Business Internationalization Inducing Factors - the importance of Knowledge and Relational Networks

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**Abstract:** Companies are currently required to continually innovate and restructure their operations in order to respond to the requirements of national and international competition. Companies have to find new ways to develop competitive advantages and acquire new skills, resources and capabilities. Based on the opinions of different Portuguese entrepreneurs, this study seeks to determine the importance assigned to several factors considered as inducers of the internationalization process by companies that internationalized early in their life cycle. We developed an empirical study with 320 Portuguese international firms and used the statistical software AMOS for a confirmatory factor analysis. We propose a Theoretical Model in accordance to Human Capital Theory, International New Ventures Theory, and the Population Ecology Approach. We find evidence of the importance of Networks, Specific Skills of its workers, International Experience of its workers and Entrepreneurial Propensity and to Take Risks from workers and top management team.

**Keywords:** Internationalization, Networks, Knowledge, INV, SMEs

1 Introduction

Companies’ internationalization and its research is of increasing importance today. Internationalization has become, more than a matter of choice, a matter of survival in a changing world. According to Dana and Wright (2004), international business has for a long time been dominated by large firms with smaller firms tending to remain local or at most regional. The traditional theories of internationalization thus focused mainly on multinational and not on entrepreneurs with small firms. However, the development of the business world has been breaking all frontiers, with the increasing internationalization of firms regardless of their size, activity sector or geographical origin (Teixeira, 2003). There is also a growing need to understand internationalization in the context of entrepreneurship as much as it existed in the context of large multinationals. Knowledge of who, when and why firms become international have become an important research topic in the field of International Entrepreneurship.

Among the various forms of internationalization that have registered a higher growth stands out, according to Teixeira (2003), franchising, strategic alliances and other forms of cooperation, reflecting a change in companies way of competition that has been shifting from
direct competition to the collaboration, from the individual strategy to the network strategy. Integration into a network enables access to knowledge and a broad set of physical, technical, financial and reputational resources that favour adaptation to the various economic, political, legal and cultural dimensions of international business environments, facilitating the internationalization by reducing the psychic distance perceived by companies (Santos, Ferreira, & Reis, 2012). Nowadays, firms have to find new ways to develop competitive advantages what implies the acquirer of new skills, resources and capabilities (De Clercq, Sapienza, Yavuz, & Zhou, 2012). In many cases companies can gain access to these resources, including specific knowledge of the market (market-specific knowledge), through alternative forms of management such as industrial networks.

Recent empirical evidence (Bruneel, Yli-Renko, & Clarysse, 2010) provides important insights on the internationalization of new business, showing that younger firms are able to compensate for their limited experiential learning at company level, through learning based on previous experience of the management team and through inter-organizational relationships, also suggesting that the age and the size of the company should be analysed, but not as a restriction to the beginning of internationalization. On the other hand, Brito and Lorga (1999) and Simões (1997) consider that governmental and associative incentives have for most companies a positive effect in the beginning of internationalization.

A large number of scientific papers on the determinants of internationalization and, more specifically, on its relation to the success/failure of internationalization, are found in the literature on business internationalization. In this perspective the company is treated as a black box, as a set of factors that derive a certain result. In this work, on the other hand, an innovative study is presented on the perspective of the entrepreneur and the manager of the company, as well as his opinions on the internationalization problem, more specifically on the factors that contributed the most to make possible his company entry into markets beyond the domestic market, as well as its entrepreneurial initiatives of early internationalization. It is about the entrepreneur, the company characteristics, the market and the workers that this analysis is mainly focused.

Based on the literature review summarized below, it is important to know what factors have led to the internationalization of Portuguese companies, that is, to determine which variables act as inducers of the Portuguese companies’ internationalization strategy. For example, verify if factors such as relational networks, the entrepreneur personal characteristics and skills, the international experience of its workers, or other variables such as company age and its size, incentives for internationalization, the physical and psychological proximity/distance can act as agents that enhance the company internationalization. Moreover, the objective is to find and confirm structural patterns among variables, that is, to know what latent factors are responsible for the behaviour of the manifest variables specified according to our theoretical model. The statistical techniques used will allow us to define the latent factors that represent the variables that enhance entrepreneurial internationalization, as well as to evaluate the quality of adjustment of this theoretical measurement model.

Based on the objectives outlined, the following research questions were summarized:

- Which variables are responsible for inducing internationalization of Portuguese companies?
- Which theoretical model best fits the observed correlation structure between the manifest variables (internationalization inducing factors)?
2. Literature review

Many of the theories that focus on business strategy and internationalization give great prominence to learning and knowledge not only as fundamental companies’ characteristics but especially of its entrepreneurs and their collaborators. According to the Human Capital Theory, the availability of qualified human resources is fundamental for the performance of companies and has a positive effect on their internationalization. Also in the Population Ecology approach, entrepreneurs are portrayed as individuals capable of identifying opportunities and finding the resources to explore them. Embracing these perspectives, the International New Ventures Theory (INV) draw attention to the importance that these factors have to companies’ early internationalization, against the so-called Behavioral view of internationalization. This theory addresses learning as central for the companies’ internationalization, but above all it emphasizes the importance of Relational Networks as a way for companies to acquire knowledge about the external market, filling the organizational inexperience. Additionally it also emphasizes experience and individual knowledge as a way to recognize the importance of alliances and relational networks in the beginning of internationalization. It is clear, therefore, that the elements common to the most recent approaches to internationalization are the importance of Knowledge and Relational Networks, which we have chosen as the basic theoretical model for this work.

2.1 Relational Network Theory

According to the network theory, depending on the position occupied by a company in the network, this will define its range of opportunities and constraints and thus develop its strategies. Thus internationalization can be seen as the establishment and development of positions in relation to other partners belonging to foreign networks (Johanson & Mattsson 1988). Johanson and Vahlne (2009) report that these relationships have a strong impact on market selection, as well as entry mode because of the ease with which they identify and exploit opportunities. According to Rebocho (2010), cooperation networks undoubtedly favor the competitiveness of companies and have become an important instrument to support the internationalization of SME’s and states that potentially conflicting relationships and divergent interests are seen by the parties as collaborative partnerships around a common goal. Networks provide companies with a set of resources and information about the market and customers, increasing the chances of survival and success. The contacts obtained in the network allow companies to have access to resources that they do not have and could not access otherwise. Santos et al. (2012) argue that networks are even more important for SME’s lacking the human, technical and financial resources needed to internationalize their operations on their own. For Rebocho (2010) and Korsakienė and Tvazoniavičienė (2012), SME’s are characterized by their flexibility and adaptability and innovation, but establishing relationships in international markets requires more skills, management knowledge and long-term availability of human resources to develop an effective and consistent internationalization strategy. In particular, the smallest firms and those who are taking the first steps in internationalization need the resources and expertise to identify business opportunities abroad, potential partners, foreign business practices, etc.

2.2 Human Capital Theory

According to Javalgi and Todd (2011), human capital is central to economic growth and entrepreneurial opportunities. With regard to internationalization, human capital consists of knowledge, skills, talent and experiences used to provide value to the company. Most human
capital studies in the business strategy literature focus on human capital as a company resource but they can't find a direct causal link between human capital and companies’ internationalization. Resource Based View- RBV states that the company specific features result in a sustainable competitive advantage, creating resources that are valuable, rare, inimitable and non - substitutable (Javalgi & Todd, 2011). The human capital resource includes the "training, experience, critical capacity, intelligence, relationships and individual perception of the managers and workers of a company" (Javalgi & Todd, 2011, p1005). For these authors, human capital theory suggests that companies with a higher degree of human capital developed through the availability of workers with higher education and personal experience achieve better performance. Summarizing, according to these authors, human resources are fundamental to companies and their study provide positive empirical support for the effect of human capital on the internationalization of SMEs.

2.3 Population Ecology Approach

The motivation that drives entrepreneurs towards internationalization has also been assigned, as we have seen, to external forces. Proponents of the Population Ecology Approach argue that external forces, such as competition, drive the entrepreneur to look for other opportunities in foreign markets in order to survive. To gain a better understanding of the entrepreneur's decision to internationalize, we must understand his mind and entrepreneurial characteristics (Ibrahim, 2004). In fact, many schools of thought have offered studies on entrepreneurial characteristics. Most of them portray him as an individual driven by a number of environmental factors and also by personality traits. Research on entrepreneurship has identified a number of traits associated with entrepreneurs, such as the need for achievement, the propensity to take risks, the locus of control or self-confidence, and tolerance to contexts of uncertainty (Ibrahim, 2004). Family history has also been presented in the business literature to explain the motivations of the individual to start a business (Ibrahim, 2004). In the literature on entrepreneurship, entrepreneurs are portrayed as those individuals who are able to identify an opportunity and find the resources to exploit it (Ibrahim, 2004; Ferhaber & Li, 2013). Thus, the entrepreneur's decision to venture abroad to analyse the market, detect new opportunities and organize the resources to exploit them should be valued as part of the entrepreneurial process (Oviatt & McDougall, 2005; Ibrahim, 2004).

2.4 Theory of International New Ventures (INV)

These perspectives and theories presented before are aggregate in the theory of International New Ventures (INV). Concerning the importance of learning and knowledge for firms with no great international experience, theories prior to the mid-1990’s offered limited ability to explain how and for what reasons some companies were beginning to operate successfully across national boundaries "too early" in its life cycle, such as the so-called Born Global (Oviatt & McDougall, 2005; Knight & Cavusgil, 2004). McDougall, Shane, & Oviatt (1994) revolutionized thinking about the beginning of the internationalization process, challenging the broadly accepted stages perspective (stage theory) (Johanson & Vahlne, 1977, 1990) and conceiving internationalization process as slow and incremental. Research on INV challenged the idea that new or small businesses could not internationalize early or they would do so only by proceeding incrementally (McDougall et al, 1994; McDougall. & Oviatt, 2000). Since then, a growing flow of research into INV has sought to understand the causes, processes, and outcomes of the decision to enter foreign markets early. A common thread concerns the role
of learning and knowledge (Cumming, Sapienza, Siegel, & Wright, 2009; McDougall & Oviatt, 2000). Organizational knowledge was a central explanation for internationalization in original stage-based models (Johanson & Vahlne, 1977, 1990), but Oviatt and McDougall (2005) recognized that individual factors such as experiential knowledge of the external market (or international experience), can also influence the pace and the beginning of internationalization. Thus, knowledge plays a key role both for the stages perspective and for the INV approach, but it does so in a significantly different way. The stages-based perspective uses the behavioural theory of the firm to argue that the lack of organizational knowledge about markets outside the company prevents international entry and expansion (Johanson & Vahlne, 1990). To this perspective, De Clercq and Sapienza Crijns (2005, p. 409) call the Behavioural view of internationalization. On the other hand, the INV perspective emphasizes the role of individual knowledge (Oviatt & McDougall, 2005) to argue that international entrepreneurs do not need organizational experiences, routines or early entry skills to enter their first external market. On the contrary, the past experiences of founders and other key managers can replace such shortcomings. The individual organizational knowledge about the markets outside the company can thus help the company to "jump" the incremental processes suggested by the stages approach (Oviatt & McDougall, 2005). To this approach, De Clercq et al. (2012, p. 410) call the Strategic choice view. The growing popularity of this new perspective on INV has created a body of literature on the problem of the beginning of internationalization.

2.5 Theoretical model

Based on the literature review of the most significant internationalization theories we established the theoretical model on which this empirical study will be based and which can then be represented by the following scheme:

![Theoretical model](image)

- **Behavioral View**
  - Internationalization Theories
  - Uppsala Model
  - Psychological Distance
- **Strategic Choice View**
  - International New Ventures Theory
  - Knowledge
  - Company size
  - Company age
- **Network Theory**
  - Relational networks
  - International experience
  - Employees skills

Figure 1 - Theoretical model (elaborated by the authors)

3. Methodology and Results

Based on our literature review we intend to evaluate entrepreneurs’ opinions, in order to determine which variables they consider as enhancers of their firms internationalization. It is important to know how the companies were able to achieve internationalization or, more specifically, to know the factors that allowed or facilitated the process of internationalization of their company’s operations. For this purpose, a questionnaire was elaborated: "Factors that contribute to the effectiveness of corporate internationalization ", and sent by e-mail to the responsible for the internationalization of exporting firms and also firms that intend to export, of the AICEP-Portugal Global database. To validate the form and content of the questionnaire, the instrument was pre-tested in a set of four companies involved in international business to
detect possible failures. To confirm the relevance of the variables drawn from the literature review, we used interviews with specialized researchers.

There were 320 responses, of which 186 are from companies operating in the services sector, 129 in the industrial sector and only 5 agricultural companies. It can also be noted that 86% of responding companies are SMEs, according to the Eurostat definition - "Structural Business Statistics" (have fewer than 250 workers). Finally almost half of respondents companies can be considered early international or INV, as internationalized at most at six years of age (De Clercq et al., 2012).

Given the nature of the database to be explored and the objectives of the research, we began by analysing the data through an Exploratory Factor Analysis to measure the variance and covariance among the variables, following the recommendations of Malhotra (2007). Afterwards for the inferential analysis was performed a Factorial Confirmatory Analysis. The objective was to confirm the structural patterns, that is, to know if the latent factors found in the Exploratory Factor Analysis are responsible for the behaviour of the manifest variables specified according to our theoretical model. This technique allowed to fit a (theoretical) measurement model to the correlational structure observed among the manifested variables.

3.1 Exploratory Factor Analysis (EFA)

It’s intended to estimate the common factors and structural relationships that link factors (latent variables, to be determined) to the variables manifest in the study (Factors considered as possible "enhancers" of Business Internationalization).

Statistical Analysis (EFA)

The relational structure of the enhancing factors of companies’ internationalization was assessed by Exploratory Factor Analysis (EFA), using the matrix of variance and covariance not the original variables but their orders (rank) as in Maroco (2011). The factors extraction was done by the main components method followed by a Varimax rotation. Common factors retained were those with an eigenvalue higher than 1, in accordance with Scree Plot and the percentage of retained variance, according to Maroco (2011).

Considering these results and the weak "factorial weights" of the variables "Territorial Proximity" (0.431) and "Incentives / support to internationalization" (0.371), it was decided to eliminate these variables. Thus, with the eight final variables, a new Exploratory Factor Analysis was elaborated.

In order to evaluate the validity of the AFE, we used Bartlett’s sphericity test, which rejects the null hypothesis with an associated significance level of 0.000. Other methods were used as the KMO adequacy coefficient, with the classification criteria defined in Malhotra (2007). The KMO coefficient for the sample presents a value of 0.619 that is considered above the desired (>0.500), and can be considered as "reasonable" (Malhotra, 2007). However, high values (between 0.5 and 1.0) indicate that factorial analysis is adequate (Malhotra, 2007), with a explained variance percentage of about 66%

MSA- (Measure of Sampling adequacy) was also analyzed to for each of the variables trough anti-picture matrices for the variance-covariance and for correlations. MSA values are greater than 0.5 for all variables suggesting that all can be used. All analyses were performed with SPSS software (v. 20, SPSS, Chicago, IL).
Results

According to the results, the correlation structure of the enhancing factors of business internationalization is explained for three latent factors. The following table summarizes the factor weights of each variable in each of the three factors, the commonality of each variable (percentage of variance of each variable explained by extracted common factors) and the % of variance explained by each factor.

Table 1 Weights of each variable factor in the three factors retained, and commonality and variance explained

<table>
<thead>
<tr>
<th></th>
<th>Rotated Component Matrix</th>
<th>Commonalities</th>
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<tbody>
<tr>
<td></td>
<td>Rescaled</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Component</td>
<td></td>
</tr>
<tr>
<td></td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>Age</td>
<td>-.002</td>
<td>.117</td>
</tr>
<tr>
<td>Dimension</td>
<td>.089</td>
<td>-.026</td>
</tr>
<tr>
<td>Specific Skills of its workers</td>
<td>-.073</td>
<td>.802</td>
</tr>
<tr>
<td>Workers International Experience</td>
<td>.139</td>
<td>.664</td>
</tr>
<tr>
<td>Entrepreneurial Propensity and To Take Risks</td>
<td>.120</td>
<td>.731</td>
</tr>
<tr>
<td>Linguistic Proximity</td>
<td>.855</td>
<td>-.050</td>
</tr>
<tr>
<td>Cultural Proximity</td>
<td>.886</td>
<td>.045</td>
</tr>
<tr>
<td>Networks</td>
<td>.665</td>
<td>.359</td>
</tr>
<tr>
<td>Variance Explained</td>
<td>28.82%</td>
<td>19.03%</td>
</tr>
<tr>
<td>Variance Explained Accumulated</td>
<td>28.82%</td>
<td>47.85%</td>
</tr>
</tbody>
</table>

Elaborated by the authors (Source: Output SPSS)

The first factor presents high factor weights of Linguistic proximity, Cultural proximity and Networks and explains about 29% of the total variance. The second factor, with high factor weights of the Specific Skills of its workers, Workers International Experience and Entrepreneurial Propensity to Take Risks, explains 19% of the total variance. In the third factor stands out the Companies’ Age and Dimension, explaining 18.1% of the total variance. In the three global factors explain 65.95% of the total variance. Thus, the first factor we designate as "Distance"; the second by "Knowledge"; and the third by "Company characteristics". Additionally, all commonalities are high, indicating that the retained factors are appropriate to describe the latent correlation between the structure of the internationalization enhancing factors.
3.2 Confirmatory Factor Analysis (CFA)

The factor validity of the three dimensions considered in the EFA has now been evaluated through a confirmatory factor analysis with software Amos (v. 20, SPSS Inc., Chicago, IL) as described in Maroco (2014). The composite reliability and extracted average variance for each factor were evaluated as described by Fornell and Larcker (1981) and also in Maroco (2014). The existence of outliers was assessed by the square Mahalanobis distance (MD²) and normality of the variables was evaluated by the asymmetry coefficient (SK) and kurtosis (ku) univariate and multivariate analysis. No variable was Sk values and Ku indicators of violations of the distribution Normal (| Sk | <3 and | Ku | <10, see Maroco, 2014). Some observations showed DM² values suggesting that these observations were outliers at the confirmatory factor analysis was done without these observations. The overall quality adjustment factor model was made according to the ratios and the respective reference values described in Table 4.1 from Maroco (2014) as follows: X²/df, CFI, GFI, RMSEA, P [rmsea ≤ .05] and MECVI. The quality of the local adjustment was assessed by factor weights and the individual reliability of the items. The model adjustment was made from the change rates (greater than 11; p <.001) produced by Amos and based on theoretical considerations.

Results

The tri-factorial model of the Inducing Factors of Business Internationalization adjusted to a sample of 320 companies revealed a poor quality of adjustment (X²/df = 3.173, CFI = 0.924, GFI = 0.963, RMSEA = 0.083, P [rmsea ≤ .05] = 0.015 and MECVI = 0.294). After eliminating six outliers observations, and removing the contact network item in the host country, whose modification index suggested a strong correlation of the error with a different factor than the one initially suggested (Knowledge), it was possible to obtain a good adjustment (X²/df = 1.674, CFI = 0.981, GFI = 0.984, RMSEA = 0.047, P [rmsea ≤ .05] = 0.513 e MECVI = 0.172) in support of the Factorial validity of the presented model. The composite reliability of the factors proved to be adequate, with 0.72 for Knowledge, 0.77 for Company Characteristics and 0.89 for Market Characteristics. The Average Extracted Variance (AEV), an indicator of the convergent validity of the factors, was also adequate, being 0.5 for the Knowledge, 0.64 for the Characteristics and 0.81 for the Market Characteristics.

Figure 2 presents the values of the standardized factor weights and the individual reliability of each of the items in the simplified model. The discriminant validity of the factors was evaluated by comparing the AEVs with the squares of the correlation between factors. The values of AEVe = 0.5 and AEVce = 0.64 are higher to r²c,ce = 0.05, so we can state that the two factors (Knowledge and Company Characteristics) have discriminant validity. In a similar way, it is possible to demonstrate the discriminant validity of the factors Company Characteristics and Market Characteristics, and Market Knowledge and Characteristics, whose squared correlations (respectively, r²ce,cm = 0.04 e r²c,cm = 0.03) are considerably lower than the AEV values of each of the factors (0.64 e 0.81 respectively).
Removing the variable Contact Network in the Host Country may, in principle, seem to suggest that this is a variable of less importance for entrepreneurs and therefore this conclusion contradict the results obtained for the sample (descriptive analysis). However, the variable was removed from the model due to the fact that it presents a correlation (although weak) also with another of the latent factors, the "Knowledge", and also present a factor weight relatively low (0.48). However this result can be interpreted in a completely opposite way to that initially suggested, because, as observed in the sample, that is one of the variables with higher modal value and lower variance, confirming that the vast majority of business assigns high importance to this variable.

This result may well mean that both the entrepreneurs who drive more attention to the factor "Knowledge" as those who care about the "physical and psychological distances" attach great importance to the Network variable.

4 Conclusions

From the results of CFA we were able to confirm the structural patterns found, that is, ensure that the three latent factors defined in the EFA are those that represent for Portuguese entrepreneurs the Enhancing Factors of Business Internationalization. And also evaluate the quality adjustment of this theoretical measurement model as Very Good.

Thus, the theoretical measurement model, adjusted for the observed correlation structure between the variables defining the inducing factors of business internationalization can be shown from the following factorial structure: Variables relating to knowledge (Skills; International Experience and Entrepreneurial Propensity); Company Characteristics (size and age) and Market Characteristics (Linguistic Proximity and Cultural Proximity).

Thus it is confirmed that the structure model is consistent with the International New Ventures Theory and the Network Theory. Furthermore, the common elements to the latest
approaches to internationalization, such as the importance of Knowledge and Relational Networks, approaches that we choose as the basis theoretical model for this work, appear for Portuguese companies as the most important inducing factors of internationalization.

References:


