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**Performance measurement and antecedents of early internationalizing firms: A systematic assessment**

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## **Abstract**

With the increasing importance of early internationalizing firms (EIFs), recent literature has shown a rapidly growing research interest in EIF performance. To enhance our understanding of what drives EIF performance, we conduct a systematic analysis of performance antecedents and performance measures in current empirical research. This method allows us to: (i) systematically analyze EIF literature to identify how performance has been examined empirically; (ii) methodically identify and synthesize the antecedents of performance in respect to EIFs' specific resources, capabilities, and strategies; and (iii) to identify areas that are understudied. Based on the analysis, we make suggestions for future research.

**Keywords:** international entrepreneurship; born global firms; international new ventures; early internationalization; performance measurement; systematic literature review

*JEL codes: M13, M16*

## 1. Introduction

The study of early internationalization of firms (EIF) has been significantly propelled by the cornerstone framework of Oviatt and McDougall (1994), and is still growing and gaining momentum. Young firms, which internationalize early in their life-cycle, defy the traditional view of internationalization (Johanson & Vahlne, 1977) and have, therefore, attracted international business researchers' attention to identifying and understanding the nature and the process of such firm's internationalization. Previous research on EIF has focused on understanding the driving forces of these new firms internationalization (e.g., Andersson & Wictor, 2003; Knight & Cavusgil, 1996; Oviatt & McDougall, 1994) and the unique characteristics of these firms (e.g., Andersson & Wictor, 2003; Rasmussen, Madsen, & Evangelista, 2001; Sharma & Blomstermo, 2003).

Despite the broad knowledge that has been generated about this special type of firms, one eminent, yet scarcely tackled, question is why EIFs are able to do what they do. In other words, what are the performance drivers of early internationalization? To shed light on this important question, we conduct a systematic analysis of performance antecedents and performance measures of current empirical research involving EIF performance. Moving beyond the general understanding of EIFs, we attempt to delve into EIFs' specific resources, capabilities, and strategies and their impact on performance. Thus, we employ a systematic assessment method, proposed by David and Han (2004) to analyze empirical studies concerning EIF performance, to identify *the unique antecedents of EIFs performance*.

Hence, the objectives of this article are to (i) systematically analyze EIF literature to identify what type of performance has been examined previously, compare these findings with find-

ings in traditional international business (IB) literature, and identify what performance measures are unique to EIFs; (ii) to systematically identify and synthesize the antecedents of performance and (iii) to make future research suggestions on issues which might affect EIF performance. The remainder of this article is organized as follows. The paper begins with a brief overview of EIF literature, followed by a description of a methodology used in systematic assessment of literature. Thereafter, we thoroughly analyze the studies to derive how performance measurement has been operationalized, and discuss performance antecedents that have been identified in the existing literature. Based on the assessments and analysis of performance measurement and performance antecedent results, we make suggestions for future research to gain more insights about early internationalization performance.

## **2. Overview of Early Internationalization**

Traditional internationalization theory suggests that firms internationalize following an evolutionary path of development, suggesting that only large and mature firms expand to international markets because the complexities involved in internationalization are too immense for young and small firms (Johanson & Vahlne, 1977). Thus, traditional internationalization theory implies slow incremental processes to reduce the inherent risk involved in internationalization. Accordingly, firms internationalizing at the early stage of their lifecycle challenge the traditional view of internationalization (Oviatt & McDougall, 1994). These firms, which become international at early stage of their lifecycle, or even at inception, have been researched by several international business and entrepreneurship scholars (e.g. Oviatt and McDougall, 1994; Autio, Sapieza & Almeida, 2000; Zahra, 2005; Zhou, Wu & Lou, 2007).

This emergent research area has labeled these young firms in various ways: ‘global start-ups’, ‘born global firms’, ‘international new ventures’ or ‘early internationalizers’ (Rennie, 1993;

Oviatt & McDougall, 1994; Madsen & Servais, 1997; Knight & Cavusgil, 2004). Although there is a wide range of factors to define this special breed of firms, the common focus is the age of the firms at internationalization. For example, Oviatt and McDougall (1994) define an ‘international new venture’ as a “business organization that from inception seeks to derive significant competitive advantage from the use of resources and the sale of output in multiple countries” (p. 49). Understandably, defining the exact establishment time of new ventures has been a source of controversy in the EIF field. The gestation periods of firms varies, affecting their level of resources and capabilities (Zahra, 2005), which makes it difficult to determine exactly when a firm is actually founded. However, Zahra, Ireland, and Hitt (2000) suggest that firms six years and younger are considered to be new international ventures, based on the growing consensus in the field (e.g., Brush, 1995; Shrader, 1996). In order to include varied ranges of age at internalization, Rialp, Rialp and Knight (2005) termed these young firms ‘early internationalizing firms’ (EIF) collectively. In this paper, we will adopt ‘early internationalizing firms (EIF)’ to include all the firms defined under the various terms in the field. The question of ‘how’ some EIFs overcome not only the challenge of scarce resources (financial, human, and other tangible resources) but also the additional costs of doing business abroad (Hymer, 1976) and are still successful in their international endeavors so soon after inception, has intrigued many researchers (e.g. Weerawardena, Mort, Liesch & Knight, 2007; Fan & Phan, 2007). The research has suggested that certain external conditions support the existence of EIFs: a) growing demand for specialized products and the emergence of niche markets, b) advances in process technologies enabling small scale production, c) advances in communication technologies decreasing business transaction costs, d) increased internationalization of knowledge, and e) the trend towards global networks and alliances facilitating the

development of mutually beneficial relationships with foreign partners (Rialp et al., 2005).

These external factors provide the perfect conditions for EIFs to internationalize at an accelerated rate. Various EIFs were identified in many different countries (Knight and Cavusgil, 2004; Madsen and Servais, 1997; Oviatt & McDougall, 1994), not only in the high-tech sector but also in a wide range of other industries, such as services, agriculture and aquaculture (Ibeh, 2005; Oviatt & McDougall, 1994; Rennie, 1993).

The research efforts have concentrated on understanding the characteristics of EIF founders, who are willing to take advantage of external conditions aggressively, despite the risks and uncertainties of doing business abroad, the challenge of limited tangible resources, and lack of international business experience. Research suggests that these early international ventures are driven by the founding entrepreneurs' international competence, their visions, and their awareness of international growth opportunities (Autio, Sapienza & Almeida, 2000; Bloodgood, Sapienza, & Almeida, 2006). More specifically, research has found that EIF founders tend to have prior international work experience (e.g. Cabrol, Favre-Bonte, & Fayolle, 2009), have participated in educational exchange programs, travel frequently (e.g., Birley & Norburn, 1987), and/or maintain social contacts internationally via family or personal ties (e.g., Oviatt & McDougall, 1994). This internationality was found to play a vital role in motivating founders to internationalize their business early (Busenitz & Barney, 1997; Harveston, Kedia, & Davis, 2000).

Another main area of EIF research has been an attempt to understand how EIFs survive and succeed in the challenging international business environment. The traditional theory of internationalization (e.g. Johanson & Vahlne, 1977) suggests that only large and mature firms can withstand the challenges of internationalization. Unlike traditional multinational corpora-

tions (MNCs), EIFs face multiple liabilities, which in turn increases EIFs' failure rate. For instance, EIFs face the liability of newness (Stinchcombe, 1965), or a lack of tangible resources (financial, human, etc.) and intangible resources (reputation, legitimacy, etc.). Moreover, they are subject to the liability of smallness (Aldrich & Auster, 1986) which can be disadvantageous in securing capital and labor input. Additionally, EIFs face the liability of foreignness: language barriers, cultural issues, additional costs for shipping, and other disadvantages which a domestic firm does not have to deal with (Zaheer, 1995). Accordingly, understanding how EIFs survive and succeed in the challenging international environment has been one of the key research areas in EIF research field.

Thus, many researchers have attempted to identify the EIFs' unique and distinctive capabilities which make young firms internationally successful. For instance, Knight, Madsen and Servais (2004) reveal the influences of EIFs' marketing capabilities on EIFs performance. Knight and Cavugil (2005) explore how innovativeness, knowledge, and technological competence correspond to superior performance. Additionally, researchers such as Jantunen, Nummela, Puumalainen and Saarenketo (2008) investigate how organizational factors, such as strategic orientation, affect EIF performance.

In an effort to enhance our understanding of EIFs as a unique area of research within international business, which defies the traditional view of internationalization, Rialp, Rialp, and Knight (2005) provided a synthetic review of EIF literature between 1993 and 2003. The review offers a systematic assessment of theoretical framework used for the conceptual development, methodological approaches, and key research findings of 38 theoretical and empirical studies. Although such a review provides an overview of the direction in which EIF research is moving, further systematic examination is required on how these young and small



firms survive and succeed in the international arena and what contributes to their success, in order to expand our knowledge on the phenomenon of early internationalization. In particular, investigating which EIF resources as well as capabilities influence EIF success, and what strategies are employed by these young international firms to successfully leverage their unique resources and capabilities will provide the researchers with deeper understanding on how EIF maneuver the challenging terrain of international markets. This systematic examination will also extend the efforts of Rialp et al. (2005), which mainly focused on the underlying reasons of the emergence of EIFs and presented a theoretical framework to explain this phenomenon.

### **3. Methodology**

To assess the existing literature on EIF performances and their antecedents, we conducted a systematic literature review, based on an approach developed by David and Han (2004). The systematic assessment method of literature review takes the methodical approach in the selection of studies and employs a quantitative method of evaluation (David & Han, 2004). In this vein, the systematic approach is different from the narrative nature of traditional literature reviews and is regarded as a powerful tool not only to analyze but to synthesize existing literature (David & Han, 2004). Considering the distinctive characteristics of the EIF research domain, we employed the methodology of David and Han (2004) for following reasons. First, to assure validity by avoiding subjectivity in the conclusions of a review, the literature review has to be executed via an efficient and systematic process (Light & Pillemer, 1984). By doing so, the systematic assessment method is exhaustive in scope, and on the other hand, traceable and replicable to ensure objectivity. Second, EIF research has used a variety of data collec-

tion methods, including quantitative as well as qualitative approaches (Rialp et al. 2005). Since our study encompasses both approaches, the data has a high degree of heterogeneity. Consequently, it is essential to use explicit and systematic methods (Light & Pillemer, 1984) to assure the quality of conclusions (Miles & Huberman, 1994).

The systematic literature review involved searching for articles published in scholarly journals using key words in the AIB/Inform and Econlit database. In order to ensure substantive relevance of the articles extracted from the database, we implemented multiple procedures to refine our selections, using filters that were grounded in EIF literature. In comparison to the review of David and Han (2004) in the much larger field of transaction cost economies, we did not include two of their steps (selection for additional key words and elimination of ‘single journal hits’). Due to the emergent nature of the EIF field, we would like to include more recent literature on early internationalizing firms. The detailed steps and the procedures taken in the systematic assessment of the literature are summarized in Table 1.

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Insert Table 1 about here  
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Following these steps, we collected a representative sample of studies investigating performance aspects of early internationalizing firms. Steps one to three yielded 258 articles from ABI and 106 articles from EconLit. Steps four to six reduced our sample to 28 articles from the ABI database and 9 articles from EconLit. Deleting the 9 articles that are duplicated in both databases (step7) led to a remaining total of 28 empirical articles presented in Table 2.

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Insert Table 2 about here  
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The total sample of 28 empirical articles selected through the systematic literature review approach constitutes the ‘unit of analysis’ for this study. To ensure systematic information gathering when reading the articles, we followed the coding guidelines of study results developed by Cooper (1989). Among others, these encompass the setting of the study, the type of research, the statistical outcomes, effect size or sample characteristics. According to the guideline, we developed a coding table reflecting all of our categories of interest, including type of data source, method of performance measurement, each measure, level of analysis, etc. Thereafter, a random subset of five studies was independently pretested by two of the authors, coding and gathering information according to our scheme. Initial inter-rater agreement (as measured by percentage of agreement) ranged between 85 and 98 percent. Despite the fact that the significant number of data coded was qualitative in nature, our initial inter-rater agreement is within the comfortable range of other studies of integrative research (see e.g. Tihany, Griffith & Russel, 2005; Geyskens, Steenkamp, & Kumar, 2006). Comparing and discussing the remaining differences in the analyses, the coding system was adapted in a few minor aspects. The adapted coding scheme was tested on an additional five articles. In this second iteration, inter-rater agreement was almost 100 percent. According to the briefly outlined analysis, we analyze all 28 identified EIF performance studies thoroughly.

#### **4. Analysis and discussion of systematic assessment results**

Our systematic assessment of the literature confirms a continuous increase of studies in the subject of EIF performance (Table 3). Whereas in the first year (2000) just one study could be identified, in the year 2009 five studies examined the EIF performance questions. This increasing number of articles has been published in a wide range of scholarly journals. Alto-

gether, 15 journals published early internationalizing firm related articles, which investigated their performance. The top 3 journals, in terms of number of publications, are *Journal of World Business*, *Journal of Marketing Review* and *Management International Review*. All journals included in our sample are shown in Table 4, which illustrates the increase not only in the number of publications but also in the number of journals dedicating themselves to this topic.

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Insert Table 3 & 4 about here  
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Concerning the theories employed to explain the EIF and their performance link, the overwhelming majority (19 out of 28) of the studies examined in our analysis were based on the resource-based view or the dynamic capability view explicitly or implicitly. Only one study was based on transaction cost economics theory. The rest of the studies were not anchored on a specific theory.

In regards to the EIF performance and its antecedents, we analyzed the content of 28 empirical studies. In order to provide a conceptual framework based on theory, we adopted a theoretical model brought up by Rialp et al (2005). This model is grounded in the resource/knowledge-based view of the firm (Barney, 1991; Grant 1991, 1996; Peng, 2001) and their own cross-comparison of key research models and findings available in the EIF literature. We have modified the model to include the EIF performance as outcome of the following key areas of the EIF; 1) firms intangible resources (technological capital, organizational capital, relational capital, and human capital); 2) firm-specific capabilities; 3) scope of international strategy, and 4) external factors. We adopt this model to organize the constructs of the studies

in this analysis. This approach will also help us identify areas that are underexplored in the EIF literature. This framework is shown in Figure 1.

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Insert Figure 1 about here  
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Surprisingly, our analysis has revealed that only two studies in our assessment have examined the external factors directly. For example, Jones & Crick (2001) and Crick (2009) found insignificant impact of government assistance and the proximity to the overseas markets on the EIFs' perceived competitive advantages in the overseas market. Since marginal insights have been gained from their limited findings, we consequently will concentrate our discussion on the intangible resources, capabilities, and strategies in the following section.

#### 4.1 Performance Measurement

Our analysis found that these 28 empirical measurement studies used an average of 3.50 measures ranging from one to six measures. Comparing these findings to the findings of Hult et al. (2008) for IB performance measurement in general, we observe a significant higher proportion of EIF studies basing their measurement on multiple measures (60.7% of EIF studies vs. 39.6% of IB studies). Nevertheless, we could not identify any consensus in terms of number of measures within EIF studies.

This variety in number of measures seems to be complemented by the variety of type of performance measures. Brush and Venderwerf (1992) discovered 35 different performance measures by reviewing 34 articles related to new venture performance published in 1987 and 1988. In the same manner, Richard et al. (2009) examined 213 performance-related papers published between 2005 and 2007 and found 207 different performance measures. Similarly,

we identified 98 measures in 50 different types of measures in the 28 studies we examined. Similar to other disciplines, the EIF field also employs a wide spectrum of measures, resulting in this variety of measures. According to Richard et al. (2009), this phenomenon is a general problem with performance measurement. In respect to a large variety of performance measures being used in the research, Richard et al. (2009) highlight the limited effectiveness of commonly accepted measurement practices. For this reason, they conclude that it is difficult to make effective scientific comparisons among papers as well as valid normative recommendations.

Although international performance has gained a great deal of attention during the last decade, Jantunen et al. (2008) conclude that there is no valid common operationalization of the international performance concept. Especially in the EIF context, there is no consensus on how to measure performance (Crick, Chaudhry, and Bradshaw, 2003) even though theoretical developments of EIF performance implications have been the focus of the debate in the field of international entrepreneurship (Autio, Sapienza & Almeida, 2000; Etemad & Wright, 2003; Knight & Cavusgil, 2004; Oviatt & McDougall, 2005; Zahra, 2005). Regardless of the debate on performance measurement, the empirical studies we examined have mostly adopted performance measurements typical in management science, which do not reflect unique characteristics of the EIF field. We believe this tendency is due to the variations in accounting standards of the countries that EIF enter, the nature of firm boundaries, the geographic scope of operations (e.g., Hooley, Cox, Fahy, Beracs, Fonfara, & Snoj, 2000; Ariño, 2003) and EIF's characteristics, such as a relatively short history. These issues make operationalization and comparison of performance in the international business context particularly difficult. This validates Hult et al.'s contention that there is a "lack of performance findings in the IB

literature” (2008: 1064). Although there has been a large amount of studies in EIF performance, until today the results have not been consolidated and analyzed. Therefore, possible conclusions have not been fully derived. In order to highlight the status of EIF performance research, we begin with analysis of how EIF performance has been measured.

Since it is well known that the measurement of international performance is a difficult task (Madsen, 1998, Lages and Lages, 2004), we examine the following basic performance measurement features to evaluate the methodological status of EIF performance measurement and ensure objectivity of the results. First, we adopt three basic domains of business performance by Venkatraman and Ramanujam (1986): financial performance, operational performance and overall effectiveness. The narrowest, financial performance includes market and accounting-based indicators, reflecting the economic goal fulfillment of the firm, such as profitability, sales growth, earnings per share and so forth (Venkatraman & Ramanujam, 1986). Operational (nonfinancial) performance focuses on market, product and internal process outcomes. These operational factors might lead to financial performance. Typical measures of operational performance are market share, new product developments, or efficiency (Venkatraman & Ramanujam, 1986; Hult et al., 2008). The broadest form of performance is captured in overall or organizational effectiveness, including for example reputation, perceived overall performance (or in comparison to competitors), or goal achievement (Venkatraman & Ramanujam, 1986; Hult et al., 2008).

Hult et al. (2008) suggested that a better performance measurement in international business research can be achieved by using “measures that capture objective financial, operational and overall effectiveness performance whenever possible” (p.1070). In our analysis of the 28 studies, 11 studies measure within one performance category (9 only financial; 2 only opera-

tional). An additional 11 studies use measures from two performance categories (financial & operational). While 6 studies use measures from all three categories (financial & operational & effectiveness) to examine EIF performance. In comparison to Hult et al. (2008) findings on IB studies, our finding indicates that EIF studies fair better in terms of rigor. For example, 40 percent (11/28) of EIF studies, while only 32 percent (31/96) of IB studies, used performance measures from two performance domains. In comparison to 7 out of 96 (7.3%) IB studies, 6 out of 28 (21%) EIF studies measured all three performance domains. This result may be due to the large number of primary data used in the EIF studies, which made the collection of all three performance measure domains easier.

Second, to comprehend the composition and development of the measures within the different performance domains, we also analyzed the sources of the data. To be consistent with extant literature, we based our analysis on the above mentioned terminology of Venkatraman and Ramanujam (1986) where primary data refers to subjective data and secondary data refers to objective data. Since it is difficult to obtain objective accounting or financial market data in the international context, researchers had to rely on subjective data based on the estimations of managers (Richard et al., 2009). Although there is a general perception of weak validity of primary data, research (e.g., Geriger and Hebert, 1991; Brush & Vanderwerf, 1992; Lukas, Tan & Hult, 2001) has shown that primary data can be as reliable as secondary data, or even more reliable in certain contexts, such as in emerging markets where secondary data is often unreliable. In general, a multiple data source approach is recommended (Ariño, 2003; Venkatraman & Ramanujam, 1986) and especially in the international business context (Hult et al., 2008).



In our EIF sample, 22 of out 28 studies (79%) have used primary data sources, such as interviews, surveys or questionnaires. An additional 4 studies relied on secondary data sources: data from public or private databases, or annual reports. Only two studies (7.1%) used both data sources to complete missing secondary data by interviewing CFOs (Shrader, 2001) or adding background information from additional secondary data, or from interviews (Han, 2007). Accordingly, extant EIF performance studies indicate the difficulties in obtaining reliable secondary data and, therefore, draw their research mainly on primary data. Additionally, Hult et al. (2008) provides the following conditions for which primary data can be used; 1) when financial measure are likely to be unreliable or unavailable; 2) when privately held firms are studied and secondary data cannot be accessed; and 3) when comparability of different types of firm is difficult to achieve because of heterogeneous attributes. Considering that a high proportion of the studies in our sample were operating in developing countries, a large number of EIFs are privately held firms or different nationalities, and of heterogeneous nature, relying on primary data sources seems adequate. Although incorporation of multiple data sources will improve the overall reliability of the EIF research, considering the aforementioned conditions, obtaining multiple data sources may remain a challenge for EIF research.

Third, to ensure a systematical measurement of performance, the level of analysis and direct and/or indirect (mediating) effects of measurement have to be thoroughly assessed. For example, Zhou et al. (2007) indicate that a possible source for conflicting results in literature is that earlier studies have ignored the indirect mediating effects, mainly focusing on the direct influences of international performance. Therefore, we examine both indirect and direct in-

fluences on performance. Six out of the 28 studies take into account both direct and indirect effects on EIF performance. Especially considering mediating effects, such as entrepreneurial or learning orientation, allows researchers to draw a more complete image of the determination of EIF performance.

With respect to measures used in the performance measurement, the 28 studies used 50 different types of measures consisting of 98 measures. To bring more clarity into the variety of measures, we categorized them according to the three basic performance dimensions proposed by Venkatraman and Ramanujam (1986). As illustrated in Table 5, more than the half of these 98 measures were financial ones (57). Another 30 operational measures and 11 effectiveness measures were used. Within the financial measures, we could identify a group of 31 sales-related measures. More specifically, more than two thirds of financial measures used sales growth (with varying definitions) as a key measure. This is not surprising for a type of firm mainly oriented toward global expansion and could probably be best evaluated according to its increase in sales. The second dominating financial measure group is profitability-related measures (24). As one of the most important characteristic of entrepreneurial firms, its intention to grow (Timmons, 1994), the combination of sales growth and profitability seem to be the most appropriate measures. Only substantial positive returns can back EIFs multinational growth and thus increase the probability of their long-term survival.

Within the 30 operational measures used, the market-related measures dominate (18). Researchers have mainly chosen measures capturing EIFs market share within the market entered or measures gathering how many and how fast new markets are entered. McDougall, Oviatt and Shrader (2003) suggest that home country deficiencies, such as insufficient avail-

ability of inputs or factor costs, and the level of global integration in an industry, can further force new ventures to outgrow its home country. Accordingly, measures such as new market entry and market growth seem to be very valuable measures, which EIF researchers should incorporate because they consider how EIFs outgrow their home country deficiencies. The organizational effectiveness measures cover broad ranges from perception of goal achievement to organizational image development. For the six studies using effectiveness measures in conjunction with their financial and operational measures, we could not find any conformance in terms of organizational effectiveness measures used.

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Insert Table 5 about here  
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#### 4.2 Antecedents of EIF performance

All antecedents of EIF performance identified are illustrated in Table 6. The antecedents listed in Table 6 are identified as significantly related to EIF performance through statistical measurement, or identified as a major competitive advantage, leading to EIF performance through surveys or interviews. The antecedents listed in Table 6 are the exact terminology of the constructs used in the studies we analyzed. There were 44 different EIF performance antecedents: 64 antecedents in total used in the 28 studies. These antecedents are sorted into three constructs of resources, capabilities, and strategies.<sup>1</sup>

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Insert Table 6 about here  
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<sup>1</sup> Due to diverging definitions of those categories, all three authors performed the categorization separately. Initial inter-rater reliability showed some differences in the categorization. After discussing the differences, the authors came to one consistent categorization, which was tested and confirmed by one additional researcher.

Studies in our analysis examined the influences of various constructs on EIF performance. In particular, research focused on identifying patterns of EIF internationalization concerning its scale, scope, speed, and timing. For example, Kuivalainen et al. (2007) examined the effects of scale (i.e. number of countries) and scope (i.e. distance between countries) of internationalization on EIFs performance. With their empirical study, they demonstrated that ‘true’ born-global companies, which operate not only in markets close to each other but also in extensive global markets, show a better export performance than firms which only operate in market close to their home markets. Similarly, Gleason et al. (2006) concluded that EIFs, which diversify sales across countries and remain within their managerial resource capacities, are the best performers. Finally, Autio et al (2000) focused on the impact of firms’ age at internationalization on performance.

Although these antecedents help us to understand the phenomenon of EIF internationalization, we will focus on constructs that are directly linked to EIF performance as main drivers. As mentioned earlier, this section is based on the modified model of Rialp et al. (2005), examining the relations among EIFs’ resources, capabilities, and distinctive strategic features. It is important to note that some measures that we discuss cannot be neatly categorized under a dimension because there is no consensus on the nature of the construct. For example, some researchers (e.g., Deshpande, Farley, & Webster, 1993; Noble, Sinha, & Kumar, 2002) regard strategic orientation as a reflection of the management philosophy and corporate culture which guide company behavior. Other researchers (e.g., Deng & Dart, 1994; Homburg, Krohmer, & Workman, 2004; Kohli & Jaworski, 1990) emphasize the strategic aspect of the construct and perceive it as responsiveness to market signals: strategically implementing cer-

tain activities to respond to the market. Although we attempted to sort the measures according to existing theories, we had to rely on our own judgment occasionally.

*Resources:* Oviatt and McDougall (1994) suggested that unique resources are one of the necessary and sufficient elements for sustainable international ventures. The theoretical foundation for this assertion is rooted in the resource-based view (Barney 1991), which argues that differentiated endowment of resources is an important determinant of organizational capabilities and performance. EIF literature (e.g., Oviatt and McDougall, 1994; Zahra et al., 2000) has argued that EIFs must rely on intangible resources because of their limited access to resources. In particular, knowledge that is tacit and unique and can deter imitations has been emphasized as a source of sustainable competitive advantage (Eisenhardt & Schoonhoven, 1990). Accordingly, most of the studies we examined in our analysis reflect this theoretical foundation. The analysis of the studies indicates that extant research has focused on the EIFs' intangible resources such as human capital (top managers' prior business or international experience, network ties, personnel's experience and training), relational capital (e.g. networking capabilities, etc.), organizational capital (company reputation, organizational culture, etc.), and technological capital (technological competence, etc.).

The studies in the analysis emphasize the importance of managers' international experience which leads to knowledge of cross-border business as well as a deeper understanding of cultural issues. Similarly, a strong global business network, with relationships based on trust, is an important element for securing financial support, establishing a supplier base and distribution chain (Oviatt and McDougall, 1995). Organizational culture which is operationalized as organizational orientation is also considered to be an important antecedent of EIF perfor-

mance. In particular, a strong culture of innovation facilitates learning, which in turn fosters firms' capabilities. In addition, an entrepreneurial culture encourages EIF managers to leverage their resources and capabilities to access foreign markets (Knight & Cavusgil, 2004). Most importantly, the studies in the analysis focused on EIFs' technological capital, which provides the foundation for the development of unique products or services. EIFs need to possess a very clear and distinctive advantage to overcome the liability of foreignness compared to local firms and the liability of smallness to compete with traditional MNCs. In order to face these challenges, EIFs have to provide a distinctive product or service based on superior technological capital.

*Capabilities:* Capabilities reflects a firm's ability to efficiently perform productive tasks that related to the firm's capacity to create value by transforming inputs into outputs (Nelson & Winter, 1982; Teece & Pisano, 1994). Similarly, Rialp et al. (2005) suggests that EIFs' firm-specific international capabilities can be regarded as unobservable strategic assets that lack home-based path dependencies. This tacit knowledge transfer accumulates over time and is moderated by the effects of causal ambiguity. Capabilities are an outcome of integrated knowledge that is dispersed across a number of individuals and becomes embedded into organizational memory through routinization of organizational practices (Knight & Cayusgil, 2004). Thus, organizational capabilities are the main source of competitive advantage (Grant, 1991).

The studies in the analysis examined EIF capabilities along the value chain focusing on the EIFs' unique international market constraints. For example, the studies paid special attention to EIFs' product-related capabilities including uniqueness, quality, technical sophistication,

and the range of products, as well as new product development capabilities. This unique product development yields a differentiation strategy benefit (e.g., Porter, 1980), which enables EIFs to serve niche markets more efficiently (Knight & Cavusgil, 2004). Subramaniam and Venkatraman (2001) found that product development capabilities are significantly dependent on their ability to transfer and deploy tacit knowledge concerning overseas markets. Moreover, product development capabilities are positively related to cross-national teams with prior overseas experience.

Being closely related to product manufacturing and development capabilities, the analysis identified EIFs' strong focus on quality control. Quality focus implies that a firm's resources are specifically allocated to creating superior product or service offerings to enhance customer satisfaction and yield differentiation benefits (e.g., Deming, 1982; Knight & Cavusgil, 2004). EIFs' marketing capabilities have also been emphasized because many EIFs market their products and services to multiple countries simultaneously (Oviatt & McDougal, 1995).

*Strategies:* EIFs face challenges of general resource scarcity and lack of physical global presence. The former element causes general vulnerability to competition from larger MNCs, while the latter would require resources to build global marketing, sales, and distribution capabilities (Aspelund & Moen, 2005). To cope with these challenges, researchers have suggested that EIFs follow different strategies than larger MNCs. More specifically, our analysis shows that EIFs are often set up to pursue specific market niches (Bloodgood et al., 1996; Keeble et al., 1998; Knight et al., 2004; Knight and Cavusgil, 2004; Moen, 2002) where competition from global players is less intense, but opportunities for profit are significantly higher. In addition, EIFs are more likely to compete with differentiation strategies than do-

mestic start-ups (McDougall et al., 2003). Another strategic approach that EIF research has examined concerns strategic ambidexterity which refers to a way of executing paradoxical strategies (Han, 2007). Han and Celly (2008) applied the concept of organizational ambidexterity to EIF performance and found a positive impact of standardization and innovation on performance. The notion of ambidexterity is based on March's (1991) exploration (i.e. search, discovery, experimentation, etc.) and exploitation (i.e. refinement, efficiency, etc.) of learning that requires fundamentally different organizational structure, strategies and context.

Learning is an important factor in internalization. The traditional stage model (Johnason & Vahlne, 1977) is built upon this factor. The stage model suggests that firms learn through experience as they penetrate foreign markets, which provides a basis for subsequent higher control entry modes (e.g. foreign direct investment FDI). This incremental accumulation of knowledge through different stages of entry modes influences the evolutionary trajectory of organizational learning (Zahra, 2005). However, EIFs theory (e.g. Oviatt & McDougall, 1994) suggests that EIFs are able to bypass these steps and enter foreign markets via a higher mode of entry (Zahra et al. 2000). Moreover, EIFs learn from foreign markets about new technology trends and competences, which in turn can improve EIFs' future profitability and growth (Zahra et al. 2000). The learning orientation as a subset of strategic orientation is found to be much more critical for EIFs than other traditional firms for their performance (Jantunen et al., 2008). This issue emphasizes the importance of learning for EIFs' successful performance (Zahra, 2005). Similarly, Autio et al. (2000) found that EIFs with intense knowledge are more likely to develop the learning capacity necessary to rapidly adapt to a foreign environment, which leads to higher performance.



## **5. Future research suggestions**

This review has highlighted a number of underexplored areas. Building upon our analysis of the extant studies on EIF performance and its antecedents, we have identified important areas which future research should consider in the effort to expand our understanding of how performance is achieved in the EIF context. Based on our analysis, we make our suggestions on areas that have been underexplored.

### **5.1 Performance Measurement**

As we discussed earlier, EIF present unique research challenges for researchers in measuring EIF performance. Accordingly, it is important to be aware of these challenges, while meeting the most rigorous standard of specification for performance measurement (cf. Lewin & Minton, 1986; Venkatraman & Ramanujam, 1986). Thus, we attempt to establish our suggestions on IB performance measurement research in general, while being aware of the unique challenges that EIF research faces. In their analysis of performance measurement in IB research, Hult et al. (2008) raised the question of possibly using a country-specific pattern in the use of data sources. In comparing the nine studies about US-based companies, as a representation of developed countries, to the seven studies from the developing countries: China and India, we find a usage rate of primary data sources in the US-based studies of 55% compared to an over 80% rate for China or Indian based studies. One major reason for using more primary data in developing countries according to the authors of these studies seems to be the lack of available and reliable secondary data. Consequently, improving reliability of the primary data is a crucial task for the researchers. In particular, performance aspects related to EIFs newness, such as rate of market extension or export share, are not easily available as secondary data,

researchers are forced to collect data on their own. When collecting primary data, overcoming managers' reluctance to share firm-specific information, such as performance, is essential. Managers' unwillingness to share the information may stem from competitive or proprietary concerns (Hult et al. 2008) or cultural differences (Harpaz, 1996). Thus, in order to reduce the managers' unwillingness or distrust, researchers can employ strategies such as cooperating with local research assistants (Zhou, Wu & Lou, 2007) to improve the reliability of the data. Although we agree with Hult et al.'s recommendation to use a combination of primary and secondary data whenever possible, usage of primary data will remain a dominant source due to the young and developing nature of firms and the host country characteristics. Thus, researchers' effort to improve reliability of the primary data will be essential to draw a more accurate inference from the findings.

Another area that requires our attention is the composition of the samples with respect to industry sectors. Several studies focus on companies operating in a special industrial or service sector. Therefore, some conclusions seem to lack comparability and generalizability. Our findings indicate that EIF studies have focused on high-tech firms. Although it was previously assumed that EIFs are typical for the high-tech sector, some studies have identified EIF phenomenon in other areas, like medical solutions, textile printing, woodwork or various types of manufacturing (see e.g. Knight & Cavusgil, 2004; Mostafa, Wheeler & Jones, 2006; Han & Celly, 2008). To enhance cross-industry comparisons, we encourage future researchers to further expand the focus from the high-tech sector and incorporate new industry and service sectors to improve the generalizability of the results.

One last suggestion regarding EIFs performance measurement is the stronger incorporation of longitudinal data. Considering the young nature of the research object, this suggestion seems contradictory. However, in order to make valid causal inferences on EIF performance, researchers need to collect performance data across organizations and over multiple time periods (Hult et al. 2008). This is particularly important because the majority of EIF performance studies use primary data. Consequently, special attention is necessary to collect performance data at a time later than the data on antecedents or other explanatory data. In order to derive more holistic insights on EIFs performance and its antecedents, future research needs to examine more longitudinal data, which would strengthen the value of EIFs performance and antecedent results.

## 5.2 Performance Antecedents

*Resource factors:* Our analysis on EIF studies indicates that the focus of EIF research on the effect of human resources on performance has been limited to the founding members or top management teams. The research mostly focused on the human capital of top management teams (TMT) by examining the effects of their international experience, educational background, and business experience, etc. Although TMT's human capital is an essential factor for the EIF's survival, as well as their success in foreign countries as unique organizational human assets, how TMT human capital interacts with other factors also requires future attention. The upper echelons perspective (Hambrick and Mason, 1984) suggests that top managers' demographic characteristics can be proxies for unobservable psychological constructs that will lead to firms strategic choices, which in turn affect firms' performances. In order to expand our understanding of TMTs of EIFs, future research should examine the effect of var-

ious theoretical constructs, such as composition, access to resources, access to information, etc. on performance. For example, many anecdotal examples illustrate that EIF founding members having various nationalities. Is the heterogeneity of founding members' nationality an essential ingredient for international success? Or will the same nationals with various international experiences with superb foreign language skills suffice? Moreover, it would be helpful to understand how TMT group dynamics, power distribution among members, team processes, or incentive systems affect the relationship between TMT characteristics and TMT's strategic choices.

While considerable attention has been given to TMT characteristics, how EIFs manage their human resources to recruit, select, train and develop their talent has been understudied. EIFs' motivation for internationalization is not to seek inexpensive labor, which tends to be unskilled. Instead, EIFs mostly rely on highly skilled talent and many founders identified their own special knowledge that the people on the venture has as their competitive advantage (Oviatt & McDougall, 1995). Based on their extensive interviews with EIFs, Oviatt and McDougall (1995) suggested that EIFs must take "great pains to recruit, train, and manage their human resources very effectively" and have a system to utilize those resources for continual innovation of sustainable competitive advantage. Therefore, it is essential for the EIFs to recognize the value of the resource and develop a human resource system to attract, develop, and retain human resources that lies in the heart of the EIFs' strategic advantage and performance. Concerning investigation on EIFs that have failed, Oviatt and McDougall (1995) identified that losing critical human resources leads to a loss of essential technical skills and knowledge, which in turn resulted in firms' failure. Researchers (e.g., Boxall, 1996; Lado &

Wilson, 1994; Oviatt & McDougall, 1995) in the field of strategic human resource management argue that HR system can be unique, causally ambiguous, and synergistic in enhancing firm's competencies. Thus, future research may investigate what type of human resource system may be most conducive to EIFs performance. The research questions may ask; if traditional human resource systems can sustain the EIFs unique characteristics, such as high reliance on human capital, dispersed human resources throughout the world, need for global coordination, etc.

*Capability factors:* The ability to internationalize early and be successful is a function of internal capabilities (Autio et al., 2000; Oviatt & McDougall, 1994; Zahra et al., 2000). The assessment results suggested that EIFs' capabilities in marketing, technological innovativeness, and unique product development are associated with their performance. That is, EIFs' capabilities to create distinctive products or services along with strong marketing competence are the main source of competitive advantage. With these capabilities, in comparison to traditional MNCs' economies of scale and other advantages stemming from their large size and long experience, EIFs can overcome the multiple liabilities of small size, and lack of experience, being in the foreign countries. The capabilities that lead to EIF are characterized as tacit and causally ambiguous.

Some EIF studies in our analysis have examined the dynamic capabilities of EIFs (e.g. Jantunen, et al., 2007) using proxies such as strategic orientation as a part of the firm's bundle of dynamic capabilities that are essential in the internationalization process. However, further research on the dynamic nature of the capabilities will be valuable in order to deepen our understanding of how EIFs create competitive advantages and sustain their competitive-

ness. The ‘dynamic capability’ refers to a firm’s ability to modify, reconfigure, and upgrade resources and capabilities in order to strategically respond to or generate environmental change (Eisenhardt & Martin, 2000). A clear understanding of dynamic capabilities of EIFs is critical because of EIFs’ very characteristics. EIFs are smaller in size and possess relatively fewer resources so that EIFs are much more vulnerable to environmental turbulences. Consequently, further research could support in better understanding how EIFs integrate different resources and capabilities to create new value-creating products and services, or reconfigure resources and capabilities through strategic alliances or acquisitions. Dynamic capabilities account for the changing external environment and emphasize the firm’s capability to renew its resources and capabilities. Dynamic capabilities are critical for firms in industries in which time to market is critical, technological change is fast, and future competition are difficult to predict (Teece & Pisano, 1997). Therefore, these firms need to be very agile to be able to make dramatic changes in a very short period of time. Given that EIFs tend to thrive in technology intensive industries (Oviatt & McDougall, 1995), being able to adapt to a quickly changing environment by renewing their resources and capabilities will allow them to sustain their competitive advantages.

Although the “essence of a firm’s .....dynamic capabilities is .....in the firm’s organizational processes” (Teece, Pisano, and Shuen, 1997; 524), current research on dynamic capabilities has placed less emphasis on the process that underpins dynamic capabilities and the constraints that firms face in taking a certain strategic path (Helfat et al., 2007). Thus, future research about EIFs may investigate the process of search and selection of appropriate resource bases involving managerial dynamic capabilities. For example, how do EIFs identify threats

and opportunities, and decide on their relevance to performance and survival? It would also be valuable to investigate if EIFs require different types of dynamic capabilities in reconfiguration and coordination of resources in comparison to traditional MNCs. For example, what mechanisms do EIFs use to reconfigure their resources? Do they follow typical acquisition and alliance procedures? Lastly, what is the sustainability of performance driven by dynamic capabilities?

*Strategy factors:* The systematic assessments of the literature suggests that EIFs employed differentiation strategy through unique products and services, or targeted niche markets to penetrate into foreign countries, or focused on developing new technology. Furthermore, EIFs adopt strategic ambidexterity to survive and succeed in the early internationalization. Strategic ambidexterity refers to organization's ability to be aligned and efficient in its management of today's business demands while simultaneously being adaptive to changes in the environment (Raisch & Birkinshaw, 2008). Duncan (1972) first proposed the ideas of dual-structures as a way to deal with the conflicting demands of efficiency and effectiveness. However, March's (1991) seminal work on *exploitation* and *exploration* proposed two fundamentally different learning activities between which firms divide their attention and resources. This brought attention to conflicting tensions that firms have to negotiate. While exploitation includes "such things as refinement, choices, production, efficiency, selection, implementation and execution"; exploration includes things "such as search, variation, risk-taking, experimentation, play, flexibility, discovery, and innovation" (March, 1991; Raisch & Birkinshaw, 2008). Tushman and O'Reilly proposed that ambidextrous organizations possess "the ability to simultaneously pursue both incremental and discontinuous innovation and change" and called for organizational architectures that host "multiple contradictory struc-

tures, processes and cultures within the same firm” (Tushman & O'reilly,1996). The core ideas of ambidexterity deal with an organization’s capability to manage contradictions and multiple tensions in dealing with issues of the present and the future, efficiency and effectiveness, alignment and adaptation, and optimization and innovation

Although a small amount of research concerned the EIFs strategic ambidexterity (e.g. Han, 2007; Han & Celly, 2008), we believe this topic is especially salient in EIF research. Since EIFs are small firms facing many conflicting challenges, future research delving into the effectiveness of strategic ambidexterity would shed light on sustainable advantages of EIFs. EIFs with limited resources need to achieve efficiency while looking for ways to innovate continuously. Ensuring a firm’s advantage is a “moving target” (Oviatt and McDougall, 1995). Thus, in order to succeed, EIFs not only have to emphasize exploitation and alignment during periods of evolutionary change but also pursue radical transformation and exploration in periods of revolutionary change (Tushman & O’Reilly, 1996). That is, EIFs have to simultaneously pursue both incremental and discontinuous innovation (Tushman & O'reilly,1996). Similarly, EIFs have to cultivate organization’s capacity for change with its ability to balance the need to implement changes and the need to maintain daily operations (Meyer & Stensaker, 2006). Future research could focus on resource endowment of EIFs and its impact on their strategic ambidexterity. Research (e.g., Ebben & Johnson,2005; Lubatkin, Simsek, Ling, & Veiga,2006) suggests that organizational ambidexterity may be dependent on the availability of organizational resources. Consequently, EIFs’ limited resources may impede EIFs pursuing strategic ambidexterity. Thus, investigation on EIFs with successful strategic ambidexterity may shed light on the determinants of successful implementation of the strategy.



*Environmental factors:* One of the most understudied areas of EIF performance research is the impact of environmental factors on performance. As mentioned earlier, only two studies slightly covered the direct measurement of the external environment impact. Considering the nature of smallness and newness, EIFs are much more vulnerable to environmental factors. In addition, transnational operations incur additional risks. Consequently, understanding the role that the external environment plays in EIF performance will have theoretical as well as managerial importance. Thus, future research needs to investigate how environmental factors (e.g. industry, local market, international market, and institutional context) influence EIF performance. Although all external factors are critical, we focus on the institutional context of EIFs. Institutional settings of the host country can enable or constrain EIFs activities. The extent of institutional development in the host country, as well as home country, can affect the firm's performance. For example, Makino, Isobe and Chan (2004) identified that the level of the host country's institutional development affects foreign affiliates' performance. More specifically, the absence of effective market-based institutions protecting property rights and ensuring fair competition have negative impact on business activities (Broadman et al., 2004). In addition, EIFs face additional liabilities for being foreign. This liability of foreignness (Zaheer, 1995) increases the cost of doing business abroad (Hymer, 1976) because of lack of knowledge or experience in the host country and possible differential treatment from the government and/or public (Eden and Miller, 2004). EIFs not only face liability of foreignness, but also face the liabilities of newness and smallness (in comparison to traditional MNCs) in the environment. Consequently, EIFs' ability to overcome these liabilities and gain legitimacy will not only determine their survival but also their financial success and organizational

effectiveness. Legitimacy refers to the right to exist and perform an activity in a certain way (Suchman, 1995). It is essential for EIFs to legitimize their activities to gain access to resources and secure support from stakeholders and local society (Aldrich and Fiol, 1994). Consequently, it will be an important effort to understand how the institutional environment of the host country(s) affects EIF performance. Furthermore, understanding how EIFs respond to the institutional pressure of the host country and what legitimation strategies are used to gain access to the necessary resources would shed light on how EIFs negotiate difficult institutional challenges and overcome enormous liabilities. Traditional internationalization theorists such as Johanson and Vahlne (1990) argued that those challenges are too risky for new and small firms, yet EIFs are not only increasingly prevalent, but many are also proven to be successful.

## **6. Conclusion and Limitations**

In this paper, we contribute to the growing body of research on early internationalizing firms, their special performance measurement and performance antecedents. First, by systematically analyzing EIF literature, we identified the types of performance measures used, compared these to traditional IB literature, and identified some unique characteristics of EIF performance measures. There is a strong need for EIF researchers to base their performance measurement on a well-balanced set of financial, operational and effectiveness measures. Additionally, EIF research needs to incorporate both primary and secondary data to overcome the inherent challenges of EIF performance measurement, owed by scarce sources of reliable and valid secondary data, especially financial data. Second, we systematically identified and synthesized the antecedents of EIF performance. By doing so, we could find a set of 55 different

EIF performance antecedents – composed of EIF specific resources, capabilities and strategies – that have been implemented by extant research. Several EIF-specific antecedents were identified: special organizational and technological resources, product related-capabilities, niche market strategy and strategic ambidexterity. Third, we reflected on our findings to provide suggestions for future research. With our suggestions for future research including performance measurement aspects and environmental, strategic, resource and capability factors, we aim to shed light on promising areas of EIF research not yet fully explored.

Despite our extensive assessment approach, our research is not without limitations. Our systematic collection of literature was based on a selected set of keywords in order to obtain the most relevant literature. Nevertheless, we are unable to guarantee having included all relevant studies. In combination with the extensive literature review to test the validity of the results of our sample, we feel confident to have incorporated interesting insights from studies slightly different than our research topic, which provided a relatively comprehensive presentation of current research. Furthermore, to be able to analyze our sample of 28 studies in depth, we had to set certain criteria *ex ante*. We are quite satisfied with our criteria but were unable to include all criteria, such as industry-specific patterns. Therefore, we suggest future research to incorporate industry-specific effects on EIF performance.

As stated by Kuivalainen et al. “it is not easy to distinguish what are the performance consequences of the internationalization strategy” (2007: 254), but we feel confident that our combined analysis of performance antecedents and performance measures demonstrates helpful venues for future research to gain more insight about early internationalization performance results.

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*\*Denotes all references from our dataset received through the systematic literature review.*

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## TABLES & FIGURES

**Table 1: Seven Steps of Systematic Literature Review**

Steps	Description of procedure
<b>Step 1:</b> Search only for articles published in scholarly journals	Following the original argumentation of David and Han, who refer to Light and Pillemer (1984: 34), the exclusion of book chapters and unpublished work enhances the quality of literature.
<b>Step 2:</b> Search the ABI/Inform and EconLit databases	ABI/Inform and EconLit were used because the performance of EIFs has been examined from several vantage points and theoretical perspectives in these multidisciplinary databases. The ABI search was enhanced by EconLit database to ensure exhaustive coverage of business journals.
<b>Step 3:</b> Safeguard articles of substantive relevance	By requiring at least one of the twelve primary key words (Export Start-up, Import Start-up, Multinational Trader, Geographically Focused Start-up, Global Start-up, born global*, Born Global Firm*, BGF, Early Internationalizing Firm*, EIF, International New Venture* or International entrepreneur*) to be contained in title or abstract, substantive relevance could be assured. As explained by David and Han (2004), the asterisk (*) at the end indicates that variations of the word were permitted. To obtain a representative sample, the 12 applied key words describing EIFs were thoroughly selected. All of our key words stem from highly published and highly cited journal articles. We particularly refer to the articles from Oviatt and McDougall (2005) and Rialp, Rialp and Knight (2005). Applying steps 1 to 3 resulted in a sample of 364 studies from both databases.
<b>Step 4:</b> Remove substantive irrelevant articles	To limit the initial sample to our research objective, we incorporated additional key words based on the discussion of performance operationalization. Hence, we followed Venkatraman and Ramanujam (1986) to derived key words from their three performance dimensions; financial performance, operational performance and overall effectiveness. These three were supplemented by the key word for measurement. By requiring at least one of the five additional key words (perform*, financial*, operational*, effectiveness or measure*) to be contained in the title or abstract, substantive irrelevant articles could be removed. After this filtering step, 84 articles remained.
<b>Step 5:</b> Ensure substantive relevance by reading all remaining abstracts for substantive context	The remaining articles had to indicate a contribution in terms of performance drivers and effects of EIFs in the abstract. This criterion allowed us to reduce the number of articles to 70.
<b>Step 6:</b> Ensure substantive relevance by reading all remaining articles in their entirety for substantive context.	Articles that did not meet the restriction were eliminated from the sample. By applying this last filter to our sample, an additional 33 articles were removed from the sample, therefore leaving 37 articles.
<b>Step 7:</b> Consolidate results from ABI/Inform and EconLit to eliminate duplicate articles.	Nine duplicates were eliminated; 28 articles remained for the analysis.

**Table 2: Summary of Selection Filters: ABI and EconLit**

Step	Filter type	Description	ABI result	EconLit result	Total
3	Substantive	All articles with 'Export Start-up' or 'Import Start-up' or 'Multinational Trader' or 'Geographically Focused Start-up' or 'Global Start-up' or 'born global*' or 'Born Global Firm*' or 'BGF' or 'Early Internationalizing Firm*' or 'EIF' or 'International New Venture*' or 'International entrepreneur*' in title or abstract	258	106	364
4	Substantive	At least one of five additional keywords ('perform*' or 'measure*' or 'financial*' or 'operational' or 'effectiveness') must also appear in title or abstract	66	18	84
5	Substantive	Remaining abstracts read for substantive relevance	55	15	70
6	Substantive	Remaining full articles read for substantive relevance	28	9	37
7	Duplicates	Deletion of duplicate articles found in both databases			28

**Table 3: Literature Review Results: Results by Year**

Year of publication	No. of articles published
2010	1*
2009	5
2008	3
2007	5
2006	3
2005	4
2004	2
2003	1
2002	1
2001	2
2000	1
	<b>28</b>

\* Including articles published until May 2010.

**Table 4: Literature Review Results: Results by Journal**

<b>Journal</b>	<b>No. of articles published</b>	<b>First article published in</b>
Journal of World Business	4	2007
International Marketing Review	4	2004
Management International Review	3	2005
Journal of International Entrepreneurship	3	2005
European Journal of Marketing	2	2007
Journal of International Business Studies	2	2004
Strategic Change	2	2001
Academy of Management Journal	1	2001
Canadian Journal of Administrative Sciences	1	2008
International Journal of Managerial Finance	1	2006
Journal of Business Venturing	1	2010
Journal of Chinese Economic and Foreign Trade Studies	1	2009
Journal of Enterprising Culture	1	2007
Journal of International Marketing	1	2000
New England Journal of Entrepreneurship	1	2002
	<b>28</b>	

**Table 5: Literature Review Results: Identified EIF performance measures**

Measures	#	Performance Dimensions			
Sales growth	14	<b>Financial measures</b>	<b>58,16%</b>		
Sales growth relative to competitors	1			<b>Sales-related measures</b>	<b>54,39%</b>
Overseas sales growth	3				
International sales growth	1				
Sales volume	3				
Turnover growth	3				
Export growth	2				
Growth in export volume	2				
Percentage of export to sales	1				
Export intensity	1				
Profitability	3				
Profitability growth	1				
Overseas profitability	3				
Pre-tax profitability	3				
Effect of internalization on firm's profitability	1				
Return on investment	6				
Return on equity	2				
Net profits	3				
Profit margin	2				
Market perceived performance: abnormal return	1	<b>Other financial measures</b>	<b>3,51%</b>		
Long-horizon average holding period abnormal returns	1				
Market share	8	<b>Operational Measures</b>	<b>30,61%</b>		
Overseas market share	3			<b>Market-related measures</b>	<b>60,00%</b>
Market share objectives	1				
New market entry	1				
Entry into multiple markets	1				
Market entry	1				
International market penetration	1				
Rapid market expansion	1				
New market creation	1				
Employment growth	1				
Employee growth	1				
Development of knowledge/technology	2			<b>Other operational measures</b>	<b>40,00%</b>
Knowledge development	1				
Effect on development of expertise	1				
Success of product	3				
Sales efficiency	1				
Productivity (sales per employee)	1				
Customer satisfaction	1				
Strategic objective achievements	1				
Extent to which financial and other goals are achieved	1				
Achieving goals	1				
Effect on image	1				
Image development	1				
Perceived international performance	1				
Satisfaction with success in international markets	1				
Perceived self success	1				
Competitor's perception of firm performance	1				
Performance relative to competitor	1				
Perceived firm growth likelihood	1				

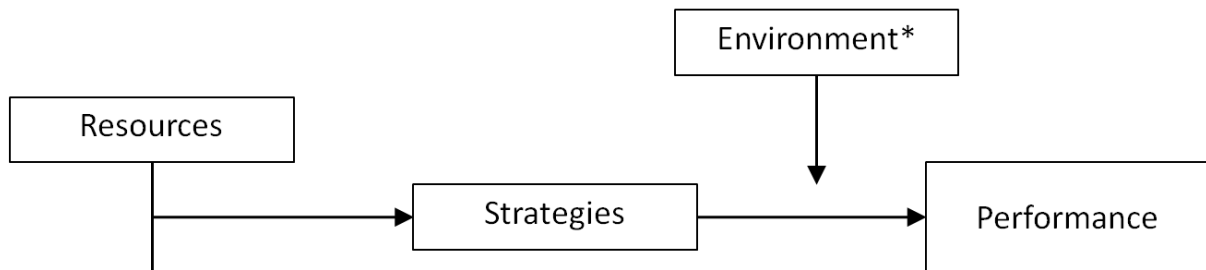
**Table 6: Literature Review Results: Identified EIF performance antecedents**

<u>Antecedents</u>	<u>#</u>		
Entrepreneurial orientation	3	<b>Entrepreneurial</b>	<b>Capabilities</b>
Innovativeness Component of Entrepreneurial orientatio	1		
International entrepreneurship	1		
Learning orientation	2	<b>Learning</b>	
International Marketing Orientation	1	<b>Marketing</b>	
Marketing Competence	1		
Marketing orientation	1	<b>Technology &amp; Innovation</b>	
Global Technological Competence	1		
Technology Advantage	1		
Technological Innovativeness	1		
Organizational innovation intensity	1	<b>Product related</b>	
Unique Products Development	1		
Product and Product Quality	1		
Product uniqueness/tailored product	4		
Range of products	1		
New product development capability	3		
Products' technical sophistication/Technical sophistication of products	3		
Quality Focus	1	<b>Operational</b>	
Quality control process	2		
Product quality/control	1		
Meeting customers' specifications	2		
Meeting delivery dates	2		
Leveraging Foreign Distributor Competencies	1		
Company reputation	3	<b>Organizational</b>	<b>Resources</b>
Cooperation	1	<b>Relational</b>	
Networking capability	1		
Personal visits to the market	2		
Venture capital participation	1	<b>Knowledge</b>	
Foreign market knowledge	1		
Overseas market/marketing knowledge	1	<b>Human</b>	
Management commitment	2		
International experience	3		
Personnel's experience & training	1		
Level of business experience of start-up team members	1		
Educational Background	1		
Differentiation Strategy	1	<b>Strategy</b>	<b>Strategies</b>
Niche Market Strategy	1		
Strategic ambidexterity	2		
Mode of entry	1		
Strategic orientation	1		
Technology oriented strategy	1		
Customer Focus	1		
Price competitiveness	1		
Market Advantage	1		



**Figure 1: Revised Exploratory Model of Early Internationalizing Firms by Rialp et al.**

**(2005)**



\* Not identified by the assessment

## Appendix 1 – Performance Measurement Details of Analyzed Studies

Study	Name of Performance Construct Used	Mode of Measurement	Type of Data Used	Performance Measures Used in Article						Performance Dimensions*		
										F	O	E
Aspelund and Moen (2005)	firm performance	subjective/objective	primary	perceived growth likelihood	perceived international performance	growth in employment	growth in turnover	ROI/ROE	competitive profile	x	x	x
Contractor et al. (2005)	export performance	subjective	primary	export intensity	export growth					x		
Crick et al. (2003)	overseas performance/competitive advantage	subjective	primary	overseas sales growth	overseas sales volume	overseas profitability	overseas market share			x	x	
Crick (2009)	overseas performance/competitive advantage	subjective	primary	overseas sales growth	overseas sales volume	overseas profitability	overseas market share			x	x	
Fink et al. (2008)	performance/ success	objective	primary	turnover growth						x		
Frishammar and Andersson (2009)	international performance	subjective	primary	market share objectives	turnover	satisfaction with success in international markets	effect of internalization on firm's profitability	effect on image	effect on development of expertise	x	x	x
Gleason et al. (2006)	long-term performance	objective	secondary	long-horizon average holding period abnormal returns	return on equity	growth in sales				x		
Gleason and Wiggenhorn (2007)	market's perception of performance	objective	secondary	market perceived performance: abnormal return						x		
Han (2007)	internalization performance	subjective	primary & secondary	ROI	market share	sales growth	employee growth			x	x	
Han and Celly (2008)	performance	subjective	primary	net profits	profit margin	ROI	market share	sales growth	new market creation	x	x	
Jantunen et al. (2008)	international performance	subjective	primary	sales volume	market share	profitability	market entry	image development	knowledge development	x	x	x
Jones and Crick (2001)	overseas performance/competitive advantage	subjective	primary	overseas sales growth	overseas sales volume	overseas profitability	overseas market share			x	x	
Khavul et al. (2010)	firm performance	subjective	primary	sales growth	profitability	market share				x	x	

\* F-Financial; O-Operational; E-Effectiveness

Study	Name of Performance Construct Used	Mode of Measurement	Type of Data Used	Performance Measures Used in Article						Performance Dimensions*		
										F	O	E
Knight et al. (2004)	international performance	subjective	primary	sales growth	pre-tax profitability	market share	sales growth relative to competitors	success of product		x	x	
Knight and Cavusgil (2004)	performance in international markets	subjective	primary	market share	sales growth	pre-tax profitability	ROI	success of product	development of knowledge/technology	x	x	
Knight and Cavusgil (2005)	international performance	subjective	primary	market share	sales growth	pre-tax profitability	gaining new knowledge/technology	ROI	success of product	x	x	
Kropp et al. (2006)	international entrepreneurial business venture performance	subjective	primary	before-tax profits	market share	ROI	pre-tax profit margin	achieving goals		x	x	x
Kuivalainen et al. (2007)	export performance	subjective	primary	sales growth	export volume	market share	new market entry	sales efficiency	export profits	x	x	
Mort and Weerawardena (2006)	international market performance	subjective	primary	BG's entry into multiple markets	rapid market expansion						x	
Mostafa et al. (2005)	export performance	subjective	primary	sales growth	profitability	strategic objective achievements	perceived self success	competitor's perception of firm performance		x	x	x
Naudé (2009)	firm performance	objective	secondary	productivity (sales per employee)	growth in export volume	sales growth				x	x	
O'Cass and Weerawardena (2002)	marketplace performance	subjective	primary	entering new markets	market share	customer satisfaction					x	
Rhee (2002)	performance in international expansion	objective	secondary	sales growth						x		
Shrader (2001)	performance	objective	primary & secondary	profitability	sales growth					x		
Yeoh (2000)	export performance	objective	primary	percentage of exports to sales	growth in export volume					x		
Zhang et al. (2009)	international market performance	subjective	primary	financial	strategic	performance relative to competitor				x	x	x
Zhou et al. (2007)	business performance	subjective	primary	export growth	profitability growth	sales growth				x		
Zhou (2007)	effectiveness of international performance	subjective	primary	international sales growth						x		

\* F-Financial; O-Operational; E-Effectiveness