FourPers). The number of years of experience of exporting to international markets was used to create a series of three dummy variables: firstly, firms with up to 4 years of experience (Exp4), secondly, firms with 5 to 9 years of experience (Exp5to9), and thirdly, firms with 10 or more years of experience (Exp10). In the models Exp4 was the excluded comparison category.

Several firm level characteristics may influence the probability of the firms exporting to markets. Firstly, the respondents were asked to indicate the “Total number of employees (for part-time employees please convert to full-time equivalents e.g. 10 part-time employees on a 50% basis equal 5 full-time employees”. The number of employees was used to create a series of three dummy variables. Firms with less than 10 full time equivalents are micro businesses (Micro), those with 10 to 49 full time equivalents are small businesses (Small), and medium sized businesses were those with 50 to 99 full time equivalents. The log of the age of the firms was included in our models (AgeFirm). The industrial activities of the firms were classified into four categories, primary activities (Primary), manufacturing (Manufacturing), retail services (Retail), and professional services (Prof_Services). Three dummy sector variables were included in the models and the excluded comparison dummy sector variable was Primary.

3.3. Validity

In order to ensure that the contents of the questionnaire was valid it was piloted with 6 people who were well placed to check on the robustness of the questionnaire contents and these were two scholars, two business owners and two professional people who worked in agencies which provided international business support. After the feedback the questionnaire was simplified with the number of questions being reduced and the wording on some questions was refined. After this first pilot the revised questionnaire then was subject to a second pilot where 100 firms were contacted to complete the revised questionnaire on line. This served two purposes. Firstly, it ensured that the questionnaire was now of an acceptable length and not onerous on time demands to complete, and secondly to make sure that the on-line platform was going to work satisfactorily and without technical glitches. The feedback from the entrepreneurs was positive, although a few technical glitches were identified and easily rectified. Also, following Krishnan et al., (2006) it is good practice to minimise as far as possible the amount of common methods bias. As indicated above the questionnaire was comprehensively piloted and refined with the feedback to ensure that the

questions were clear and unambiguous and could not easily be misinterpreted; whilst the survey was completed online we guaranteed the respondents anonymity; and, lastly, the questions which were used to produce the series of dependent variables used in this paper were strategically placed on the questionnaire well away from the independent and control variables. None of the questionnaires from the pilots was included in our sample utilised in this paper.

3.4 Data Analysis

Logistic regression estimation was used to establish the combination of variables associated with the propensity of entrepreneurs to report 'exporting' to each of the four models associated with each of the regional divisions. It is difficult to establish the goodness-of-fit of logistic models. Following established good practice we have reported and utilised two measures to help establish the goodness of fit of our models. Firstly, deviance as shown by the log likelihood coefficient is viewed as a 'badness-of-fit' measure. As a rule of thumb weak 'explanatory' models tend to be characterised by higher deviance coefficients. Secondly, the Cox and Snell coefficient is shown as a measure to help show the 'explanatory' capabilities of models. The Cox and Snell coefficient is similar in principle to the coefficient of determination reported in OLS models, but in non-OLS models the Cox and Snell coefficient usually reports low values.

4 Results

4.1 Sample Demographics

Table 2 shows the means and standard deviations. Additionally, correlation coefficients and the VIF scores reported in Table 2 suggest our models are not subject to the problem of multicollinearity. The hypotheses were tested using logistic regression analysis.

4.2 Hypothesis testing

The Cox and Snell coefficients ranged from 0.401 in Model 4 which was the model of exporting propensity to the South America and Latin/ Caribbean regional division to 0.578 in Model 1 which was the corresponding model for the regional division of Europe. The log likelihoods ranged from -39.56 for Model 4 which related to exporting propensity to South America and Latin/ Caribbean regional division to -31.59 which related to the corresponding market for Europe.

We find support for hypothesis H1 with regard to Asia (Model 2), the USA and Canada (Model 3) and South America and Latin America/ Caribbean (Model 4). In each of the aforementioned models the greater the number of networks utilised the greater the likelihood of the entrepreneurs exporting to each of the regional divisions of markets, and these relationships are statistically significant at the 0.05 level. We find strong support for hypothesis H2. The higher the proportion of sales which go out of the Latin American region the greater the likelihood of the entrepreneurs exporting to Europe (Model 1), Asia (Model 2), and the USA/ Canada (Model 3). In

other words, entrepreneurs whose firms export a higher proportion of sales to outside of the Latin American region are more likely to export to multiple export markets and these relationships are statistically significant at the 0.01 level. In the case of exporting to the South America and Latin/ Caribbean regional division we find that there is a negative relationship between Extra_RegS and the dependent variable and that was statistically significant at the 0.05 level.

We do not find support for hypothesis H3a. EORisk is not statistically significant at the 0.05 level in any of the four models. EORisk is weakly negatively statistically significant at the 0.10 level in model 3 for the USA and Canada. There is thus no support for hypothesis 3b, and in the case of the USA and Canada the nature of the relationship found is counter to our expectations. The higher the level of innovativeness in the entrepreneurial orientation of the entrepreneurs the more likely the entrepreneurs' firms are to target multiple export destinations – with regard to the USA and Canada, as well as Asia. This relationship is statistically significant at the 0.01 and 0.10 level, respectively. However, for model 4 it was found that the higher the level of innovativeness in the entrepreneurial orientation of the entrepreneurs are less likely to export to South America and Latin/ Caribbean regional market and this is statistically significant at the 0.01 level. There is mixed support for hypothesis H3c with regard to Europe (model 1) where the coefficient EO_Proactiveness is statistically significant at the 0.05 level.

5. Discussion

5.1. Key findings and implications

Exporting has been examined extensively in developed nations (Robson et al, 2012; McDougal and Oviatt, 2000). However, our knowledge and understanding of firms based in emerging economies is very limited, especially with regards to Latin America (Perez et al, 2010). There is a need to better understand these emerging markets and to see the extent to which human capital and international theories apply to them (Nicholls-Nixon et al, 2011). . Additionally, insights can also be learned for North America and Europe.

This paper used logit regression models to test three hypotheses. The results supported the first two hypotheses. If the goal of policy makers is to increase the number of regional divisions where Chilean entrepreneurs export then they need to encourage entrepreneurs to increase the number of networks utilised. Additional research is needed to analyse the exact networks utilised and to see whether there are common patterns in which networks are conducive to exporting to specific regional divisions. Our results also found that the higher the proportion of sales which go outside of the Latin American region the more likely the entrepreneurs' firms are to export to Europe, Asia, and the USA and Canada, but the less likely they are to export to South America and the Latin/ Caribbean region. This suggests that at some point a critical mass in exporting volume is reached which allows Chilean exporters to export to Europe, Asia and the USA and Canada, at the expense of exporting to markets closer to home. Again, more detailed research is needed to see whether such critical points can be identified. Our models included three entrepreneurial orientation variables. Entrepreneurs with stronger attitudes to risk were not related to exporting propensity. However, there was mixed support for hypotheses H3b and H3c. Higher

levels of innovation and also higher levels of proactiveness were associated with higher probabilities of exporting although this did not apply across all regional divisions.

Several control variables were found to be significantly related with the dependent variables. Small firms were less likely than micro firms to export to Europe, but the reverse was found for exporting to Asia. Medium sized firms were more likely to export to all regions with the exception of Europe. The general human capital of education and also the age of the entrepreneurs was not significant in any of the models. The education variable was only weakly positively statistically related to exporting to Europe. This suggests that general human capital is not necessarily important for exporting propensity.

The age of the firms is also not statistically related to exporting propensity. The series of dummy variables included to capture the number of people in the start-up team showed that firms which had one or two persons at start-up were less likely than those with four or more persons at start-up to export to Europe, Asia and the USA and Canada. However, the one person variable was only weakly statistically significant in the model of Europe; and the two person variable was only statistically significant in the model of the USA and Canada. In contrast firms with one, and also two persons at start-up were more likely than those firms with four or more persons at start-up to export to South America and the Caribbean firms and these variables were statistically significant at the 0.05 level. In all four models firms with three persons at start-up were more likely than firms with four persons at start-up to export, and this was statistically significant in the models of Europe and weakly statistically significant in the model of South America and the Caribbean. This could be explained by looking at the importance of networks: firms that were founded by smaller teams are less likely to have internationally diverse networks, and hence are less likely to export outside of their regional market. Firms with larger teams with three persons at start-up are more likely to have internationally diverse networks, and hence more likely to be global as opposed to regional exporters, but beyond that number in the team at start-up causes diseconomies. The results suggest that three persons at start-up brings a good range of knowledge, skills and networks which are manageable and where the lead entrepreneur is able to leverage the expertise and networks with greater effect and higher intensity than larger comparable teams. In other words, having large teams at start-up with four or more persons may make it harder for the lead entrepreneur to use and coordinate information and networks and that hinders their capacity to export to many regions.

The number of years of experience of exporting to international markets was positively related to exporting propensity to each of the regions, but the dummy variables were only statistically significant in the exporting to Latin America and the Caribbean. The result is consistent with the born global and international new ventures literature, which suggest that new firms do not necessarily internationalise gradually, and that their networks are more important than their age when determining export performance (Coviello, 2006).

5.2. Limitations and avenues for additional research

We have captured a good selection of human capital and resource variables in the models but clearly there is the need to include additional entrepreneurial experience variables and to differentiate between novice and habitual entrepreneurs (Ucbasaran et

al., (2008). Virtually all of the entrepreneurs in our data set were male which reflected the nature of the industry investigated. Clearly there is a need to expand the sectoral coverage and to be in a position to see whether gender (Marlow et al., 2009) has a role in the exporting to specific regional divisions. There is also a need to include measures to capture the financial resources of the firms (Marlow and Patton, 2005; Riding et al., 2012) at start-up, and subsequently to see if that influences the capabilities to export to multiple regions. Another limitation of our study is that it is cross-sectional. Examining longitudinal data would provide interesting insights into the market selection sequence of internationalising small firms, clarifying whether they searched for their first international business opportunities within their region or not. In order to develop the small firm internationalisation theory it would also be beneficial to collect further evidence from other emerging market regions, such as Africa.

6. Conclusion

This study responds to calls for more research on Latin American businesses (Perez et al, 2010; Nicholls-Nixon, 2011). It extends the entrepreneurship internationalisation research agenda proposed by Lopez et al (2009) and Dimitratos (2010), examining the factors that determine whether entrepreneurs' exporting firms target mainly regional markets. Our findings suggest that the number of networks utilised, and also the greater proportion of sales which go out of the Latin American region the more likely the entrepreneurs' firms are to target multiple export destinations. This has important managerial implications: it shows that networks can help firms increase the geographic scope of their internationalisation, corroborating the tenets of the network theory of internationalisation and small firm performance (Coviello, 2006; Jacks, 2008).

The findings suggest that there may be a dichotomy between regional and global exporters. The firms that have penetrated multiple regions tend to sell a higher percentage outside of Latin America, the region where they are based, and where they could access linguistically and culturally close markets. A possible interpretation for this is that firms that sell a lower percentage of their export sales in Latin America have already become accustomed to operate in markets that are different from their own, and hence expand to multiple and diverse regions. On the other hand, it is possible at firms that internationalise mostly within Latin America find it difficult to overcome the linguistic and cultural barriers to expand in Europe, North America and Asia.

References

Aldrich, J.H. and Nelson, F.D. (1984) *Linear Probability, Logit, and Probit Models*. Newbury Park, CA: Sage Publications.

Banco Central de Chile (2011). *Cuentas Nacionales de Chile 2003-2011*. on line: www.bcentral.cl

Blackburn, R. and Smallbone, D. (2011) “Policy support for SMEs”, *Environment and Planning C: Government and Policy*, Vol. 29, No.4, pp. 571-576.

Brush, C.G., Ceru, D.J. and Blackburn, R. (2009) “Pathways to entrepreneurial growth: The influence of management, marketing, and money”, *Business Horizons*, Vol. 52, No.5, pp. 481-491.

Cooper, A.C., Gimeno-Gascon, F.J., and Woo, C.Y. 1994. “Initial human and financial capital predictors of new venture performance”, *Journal of Business Venturing* Vol.9, No.5, pp. 371–395.

Chetty, S. and Blankenburg Holm, D. (2000), “Internationalisation of small to medium-sized manufacturing firms: a network approach”, *International Business Review*, Vol. 9, pp. 77-93.

Coviello, N.E. (2006) “The network dynamics of international new ventures”, *Journal of International Business Studies*, Vol. 37 No. 5, pp. 713–731.

Coviello, N.E. and Jones, M.V. (2004), “Methodological issues in international entrepreneurship research”, *Journal of Business Venturing*, Vol. 19, pp. 485-508.

Crick, D. (2009) “The internationalization of born global and international new venture SMEs”, *International Marketing Review*, Vol. 26, No. 4/5, pp. 453-476.

Dimitratos, P., Plakoyiannaki, E., and Pitsoulaki, A. (2010) “The global smaller firm in international entrepreneurship”, *International Business Review*, Vol 19, pp. 589-606.

Dominguez, L. V., and Brenes, E. (1997) “The internationalization of Latin American enterprises and market liberalization in the Americas: A vital linkage”, *Journal of Business Research*, 38: 3-16.

Ellis, P. (2011) “Social ties and international entrepreneurship: Opportunities and constraints affecting firm internationalization”, *Journal of International Business Studies*, Vol. 42, No. 1, pp. 99–127.

Felzensztein, C. Gimmon, E. and Aqueveque, C. (2012) “Entrepreneurship at the Periphery: Exploring Framework Conditions in Core and Peripheral Locations”, *Entrepreneurship Theory and Practice* DOI: 10.1111/j.1540-6520.2012.00515.x

Jacks, S. (2008) “Approaches to studying networks: Implications and outcomes”, *Journal of Business Venturing*, 25:120–137.

Johanson, J. and Vahlne, J-E. (1977) “The internationalization process of the firm – a model of knowledge development and increasing foreign market commitment”, *Journal of International Business Studies*, Vol. 8, No. 2, pp. 23-32.

Hair, J.F., Anderson, R.E., Tatham, R.L. and Black, W.C. (1995) *Multivariate Data Analysis*, 4th edition, Englewood Cliffs, NJ: Prentice Hall.

IMF(2011). *World Economic Outlook Database*. On line: www.imf.org.

Kontinen, K.; Ojala, A. (2011) ”Network ties in the international opportunity recognition of family SMEs”, *International Business Review*, Vol 20, No 4, pp. 440-453.

Krishnan, R., Martin, X. and Noorderhaven, N.G. (2006) When does trust matter to alliance performance? *Academy of Management Journal*, Vol.49, pp. 894-917.

Knight, G.A. and Cavusgil, S.T. (2004), “Innovation, organizational capabilities, and the born-global firm”, *Journal of International Business Studies*, Vol. 35 No. 2, pp. 124-41.

Kuivalainen, O., Sundqvist, S. and Servais, P. (2007) “Firms’ degree of born-globalness, international entrepreneurial orientation and export performance”, *Journal of World Business*, Vol. 42, pp. 253–267.

Lopez, L., Kundu, S. and Ciravegna, L. (2009) ”Born global or born regional? Evidence from an exploratory study in the Costa Rican software industry”, *Journal of International Business Studies*, Vol. 40, No. 7, pp. 1228-1238.

Lumpkin, G.T. and Dess, G.G. (1996) “Clarifying the entrepreneurial construct and linking it to performance”, *Academy of Management Review*, Vol. 21, pp. 135-172

Madsen, T.K. and Servais, P. (1997), “The internationalization of born globals: an evolutionary process?”, *International Business Review*, Vol. 6, No. 6, pp. 561-83.

McDougall, P.P. and Oviatt, B.M. (2000) "International entrepreneurship: the intersection of two research paths", *Academy of Management Journal*, Vol. 43, No.5, pp. 902-906.

Marlow, S., Henry, C. and Carter, S. (2009) "Exploring the impact of gender upon women's business ownership: Introduction", *International Small Business Journal*, Vol. 27, No.2, pp. 139-148.

Marlow, S. and Patton, D. (2005) "All credit to men? Entrepreneurship, finance and gender", *Entrepreneurship: Theory and Practice*, Vol. 27, No. 6, pp. 717-735.

Nicholls-Nixon, C. L.; Davila Castilla, J.A.; Sanchez Garcia, J. and M. R. Pesquera (2011) "Latin America Management Research: Review, Synthesis, and Extension", *Journal of Management* Vol. 37, No. 4, pp. 1178-1227.

OECD (2012) Chile - Economic forecast summary (May 2012), OECD, Paris, France

Oviatt, B. M., and McDougall, P. P. (2005) "The internationalization of entrepreneurship", *Journal of International Business Studies*, Vol. 36, No.1, pp. 2–8.

Ozgen, E., and Baron, R. A. (2007) "Social sources of information in opportunity recognition: Effects of mentors, industry networks, and professional forums", *Journal of Business Venturing*, Vol. 22, No.2, pp. 174–192.

Peng, M., and Luo, Y. (2000) "Managerial ties and firm performance in a transition economy: the nature of a micro-macro link", *Academy of Management Journal*, Vol. 43, No. 3, pp. 486-501.

Pérez-Batres, L.A Pisani, M.J.; and Doh, J.P. (2010) "Latin America's Contribution to IB Scholarship", *Academy of International Business Insights*, Vol. 10, No. 1, pp. 3-7.

Rennie, M.W. (1993) "Born global", *McKinsey Quarterly*, Vol. 4, pp. 45-52.

Riding, A., Orser, B.J., Spence, M. and Belanger, B. (2012) "Financing new venture exporters", *Small Business Economics*, Vol. 38, No. 2, pp. 147-163.

Robson, P.J.A., Akuetteh, C.K., Westhead, P., Wright, M. (2012) "Exporting intensity, human capital and business ownership experience", *International Small Business Journal*, Vol 30, No. 4, pp.367-387.

Slevin, D.P., and Covin, J.G. 1992. Creating and maintaining high-performance teams. In D.L. Sexton and J.D.Kasarda, eds., *The State of the Art of Entrepreneurship*. Boston, MA: PWS Kent, Publishing Company, pp. 358–386.

Taylor, M. and Jack, R. (2012) “Understanding the pace, scale and pattern of firms internationalization: an extension of the ‘born global’ concept”, *International Small Business Journal*. DOI 10.1177/0266242611431992

Ucbasaran, D., Asoas, G. A., Westhead, P. and Wright, M. (2008) “Habitual entrepreneurs”, *Foundations and Trends® in Entrepreneurship*, Vol. 4, pp. 309-449.

Ucbasaran, D., Westhead, P. and Wright, M. (2006) *Habitual entrepreneurs*. Cheltenham, Glos, UK, Edward Elgar Publishing Limited.

Wiklund, J. and Shepherd, D. (2005) “Entrepreneurial orientation and small business performance: a configurational approach”, *Journal of Business Venturing* Vol. 20, No.1, pp. 70-91

Wright, M. and Marlow, S. (2012) “Entrepreneurial activity in the venture ceation and development process”, *International Small Business Journal*, Vol. 30, No.2, pp. 107-114.

Zahra, S. (2005) “A Theory of International New Ventures: A Decade of Research”, *Journal of International Business Studies*, Vol 36, No. 1, pp. 20-28

Zou, H., and Ghauri, P.N. (2010) “Internationalizing by learning: the case of Chinese high-tech new ventures”, *International Marketing Review*, Vol. 27, No.2: pp. 223-244

Zhou, L., Wu, W., and Luo, X. (2007) “Internationalization and the Performance of Born-Global SMEs: The Mediating Role of Social Networks”, *Journal of International Business Studies*, Vol. 38, No. 4, pp. 637-690.

Table 1 Descriptive statistics and correlation matrix

	Mean	S.D.	VIF	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.	12.	13.	14.
1. Network	1.827	1.233	1.171	1.00													
2. Extra_RegS	0.327	0.471	1.460	0.07	1.00												
3. EORisk	0.029	1.007	1.269	-0.01	-0.17 ^c	1.00											
4. EOInnov	-0.007	1.010	1.164	0.04	-0.07	0.00	1.00										
5. EOBehav	-0.025	0.972	1.166	0.01	0.04	0.05	0.01	1.00									
6. Small	0.336	0.475	1.451	0.01	-0.13	0.20 ^b	0.04	-0.04	1.00								
7. Medium	0.309	0.464	1.445	0.01	-0.17 ^c	0.04	-0.05	-0.11	-0.40 ^a	1.00							
8. AgeFirm	2.297	0.916	1.401	0.05	-0.05	0.08	0.02	-0.17 ^c	0.00	0.23 ^b	1.00						
9. Exp5to9	0.182	0.387	1.730	0.05	0.12	-0.11	-0.14	0.02	0.11	-0.06	-0.07	1.00					
10. Exp10	0.682	0.468	1.953	0.00	0.02	0.07	0.03	0.05	0.03	0.03	0.17 ^c	-0.39 ^a	1.00				
11. AgeEnt	3.742	0.439	1.339	0.04	-0.08	0.08	-0.06	-0.14	0.16 ^c	0.00	0.30 ^a	-0.21 ^b	0.35 ^a	1.00			
12. School	1.855	0.425	1.131	0.05	-0.14	0.10	0.07	0.13	-0.06	0.02	-0.15	-0.12	0.08	-0.03	1.00		
13. OnePers	0.218	0.415	1.414	0.02	-0.04	0.08	0.02	0.03	0.00	-0.02	0.22 ^b	0.09	-0.11	-0.04	0.09	1.00	
14. TwoPers	0.373	0.486	1.300	0.08	0.14	0.00	0.02	0.10	0.00	-0.23 ^b	-0.09	-0.02	0.00	-0.04	-0.07	-0.40 ^a	1.00
15. ThreePers	0.136	0.345	1.430	0.03	0.01	-0.19 ^b	0.00	-0.03	0.05	0.07	-0.07	0.02	-0.07	-0.04	0.00	-0.21 ^b	-0.31

^c $p < 0.10$; ^b $p < 0.05$; ^a $p < 0.01$

Table 2: Logit Regression Models Relating to the Likelihood of Respondents being Exporters by Continents and Countries

	Model 1 Europe	Model 2 Asia	Model 3 USA/ Canada	Model 4 South America + Latin/ Caribbean
Network	1.216 (0.67)	1.9390 (2.18)^b	1.805 (2.17)^b	1.831 (2.08)^b
Extra_RegS	27.728 (3.79)^a	20.57 (3.99)^a	19.695 (4.16)^a	0.067 (-3.36)^a
EORisk	1.507 (1.06)	0.955 (-0.13)	0.561 (-1.66)^c	0.906 (-0.30)
EOInnov	1.121 (0.29)	1.840 (1.70)^c	2.957 (2.65)^a	0.307 (-2.85)^a
EOBehav	3.049 (2.28)^b	0.582 (-1.41)	0.966 (-0.09)	0.716 (-1.02)
Small	0.178 (-1.81)^c	13.187 (2.07)^b	6.993 (1.77)^c	4.474 (1.57)
Medium	0.444 (-0.77)	9.217 (2.27)^b	12.318 (2.21)^b	8.303 (2.19)^b
AgeFirm	1.149 (0.29)	2.044 (1.40)	1.415 (0.87)	0.824 (-0.54)
Exp5to9	3.011 (0.62)	3.290 (0.88)	4.803 (1.09)	11.725 (2.53)^b
Exp10	11.044 (1.41)	1.660 (0.40)	2.536 (0.69)	22.533 (3.47)^a
AgeEnt	1.717 (0.73)	0.534 (-0.94)	1.468 (0.51)	0.622 (-0.65)
School	3.941 (1.71)^c	1.131 (0.16)	0.513 (-0.82)	2.074 (1.21)
OnePers	0.937 (-1.88)^c	0.238 (-1.37)	0.394 (-0.93)	8.978 (2.31)^b
TwoPers	0.477 (-0.87)	0.998 (0.07)	0.131 (-2.04)^b	6.617 (2.09)^b
ThreePers	18.257 (2.54)^b	1.117 (0.26)	1.747 (0.49)	10.939 (1.87)^c
Constant	0.001 (-2.53)^b	0.005 (-1.68)^c	0.001 (2.54)^b	0.007 (-1.98)^b
Likelihood Ratio	79.87^a	65.83^a	71.18^a	53.53^a
Log likelihood	-31.59	-34.28	-35.31	-39.56
Cox & Snell	0.578	0.494	0.505	0.414

Notes: n=110 in all models. ^c p < 0.10; ^b p < 0.05; ^a p < 0.01 Odds ratios with Z scores in parentheses. Excluded comparisons: experience – <5 years; size – micro; number of owners involved at start-up – four or more persons. Three dummy variables were included in the model.