

# The role of international experience on SMEs' internationalization

## *El papel de la experiencia internacional en el grado de internacionalización de las Pymes*

Carlos Sandoval-Álvarez\*

Escuela de Administración de Negocios, Universidad de Costa Rica, San José, Costa Rica.

carlos.sandovalalvarez@ucr.ac.cr • <https://orcid.org/0000-0003-1166-5684>

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\* Corresponding Author

Carlos Sandoval-Álvarez

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**Abstract:** This study evaluates the mechanism through which managers' international experience impacts the degree of internationalization of small and medium-sized enterprises (SMEs). The empirical analysis uses a sample of 131 managers of Costa Rican exporting SMEs. The main findings of the proposed structural model suggest that the international experience of managers indirectly impacts the degree of internationalization of SMEs. The proactivity of managers in international markets is the key factor influencing the degree of internationalization of SMEs. Risk perceptions associated with the firm's international expansion impact managers' proactivity levels in international markets.

**Keywords:** international experience, SMEs, proactivity, risk perception, international entrepreneurship, Latin America.

**Resumen:** Este estudio tiene como objetivo determinar el mecanismo a través del cual la experiencia internacional de los gerentes impacta el grado de internacionalización de las pequeñas y medianas empresas (pymes). Desarrollamos un modelo de investigación y probamos nuestras hipótesis empíricamente a partir de una muestra de 131 gerentes de pymes exportadoras tomada en Costa Rica (América Latina). Aplicando el análisis de modelos de ecuaciones estructurales los resultados sugieren que la experiencia internacional de los gerentes clave impacta solo indirectamente en el grado de internacionalización de las pymes. La proactividad de los gerentes en los mercados internacionales es el factor clave que influye en el grado de internacionalización de las pymes. La percepción del riesgo de expansión internacional impacta en los niveles de proactividad de los gerentes en los mercados internacionales.

**Palabras clave:** experiencia internacional, pymes, proactividad, percepción de riesgo, emprendimiento internacional, América Latina.

## 1. Introduction

The internationalization of small and medium-sized enterprises (SMEs) has become a research topic of increasing relevance as a consequence of the continuous proliferation of this type of firm in international markets (Buzavaite & Korsakiene, 2019; Child et al., 2022). Internationalization constitutes an essential cornerstone of the future of firms, especially for those in regions with low expectations of economic growth and demand (González-García & González-Mieres, 2018). International entrepreneurship scholars contend that certain characteristics of SME managers may influence the performance of their firms in international markets to a great extent (Onkelinx et al., 2016). Among such characteristics, the international experience stands out as the crucial factor for the internationalization of SMEs (e.g., Battaglia & Neirotti, 2022; Freixanet & Renart, 2020). The impact of managers' international experience on the international outcomes of their firms (for instance: export performance, export intensity, degree of internationalization or speed of internationalization) has been widely supported by empirical research (e.g., Oura et al., 2016; Qin et al., 2022; Sandoval-Álvarez, 2022; Xu et al., 2015).

According to Jones and Casulli (2014), the international experience is perhaps the most empirically supported precedent of firm internationalization. This has been shown in several studies conducted around the world (Andersson, 2015; Catanzaro et al., 2019; Derda, 2017; Lafuente et al., 2021). However, the arguments about how managers' international experience contributes to their firms' performance in foreign markets remain implicit or simply unspecified (Milanov & Maissenhälter, 2014). Research carried out in Latin America is not an exception either: According to Postigo et al. (2017) who conducted qualitative studies on internationalization of Latin American companies in various countries (including Argentina, Brazil, Chile, Colombia, Costa Rica, Ecuador, Mexico, Peru among others) concluded, among other things, that in the case of Latin American SMEs, the international activity of these companies seems to be closely linked to the experience and professional dimension of their managers. López-Rizzo et al. (2020) diagnosed the main barriers to the internationalization of SMEs in nine countries of the Latin American region. They pointed out that the firm's manager profile, including the international trajectory, affects the performance of the SME and its level of internationalization. While it is taken for granted that the international experience of SME managers has an impact on the internationalization of the firms, notwithstanding the foregoing, it is still not clear how and why such an experience may lead to a higher degree of internationalization of a firm. That is, the research on how a manager's international experience may exert an influence on new international ventures is still poorly investigated (Jones & Casulli, 2014).

International experience is a crucial factor in firm internationalization. However, this assertion is not exempt from some controversy. Some academics argue that having extensive international experience can cause a rigid focus on familiar "clues" of international business opportunities, provoking managers to overlook emerging business opportunities abroad (Zahra et al., 2005). Some others maintain that the international experience is not indispensable for the successful internationalization of SMEs (e.g., Dib et al., 2010; Kalinic & Forza, 2012).

This study aims to determine whether a manager's international experience is crucial for the internationalization of an SME and the mechanism through which (that is, how) managers' international experience might influence the degree of internationalization of their firms. More specifically, this research aims to provide answers to the following questions: (1) To what extent does the international experience accumulated by managers directly impact the degree of internationalization of SMEs? (2) How does the international experience of the manager influence the degree of internationalization of the SME? In other words, can international experience have an indirect impact on the degree of internationalization of an SME? To answer these questions, we have developed a model based on key theoretical principles from international entrepreneurship literature, entrepreneurial cognition, and the Upper Echelon Theory.

The model was tested empirically in a sample of Costa Rican SMEs. When examining SMEs from Costa Rica, we want to provide findings drawn from an emerging economy with vibrant participation of its SMEs in international markets. Costa Rica has the second largest number of exporting firms per capita in Latin America and the contribution of exporting SMEs to

the country's total exports has been one of the highest in that region (Comisión Económica para América Latina y El Caribe, 2014), [CEPAL]. Likewise, Costa Rican exporting SMEs incorporate more new products and more export destinations each year, compared to other SMEs in Latin America (CEPAL, 2018). In addition, some academics call for research from different contexts, particularly emerging economies, where research on internationalization is still scarce (Rialp et al., 2014).

Internationalization is challenging particularly for SMEs due to relative resource constraints that limit their ability to expand abroad (Cuervo-Cazurra et al., 2018; Kraus et al., 2015; Tan et al., 2018). Exporting is the most affordable and preferred way for SMEs to expand internationally (Santhosh, 2019; Tan et al., 2018). Therefore, for this study, we delimit the understanding of the term “internationalization” as the international expansion of the firm's export sales. This research contributes to the literature on International Entrepreneurship (IE) and strategic management by providing empirical evidence that suggests that the degree of internationalization achieved by an SME is associated with particular characteristics of human capital, specifically, with characteristics of its manager. The rest of this document is organized as follows: The research model, theoretical foundations, and hypothesis are described. Next, the methodology and results are presented. Finally, the findings, conclusions, and limitations of this study are discussed.

## 2. Theoretical framework, research model, and hypotheses

### 2.1 Theoretical framework and research model

To build our model, we draw on key theoretical tenets provided by the literature on International Entrepreneurship (IE), Upper Echelon Theory (UET), and Entrepreneurial Cognition (EC). IE is a growing field of research (Andersson, 2015) and its research interest focuses on how individuals “discover, evaluate and exploit commercial opportunities for future goods and services across national borders” (Oviatt & McDougall, 2005, p. 540). It devotes particular attention to examining the links between firm internationalization and the firm's human capital, that is, on the individuals responsible for the actions and decisions in the firm, either individually or in a group. In this regard, the demographic characteristics, personality, attitudes, experiences, and perceptions of firm managers are of special research interest (e.g., Acedo & Florin, 2006; Arroyave et al., 2017; Franco-Ángel & Urbano, 2019; Sandoval & Rank, 2021). Research on a manager's international experience and its impact on a firm's international results has been widely studied. International experience is considered a crucial element of internationalization (Jones & Casulli, 2014; Milanov & Maissenhalter, 2014). Like IE, UET has much to offer in understanding the internationalization of firms as it focuses on managerial characteristics as a differentiating factor that can help explain firm performance.

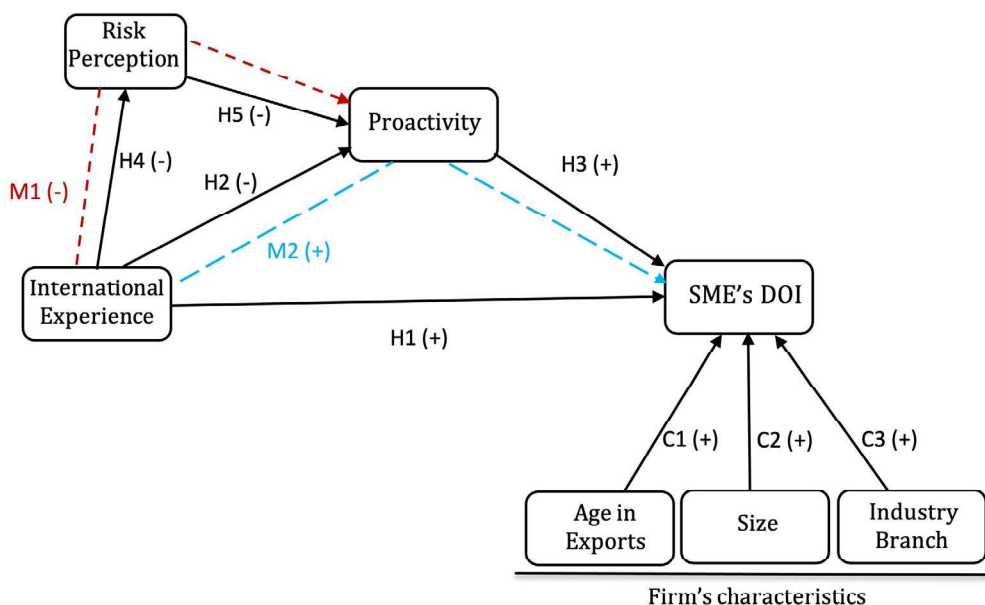
The Upper Echelons Theory (UET) stems from the seminal work of Hambrick and Mason (1984) and Finkelstein et al. (2009) on top managers and how their characteristics influence firm results. The UET is perhaps the most prominent theoretical framework in the field of strategic leadership and business management according to the most recent review on the state of the art in these fields (cf. Singh et al., 2023). This theoretical perspective asserts that, because top managers of firms have the general responsibility of their organization, their characteristics, what they do, and how they do it, affects the organization (Finkelstein et al., 2009). The more complex the strategic decision that a manager must make, the more relevant the personal characteristics of the manager become, which exert an effect on their decisions (Carpenter et al., 2004). The experiences and backgrounds of managers shape how they perceive and interpret reality. This influences their behaviors, which ultimately affects the performance and organization's results (Finkelstein et al., 2009). The fundamental axiom of this theoretical perspective is summarized in that the organizations and their performance are reflections of the characteristics of their top managers (Abatecola & Cristofaro, 2020).

In the confluence between international entrepreneurship and cognitive psychology, we find what is known as the entrepreneurial cognitive perspective. Entrepreneurial cognition (EC) also focuses on the study of the characteristics of business managers and entrepreneurs, particularly on the study of their perceptions and thought processes (Mitchell et al., 2002). EC refers to the “knowledge structures that people use to make assessments, judgments or make decisions related to the evaluation of opportunities and the creation and growth of firms” (Mitchell, 2002, p. 97). From this perspective, the rational thought process of managers has inherent limitations. They reason and decide rationally, but within the limitations imposed by what is available for their rational analysis, such as what information is available to them (Vlačić et al., 2022), as well as their, knowledge and capability to evaluate such information, thus limiting their field of vision and perceptions. Therefore, they end up giving a personal interpretation of the situation and the facts (Finkelstein et al., 2009).

Cognitive aspects (attitudes and perceptions) are usually particular mental factors that may condition thoughts and decision-making (Barón & Rotundo, 2018). IE literature defines international entrepreneurial cognition as “mental models and thought processes that individuals use to identify, evaluate, and exploit opportunities across national borders” (Milanov & Maissenhälter, 2014, p. 50).

IE academics have also argued that identifying international business opportunities and assessing the threats inherent in these opportunities involves an active cognitive process (Milanov & Maissenhälter, 2014) and have suggested that a firm’s participation in export activities depends on perceptions, especially on the perception of risk towards internationalization (Kraus et al., 2015). Understanding how managers deal with risk perception regarding operating in international markets is pivotal. A manager’s risk perception can shed light on why some firms seek to export, while others do not (Acedo & Florin, 2006). It is considered an important and explanatory concept of internationalization and a vital research topic due to the uncertainty that characterizes operations in foreign markets (Eduardsen & Marinova, 2020). Figure 1 presents our research model.

Figure 1: Research model



Notes: H=hypothesis, C=control variable, Me= possible mediation effect.

The relationships between variables in the model were based on the fundamental theoretical underpinnings of IE, UET, and EC extant literature. We postulate two ways in which a manager's international experience could impact the degree of internationalization exhibited by a firm:

**Direct relationship:** Since the UET theoretical perspective assumes that the performance of the firms can be considered a reflection of their managers' characteristics. We assume that the level of international experience of the manager should be reflected in the international performance of the firm, represented here by the degree of internationalization of a firm (DOI).

**Indirect relationship:** Given that IE and EC assume that the background and characteristics of the managers (their attitudes, behaviors, and perceptions) may exert an impact on the performance of a firm, we deduce that the levels of proactivity of a manager in international markets (that is, manager's behavior), and the perception of the risk of expanding commercial operations internationally (that is, manager's cognition) would influence the DOI. In short, we postulate that the international experience of managers indirectly impacts the level of DOI exhibited by their firms through the level of risk perception and the level of proactivity of the manager in dealing with international markets.

In addition, the model also depicts two possible mediating effects. These effects will be analyzed. Finally, it is important to note that the model does not intentionally contemplate any direct connection between a manager's perception of risk and the firm's DOI (measure of international performance of a firm).

We control the model for the possible effects of the firm characteristics that could explain the levels of DOI achieved by the firms, according to the literature on IE: the years that the firm has been in export activity, firm size, and the industry branch to which it belongs. The following sections provide explanations for each interconnection depicted in the model based on the literature on IE, UET and EC.

## 2.2. Hypotheses

### 2.2.1 Managers' international experience and degree of internationalization of their SMEs

The accumulation of international experience by a manager leads to better recognition of export opportunities and, as time passes, the firm's commitment to international business increases. IE scholars consider human capital to be of paramount importance in explaining the internationalization of SMEs, arguing that internationally experienced managers are a crucial resource that leads firms to higher levels of internationalization (Buzavaite & Korsakiene, 2019). International experience constitutes a competitive advantage, an idiosyncratic asset for firms since it is difficult to obtain, imitate and replace (Sandoval-Álvarez, 2022). The impact of managers' international experience on export intensity and the degree of internationalization of their firm has been examined and supported by several studies (e.i., Catanzaro et al., 2019; Lafuente et al., 2021; Xu et al., 2015). It is considered a vital element for the successful internationalization of firms (Jones & Casulli, 2014; Milanov & Maissenhalter, 2014). In general, it is argued that the characteristics and background of a manager influence the strategic results of firms (Abatecola & Cristofaro, 2020). Therefore, we assume that:

**Hypothesis 1.** Managers' international experience is positively related to the degree of internationalization of their SMEs.

### 2.2.2 Managers' international experience and managers' proactivity

Literature on SME internationalization recognized two general strategic behaviors to cope with internationalization: proactive and reactive postures (Moreira et al., 2022; Ribau et al., 2018). Some authors contend that individuals with commercial international experience can create opportunities for global endeavors through intentional exploration and discovery (Jones & Casulli, 2014). Sandoval-Álvarez, 2022 provided empirical evidence suggesting that internationalized SMEs manage export projects more proactively than their counterparts with limited international experience. In addition, these authors also noted that managers with less international experience are not as likely to consider exporting for business

growth as managers with extensive international experience. It has also been argued that having extensive international experience can foster greater awareness to develop formal business plans to support export initiatives (Mason & Pauluzzo, 2011), denoting a proactive stance towards foreign markets. Finally, other empirical research shows that managers with international experience show more initiative when establishing contacts and relationships abroad to increase their strategic position and take advantage of international business opportunities (Zhou et al., 2010). Consequently:

**Hypothesis 2.** Managers' international experience is positively related to their level of proactivity in the international markets.

### 2.2.3 Managers' proactivity and degree of internationalization of their SMEs

Although exports tend to have high levels of volatility, especially for SMEs where sales can drop rapidly and unforeseen events can shake the level of international sales reached by the firms (Bernini et al., 2016). It was shown that the proactive stances of a manager in international markets is positively related to a higher level of internationalization of SMEs (Burgos-Guerrero, 2019). It has been noted that managers who take advantage of seeking opportunities in the foreign market show a clear commitment to export operations (Sandoval-Álvarez, 2022) and allow faster internationalization of firms (Oviatt & MacDougall, 2005). Managers who exhibit a more proactive stance toward export activities are very likely to score better in terms of the intensity, speed, and geographic reach of their international sales (Ciravegna et al., 2014; Sandoval-Álvarez, 2022).

International entrepreneurship is seen, in essence, as deliberate proactive behavior seeking and exploiting opportunities across national borders (Oviatt & McDougall, 2005). Although we acknowledge that managers can choose both proactive and reactive stances in dealing with export endeavors, we argue that given the volatility of international sales, high export levels could only be achieved and sustained by proactive behavior towards foreign markets. We also postulate that the more proactive the managers are in international markets, the greater the export intensity and geographic scope of their exports. Therefore, we assume that:

**Hypothesis 3.** Managers' proactivity concerning foreign markets has a positive relationship with the degree of internationalization of their SMEs.

### 2.2.4 Managers' international experience and managers' risk perception

Having knowledge of international markets facilitates the exploitation of business opportunities abroad. The lack of such knowledge, the perceived differences in business practices, marketing, and legal regulations, along with the potential constraints of language differences, increase the sense of risk and uncertainty in international markets (Evans & Mavondo, 2002). The perception of risk, in the context of IE, refers to a personal and subjective assessment of the level of risk and uncertainty associated with internationalization. (Eduardsen & Marinova, 2020). For managers of SMEs, the risk of venturing into exports implies a mental assessment of the perceived level of uncertainty vs. controllability of the situation (Acedo & Jones, 2007).

A manager's international experience is related to the reduction of the perceived risk inherent to international business (Derda, 2017). For McKelvie et al. (2011) the differences between individuals in terms of the feeling of control in situations of uncertainty are associated with individual attributes, such as experience and knowledge. Achtenhagen (2011) argues that managers' international business experience can reduce uncertainty associated with international operations. Based on these arguments, we assume that the accumulation of international experience by SME managers should increase their sense of controllability of international business and decrease the sense of uncertainty inherent in foreign markets.

Consequently:

**Hypothesis 4.** Managers' international experience is negatively related to their level of risk perception of expanding export operations.

### 2.2.5 Managers' risk perception and managers' proactivity

Export SMEs enter, exit, and re-enter export markets very frequently (Blum et al., 2013). Exports are challenging for SMEs due to their resource constraints that limit their capacity to expand abroad (Sandoval & Rank, 2021). The export expansion is a complex (Basly, 2015), and risky activity (Kraus et al., 2017) for the SMEs. On the other hand, the pursuit of international commercial opportunities cannot be understood without considering the SME manager's ability to assess the risks of the international environment (Acedo & Florin, 2006). From a cognitive perspective, the environment is not an entirely objective set of conditions, but rather the result of managers' perceptions of threats and opportunities from the environment (Barón & Rotundo, 2018). Managers are constantly faced with threats and uncertainty from the environment. In such circumstances, they tend to perceive only partial aspects of their environment (Finkelstein et al., 2009).

Thus, managers can filter and interpret a limited portion of the information to which they attach their own meaning (Carpenter et al., 2004). This process of "filtering and interpreting" is a cognitive function through which people regularly perceive how risky a situation is, and their perceptions, in turn, affect their actions and behaviors (Finkelstein et al., 2009). Managers are likely to rely on their perceptions to cope with the complexity and risk that characterize the international business environment (Jones & Casulli, 2014).

Based on the arguments, we argue that managers deliberately weigh the risks involved in opportunities for international expansion. We assume that managers' risk perception affects their level of proactivity when dealing with international markets. Therefore, we postulate that:

**Hypothesis 5.** Managers' risk perception of expanding export operations is negatively associated with their level of proactivity in the international markets.

The research model also surmises the possibility of two mediation effects. To support these assumptions, we offer the following arguments for each possible mediation effect depicted in Figure 1.

### 2.2.6 The mediating effect of managers' risk perception

Although the accumulation of international business experience generates a particular preference among managers to pursue business opportunities abroad (Milanov & Maissenhalter, 2014), having such international business experience also reduces their level of risk and uncertainty associated with export ventures (Achtenhagen, 2011; Derda, 2017). According to Sandoval-Álvarez (2019), managers with international experience deliberately evaluate and weigh the risks associated with international business opportunities, and the perceived level of risk associated with such opportunities would ultimately determine their levels of proactivity and the efforts they need to undertake to deal with international ventures. From IE perspective, a manager's cognitive factors precede managerial actions (Jones & Casulli, 2014), and as such, cognitive features, such as perceptions, can be viewed as possible refinement mechanisms that could presumably help to explain a manager's international behavior (Milanov & Maissenhalter, 2014). From the UET perspective, international expansion of export operations involves high risk and complexity for SME managers (Basly, 2015). Under such situations experienced business managers tend to draw upon their perceptions and personal values to interpret the situation which, in turn, influences their actions (Sandoval-Álvarez, 2019). This operation of interpreting the situation is a cognitive process, through which managers regularly evaluate risky situations before getting into action or making decisions (Finkelstein et al., 2009). Based on these arguments it seems plausible to consider that:

Managers' risk perception of expanding exports mediates the relationship between the managers' international experience and their proactivity in the international markets.

### 2.2.7 The mediating effect of managers' proactivity

While it is well known that the international experience of an SME manager is a vital element for the success of international expansion (Andersson, 2015), it often increases managers' predisposition to international companies and that favors interest in exports (Sandoval & Rank, 2021), such experience alone cannot have an impact on a company's international performance unless it is converted into specific initiatives and actions.

Managers with strong international experience have been found to seize new market opportunities, design strategies accordingly, and can easily undertake export activities that result more proactively in high international firm performance and profitability (Ali et al., 2020). In turn, some scholars have argued that much of a manager's proactive stance that leads him/her to create international business networks and pursue new export opportunities derives from a manager's prior international experience (Lazaris et al., 2015). Thus, proactivity, in the context of export business, reflects the managers' willingness to participate in international initiatives and take advantage of them to expand in foreign markets (Expósito et al., 2022). The more proactive a manager's stance in international markets, the higher the level of internationalization of SMEs is expected (Burgos-Guerrero, 2019). Substantiated in these arguments, it is reasonable to consider that:

Managers' proactivity in the international markets mediates the relationship between the managers' international experience and the degree of internationalization achieved by their SMEs.

## 3. Sample and variables

### 3.1 Sample and data collection

This study focuses on SMEs, however, there are no universal criteria that establish what should be understood by SMEs. For this study, we adopted the criteria usually used in studies on SME internationalization that describe them as those firms with 1) no more than 250 employees and 2) annual sales that do not exceed 50 million dollars or its equivalent (Brouthers et al., 2015; Dutot et al., 2014). Two additional selection conditions were established: SMEs must exhibit export activity (regardless of their level of export intensity). Secondly, since our focus of interest is to determine if the characteristics of managers influence the degree of internationalization, only SMEs with a single manager were included. They can make decisions freely and independently of any legal or managerial influence from another organization. Therefore, all those SMEs with an administrative dependency on another larger firm and subsidiaries of other firms were excluded.

The list of firms registered in the Industrial Chamber of Commerce of Costa Rica and in the Chamber of Technology and Communication was used as a sampling frame; renowned institutions in said country and whose majority of their affiliates are SMEs according to our definition. Since the selection criteria are difficult to meet for all SMEs, non-probability sampling was used. A total of 557 SMEs were found to meet the selection criteria. The collection period was five months and ended in November 2018. Data collection was carried out by sending online questionnaires. The informant units were single managers of SMEs. Managers are those individuals who often make strategic decisions about expanding international business operations and the scope of that expansion (Achtenhagen, 2011). To ensure the confidentiality of the responses, participants were allowed to answer the questionnaire anonymously. We also incorporated control questions to ensure that the returned questionnaires met the four SME selection criteria. The questionnaires were designed in Spanish, the official language of the country. Lastly, before sending the questionnaires, we tested them with managers from four SMEs.

A total of 557 questionnaires were sent and 209 of them were answered. 78 were discarded because of a considerable number of unanswered questions, or because they did not meet the thresholds established by our selection criteria. In the end, a total of 131 responses were obtained. This represents an effective response rate of 23.90%. The sample comprises

single managers, most of whom were founders of their firms. (The demographic data of firms and managers are presented in the annexes)

### 3.2 Variables

We use multi-item constructs validated by previous inquiries to measure the variables of the model. Regarding international experience, we followed the suggestion of Xu et al. (2015) and asked managers to indicate the total number of years of experience in international business, including the time before joining the firm or its foundation. This is a measure commonly used to capture the accumulated international experience of managers (Sandoval & Rank, 2021).

To measure international proactivity, we opt for the construct validated by Zhou et al. (2010). This scale measures the level of proactivity in foreign markets. It consists of five items. A 7-point Likert scale was used, ranging from 1 (strongly disagree) to 7 (strongly agree). The Cronbach's alpha value obtained from  $\alpha=0.92$  suggests the internal consistency of this construct.

To assess risk perception in the context of export expansion, we adopted the construct validated Acedo and Jones (2007). This consists of four items and a Likert scale of 7 points, 1 (totally disagree) to 7 (totally agree). The Cronbach's alpha value of  $\alpha= 0.70$  indicates internal consistency.

Regarding the DOI, various studies tend to simply measure it as “export intensity” that is, the ratio of international sales to total sales (e.g., Fernández-Ortiz & Lombardo, 2009; Sandoval-Álvarez, 2022). We adopt a more comprehensive concept and proposal by Onkelinx et al. (2016) for studies on SME internationalization which comprises two dimensions: 1) the ratio of foreign sales to total sales in the last ten years to date, and 2) the geographic scope of foreign sales, that is, the number of countries to which exports are made to date.<sup>1</sup>

Finally, the values are standardized and averaged to obtain a single DOI score.

On the other hand, we control for possible effects that the following firm characteristics may have on DOI: The years that it has been serving in foreign markets, the size of the firm, and the industry branch to which it belongs. Larger firms tend to be more international, as they have more resources available to international firms (Fonseca-Feris & Fleitas-Alvarez, 2020). Following Brouthers et al. (2015), we operationalize the size of the firm as the total number of employees of a firm measure commonly used as a proxy for a firm's resources (e.g., Yazdanfar & Öhman, 2018; Sandoval-Álvarez, 2022). By their nature, firms in the IT branches tend to be more global and can expand internationally more easily (Buxmann et al., 2013; Jain et al., 2019); therefore, we control for industry branch. Finally, we control for firm age in exports. The more years in the export activity, the higher the DOI is expected, and vice versa. Following Sandoval and Rank (2021), we operationalize the firm age in exports as the total number of years elapsed since the first export.

## 4. Methods and results

### 4.1 Reliability and validity of the model and its constructs

We evaluated the composite reliability of the model variables by calculating the coefficient C.R. which allows us to verify the multi-item internal consistency of the reflective variables of the model (Hair et al., 2010). The values of C.R. greater than

<sup>1</sup> To estimate the geographic scope of exports, these authors used the traditional “psychological distance” approach (For further explanation of this approach, see Sousa and Bradley (2008). However, Ramaswamy et al. (1996) have demonstrated the inconvenience of this approach and the appropriateness of simply counting the number of countries when it comes to geographic scope of exports.

0.7 evidence consistency between items of the same construct. The C.R. for the risk perception and proactivity variables were 0.80 and 0.92 respectively, which suggests a satisfactory level of reliability in the constructs.

We also verified the convergent validity using confirmatory factor analysis (CFA) with the help of Software Amos28. All item loadings of our two reflective variables were statistically significant at  $p < .001$  within the corresponding variable. We calculate the Average Variance Extracted (AVE) to test whether the standardized item estimates are above their allowable threshold (i.e.,  $AVE > 0.50$  and ideally close to 0.70). The AVE values of the constructs yielded AVE values of 0.70 for proactivity and 0.58 for risk perception, which provides evidence that the items belonging to each specific construct share a large proportion of variance in common.

The discriminant validity was verified by computing the HTMT (Heterotrait-Monotrait Ratio of Correlation Matrix) correlation coefficients. According to Henseler et al. (2015), there is evidence of discriminant validity between constructs is demonstrated when the HTMT coefficients are below the threshold of 0.90 for each pair of constructs. The HTMT resulted in a -0.67, thus evidencing discriminant validity. The implied correlation matrix is provided in the annexes.

The DOI variable is a formative construct; consequently, assessments of internal consistency, reliability, and convergent validity are counterproductive (Hair et al., 2011). In the case of formative variables, the high levels of multicollinearity between the indicators are the greatest concern. We computed the VIF factor (Variance Inflation Factor) to examine multicollinearity between the international sales ratio and country numbers. VIF values greater than 5 will reflect multicollinearity problems (Hair et al., 2010). The VIF value was 1.14; therefore, the assumption of non-multicollinearity is fulfilled. (A summary of all aforementioned tests is provided in the annexes.

#### 4.2 Assessment of the confidence and goodness of fit of the model

We performed the hypothesis analysis using covariance-based structural equation modeling (CB-SEM). This is important to point out that these rigorous techniques allow us to test all interrelationships depicted in the model simultaneously. This particularity of CB-SEM makes it very suitable for this research since it allows for estimating the strength and relative importance of each relationship in the model (Hair et al., 2010).

The goodness of fit was evaluated by calculating the coefficient of minimum discrepancy ( $\chi^2/d.f.$ ). whose value was 1.32, which is less than the allowable threshold of 3.0 (e.g., Byrne, 2016). However, the chi-square ( $\chi^2$ ) values are susceptible to changes in sample size and model complexity. Due to this limitation, we also follow the suggestions of Weiber and Mühlhaus (2014), who recommend evaluating, in addition to  $\chi^2/d.f.$ , a series of indices to make better judgments about the goodness of fit. Table 1 summarizes these indices and the respective thresholds. Overall, the results indicate that our model fits the data quite well.

**Table 1:** Evaluation of the model’s goodness of fit

Indices	Thresholds	Scores
Tucker- Lewis Index (TLI)	$\geq 0.95$	0.97
Incremental Index of Fit (IFI)	$\geq 0.95$	0.98
Comparative Fit Index (CFI)	$\geq 0.95$	0.98
Relative Non-Centrality Index (RNI)	$\geq 0.95$	0.97
Standardized Root Mean Square Residual (SRMR)	$\leq 0.08$	0.07
Root Mean Square Error of Approximation (RMSEA)	$\leq 0.06$	0.05

Notes: Fit indices based on Weiber & Mühlhaus (2014).

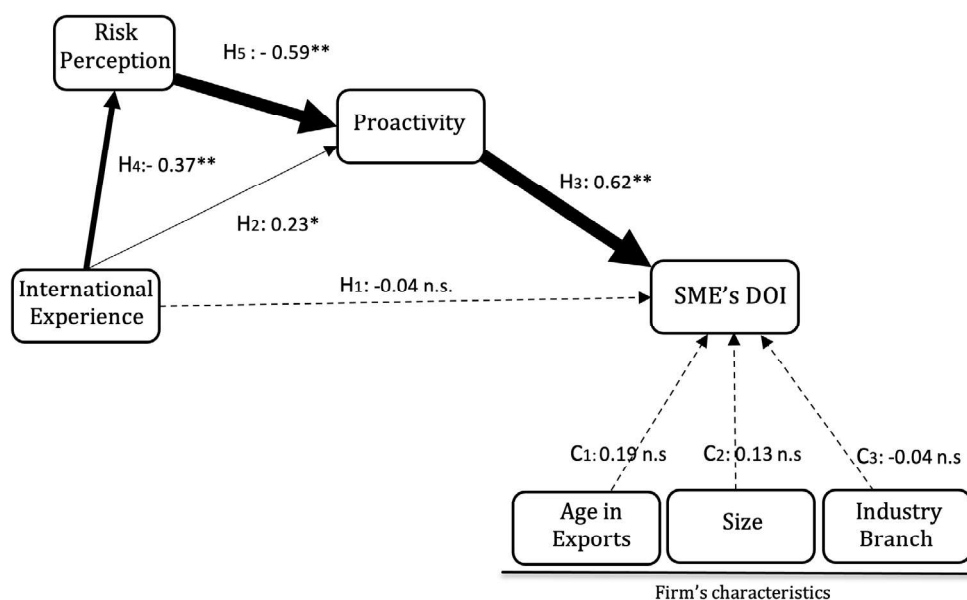
Finally, the multivariate non-normality was examined  $\chi^2/d.f.$  by computing Mardia's normalized coefficient ( $d_2$ ) as suggested by Byrne (2016). The coefficient yielded a value of  $d_2 = 4.92$ . Mardia values less than 5 indicate the presence of multivariate normality (Byrne, 2016; Enomoto et al., 2020). Using this parameter as a reference, we can conclude that there is no violation of the assumption of multivariate normality in the data, and now we can compute all estimates of our model and hypotheses.

### 4.3 Hypothesis test results

To do this, we chose the Maximum Likelihood (ML) method to estimate the parameters or  $\beta$  and  $p$  statistics of all the relationships represented in our model, as facilitated by CB-SEM using Amos28. ML is the most advisable method for parameter estimation with CB-SEM when the data set is multivariate normal (Mindrila, 2010) as in our case. The model was analyzed in two steps:

**Direct effect:** First, the direct relationship between intentional experience and DOI (that is, hypothesis H1) was tested by restricting the effects of the indirect relationship. The result shows that there is a significant and positive relationship ( $\beta = 0.35$ ,  $p < 0.00$ ) between both variables. This result was expected since the international experience of the manager is considered pivotal for the international performance of a firm. **Direct and indirect effects:** Second, all model parameters are estimated simultaneously, that is, without restricting the effects of the indirect relationships. Now, the results show that the relationship between international experience and the degree of internationalization turned out to be not significant ( $\beta = -0.04$ ,  $p > 0.05$ ), therefore, the H1 hypothesis is not supported. The relationship between international experience and proactivity was significant ( $\beta = 0.23$ ,  $p < 0.01$ ), which supports hypothesis H2. We also assume that proactivity concerning foreign markets influences the degree of internationalization of an SME. The result shows a significant relationship ( $\beta = 0.62$ ,  $p < 0.00$ ), thus supporting hypothesis H3. The relationship between international experience and the perception of the risk of international expansion is negative and significant ( $\beta = -0.37$ ,  $p < 0.01$ ), therefore, hypothesis H4 is supported. Finally, the relationship between risk perception and proactivity was significant ( $\beta = -0.59$ ,  $p < 0.00$ ), which supports hypothesis H5. Figure 2 summarizes the results of this test.

Figure 2: Result of the hypotheses of the research model



Notes:  $^{**}$  = statistically significant,  $p < 0.00$ ;  $^*$  = statistically significant,  $p < 0.05$ ; n.s. = not statistically significant,  $p > 0.05$ .

The thicker the arrow, the larger the relative weight of the relationship in the model

#### 4.4 Robustness tests of the results

A bootstrap procedure (resampling) was carried out, applying 3,000 interactions, in order to check the stability of the p-values of the estimates of the  $\beta$  parameters. This test allows us to make a more reliable assessment of the statistical significance levels of the standard errors and the  $\beta$  estimates (Byrne, 2016). The final results are shown in Table 2. The  $\beta$  estimates and p-values remain unchanged and significant. These results represent a robust confirmation of the supported hypotheses H2, H3, H4, and H5.

**Table 2:** Robustness checks (ML method with 3,000 resamples)

		Relationships		$\beta$	Lower bound	Upper bound	$p^b$
International experience	→	Risk perception	H4 <sup>a</sup>	-0.37	-0.48	-0.25	0.00
Risk perception	→	Proactivity	H5 <sup>a</sup>	-0.59	-0.77	-0.46	0.00
International experience	→	Proactivity	H2 <sup>a</sup>	0.23	0.07	0.38	0.01
International experience	→	Degree of internationalization	H1	-0.04	-0.237	0.18	0.78
Proactivity	→	Degree of internationalization	H3 <sup>a</sup>	0.62	0.47	0.74	0.00
Firm age in export	→	Degree of internationalization	C1	0.19	-0.02	0.36	0.07
Firm size	→	Degree of internationalization	C2	0.13	-0.13	0.36	0.32
Industry branch	→	Degree of internationalization	C3	-0.04	-0.16	0.14	0.93

Notes: <sup>a</sup> = supported relationships <sup>b</sup>= p-value.

#### 4.5 Testing for mediating effects

Testing for mediating effects requires checking first that the direct path is significant after constraining to zero the effect of the model's indirect path. We ran a bootstrap procedure with 3,000 re-samples and tested the stability of the path coefficients by computing the intervals of confidence as recommended by Hair et al. (2010). Regarding the assessment of a possible mediating effect of managers' risk perception (that is, effect M1, as shown in Figure 1), the direct path proved to be significant ( $\beta = 0.37$ ,  $p < 0.00$ ). Next, the same bootstrap procedure was applied but now without constraining to zero the effect of the indirect path. The results showed that the strength of the direct path is reduced to  $\beta = -0.23$   $p < 0.01$  and the indirect effect is significant ( $\beta = -0.22$ ,  $p < 0.00$ ), demonstrating that managers' risk perception of expanding exports mediates the relationship between the managers' international experience and their proactivity in the international markets.

About the assessment of a possible mediating effect of variable managers' proactivity (that is, M2, as shown in Figure 1), the results showed that the strength of the direct path, originally significant ( $0.35$   $p < 0.00$ ) becomes non-significant once the indirect path is not limited to zero ( $-0.04$   $p > 0.52$ ) while the indirect path is significant. These results demonstrate that the proactivity of the managers in international markets mediates the relationship between managers' international experience and the degree of internationalization achieved by the SMEs. A summary of the results and tests for mediation effects, i.e., M1 and M2, are summarized in Tables 3 and 4, respectively.

Lastly, we computed the Variance Accounted for Value (VAF=IE/TE) to determine the extent to which the mediation compound indirect effect of the variable "risk perception" and the variable "proactivity" accounts for the variance of the variable "proactivity" and "DOI", respectively. The VAF value for risk perception yielded 0.49. Based on the criteria to interpret VAF values suggested by Hair et al. (2010), we are in the presence of a typical partial mediation. The VAF value for proactivity yielded 1.20, which suggests a full mediation effect.

**Table 3:** Results of the test for mediation effect M1

Paths	$\beta$ -estimates	Confidence intervals		p-values	Significance
		Lower bound	Upper bound		
Direct path: (lexp_Pro)					
-Direct Effect:	0.37	0.07	0.43	0.00	supported
Indirect path: (lexp_Rp_Pro)					
-Direct Effect:	-0.23	0.07	0.38	0.01	supported
-Indirect Effect:	-0.22	0.03	0.48	0.00	supported
-Total Effect:	-0.45	0.08	0.31	0.00	supported

Notes: Pro= Proactivity Rp= risk perception, lexp= International experience.

**Table 4:** the test for mediation effect M2

Paths	$\beta$ -estimates	Confidence intervals		p-values	Significance
		Lower bound	Upper bound		
Direct path: (lexp_DOI)					
-Direct Effect:	0.35	0.22	0.48	.000	supported
Indirect path: (lexp_Pro_DOI)					
-Direct Effect:	-0.04	-0.24	0.11	0.52	not supported
-Indirect Effect:	0.24	0.12	0.39	0.00	supported
-Total Effect:	0.20	0.02	0.41	0.04	supported

Notes: Pro= Proactivity, lexp= International experience, DOI: degree of internationalization

## 5. Results and discussion and practical implications

### 5.1 Summary of results and discussion

We carried out a study to shed light on the mechanism by which managers' international experience may exert an influence on the degree of internationalization of their SMEs. In light of the main findings of this empirical analysis, we can summarize the results and conclude the following: There is empirical evidence suggesting that the proactivity of managers in international markets is the crucial factor that directly impacts the degree of internationalization achieved by SMEs. Second, managers' risk perception of expanding exports mediates the relationship between their international experience and their proactivity in the international markets. Third, managers' proactivity in the international markets mediates the relationship between their international experience and the degree of internationalization achieved by the SME. Fourth, managers' international experience is not directly related to the degree of internationalization of their SMEs.

Our findings reveal that the international experience is associated with managers' proactivity in international markets, which in turn influences the degree of internationalization of their firms. This finding supports the previous arguments of Sandoval-Álvarez (2022) who maintains that the international experience accumulated by an individual increases their willingness to act proactively in the search for international opportunities. Our results underline that the direct effect of managers' international experience on the degree of internationalization is not statistically significant when risk perception and proactivity are included in the model. Risk perception partially influences the levels of proactivity in the foreign markets exhibited by the manager. A manager's proactivity seems to be what ultimately impacts the degree of internationalization of a SME.

The results empirically support the conclusions of the multi-case studies conducted by Kalinic and Forza (2012), who showed that Italian SMEs were able to achieve rapid international sales and sustain sustained international growth despite having very little or no international experience. These authors conclude that the firms were able to conquer new markets and grow internationally through a well-conceived strategic plan, a persistent search for niches, and a proactive approach to foreign markets. Our findings contribute to our knowledge in the field of IE, highlighting the importance of a proactive stance to cope with internationalization.

Also, the results show a lower perception of the risk associated with exports leads to higher levels of managers' proactivity in international markets. This relationship turned out to be strong and significant. This finding supports the theoretical statements of Milanov and Maissenhalter (2014), who consider the inclusion of the cognitive characteristics of managers as a promising way to understand international entrepreneurship. They argued that cognitive characteristics are likely to "add refinement and layers of complexity to the mechanisms that mediate how personal international experience influences the firm's subsequent internationalization behavior" (Milanov & Maissenhalter, 2014, p. 50). The managers' cognition and, in general, their perceptions, can provide valuable information about the consequences of previous experience on business behaviors. However, Niittymies and Pajunen (2020) point out that "although there seems to be increasing agreement in international business literature that cognitions play a core role in internationalization attempts of firms, the existing research addressing cognitions is fragmented and underspecified".

Finally, it should be noted that none of the control variables (that is, characteristics of the firm) seem to be associated with the degree of internationalization reached by the firms, as are the characteristics of the managers, which demonstrates the relevance of the human aspect in the internationalization of firms, SMEs, and their performance.

## 5.2. Practical implications, and future lines of research

The study findings suggest practical implications for SMEs that export and those that intend to venture into the export business. Firms that intend to increase the scope of their international operations should definitely promote their proactive stances with respect to these markets. It would be advisable that SME managers start to take more initiative and challenge the status quo towards opportunities in international markets and intervene proactively instead of passively accepting certain circumstances. On the other hand, gaining international experience and market knowledge is valuable, but it takes time. Given that risk perception influences the manager's proactivity towards international markets, it could be also advisable and advantageous for SME managers to travel abroad more frequently. By traveling regularly to targeted and specific foreign markets, managers can access first-hand information, gain relevant insights, speed up the identification of business opportunities, and reduce their perception of associated risk.

This study is not exempt from limitations. In this sense, it is a context-specific study, so we acknowledge that the findings of this study may represent particular patterns of the SME sample and the Costa Rican context. Although conducting inquiries in a relatively small nation allows us to maintain relatively homogeneous environmental conditions for all the firms in this study, our findings could not be generalized to all SMEs or to all countries. Besides, we recognize that this study contributes to partially explaining antecedents of the human capital of a firm that impacts the degree of internationalization of SMEs. There may be other factors, and personal characteristics (perceptions, attitudes, and emotional states) that might impact the internationalization of firms. IE is a fascinating but complex field of research that needs to be investigated from different conceptual frameworks. Despite limitations, we believe that this study makes a relevant contribution by showing the relevance of the human aspect in international business.

Finally, some directions for future research regarding SME Internationalization are suggested. One of the main focuses of research attention should be international business proactivity. In this vein, Keupp and Gassmann (2009), point out that the elements of entrepreneurial orientation (i.e., proactivity, innovativeness, and risk-taking), are very underrepresented in

IE research. Additionally, according to Ribau et al. (2018), one of the challenges of the new research in IE focused on SMEs is to incorporate more studies that cover broad theoretical perspectives and other regions such as Latin America and to make comparative studies between countries or regions. It would also be advisable to examine the effects of other cognitive factors on proactivity (such as affective states, international, self-efficacy, overconfidence, and other cognitive bias).

We acknowledge that we addressed only a part of the explanation about what leads to the variations in export performance of the SMEs. Paraphrasing Dimitratos and Li (2014), international entrepreneurship is still a fragmented research area and needs to be studied from multi-theoretical perspectives. Future investigations could take notice of the research insights obtained from this study in order to elaborate more comprehensive research models that aim to explain antecedents of successful internationalization achieved by SMEs.

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## Annexes

**Table 5.** Key demographics of firms and informants

<b>Firms characteristics</b>	<b>Mean</b>	<b>Standard deviation</b>	<b>Range</b>
Age (years)	19.8	14.2	6-75
Number of employees	43	54	4-242
Ratio of international sales to total sales	27.70%	28.90%	4-100
Year experience in exports	12	10.5	2-53
Scope (number of countries)	4	4	1-20
<b>Branches representing in the sample</b>		<b>Total</b>	<b>%</b>
Software development		50	37.60%
IT and communications		37	27.80%
Packing and plastic		21	15.80%
Food and beverages		13	9.80%
Metal-Mechanic		5	3.70%
Chemical		4	3.00%
Legal services		3	2.30%
<b>Characteristic of key informants</b>	<b>Mean</b>	<b>Standard deviation</b>	<b>Range</b>
Year experience in exports	12	10.4	2-45
<b>Characteristic of key informants</b>	<b>Total</b>		<b>%</b>
Has prior international experience before funding the firm	51		38%

**Table 6.** Summary of Construct Reliability and Validity Analysis

<b>Scales and scored values</b>	<b>Loading factors</b>	<b>p-values</b>	<b>Cronbach's alpha</b>	<b>CR</b>	<b>AVE</b>	<b>HTMT</b>	<b>VIF</b>
Manager's risk perception			0.80	0.80	0.58	-.067	n/a
The international activity is a positive thing in my business.	0.74	***					
Selling products in foreign markets implies high risk. 1/		***					
Exports are an important opportunity for my firm.	0.77	***					
My firm has a high probability of success in foreign markets.	0.79						
Manager's proactivity in intl. markets			0.93	0.92	0.70	-.067	n/a
The manager regularly monitors the trend of export markets.	0.77	***					
The manager actively explores business opportunities abroad.	0.87	***					
The manager has usually spent some time visiting abroad.	0.84	***					
The manager actively seeks contact with suppliers and clients in international markets	0.95	***					
The manager has regularly attended local/foreign trade fairs.	0.67	***					

Scales and scored values	Loading factors	p-values	Cronbach's alpha	CR	AVE	HTMT	VIF
Firm's degree of internationalization (DOI)	n/a	n/a	n/a	n/a	n/a	n/a	1.53
Export intensity							
Geographic scope of export sales							
<b>Thresholds</b>							
Internal consistency		> 0.50	> 0.70				
Composite reliability				> 0.70			
Convergent validity					> 0.50		
Discriminant validity						< 0.90	
Multicollinearity							< 5.00

Note: \*\*\*: significant,  $p < .001$ ; 1/ item dropped in the depuration process; n/a: not applicable

**Table 7.** Implied correlation matrix

	exp	f-size	f-years	bran	risk1	risk2	risk3	proac1	proac2	proac3	proac4	proac5	Doi
exp	1												
f-size	0.187	1											
f-years	0.517	0.33	1										
bran	-0.421	-0.392	-0.409	1									
risk1	-0.289	-0.054	-0.149	0.122	1								
risk2	-0.285	-0.053	-0.147	0.120	0.602	1							
risk3	-0.274	-0.051	-0.142	0.115	0.579	0.57	1						
proac1	0.356	0.067	0.184	-0.150	-0.424	-0.417	-0.401	1					
proac2	0.312	0.058	0.161	-0.131	-0.371	-0.365	-0.351	0.544	1				
proac3	0.425	0.080	0.220	-0.179	-0.505	-0.498	-0.479	0.741	0.649	1			
proac4	0.394	0.074	0.204	-0.166	-0.468	-0.461	-0.443	0.686	0.689	0.818	1		
proac5	0.399	0.075	0.206	-0.168	-0.473	-0.466	-0.449	0.767	0.608	0.828	0.767	1	
Doi	0.362	0.243	0.358	-0.234	-0.359	-0.353	-0.340	0.520	0.456	0.621	0.575	0.582	1