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Factors determining the appearance of ‘born global’ companies: analysis of early internationalisation for SMES in Colombia

Factores que condicionan la aparicion de las born global: analisis de la internacionalizacion temprana de las PYMES en Colombia

Diana Marcela Escandón Barbosa
dmescandon@javerianacali.edu.co
MsC. Ph.D (c). Profesor Pontificia Universidad Javeriana, Cali (Colombia).

Carlos Hernán González-Campo
carlosb.gonzalez@correounivalle.edu.co
Ph.D. Profesor Universidad del Valle, Cali (Colombia)

Guillermo Murillo Vargas
guillermo.murillo@correounivalle.edu.co
Ph.D. Profesor Universidad del Valle, Cali (Colombia)
Correspondence: Calle 4B #36-00 Edi. 124 Of: 3012, Cali (Colombia)
Resumen

Este artículo tiene como propósito identificar los factores que inciden en la internacionalización de las pymes en Colombia. Para ello se analiza la información del Global Entrepreneurship Monitor (GEM) Colombia 2010, relacionada con pequeñas empresas que logran internacionalizarse en sus primeros dos años de vida. Los autores utilizan la metodología de sistema de ecuaciones estructurales, que permite generar un esquema de relaciones entre las variables con el software AMOS 19. Dentro de los resultados se logró obtener un modelo consistente con la literatura sobre la teoría de internacionalización en la que el factor del empresario se constituye en el de mayor importancia para el desarrollo exportación (0,88), seguido los de tipo interno (0,80) y por último el entorno (0,76).

Palabras clave: Competitividad, internacionalización, recursos y capacidades; Género.

Abstract

The purpose of this article is to identify the factors that influence exporter behaviour for small and medium-sized enterprises (SMEs) in Colombia. Information is analysed from the Global Entrepreneurship Monitor (GEM) Colombia 2010, a report related to SMEs that became international within their first two years of existence. The authors used the systems of structural equations methodology, which permits the generation of a scheme of relations among the variables. Amongst the results is a model consistent with the literature on the theory of internationalisation, involving aspects related to the internal characteristics of the organisation, the business orientation of the directors, and aspects related to the business environment. The business directors’ orientation is the most important factor for the development of exports (0,88), followed by internal factors (0,80) and the business environment (0,76).

Keywords: Competitiveness; Internationalisation; Resources and Capabilities; Born Global.
1. INTRODUCTION

The current state of the world requires enterprises to become international quickly, and only those companies that manage to keep pace with this dynamic develop enough competitive advantages to differentiate themselves from the competition. It was once thought that opportunities for internationalisation could only be taken and developed by a very select group of enterprises with a certain size, level of experience, and significant capital, among other characteristics. Internationalised SMEs were considered the exceptions (Leonidou et al., 2007). However, these ideas have changed with time, and internationalisation is now a requirement for all organisations (Hanna & Walsh, 2008; Holmlund, Kock & Vanyushyn, 2007).

This tendency of venturing directly into international markets without a gradual progression is known as being ‘born global’. Born global companies seek to distribute their scarce resources efficiently and then focus on the creation of their own value as a means to remain within the market (Altshuler & Tarnovskaya, 2010; Gabrielsson et al., 2008; Lee, Lee, & Pennings, 2001).

In the face of this growing interest, and the few studies that have been carried out in Latin America related to this subject (even fewer specifically in Colombia), this study seeks to make a contribution to the comprehension of this phenomenon. To do so, the following question is posed: What factors influence the exporting behaviour of SMEs with early internationalisation? For this purpose, the characteristics of born global companies that have generated a competitive exporting dynamic are determined (Dib, Rocha & Ferreira, 2010; Yamakawa, Peng & Deeds, 2008). Subsequently, the executives’ business orientation towards export development is analysed. Lastly, the characteristics of the environment that influence early internationalisation are identified (Lechner, Dowling & Welpe, 2006).
2. LITERATURE AND HYPOTHESES

Within the growing literature on born global companies, three factors have been identified as impacting early internationalisation: The executives’ or founders’ business orientation, the general or internal characteristics, and the dimension related to the business environment.

The executives’ business orientation in terms of whether or not to compete internationally has been studied and regarded as a determinant factor; hence, it has made its way into the literature related to this subject (Bilkey, 1978). It is quite evident that the possibility of participating actively in international markets is activated when executives have positive expectations and generate the necessary proactive business dynamic focussed not only on the company’s survival, but on organisational growth within an international context (Burt, 1992; Fernhaber, McDougall & Oviatt, 2007; Freeman, Edwards & Schroder, 2006; Tolstoy, 2009). Generally speaking, the founders’ experience, desire to overcome obstacles, ambition, and vision have a significant influence when the goal of making it into an international market is placed above consolidating the enterprise (Morgan-Thomas & Jones, 2009; Tang, 2011; Voudouris, Dimitratos & Salavou, 2011). Therefore, the characteristics found to influence the decision to go into international markets include the executives’ prior experience, education, and directional style (Madsen & Servais, 1997; Zhou, Barnes & Lu, 2010). Other studies have measured capacity for internationalisation in terms of the company’s ability to innovate their products, the kind of decisions made under high uncertainty, and organisational dynamism (Covin & Slevin, 1991; Kim et al., 2011; Zeng, Xie & Tam, 2010).

H1: Executives’ orientation towards internationalisation is related to the export development of born global–type enterprises in Colombia.

Another very important factor taken into account when studying this kind of enterprises is their internal characteristics and what might be derived from the way these SMEs handle their resources and transform markets via innovation (Steeenma et al., 2000). This innovation results in new ideas and creative processes, which causes the company to drift
away from the existing technologies (Lumpkin & Dess, 1996) and continuously seek to create new products and methods that will ultimately improve their performance (Lumpkin & Dess, 1996; Zahra, Ireland & Hitt, 2000). Hence, innovation is a critical process for the company’s performance in a competitive international market (Kotabe, 1990; Steensma et al., 2000; Zahra, Ireland & Hitt, 2000).

Generally, the literature suggests that the early internationalisation of born global companies is facilitated by innovation within the enterprise (Knight & Cavusgil, 2005; Madsen & Servais, 1997; Rennie, 1993), since there is a possible link between the orientation towards the market and the enterprise’s performance (Han, Namwoon & Srivastava, 1998; Menguc and Auh, 2006). In this case, innovation requires extreme apprenticeship, which includes learning about the market, creating the networks to acquire new technologies, and internal experimental learning that includes innovation and development (I&D) (Arora and Gambardella, 1990). Therefore, innovation must be central to any attempt to model accelerated internationalisation in any industry (Knight & Cavusgil, 1996; Madsen & Servais, 1997; McDougall et al., 1994; Weerawardena et al., 2007).

H2: The general characteristics of born global companies in Colombia, including high innovation, have a positive influence on their export development.

Meanwhile, new conditions in the market or business environment include the rise of market niches, requiring that ever-more-specific products be generated, creating the need to penetrate other markets that will absorb the new supply created by these new products. This has also brought about the development of new technologies in sectors such as communications, transportation, and production, which allows the creation of proper conditions for the establishment of new enterprises in international markets. The environment’s constructive elements taken into account include the sector or industry in which the company operates (Etemad, 2004); whether the company possesses high, low, or no technology at all (Weerawardena et al., 2007); and the amount of competition with similar or replaceable products (Covin & Slevin, 1989; Etemad, 2004). However, regarding the last variable, some studies have categorised it as
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H3: The characteristics of the business environment in Colombia have a positive influence on the export development of Colombian born global–type enterprises.

3. DATA AND METHODS

The present investigation is a quantitative one; it utilizes Colombia’s 2010 GEM database. This database is built from surveys applied by the Centro Nacional de Consultoría (National Centre of Consulting) in 5 different capital cities (Bogotá, Medellín, Cali, Barranquilla, and Bucaramanga), 3 departmental capitals (Santa Marta, Cúcuta, and Pasto) and 23 more municipalities chosen at random with a population lower than 10000 people. In order to analyse the data and to accomplish the goals set at the beginning of this study, a descriptive statistic is chosen for each variable related to this study, by means of software called SPSS 19. The variables used are total business income, educational level, starting business as an alternative career path, considering the product as new, types of technology, enterprise’s economic activity, and rate of exports, among others.

Next, a model of structural equations is generated via AMOS 19 software, where the existing interrelationship between latent variables and other parameters is specified. This kind of model allows us to analyse the reciprocal and simultaneous relationships present between different variables that measure the constructs while taking into account the measurement error (Saurina & Coenders, 2002).

Executives’ business orientation factor: This is a key factor that determines the emergence of a new company. Within this variable, we may find three indicators:

- **Motivation:** This describes the motives for which the enterprise is created, total or partial opportunity, or necessity.
• **Education**: This measures the human resources an enterprise may have. It is classified into no education at all, elementary, high school, technological, college and graduate.

• **Experience**: The existence of prior experience is analysed.

**Enterprise’s characteristics factor**: This references the group of indicators that allow us to determine the conditions of those resources inherent to the company’s internal characteristics. Among the indicators that build this variable, we have

• **Technological innovation**: This identifies how much technology is used on a scale of high, medium, or low (top technology, new technology, no technology at all).

• **Product innovation**: This indicator shows whether or not a given product or service involves a high degree of innovation. This means the introduction of innovative supplies by newer enterprises.

• **How the market is expanding**: This indicates the possibility of an innovation finding its way into international markets.

• **Intensity of export**: This is an indicator of export volume. It is divided into quartiles: 1–25%, 26–50%, 51–75%, and over 75%.

**Environmental factor**: This refers to the group of variables that may be determined by the company’s environmental conditions. Within this group, we have

• **Level of competition**: This measures the amount of competition found within the same segment of the market. This is measured using a Likert scale: no competitors (0), low competition (1), medium competition (2) and high competition (3).
**Sector:** This analyses the perception of coverage and attention given to successful executives by the media.

**Status:** Recognition and importance by the media.

**Activity**

Thereafter, the structural equation model is carried out, which allows us to analyse the reciprocal and simultaneous relationships between different constructs and to establish a system of equations that shows these relationships as detected by the theoretical analysis. Taking this information into the empirical realm, we generate a detailed study of Colombia’s born global export development phenomenon. This model was elaborated using the following stimulation techniques to allow us to test the model (Joreskog & Sorbom, 1996): (1) A sample with more than 100–150 cases, (2) three cases per free parameter and (3) three or more indicators to measure each construct.

With the purpose of evaluating the model’s unidimensionality, a factorial confirmatory analysis is performed (Anderson & Gerbing, 1988). In Table 1, the set of variables that measure each concept incorporated to the model is presented. All of these constructs are backed up by literature, and are present in the database used. Additionally, adequate data adjustments are shown, as is the model’s high reliability, which was measured using the superior extracted variance of reliability index, which in all constructs reached 0.6 (Bagozzi & Yi, 1988) and the extracted average is higher than 0.5 (Fornell & Larcker, 1981).

Additionally, all factors and their variables obtained high statistical significance with T values (the model’s lowest reported value) superior to 7.54, allowing us to conclude that there is convergent validity in the present model (Bagozzi & Yi, 1988).
<table>
<thead>
<tr>
<th>ITEMS</th>
<th>S.L</th>
<th>T value</th>
<th>Realiability (SCR, Ave)</th>
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<tr>
<td>Environment characteristics</td>
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<tr>
<td>Competence level</td>
<td>0,8</td>
<td>16,2</td>
<td>SCR: 0,89 AVE: 0,75</td>
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<tr>
<td>Sector</td>
<td>0,9</td>
<td>15,84</td>
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<td>Activity</td>
<td>0,9</td>
<td>14,90</td>
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<td>Status</td>
<td>0,7</td>
<td>10,66</td>
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<tr>
<td>Internal characteristics</td>
<td></td>
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<tr>
<td>Innovation on technology</td>
<td>0,9</td>
<td>23,1</td>
<td>SCR: 0,937 AVE: 0,81</td>
</tr>
<tr>
<td>Innovation on products</td>
<td>0,9</td>
<td>22,82</td>
<td></td>
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<tr>
<td>How the market is expanded</td>
<td>0,9</td>
<td>18,74</td>
<td></td>
</tr>
<tr>
<td>Intensity of exportations</td>
<td>0,9</td>
<td>18,13</td>
<td></td>
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<tr>
<td>Entrepreneur Characteristics</td>
<td></td>
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<tr>
<td>Motivation</td>
<td>0,8</td>
<td>15,34</td>
<td>SCR: 0,92 AVE: 0,74</td>
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<tr>
<td>Education</td>
<td>0,9</td>
<td>15,26</td>
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</tr>
<tr>
<td>Experience</td>
<td>0,9</td>
<td>15,31</td>
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<tr>
<td>Entrepreneurs parents</td>
<td>0,8</td>
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</tbody>
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From Table 2, we may conclude that a good level of correlation exists among the different constructs, especially between environmental characteristics and internal characteristics, which generates high consistency with the focus addressed in previous sections. In addition, this allows us to conclude that the data presents normal behaviour, and that there is no rate of internal variability or data dispersion. At the same time, there are appropriate levels of correlation amongst the constructs, which are adequate for using the structural equations method.
4. BORN GLOBAL COMPANIES MODEL

The following graph displays the final model, in which the existing relationships regarding the competitiveness variable may be appreciated.

**Graph 1**

**BORN GLOBAL COMPANIES MODEL**

The first measurement that was estimated was the chi-squared test’s ratio of verisimilitude, which presented a level of statistical significance equal
8. The evidence suggests that there is very low significant difference between the predicted and effective matrixes.

As for the incremental indexes, such as NFI and NNFI, we can see good results, meaning that our model is opposite to the null model, which indicates an absolute lack of variable association. From this kind of work, we can see how the born global phenomenon has gained high acceptance (0.91 and 0.96 respectively). On the other hand, the CFI, IFI and RFI indexes obtained values close to one unit: 0.95; 0.96, and 0.89, respectively. Another analysis carried out was Cronbach’s alpha, which analyses the thoroughness and internal consistency of our model. This study achieved a level of 0.92, which surpasses the minimum value recommended for confirmatory studies (0.80).

As for H1, the results obtained from the model of equations demonstrate that the factor associated with the executives has a positive and significant relationship with the export development of Colombia’s born global companies (0.96), which confirms the hypothesis. Within this factor, we highlight the contribution of management education level and previous experience in other enterprises (family enterprises or created by him above) or similar companies (previous work of such directors). Additionally, it was confirmed that the born global companies’ general characteristics have a positive and meaningful influence on Colombia’s born global companies’ export development (0.79). Lastly, H3, which states that the environmental characteristics influence Colombia’s born global companies’ export development positively, is validated (0.86). Within this factor, the greatest contribution manages structured variables associated with the sector (0.9) and the type of entrepreneurial business activity (0.9).

5. CONCLUDING REMARKS

Using Colombia’s GEM database, this study took into account enterprises that became international within their two first years of existence, reaching a total of 386 enterprises. However, 70% of these companies report low export rates (lower than 25% out their total sales.). This means that even though these companies have overcome physical and resource-related barriers, their activity in foreign markets is still rather low. Similarly,
not making an effort to position enterprises internationally may be a cultural indicator, given that many SMEs do not even make it out of their locality or their city.

The gathered evidence suggests that born global companies in Colombia possess three factors that are highly significant: the founders’ characteristics, the environment, and the enterprise itself. Here, the founder represents a highly significant aspect (0.96), followed by the environment (0.86) and company’s characteristics (0.79).

As a first finding, the composition of internationalisation stands out based on resources and qualities found within the entrepreneur, such as degree of education and opportunities identified, and those found within the enterprise, such as innovation and new technologies. It is appropriate to state that high-quality products that are new to the consumer have greater advantages when introduced into new markets. However, the technology barrier has a negative influence on early export; apparently, Colombia’s innovative products are not backed up by new technologies.

Another interesting result is that the executives’ educational level is explained by their socioeconomic status; it is clear that those who live outside of poverty have a higher level of education, which gives them more abilities and skills when it comes to creating their own business. This is how entrepreneurs who possess a higher educational level get their companies to expand within the local market, making them more competitive, which is reflected in high rates of production. The previous statement is reflected on the product’s quality, degree of innovation and service effectiveness.

Regarding affairs related to a company’s founders, it is important to highlight the fact that the motivation for creating a business, which represents 96%, contributes to born global companies’ development. This variable indicates the existence of enterprises created through both opportunity and necessity. However, in this kind of international companies, these two motivations are represented equally, in contrast with the result for all companies registered in the database.
Within the highly relevant variables within the factor is the entrepreneur’s previous experience and educational level. Regarding the last point, we can say that possessing the highest possible qualification is essential in order to identify better marketing opportunities and to make the best decisions for the company’s growth. Identifying marketing opportunities is tied to the product’s differentiation and it determines how much of a novelty it is; hence, all companies must invest in innovation. Although investment in innovation is low in Colombia (0.05% of GDP), if it is compared to other countries’, we have a situation that might create a tendency for incremental innovation rather than radical innovation. This situation must be overcome by developing the capacity for either cooperation or relationships that will allow the exchange of information and resources in order to create shared development of technological training, financing, and other resources that might consolidate a competitive advantage.

This is due to the fact that when there is a highly qualified personnel with superior degrees of education, an organisation becomes stronger, more agile and will have better projections. This is reflected in the product’s quality, innovation, and service effectiveness. Moreover, the company will be capable of growing within a specific sector of production with specialised workers for the task, meaning that the workers will assume all organisational responsibilities as long as their effort, knowledge, and dedication are shared for common well being.

On the other hand, the variable related to the experience, skills, and knowledge to start a new business represents 50% of the item related to the founder. This variable indicates that these characteristics are needed in order to improve international companies’ development. In terms of experience, it is nearly always related to previously created businesses and family or friends’ prior experience, where the founders cooperated or worked with others to consolidate an enterprise.

The previous information agrees with the facts that explain the internationalisation of born global companies, such as new products acknowledged by clients, incorporation of new technology, type of activities, and the firm’s previous expansion. This means that it is in those enterprises...
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created within sectors of high value (economic activity) that new technology is incorporated, where the entrepreneur identifies marketing opportunities different from the competition, where new products are offered, and the company grows rapidly within the local market; these are the companies that internationalise early. It is at this point that an entrepreneur achieves a competitive business.

Affairs related to the company’s characteristics are high responsible for born global companies’ development, which agrees with previous studies. This factor includes methods of expansion within the market (0,9), type of activities (0,9), sector’s technology quality (0,9), and products innovation (0,9). It is important to highlight the fact that most of these businesses have presented rates of export (volume) within the lowest quartile (less than 25%). This low volume of exports may be due to very low innovation and difficulty establishing products in an international market. On the other hand, the proportion of existing clients in foreign markets allows for better development of international companies, where attracting different types of clients is radically important in order to avoid concentration and developing dependence on one buyer’s demand.

Enterprises report a tendency to incorporate new technologies as a means of expansion. Nevertheless, this technology is related to incremental rather than radical innovation, which does not generate significant change in product elaboration. As a consequence, these companies do not achieve a long-term advantage over their competitors. Within this variable, and given the nature of these organisations, the need to locate in geographically different places is created; 0,79 of branch offices are located in neighbouring countries. Lastly, the variable associated with a sector’s technology constitutes a parameter of competition survival, especially if there are other enterprises that seek or have achieved internationalisation, although this variable has very little participation within the environment dimension. However, in the analysed sample, less than 20% of the born global companies looked up to their competition as role models in order to become international. They look up to the companies located in the destination country.
The last dimension is associated with the environment, which accounts for 0.86 of born global companies' development. Within this factor, greater weight is the sector and type of activity that the company develops. In the case of the kind an entrepreneur of economic activities engages in efforts historical is responsible for 0.9 of this dimension. This shows an existing variable prevalence of activities targeted to consumers (66%), followed by activities of transformation (33%). Activities regarding the primary sectors of the economy are practically non-existent, at least in this sample, due to the low value added per unit reported and, occasionally, to limitations in the destination country's legislation.

Moreover, and also making the variable representative levels is associated with the level of competition, or other businesses with the same product, with a 0.8. This kind of incidence creates the necessity to incorporate more and more differentiating qualities into the production process; this will ultimately prevent competitors from elaborating the same product. Nevertheless, these days products are not that different from each other, so the executives’ decision to go into international markets makes a difference.

This differentiation is contained in the variable of how costumers perceive a product (how innovative it is and status associated with the level of business), with a relevance of 0.70 to international companies’ development. Clients are ever more demanding; therefore, they look for products with a higher value added per unit, avoiding sensitivity to the price.

In conclusion, it is necessary to acknowledge that this study failed to include other variables that might report the existence of other resources and skills present in different organisations, mainly due to the database's limitations. The relevance of these missing resources and skills does not pass unacknowledged. Moreover, we clarify that it will be important for future studies to use samples of businesses created by men and woman, in order to check whether this model adjusts to them, or whether it presents any significant differences when compared to born global companies.
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