DOCTORAL THESIS

FROM MARKET ORIENTATION TO ORIENTATION TOWARDS INTERNATIONAL MARKETS (OIM) OF BORN GLOBAL FIRMS: EVALUATING THE IMPACT OF OIM ON BORN GLOBAL FIRMS' PERFORMANCE

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ABSTRACT

Although there is a considerable amount of research on market orientation, research on this concept in the context of born global firms is still lacking a precise definition and full operationalization. This research aims to investigate how the market orientation (MO) concept could be understood for a specific type of firm: the born global firm. The thesis is framed around three studies.

First, an exploratory study that was developed by performing qualitative interviews in a sample of five Spanish firms from different sectors which had international activity. The data were analyzed using cross-case analysis. The results suggest that the market orientation concept should be developed into the concept of orientation towards international markets (OIM) for born global firms. This study also provides the components for measuring this orientation in this type of firm.

Second, using samples of born global firms from the Nordic countries and Spain, we assess the dimensionality of OIM by considering the optimal number of scale items, with the exception of the network construct, and assess the measurement invariance of the construct across the samples. The results support the conceptualization of OIM as a multidimensional construct, using customer orientation, competitor orientation, interfunctional coordination, and innovativeness and technological capability. Measurement invariance was assessed using multi-group confirmatory factor analysis. The factors outlined above have a similar dimensionality and factor structure across countries.

Finally the third study, examines how the extended concept of market orientation for born global firms that we have called OIM affects business performance, as measured by customer performance and financial performance, in the context of born global firms, and whether this effect varies between countries. The results show that the OIM components have a positive and significant effect on business performance in born global firms in both contexts (Nordic and Spanish companies) through customer and financial performance.

Based on these research findings, the thesis’s main theoretical contribution is the suggestion of how MO should be conceptualized for BG firms. Our findings provide evidence that it is necessary to incorporate components that relate to the international scope of this type of firm, with the concept of OIM. From a business practice perspective, this dissertation suggested that the scale we have developed can provide a reliable and valid analytical tool for assessing the orientation towards international markets of these firms. Thus born global managers may adopt the scale for a better understanding of the reality of foreign markets and to develop effective strategies to attract and retain customers in different markets overseas.

Keywords: Born global firms, market orientation, orientation towards international markets, performance, scale validation, multi-country approach, structural equation model.
DEDICATION
TO MY MOTHER AND FATHER,
BROTHERS, SISTER AND
TO MY FOUR LOVELY KIDS.
ACKNOWLEDGEMENTS

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CHAPTER ONE: INTRODUCTION

In the emerging field of international entrepreneurship (IE) and research into the internationalization of small firms and new ventures, it has frequently been suggested that born global (BG) firms, as a new and spreading phenomenon, present a challenge to traditional stage models of internationalization (Uppsala School). Recently, researchers and practitioners have noted an increase in the number of the companies that can be considered BG firms. That is, "they are international from the inception, seeks to derive a significant competitive advantage from the use of resources and the sales of outputs in multiple countries" (Oviatt & McDougall, 1994, p. 49).

Scholars have defined a BG as a firm that has become international within a few (most often three) years after its inception, and they also require that 25 percent of its total sales should come from foreign markets. BG firms exist in many industries, and tend to be created by entrepreneurs with wide international experience (Knight & Cavusgil, 1996; Madsen & Servais, 1997).

However, there is still a paucity of empirical research on the performance of firms that undergo early internationalization. The few studies that have been conducted often report findings that establish a positive relationship between international diversity and new venture performance (Zahra, et al., 2000). Likewise, studies have identified several factors mediating the relationship between BG firms and performance (Arpa, et al., 2012; Efrat & Shoham, 2011; Kocak & Abimbola, 2009; Sultan & Wong, 2011). To deepen our understanding of the relationship between BG firms and performance, we consider that the concept of market orientation (MO) of BG firms should be considered.

While there are considerable number of determinants of business performance, MO has received widespread attention as a key determinant of business success (Deshpandé, et al., 1993; Kara, et al., 2005). Research on MO has steadily expanded since Kohli and Jaworski (1990) and Narver and Slater (1990) recognized this construct as one of the key factors that impact on firms’ performance and competitive advantage. Many studies have been devoted to an exploration of the relationship between MO and performance over a range of different contexts such as non-profit organizations, manufacturing firms, high-technology firms, family firms, (Im & Workman, 2004; Pelham, 2000; Pinho, et al., 2014; Subramanian & Gopalakrishna, 2009). In general, empirical studies support
the view that MO has a positive effect on firm performance (Morgan et al., 2009). Our review indicates that in recent years the definition and measurement of MO for international firms has varied in different pieces of empirical research (see Appendix 1). Some studies (for example, Kwon & Hu, 2000; Rose & Shoham, 2002) have focused on the relationship between MO and export performance, while other scholars have decided to build on the work of Cadogan et al. (1999) and emphasize export market orientation (Murray, et al., 2011; Chung, 2012); another stream of research refers to international market orientation (Dimitratos et al., 2012). Based on exporting firms, most of these studies that investigated the relationship of MO with performance found a positive effect.

Although there seems to be a consensus on the positive impact of MO on business performance, to date the literature has not settled on a consistent operationalization for BG firms. Some research contributions indicate a positive relationship between firms that operate in the international context and the adoption of MO (Armario, et al., 2008; Brännback, et al., 2007; He & Wei, 2011; Kropp et al., 2006; Odorici & Presutti, 2013). For instance, Odorici and Presutti (2013), based on eight Italian BG start-ups, show a successful market-oriented mindset among the entrepreneurs. With a focus on the entrepreneurial experience, the authors studied how different strategic orientations (entrepreneurial, learning and market orientation) influence foreign growth and performance abroad. However, the nature of the relationship between MO and its components and the business performance of BG firms is still under-researched. Kirpalani and Gabrielsson (2012), in their review of the research areas that still need to be covered in the field of BG firms, concluded that only a few empirical studies look at the consequence of MO in BG firms. Past research on IE shows some key differences between BG firms and other types of international firms (Moen, 2002; Li et al., 2012) and, as a result, one could expect the role of MO in BG firms to be quite distinct from its role in companies that have followed a gradual process of internationalization.

Taking these observations into account, in this thesis we aim to contribute to the IE literature with a more detailed examination of how MO is conceptualized for BG firms and whether it affects the business performance of the firm.
1.1 RESEARCH QUESTION

Small and medium-sized enterprises (SMEs) seek to enter international markets for different reasons including, for instance, to survive and grow (Autio et al., 2000). A large amount of the recent literature on international business has dealt primarily with the internationalization pattern of BG firms. Kuivalainen et al. (2007) argue that “despite the recent increase in ‘born-global’ studies, there has been little research on how the scale and scope of being a born global firm affects performance” (p. 253).

On the other hand, the relationship between MO and performance has been investigated by many researchers (Greenley, 1995; Han et al., 1998; Ngo & O‘Cass, 2012), but previous research has not addressed this relationship in the context of BG firms.

Consequently, the general research question of this doctoral dissertation is: How the market orientation concept can be transferred to the context of Born-global firms and which are the implications on performance for this type of firms?

1.2 RESEARCH OBJECTIVES

The significance of MO as a phenomenon has fostered a steady stream of research in the marketing literature since the works of Kohli and Jaworski (1990) and Narver and Slater (1990) were published. However, the existing literature indicates that an area of research that continues to captivate the attention of scholars involves the validation of measurement scales (Oczkowski & Farrell, 1998; Schlosser & McNaughton, 2009; Siguaw & Diamantopoulos, 1994). The MO measurements were first used in the context of the domestic market, and some modification of the components as well as the items should perhaps be made when the interest is to measure the MO in early international firms. So, the first research objective formulated in this research was the following:

(1) Explore the adequacy of the traditional market orientation measurement scales for born global firms.

The dissertation adopts an integrated perspective to search for insights into the adequacy of the traditional MO measurement scales for BG firms. In other words, the first
research aim was to obtain an impression from BG firms regarding the traditional MO concept, the usefulness of the traditional scales for measuring MO and whether these scales are useful in the specific context of firms that undergo early internationalization.

These underpinnings may serve as a basis for creating the MO concept for firms that have been focused on international markets since the very beginning, as well as for the scale that should be statistically tested among BG firms. Therefore, the second research objective is:

(2) Validate the proposed scale that taking into account the scope of the born global firms in cross-country comparison.

The cross-country examination tested the psychometric properties of the proposed scale with samples from Denmark, Finland, and Spain. These countries have been the focus of numerous studies of the phenomenon of BG firms (Anderssson & Wictor, 2003; Blesa et al., 2008; Larimo, 2003; Madsen & Servais, 1997). Although there have been many calls for the cross-cultural validation of measures used in international research, these calls have mostly gone unanswered (Murray et al., 2007). Consequently, there is a need to identify and validate the proposed measurement tool in many countries in which a strong presence of firms that have been internationalized early has been detected.

In addition, the third research aim, which is confirmatory in nature, attempts to assess the impact of the studied concept on the results of these rapidly internationalized firms.

(3) Analyzing the impact the proposed measure of market orientation on performance of firms that have been focused on international markets since their very beginnings.

The influence of MO tends to result in better business performance (Kirca et al., 2005). There has been little empirical investigation of the relationship between market orientation and performance in the context of BG firms. Therefore, the third objective examines the relationship of MO and performance of firms that have undergone early internationalization.
1.3 RESEARCH METHODOLOGY

This thesis follows a sequential mixed method design procedure to reap the benefits of both qualitative and quantitative analyses (Bryman, 2006; Cameron & Molina-Azorin, 2011; Molina-Azorin & López-Gamero, 2012; Prashantham & Birkinshaw, 2015; Sale et al., 2002; Tashakkori & Teddie, 1998). Given the nature of the research questions, which relate to BG firms and the MO perspective, the qualitative research design was complemented with a quantitative approach. Mixed methods have been said to involve “philosophical assumptions that guide the direction of the collection and analysis of data and the mixture of qualitative and quantitative data in a single study” (Creswell & Plano Clark, 2007, p. 5). According to Creswell (2003), mixed methods research has certain advantages, for a number of reasons, and it can be helpful to researchers to elaborate on the findings of one method by following through with another method.

To address our research aims appropriately, we first conducted a qualitative study by analyzing a sample of five Spanish BG firms. More precisely, we identified which MO scale is more adequate for dealing with BG firms. Once we had decided on which scale is more appropriate, and in order to accomplish the second aim, we checked the external validity of the scale, taking into account the assessments collected from a sample of European BG firms using a quantitative approach. Finally, we determined the impact of the proposed scale on the performance of European BG firms. We believe this multi-country approach is one of the aspects of this study that adds more value.

The quantitative approach was conducted by, first, collecting data from the web-based survey adopted as the research instrument. A web-based survey offers several advantages over traditional mail surveys. The Internet is more frequently used by researchers in different fields to collect data (Boyer & Pagell, 2000; Sheehan & McMillan, 1999). It has been found that “much existing literature has noted that electronic surveys are attractive to researchers, both academically and commercially because of the potential that they have to reduce the expense of survey work” (Boyer et al., 2002, p. 358).

The web-based survey offers such benefits as speed of response, response rate and cost (Sheehan & McMillan, 1999; Parker, 1992). According to a comparative study of mail, fax, and web-based methods developed by Cobanoglu et al. (2001), web-based surveys have several advantages, such as the percentage of surveys returned, the response
quality, speed, the return cost, and the variable cost per survey. In terms of the disadvantages of the web-based survey, Yun and Trumbo (2000) concluded that the use of electronic survey methods raises some technical issues: (1) hardware and software problems should be well thought out; (2) there may be multiple submissions; and (3) non-delivered e-mails must be a concern.

The attractive features offered by the web-based survey meant that we implemented this method in this thesis. After collecting the data for the quantitative studies, we applied several statistical analyses such as exploratory factor analysis, confirmatory factor analysis, and structural equation model. Details of the quantitative methods applied are explained in detail in chapters three and four.

### 1.3.1 Research approach

The research approach undertaken is influenced by certain epistemological concerns (Saunders et al., 2009). Epistemology is "a branch of philosophy that is concerned with the nature of knowledge, together with its sources and forms" (Pittaway, 2005, p. 203). Following Saunders et al. 2009, there are two main research approaches: deductive and inductive.

In an inductive approach, the formulation of a theory is based on the observations of empirical reality which is derived, generally, from a qualitative data analysis. Adopting the inductive approach involves gaining a deep understanding and knowledge about the research idea, that allows us to generate different explanations of the problem and suggest direction for future work (Saunders et al., 2009). On the other hand, a deductive approach involves testing a theory or a hypothesis against data. According to Bryman and Bell (2007) deductive research involves the domain of the theoretical considerations that allow the researchers to deduce, therefore driving the data collection and the statistical analysis in order to reject or confirm the hypothesis (or hypotheses). The main distinctions between these two approaches are shown in table 1.
Table 1 The major differences between inductive and deductive approaches to research (Adapted from Saunders et al. 2009, p. 127)

<table>
<thead>
<tr>
<th>Deduction emphasizes</th>
<th>Induction emphasizes</th>
</tr>
</thead>
<tbody>
<tr>
<td>-Scientific principles</td>
<td>-Gaining an understanding of the meanings humans attach to events</td>
</tr>
<tr>
<td>-Moving from theory to data</td>
<td>-A close understanding of the research context</td>
</tr>
<tr>
<td>-The need to explain causal relationships between variables</td>
<td>-The collection of qualitative data</td>
</tr>
<tr>
<td>-The collection of quantitative data</td>
<td>-A more flexible structure to permit changes of research emphasis as the research progresses</td>
</tr>
<tr>
<td>-The application of controls to ensure validity of data</td>
<td>-A realization that the researcher is part of the research process</td>
</tr>
<tr>
<td>-The operationalization of concepts to ensure clarity of definition</td>
<td>-Less concern with the need to generalize</td>
</tr>
<tr>
<td>-A highly structured approach</td>
<td></td>
</tr>
<tr>
<td>-Researcher independent of what is being researched</td>
<td></td>
</tr>
<tr>
<td>-The necessity to select samples of sufficient size in order to generalize conclusions</td>
<td></td>
</tr>
</tbody>
</table>

In practice, many studies use both inductive and deductive analysis (Bryman & Bell, 2015; Easton, 2010; Hinkin, 1995; Rudestam & Newton, 2007). For instance, according to Hinkin (1995), during the process of scale development, researchers used either purely deductive or purely inductive analysis whilst others adopted a combination of both approaches. Tashakkori and Teddlie (1998) argued that all research falls somewhere within this combination of deductive and inductive logic and is commonly referred to as the research cycle. The cycle may be seen as moving from empirical observations through inductive logic to proposition, and then from the theory/conceptual framework through deductive logic to hypotheses (see Figure 1)
In this thesis, a combination of inductive and deductive approach was used in our empirical analysis. The three objectives of this thesis (to understand the concept of MO in the context of the BG firms, to validate of the proposed scale and to determine the performance implications of this orientation for BG firms) involve adopting both approaches. The first objective calls for the inductive approach, which involves a qualitative study. Inductive logic is most prominent in the development of a new conceptualization of MO in the context of the BG firms, whereas the second and third objectives can be reached through deductive approach (through quantitative data analysis). Thus the research process starts with empirical observations, obtained through qualitative case studies of five earlier internationalization firms in Spain. From these observations, and the literature review, we proposed a scale which allows us to move from the MO concept to the orientation towards international markets (OIM) concept. In order to fully operationalize the proposed scale, and also to investigate the impact on performance of this orientation (testing a derived hypothesis), we require a more comprehensive dataset than five case studies. This leads to empirical data collection from 220 BG firms from three different contexts: Denmark, Finland and Spain. The analysis of this data is reported in the following chapters, and the research results summarize the key aspects of OIM for BG firms. This description of the research process shows that we have gone through phases of both inductive as well as deductive reasoning.
1.4 THE STRUCTURE OF THE STUDY

This study is organized into five chapters, which will now be briefly outlined. This introductory chapter helps identify the general research area and present the research question that we want to answer. We give a description of the objectives of the study and the research methodology adopted for each chapter. The main topics and contents of each chapter are listed in Figure 2.

The second chapter presents a qualitative study based on five BG firms from Spain. More specifically, based on the literature review and the case study approach, we developed a measure of the firms’ OIM, instead of a measure of their market orientation. The third chapter describes our assessment of the validity of the scale, drawing upon insights from the literature on scale validation. We assessed the invariance of the scale across Nordic and Spanish firms. Once the validity of the scale for OIM had been assessed, we tested, as reported in chapter four, the hypothesis that relates OIM to the performance of BG firms. In order to test the formulated hypothesis, structural equation modeling with multi-countries was applied. Finally, chapter five includes the final discussion and the conclusions of the study. In particular, we present some concluding remarks that address theoretical and managerial contributions, study limitations, and recommendations for future research.
**Figure 2 Overview of the Chapters of the Thesis**

<table>
<thead>
<tr>
<th>Chapter 1. Introduction</th>
<th>• Presentation of the research gaps, study purpose, research questions and methodology.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chapter 2. From market orientation to orientation towards the international markets: a qualitative examination for born global firms</td>
<td>• Qualitative study that examines the MO concept for BG firms, and presents the OIM concept and the scale to measure OIM in BG firms.</td>
</tr>
</tbody>
</table>
| Chapter 3. Orientation towards international markets of born global firms: scale validation | • Scale validation: operational measures; data collection; sampling.  
• CFA: Reliability and validity analyses.  
• Multi-group approach. |
| Chapter 4. The effect of orientation towards the international market on business performance in born global firms | • Structural model assessment.  
• Test of the following hypothesis: OIM has a positive impact on BG firms' performance. |
| Chapter 5. Conclusion | • Presentation of the theoretical and management contributions.  
• Discussion of the limitations, and implications for future research. |
1.5 REFERENCES


## APPENDIX 1  MO in the international context of the firms

<table>
<thead>
<tr>
<th>Label of the constructs</th>
<th>Reference</th>
<th>Type of firms</th>
<th>Scale</th>
<th>Performance effect</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Racela et. al. (2007)</td>
<td>Exporters</td>
<td>MARKOR</td>
<td>N.A.</td>
</tr>
<tr>
<td></td>
<td>Balas et al. (2012)</td>
<td>Exporters</td>
<td>MKTOR</td>
<td>N.A.</td>
</tr>
<tr>
<td><strong>Export market orientation</strong></td>
<td>Navarro-Garcia et al. (2014)</td>
<td>Exporters</td>
<td>EMO</td>
<td>Positive</td>
</tr>
<tr>
<td></td>
<td>Murray et al. (2011)</td>
<td>Exporters</td>
<td>EMO</td>
<td>Positive</td>
</tr>
<tr>
<td></td>
<td>Chung (2012)</td>
<td>Exporters</td>
<td>EMO</td>
<td>Positive</td>
</tr>
<tr>
<td><strong>International market orientation</strong></td>
<td>Dimitratos et al. (2012)</td>
<td>Internationalized firms</td>
<td>MKTOR</td>
<td>N.A.</td>
</tr>
<tr>
<td></td>
<td>O’Connor et al. (2011)</td>
<td>Exporters</td>
<td>Export sales and export experience</td>
<td>N.A.</td>
</tr>
</tbody>
</table>

N.A.: No available
CHAPTER TWO
FROM MARKET ORIENTATION TO ORIENTATION TOWARDS INTERNATIONAL MARKETS: A QUALITATIVE EXAMINATION FOR BORN GLOBAL FIRMS

ABSTRACT

Purpose- The impact of market orientation on performance has been addressed widely in the academic literature; however, the connection between the concept of market orientation and born global firms has not yet been considered. This research aims to investigate how the market orientation concept could be understood for a specific type of firm: the born global firm.

Design/Methodology/Approach- This is an exploratory study that was developed by performing qualitative interviews in a sample of five Spanish firms from different sectors which had international activity. The data were analyzed using cross-case analysis.

Findings- This research suggests that the market orientation concept should be developed into the concept of orientation towards international markets (OIM) for born global firms. It also provides the components for measuring this orientation in this type of firm.

Research limitations/Implications- More born global firms, ideally from different contexts, should be considered in order to develop the concept and the measurement of orientation towards international markets, and quantitative studies, using confirmatory factor analysis, should be implemented for assessing the validity of the proposed scale.

Originality/Value- Although the concept of market orientation is very well known in the marketing literature, as are the traditional scales that have been used for measuring it, the value of this research is the extension of this concept to the international context and the proposal of a measure for a specific type of firm: those acting internationally from their inception.

Keywords: Born global firms, market orientation, and small enterprises.

Paper type: Research paper.

JEL Classification: M13, M31, L25.
2.1 INTRODUCTION

The internationalization of firms has received particular attention in international entrepreneurship (IE) theory, and one of the most promising areas of research is focused on born global firms, or firms that internationalize almost from inception. This type of firm has been given different names in the literature: *International New Venture* (McDougall, et al., 1994; Oxtorp, 2014), *Global Start-up* (Oviatt & McDougall, 1994), *Instant International, High Technology Start-up* (Jolly et al., 1992), *Global High-Tech Firm*, and Born Global (BG) Firm. In spite of the debate about the terminology in the research field, we will just refer to this type of company as BG firms because this term appears most frequently in the current body of research literature (Brännback et al., 2007; Cavusgil & Knight, 2015; Hashai & Almor 2004; Madsen & Servais, 1997; Zahra, 2014).

Recently, researchers and practitioners have noted an increase in the number of companies that can be considered to be BG firms. BG firms are described as follows:“they are international from the inception, seeks to derive a significant competitive advantage from the use of resources and the sales of outputs in multiple countries” (Oviatt & McDougall, 1994, p. 49).

The desire to expand is inherent in any firm’s international plan, but the degree and pace differ considerably between firms for which it is a gradual process and BG firms. It has been traditional for small firms to follow an incremental path of internationalization, but BG firms represent a modification: they start their internationalization process almost from inception and simultaneously use multiple and different internationalization modes (Melén & Nordman, 2009).

As we have mentioned, the phenomenon of BG is becoming increasingly common (Sharma & Blomstermo, 2003). Some scholars focus on the conceptualization (Knight & Cavusgil 1996; Madsen & Servais, 1997; Oviatt & McDougall, 1994) and some on the characteristics of BG firms (Gleason et al., 2006); some identify the factors influencing the strategies of BG firms (Efrat & Shoham, 2013; Luostarinen & Gabriëlsson, 2004), while still others study the development of the phases that BG firms follow: “introductory, growth and resource accumulation and break-out to independent growth”( Gabriëlsson et al., 2008, p. 385).
Previous research on BG firms indicates that “this type of firms seeks superior performance from or near their founding” (Kocak & Abimbola, 2009, p. 439). Zahra et al. (2000) argue that there is a positive relationship between international diversity and new venture performance. Consequently, it is evident that for BG firms international diversity becomes crucial.

However, from our perspective, a gap remains in the knowledge about BG firms and their performance. Many recent studies have argued that market orientation (MO) has a positive effect on firms’ performance (Harris, 2001; Kumar et al., 1998; Lee et al., 2015; Noble et al., 2002; Ruekert, 1992; Sin et al., 2005). According to Rose and Shoham (2002), firms that are oriented toward the market should recognize and respond to global changes and opportunities better in their competitive environment. However, most studies focused on MO have been developed in the context of domestic markets (e.g. Slater & Narver 2000; Sin et al., 2005), as well as in industrial economies, with a focus on manufacturing firms (Matsumo et al., 2002). We are interested in the relationship between the measurement of MO and the performance of BG firms. As can be imagined, this implies that we must have a clear understanding and measurement of the MO of BG firms. In addition, a growing number of contributions in the marketing field have been devoted to identifying the dominant scale for measuring MO: these include MARKOR, developed by Kohli et al. (1993), and MKTOR, developed by Narver and Slater (1990) (Deshpande & Farley, 1998; Oczkowski & Farrell, 1998; Tomášková, 2009).

This study contributes to the existing knowledge about MO and BG firms in two ways. First, we develop the concept of MO in the domain of BG firms, suggesting that a more appropriate concept (orientation towards international markets) and measure should be taken into account in this context. Second, we start exploring the connection between this extended concept and the performance of BG firms, in a qualitative way. With a few exceptions (e.g. Johansen & Knight, 2010), this relationship has not been studied in the BG context. As a result, we can get a better insight into, and understanding of, the phenomenon of BG firms. Consequently, we respond to the call to develop the knowledge of certain aspects in the continuing internationalization of BG firms (Liesch et al., 2007).
To achieve both purposes, the research is structured in the following way: the second section provides a review of the relevant literature on BG firms and MO offered by international business and marketing scholars. After the literature review, our research questions will be presented in the third section. This will be followed by the methodology of the study and a description of the research design. More precisely, the ways in which the cases have been chosen and how the information will be analyzed are presented in section four. The empirical results of the in-depth case analysis of five firms in Spain are presented and discussed in section five, with a focus on the development of the MO concept for BG firms and the possible impact of this orientation on performance. Finally, the main results of the case study are summarized and implications are drawn in section six. The final section ends with some suggestions for future studies.

2.2 LITERATURE REVIEW

2.2.1 Literature review of born global firms

We have witnessed a tremendous growth in studies related to internationalization and the early internationalization phenomenon over the past few decades, and interest in this subject is still increasing. Searching through economics journals indexed in the Econlit database allows us to discover that 2,188 articles related to internationalization were published in the past four decades (see Table 2), in different journals such as Journal of International Entrepreneurship, Journal of International Business Studies, Journal of World Business, International Business Review, and International Entrepreneurship and Management Journal. The majority (77%) of the articles were published during the period 2002-2015, whereas in the early stages of this field of research the internationalization process was described by 18 articles.

<table>
<thead>
<tr>
<th>Years</th>
<th>Articles found</th>
<th>Total (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1969-1979</td>
<td>18</td>
<td>.82</td>
</tr>
<tr>
<td>1980-1990</td>
<td>84</td>
<td>3.84</td>
</tr>
<tr>
<td>1991-2001</td>
<td>392</td>
<td>17.92</td>
</tr>
<tr>
<td>2002-2010</td>
<td>947</td>
<td>43.28</td>
</tr>
<tr>
<td>2011-2015</td>
<td>747</td>
<td>34.14</td>
</tr>
<tr>
<td>Total</td>
<td>2188</td>
<td>100</td>
</tr>
</tbody>
</table>

In the 1970s and 1980s, studies on internationalization were based on the framework of the internationalization process theory, or the Uppsala model (Johanson & Vahlne,
1977). It was not until the mid-1990s that an increased emphasis was placed on the early internationalization process, and at this time the concept of BG firms took hold. The identification of BG firms by McKinsey (1993) showed how young firms could be characterized by their foreign operations at the time they were formed.

A review of the literature on BG firms was carried out in order to determine factors such as the contexts and the research methodology adopted, and to obtain a general overview of BG firms research. To identify relevant articles on BG firms, we conducted a keyword search for *born global firms* on the Scopus database. We established three criteria for selecting the articles on BG firms. First, after introducing the keywords, we selected the subject area as business, management and accountancy. Second, we selected the document type as just articles. As a result, after introducing these two criteria, we found 199 articles. Thereafter, following Senglen (1997), we selected five articles with the highest number of citations between 190 and 519.

As demonstrated theoretically and illustrated in some of the papers in Table 3, it seems that BG firms are mainly examined by combining and integrating different theoretical perspectives. From the sample of studies provided in Table 3, it can be seen that the studies use both methodologies (quantitative and qualitative) in different contexts, mainly in European countries and the USA.
Table 3 Born global firms: relevant studies

<table>
<thead>
<tr>
<th>Author(s)</th>
<th>Methodology</th>
<th>Frameworks</th>
<th>Key Findings</th>
</tr>
</thead>
<tbody>
<tr>
<td>Madsen and Servais (1997)</td>
<td>Qualitative study: nine firms from the USA, Australia, Denmark, Switzerland, Sweden, Italy and France.</td>
<td>- The Uppsala Model. - The network approach</td>
<td>Three main manifest categories of internationalization processes can be identified: (a) the traditional exporters, whose internationalization pattern to a large degree can be described and explained by traditional stages of models of internationalization, (b) firms that leapfrog some stages, e.g. Late Starters that have only domestic sales for many years, but then suddenly invest in a distant foreign market, and (c) the Born Global firms.</td>
</tr>
<tr>
<td>Rialp et al. (2005)</td>
<td>Conceptual paper</td>
<td>Refers to different approaches for the early internationalization process.</td>
<td>The greatest problem facing scholars in the emerging field of international entrepreneurship and of early internationalizing firms is the lack of research conducted to date.</td>
</tr>
<tr>
<td>Moen and Servais, (2002)</td>
<td>Quantitative study based in 677 small and medium firms from: Denmark, Norway and France.</td>
<td>- The Uppsala Model - The born global concept</td>
<td>In order to establish the factors that influences on the first years of export activity, the results show that export intensity, distribution, market selection and global orientation were not influence.</td>
</tr>
<tr>
<td>Zhou et al. (2007)</td>
<td>Quantitative study based in 129 China small and medium firms</td>
<td>- Social networks - Internationalization orientations</td>
<td>The study reveals that the social networks can explain the performance outcomes of internationalization. Social networks can provide unique value and opportunities arising from the transmission of information and knowledge through social connections with others.</td>
</tr>
</tbody>
</table>
In the following subsections, we summarize the current literature on BG firms. We find that the main topics in the BG literature are the following: (1) the characteristics of BG firms; (2) the stages of BG firms; (3) factors related to BG and the internationalization process; (4) different approaches to explaining BG firms; and finally (5) BG firms and their performance.

2.2.1.1 Characteristics of born globals
With the introduction of the idea of the BG firm, some researchers consider that the traditional models of internationalization processes have become more or less obsolete. These firms, which begin to internationalize early in their evolution, are now found in large numbers in most economies, especially in smaller, saturated, and developed markets (Knudsen & Madsen 2002; Wong & Merrilees, 2012). A canvassing of the growing body of literature on BG suggests that three features dominate the existing thinking; these are summarized in Table 4.

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>Description</th>
<th>References</th>
</tr>
</thead>
<tbody>
<tr>
<td>Time</td>
<td>Operating in international markets during the three first years of operation</td>
<td>Oviatt and McDougall, 1994; Luostarinen and Gabrielsson, 2004.</td>
</tr>
<tr>
<td>Export percent</td>
<td>Around of 25% of sales in foreign markets</td>
<td>Knight and Cavusgil, 1996; Knight, 1997; Servais et al., 2007</td>
</tr>
<tr>
<td>Size</td>
<td>Small and medium size</td>
<td>Rennie, 1993; Moen and Servais, 2002; Rialp et al., 2005.</td>
</tr>
</tbody>
</table>

When born global firms are compared to those firms following a gradual internationalization pattern, it is possible to observe some interesting differences. Table 5 shows the differences in eight attributes (Chetty & Campell-Hunt, 2004). One important characteristic of BG firms is the rapid pace of internationalization and the relevant use of information and communication technology. In contrast, for firms following a gradual internationalization pattern, the use of information and communication technology is not central to internationalization, and the evolution of the capabilities of the firm can be traced by looking at the international stage on which they are found.
Table 5 Differences between traditional and born-Global firms (Adapted from Chetty and Campbell-Hunt, 2004)

<table>
<thead>
<tr>
<th>International attributes</th>
<th>Traditional firms</th>
<th>BG firms</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Home market</td>
<td>Developed first</td>
<td>Irrelevant</td>
</tr>
<tr>
<td>2. Prior international experience</td>
<td>None expected</td>
<td>Founder with experience</td>
</tr>
<tr>
<td>3. Extent of internationalization</td>
<td>Serially</td>
<td>Many at the same time</td>
</tr>
<tr>
<td>4. Pace of internationalization</td>
<td>Gradual</td>
<td>Rapid</td>
</tr>
<tr>
<td>5. Psychic distance</td>
<td>Important</td>
<td>Irrelevant</td>
</tr>
<tr>
<td>6. Use of information and communications technology</td>
<td>Not central to internationalization</td>
<td>Important</td>
</tr>
<tr>
<td>7. Networks of business Partners</td>
<td>Gradually</td>
<td>Rapid</td>
</tr>
<tr>
<td>8. Time to internationalize</td>
<td>Slow</td>
<td>Rapid</td>
</tr>
</tbody>
</table>

Chetty and Campbell-Hunt also believe that the logic of psychic distance continues to apply to firms that can be classified as BG firms. Regarding networks, Chetty and Campbell-Hunt (2004) believe that “the key difference between born-global and traditional views of the use of networks in internationalization is not in their use, which is common to both models, but in the rapidity and scope of the networks developed by the born-global firm” (p.75).

Seminal studies in BG firms conclude that these companies not only respond to the globalization of markets, but also act proactively when opportunities appear for acquiring resources and selling products in any place in the world (Oviatt & McDougall, 1997). The authors further argue that three different sources of competition could be possible in early internationalization: (1) international grassroots asymmetries of resources; (2) advantages derived from knowledge of the regeneration of international operations; and (3) the effect of the dynamic skills of early internationalization (Oviatt & McDougall, 1994).

2.2.1.2 The stages of born globals

The BG phenomenon has attracted so much scholarly interest because the very rapid outward internationalization of these firms seems to challenge the traditional stages of the internationalization process previously presented by the Uppsala School.

Johanson and Wiedersheim (1975), using a case study methodology, examined four Swedish firms that had expanded into the international market. They observed that the internationalization of these firms presented the following characteristics:
1. No steady state activity
2. Export via manufacturer’s agents
3. Sales offices abroad
4. International production

The Uppsala model has been considered as a gradual development process, but now recent studies have identified firms that do not adopt a gradual and incremental approach but instead exhibit a rapid internationalization and high market commitment soon after inception (Knight & Cavusgil, 2004; Knudsen & Madsen, 2002). For this reason, some researchers consider that the “existing models of the internationalization process have not captured the important phenomenon of accelerated international growth of BG firms” (Freeman et al., 2010, p.70).

Luostarinen and Gabrielsson (2006), in their study of 89 Finnish firms, argue that BG firms present three preliminary stages: research and development, domestic phase, and foreign market entry. They also identify four major stages: starting, development, growth, and maturity. They establish that mature BG firms pass rapidly through the formal internationalization stages and even more quickly through other stages.

2.2.1.3 Factors related to born globals and their internationalization
Distinct elements have been considered to increase the speed of a company's internationalization process. Rialp et al. (2005) indicated different factors facilitating the expansion of BG firms. These factors include: (1) a manager or founders who have a global vision and international business experience; (2) a manager with a high level of global knowledge; (3) a loyal managerial commitment; (4) broad personal business networks; (5) wide knowledge of, and commitment to, markets; (6) unique intangible assets within the company for knowledge management; (7) the generation of high value offerings of leading technology products with an emphasis on high quality; (8) a focus on a global niche strategy that extends to markets in numerous countries; (9) the important role of customer orientation and close customer relationships; and (10) the flexibility to adapt to rapidly changing external conditions and circumstances especially in foreign markets.

Moreover, the existing literature has identified numerous factors influencing the internationalization process of BG firms. Among these it is possible to highlight market
knowledge, financial conditions, innovation and technology, and, finally, the role of the
manager.

Regarding market knowledge, if a business tends to treat the knowledge of the external
market as an important, this can be used to develop the internationalization process of
the BG at a faster pace. Furthermore, actively seeking knowledge about international
markets, potential customers and competitors, and solving issues of operations across
national borders, allows firms to improve their ability to learn and to obtain a greater
entrepreneurial orientation (Knight et al., 2004; Rialp et al., 2005; Shook et al., 2003).

However, we cannot forget that BG firms often face limited financial resources for
funding and supporting the needs of their fast growth. These companies can choose to
strengthen their internal resources or to cooperate with external partners (Luostarinen &
Gabrielsson, 2004). To strengthen the financial resources by looking to external partners
such as business angels, venture capitalists, and strategic investors with experience in
specific sectors, has been shown to have positive effects in many cases (Gabrielsson &
Kirpalani, 2004). The managers of BG firms select financial aides whose philosophy
coincides with the vision and strategies of the company, to avoid negative consequences
(Kocak & Abimbola, 2009).

One factor that is recognized in the specific literature to affect the internationalization
process of BG firms is their level of innovation and technology development.
Innovative companies develop their own knowledge and capacities, and this constitutes
a source of competitive advantage. Younger companies are more flexible, less
bureaucratic, and, in general, benefit from the internal conditions that boost innovation
(Knight & Cavusgil, 2004). BG firms have shown that operating in dynamic markets,
where market conditions change rapidly, forces them to learn to adapt themselves
quickly to new market conditions abroad and, as a consequence, forces them to innovate
(Freeman et al., 2006; Zhang & Dodgson, 2007; Zhara, et al., 2000).

Finally, many managers and founders of BG companies have earned international
experience and competence during their previous working experiences (Moen, 2002).
Some of the BG managers that have influence in the rapid internationalization process
use their international work experience, foreign language skills, international education,
and their understanding of letters of credit, exchange rate risks and communication and
cultural difficulties. All of these have been recognized by the literature as requirements for successful expansions to foreign markets (Madsen & Servais, 1997; Oviatt & McDougall, 1995; Reuber & Fisher, 2002).

### 2.2.1.4 Different approaches to explaining born globals

The process of the internationalization of businesses has been described previously by the Uppsala model, which suggests that firms follow a gradual process in their internationalization (Johanson & Wiedersheim, 1975). Recent studies have considered the existing models of the early internationalization process. The studies have focused on explaining the phenomenon, from different viewpoints. In fact, according to our literature analysis, there are at least six salient approaches relating to BG firms (see Table 6). For this reason, some authors have considered the influence of dynamic capabilities on internationalization in BG firms (Weerawardena et al., 2007). Some studies have incorporated the “knowledge-based view”, which involves the combination of the acquisition of knowledge and the commitment of resources (Grant, 1996).

<table>
<thead>
<tr>
<th>Approaches</th>
<th>Reference</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dynamic Capabilities</td>
<td>Knight and Cavusgil (2004); Knudsen and Madsen (2002); Weerawardena et al. (2007).</td>
</tr>
<tr>
<td>Knowledge-Based view</td>
<td>Autio et al. (2000); Freeman et al. (2010); Knight and Cavusgil (2004); Nordman and Melén (2008).</td>
</tr>
<tr>
<td>Networks</td>
<td>Coviello (2006); Evers and Knight (2008); Freeman et al. (2006); Hadley and Wilson (2003); Mort and Weerawardena (2006); Sharma and Blomstermo (2003).</td>
</tr>
<tr>
<td>Strategies perspective</td>
<td>Gabrielsson (2005); Gabrielsson and Gabrielsson (2011); Jantunen et al. (2008); Luostarinen and Gabrielsson (2006); Rialp et al. (2010).</td>
</tr>
<tr>
<td>International Entrepreneurship</td>
<td>Andersson and Evangelista (2006); Fletcher (2004); Jones and Coviello (2005); Jones and Nummela (2008); Karra et al. (2008); Knight (2001); Kocak and Abimbola (2009); Mathews and Zander (2007); Zhou (2007).</td>
</tr>
</tbody>
</table>

According to Sharma and Blomstermo (2003), the internationalization process can depend on the networks in which the company operates. Likewise, according to Rialp et al. (2010), the BG phenomenon has become a subject of study in a wide variety of disciplines, and thereby there has been a combination of the approaches of schools in strategic management and international entrepreneurship. Karra et al. (2008) suggested
that the process of BG firms should be understood using the theory of the strategy-making process. Based on their studies on smaller BG firms, Chetty and Campbell-Hunt (2004) emphasized the importance of including the Resource-Based View to explain, more comprehensively, the non-path-dependent behavior of BG firms.

The phenomenon of BG firms presents a significant challenge for traditional theories of internationalization (Knight et al., 2004), because:

(i) The internationalization of the BG tends to happen after the establishment of the company;
(ii) The initial foreign sales will be aimed at numerous markets simultaneously, without involving progressive phases;
(iii) Target markets are, in some cases, an important physical distance from the home country;
(iv) The initial way of entering the foreign markets is not fixed: there are several routes, including exports, licenses, joint ventures, and direct foreign investment;
(v) Several of the companies studied show high levels of entrepreneurship in international activities and do not show risk aversion.

Nevertheless, although BG research is well developed, certain aspects remain fragmented and still lacking a comprehensive theoretical explanation (Knight & Cavusgil, 1996; Servais & Rasmussen, 2000). Although scholars have studied this field from different approaches, there is no unified “theory of BGs”. Rialp et al. (2005) emphasized the importance of developing theory, theoretical constructs and conceptual frameworks to interpret rapidly internationalizing firms better.

2.2.1.5 Born global firms and performance

The analysis of the literature also revealed that some emphasis has been placed on the export performance (Kocak & Abimbola, 2009), organizational performance (Liu & Fu, 2011), international performance (Jantunen et al., 2008; McDougall & Oviatt, 1996), and financial performance (Gleason & Wiggenhorn, 2007) of BG firms.

Despite the increase in BG studies, “the consequences of the changes for BG firms and their performance need more research” (Sharma & Blomstermo, 2003, p.750). In response to this concern, Pangarkar (2008) suggests examining the performance of
individual internationalization initiatives and trying to correlate this with the characteristics of the market. Other researchers have aimed to follow this idea by studying the relation between BGs’ performance and entrepreneurial marketing (Kocak & Abimbola, 2009).

2.2.2 Market orientation
This section examines the second topic of relevance for the current research: the concept of market orientation (MO). Our interest is to develop this concept in relation to companies that are facing serious academic and managerial challenges related to instant or rapid internationalization. We have detected, from the literature analysis performed, that the MO concept and its consequences have been considered a relevant topic for study by marketing academics since the 1990s. A key factor in this interest was the introduction of Market Orientation as a research line by the Marketing Science Institute. The importance of MO in marketing science has been recognized as being at “the heart of the theory and practice of marketing management and is believed to be the foundation for a firm’s competitive strategy” (Appiha-Adu & Ranchhod, 1998 p. 197).

The remainder of this section is structured as follows: first, a literature review on the concept of MO and its evolution is presented. Interestingly, although various research efforts have provided different conceptualizations for MO, most studies are based on Narver and Slater’s and Kohli and Jaworski’s conceptualizations (Green et al., 2015; Wren et al., 2000). Different views on MO (namely the cultural, behavioral and system-based perspectives) are presented (González & González, 2005; Helfert et al., 2002; Lafferty & Hult, 2001). Second, the measurement scales of MO are considered. The most widely used scales (MKTOR, developed by Narver and Slater (1990) and MARKOR, developed by Kohli et al. (1993)) are presented. Finally, the findings for the relationship between MO and performance are highlighted (Harris, 2001; He & Wei, 2011; Noble et al., 2002; Voss & Voss 2000).

2.2.2.1 The evolution of the concept of market orientation and the different perspectives
MO has been recognized as a successful business strategy by academics and practitioners. Until the end of 1990s, the concept of MO was connected to marketing philosophy; it was understood as an implementation of this philosophy, and the studies were focused on different determinants of its implementation (for instance, different
organizational factors). Horng and Chen (1998), for example, considered that the term MO is consistent with the implementation of a marketing concept. These authors explained the reasons for this: (1) intelligence generation (a requirement for MO) is the search for and collection of information from the marketplace, which should include consumer behavior and competitive actions; and (2) customer focus (an element of the marketing concept) should be consistent with intelligence generation and thus with MO.

Needless to say, different researchers have developed distinct definitions for MO. Ruekert (1992), for instance, considered that MO is the degree to which a business unit obtains and uses information from customers, develops a strategy that will discover customers’ needs, and implements that strategy by being responsive to customers’ requests and desires. Another definition was used by Shapiro (1998), who suggested that three features mark out a market-driven company: (1) information on all important buying influences and permeates every corporate function; (2) strategic and tactical decisions are interfunctional and interdivisional; and finally (3) divisions and functions create well-coordinated decisions that are executed with a sense of commitment.

However, two definitions dominate MO research (Noble et al., 2002): the definitions proposed by Narver and Slater (1990) and Kohli and Jaworski (1990). Narver and Slater (1990) define MO as a construct consisting of the three behavioral dimensions of customer orientation, interfunctional coordination and competitor orientation. The conceptualization of Kohli and Jaworski (1990) focuses more on MO as a process having three stages: intelligence generation, intelligence dissemination and responsiveness. Although the two concepts focus on different dimensions, they contain a similar view of the concept of MO (Haugland et al., 2007).

Mavondo and Farrell (2000) presented a combination of these two definitions. In fact they developed three main intersections between the two, considered to be the main definitions for MO, which are that:

1. Both focus on the central role of the customer in the manifestation of MO.
2. Both include an external orientation.
3. Both recognize the importance of being responsive to customers at an organizational level.
On the basis of the two main concepts of MO, different contributions have emerged in the literature to extend and adapt this concept to different contexts and different perspectives. Three main perspectives on MO have been identified: the behavioral perspective (Kohli & Jaworski, 1990), the cultural perspective (Narver & Slater, 1990) and the system-based perspective (Becker & Homburg, 1999) (see figure 3).

**Figure 3 Diverse perspectives of Market Orientation (Adapted from Becker, and Homburg, 1999)**

<table>
<thead>
<tr>
<th>Perspective</th>
<th>Components</th>
</tr>
</thead>
</table>
| System-based perspective (Becker and Homburg, 1999) | - Market-oriented organization system  
- Marked-oriented information system  
- Market-oriented planning system  
- Market-oriented controlling system  
- Market-oriented HR mgt system |
| Behavioral perspective (Kohli and Jaworski, 1990) | - Market intelligence generation  
- Market intelligence dissemination  
- Market intelligence responsiveness |
| Cultural perspective (Narver and Slater, 1990) | - Customer orientation  
- Competitor orientation  
- Inter-functional coordination |

The behavioral perspective was introduced by Kohli and Jaworski (1990). According to these authors, the marketing concept is a business philosophy, whereas the term market orientation refers to the actual “implementation of the marketing concept” (Kohli & Jaworski, 1990, p.1). Thus, the different departments in a company have to engage in a set of activities to meet the current and future needs of the customer, identified from the knowledge generated by marketing intelligence. This knowledge has to be shared across departments. Finally, there has to be organization-wide responsiveness to generate the products/service that meets the needs of the customers.

A different perspective was offered by Narver and Slater (1990), who defined MO in relation to the organizational culture. MO is conceptualized in terms of the values and attitudes of the organization that work towards providing superior customer value. For Narver and Slater, “MO is the organizational culture that most effectively and
efficiently creates the necessary behaviors for the creation of superior value for buyers” (Narver & Slater, 1990, p.21). They believed that MO is composed of the following three components: customer orientation, competitor orientation and interfunctional coordination.

Apart from these three components, they also discussed two criteria to be met if firms are to achieve MO. They referred to the first one as long-term focus, which is necessary in order to implement the components of MO and to generate profits; and the second one as profitability, which can be measured with a high degree of fidelity. Narver and Slater (1990) showed that being market-oriented is the basis for creating superior value for the buyer.

Becker and Homburg (1999) developed the third perspective of MO. They considered a system-based perspective that is concerned with “how the redesign of organizational structures can lead to an increased market orientation” (p.24). They studied how different management systems can be designed to promote MO. The management system is divided into five subsystems, namely the organizational, information, planning, controlling and human resources subsystems.

According to Becker and Homburg (1999), the organizational system requires the reduction of levels of hierarchy in order to force the top executives to develop closer contact with customers’ needs. On the other hand, fewer decision-making levels will allow fast problem solving. The second requirement for being market-oriented is the possession of an information system that captures exact data about customers and competitors. Planning is the third subsystem, and should be based on establishing specific targets that are relevant for increasing customer satisfaction and developing durable competitive advantage. Fourth, the controlling system allows managers to control internal and market-related figures, and compare current performance with targets. Fifth, the human resource management system offers a large range of opportunities to implement market orientation, ranging from the recruitment process to the incentive structure (Becker & Homburg, 1999).

Despite the widespread acceptance of the three perspectives of MO (the cultural, system-based and behavioral perspectives (Becker & Homburg, 1999; Helfert et al., 2002)), a review of the literature demonstrates that the two predominant visions are the
cultural perspective and the behavioral one (Carr & Lopez, 2007; Elg, 2003; McClure, 2010; Sorensen, 2009). However, these two views have developed a conceptual and operational overlap. Elg (2003) suggested that “the two dominant approaches to MO are similar in that both highlight the organization's capability to follow the marketing concept, and stress the impact of market information within the organization” (p. 108).

However, some criticisms of the behavioral and cultural perspectives have also been detected. For instance, Avlonitis and Gounaris (1997) have shown that a dissociation between the cultural and the behavioral approaches should be avoided. In contrast, McClure (2010) found that the behavioral and the cultural perspectives arrive at a fairly unified concept in independent ways.

The importance of the three perspectives for MO that have been mentioned is that they give a central classification in contemporary marketing literature. However, the focus of this literature, in terms both of theory and the unit of empirical observation, is the seminal contributions on MO by Narver and Slater (1990) and Jaworski and Kohli (1990).

2.2.2.2 The measurement of market orientation

The literature on MO argues that the two dominant measures of MO are the MKTOR measure of Narver and Slater (1990) and the MARKOR scale (e.g. Jaworski & Kohli, 1993; Liao et al., 2011; Sin et al., 2005). It is crucial for this research to remark that these two original measures were created and developed to be used in domestic environments. The majority of research into MO examines its determinants and its impacts in a United States domestic setting. Chan and Ellis (1998) observed that the strongest MO effects were typically found in the USA. Other positive results have been recorded in a variety of non-US settings including Australia (Farrell, 2000), Spain (Lado et al., 1998) and Ireland (O’Sullivan & Butler, 2009), among others.

Other studies have examined different samples with the MKTOR and MARKOR instruments (Moorman & Rust, 1999). This study considers these two measures, which are the most prominent and which could be the basis for measuring the extended MO concept for BG firms. Therefore, we consider it relevant to present both scales in detail.
2.2.2.2.1 MKTOR

The first empirical and validated MO measure was developed by Narver and Slater (1990). As we have mentioned before, the scale is composed of three elements: customer orientation, competitor orientation and interfunctional coordination. Table 7 presents the definitions of these three constructs.

Table 7 Description of MKTOR (Adapted from Narver and Slater (1990))

<table>
<thead>
<tr>
<th>Constructs</th>
<th>Definition</th>
<th>Items</th>
</tr>
</thead>
<tbody>
<tr>
<td>Customer orientation</td>
<td>Refers to “the sufficient understanding of one’s target buyer to be able to create superior value for them continuously” (Narver &amp; Slater, 1990, p.21)</td>
<td>6</td>
</tr>
<tr>
<td>Competitor orientation</td>
<td>Defined as “that a seller understand the short-term strengths and weaknesses and long term capabilities and strategies of both the key current and they potential competitors” (Narver &amp; Slater, 1990, p.21 and 22)</td>
<td>5</td>
</tr>
<tr>
<td>Interfunctional Coordination</td>
<td>Refers to “the coordinated utilization of company resources in creating superior value for target customers” (Narver &amp; Slater, 1990, p.22).</td>
<td>3</td>
</tr>
</tbody>
</table>

As Table 7 illustrates, a number of items are considered for capturing each construct. Table 8 shows that the MKTOR scale consists of a set of 14 key indicators of MO that cover the three underlying dimensions mentioned above.

Table 8 MKTOR scale (Adapter from Narver and Slater 1990, p.24)

<table>
<thead>
<tr>
<th>Construct and Items</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Customer orientation</strong></td>
</tr>
<tr>
<td>1. Our business objectives are driven by customer satisfaction.</td>
</tr>
<tr>
<td>2. We monitor our level of commitment and orientation to serving customers’ needs.</td>
</tr>
<tr>
<td>3. Our strategy for competitive advantage is based on our understanding of customer needs.</td>
</tr>
<tr>
<td>4. Our business strategies are driven by our beliefs about how we can create greater value for customers.</td>
</tr>
<tr>
<td>5. We measure customer satisfaction systematically and frequently.</td>
</tr>
<tr>
<td>6. We give close attention to after-sales service.</td>
</tr>
<tr>
<td><strong>Competitor orientation</strong></td>
</tr>
<tr>
<td>7. Our salespeople share information within our business concerning competitors' strategies.</td>
</tr>
<tr>
<td>8. We respond to competitive actions that threaten us.</td>
</tr>
<tr>
<td>9. We target customers and customer groups where we have, or can develop, a competitive advantage.</td>
</tr>
<tr>
<td>10. The top management team regularly discusses competitors' strengths and strategies.</td>
</tr>
<tr>
<td>11. Our top managers from every function visit our current and prospective customers.</td>
</tr>
<tr>
<td><strong>Interfunctional coordination</strong></td>
</tr>
<tr>
<td>12. We communicate information about our successful and unsuccessful customer experiences across all business functions.</td>
</tr>
<tr>
<td>13. All of our business functions (e.g. marketing/sales, manufacturing, R&amp;D, inane/accounting, etc.) are integrated in serving the needs of our target markets.</td>
</tr>
<tr>
<td>14. All of our managers understand how everyone in our company can contribute to creating customer value.</td>
</tr>
</tbody>
</table>
These indicators have been analyzed in different contexts (Day, 1994; Deshpandé et al., 1993; Roersen et al., 2013; Zhang et al., 2015). Sin et al. (2005), for example, employed the MKTOR scale to evaluate Chinese and Hong Kong firms, and Hooley et al. (2000) investigated the reliability and validity of the MO construction in the different economies and business environments of Central Europe.

In spite of this, the scale for measuring MO has not been free of criticism. For example, Lado et al. (1998) considered that the scale created by Narver and Slater had an important methodical problem: the assignment of items is only done by taking into account theoretical positions. The acceptance and use of this measure in the academic sphere has been broad and constant (Appiha-Adu & Ranchhod, 1998; Hult & Ketchen, 2001; Hou & Lv, 2013; Siguaw et al., 1994).

2.2.2.2 MARKOR
Based on Kohli and Jaworski’s (1990) concept of MO, Kohli et al. (1993) developed the MO scale called MARKOR. A brief definition of each construct of MARKOR (intelligence generation, intelligence dissemination and responsiveness) is outlined in Table 9. Generally speaking, the MARKOR scale (Kohli et al., 1993) assesses the degree to which a strategic business unit engages in departmental market intelligence generation, disseminates this intelligence vertically and horizontally through formal and informal channels, and develops and implements marketing programs.

<table>
<thead>
<tr>
<th>Constructs</th>
<th>Definition</th>
<th>Items</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intelligence generation</td>
<td>Refers to “generated through a variety of formal as well as informal means and may involve collecting primary data or consulting secondary sources” (Kohli and Jaworski, 1990, P.4)</td>
<td>6</td>
</tr>
<tr>
<td>Intelligence dissemination</td>
<td>Refers to “not only informal hall talk is an extremely important tool for keeping employees tuned to customers and their need… should be encouraged to coordinate people both within and between departments” (Kohli and Jaworski, 1990, P.5).</td>
<td>5</td>
</tr>
<tr>
<td>Responsiveness</td>
<td>Defined as “the action taken in response to intelligence that is generated and disseminated throughout the organization. (Kohli and Jaworski, 1990, P.5)</td>
<td>9</td>
</tr>
</tbody>
</table>

Originally the scale was based on 32 items (ten belonging to market intelligence, eight to intelligence dissemination and finally fourteen to responsiveness, see Jaworski & Kohli, 1993) but these were reduced during the development research to 20 items (see Table 10). The reduction is a consequence of applying data from multi-informant
samples to diverse components such as intelligence factors, dissemination and responsiveness factors, at one time.

Table 10 The MARKOR Scale (Adapted from Kohli et al. 1993, p. 476)

<table>
<thead>
<tr>
<th>Construct and Items</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Intelligence generation</strong></td>
<td>1. In this organization, we meet with customers at least once a year to find out what products or services they will need in the future.</td>
</tr>
<tr>
<td></td>
<td>2. In this organization, we do a lot of in-house market research.</td>
</tr>
<tr>
<td></td>
<td>3. We are slow to detect changes in our customers' product references.</td>
</tr>
<tr>
<td></td>
<td>4. We survey end users at least once a year to assess the quality of our products and services.</td>
</tr>
<tr>
<td></td>
<td>5. We are slow to detect fundamental shifts in our industry (e.g. competition, technology, regulation).</td>
</tr>
<tr>
<td></td>
<td>6. We periodically review the likely effect of changes in our business environment (e.g. regulation) on customers.</td>
</tr>
<tr>
<td><strong>Intelligence dissemination</strong></td>
<td>1. We have interdepartmental meetings at least once a quarter to discuss market trends and developments.</td>
</tr>
<tr>
<td></td>
<td>2. Marketing personnel in our organization spend time discussing customers’ future needs with other functional departments.</td>
</tr>
<tr>
<td></td>
<td>3. When something important happens to a major customer of market, the whole department or organization knows about it within a short period.</td>
</tr>
<tr>
<td></td>
<td>4. Data on customer satisfaction are disseminated at all levels in this organization on a regular basis.</td>
</tr>
<tr>
<td></td>
<td>5. When one department finds out something important about competitors, it is slow to alert other departments.</td>
</tr>
<tr>
<td><strong>Organizational Responsiveness</strong></td>
<td>1. It takes us forever to decide how to respond to our competitor's price changes.</td>
</tr>
<tr>
<td></td>
<td>2. For one reason or another we tend to ignore changes in our customer's product or service needs.</td>
</tr>
<tr>
<td></td>
<td>3. We periodically review our product development efforts to ensure that they are in line with what customers want.</td>
</tr>
<tr>
<td></td>
<td>4. Several departments get together periodically to plan a response to changes taking place in our business environment.</td>
</tr>
<tr>
<td></td>
<td>5. If a major competitor were to launch an intensive campaign targeted at our customers, we would implement a response immediately.</td>
</tr>
<tr>
<td></td>
<td>6. The activities of the different departments in this business are well coordinated.</td>
</tr>
<tr>
<td></td>
<td>7. Customer complaints fall on deaf ears in this organization.</td>
</tr>
<tr>
<td></td>
<td>8. Even if we came up with a great marketing plan, we probably would not be able to implement it in a timely fashion.</td>
</tr>
<tr>
<td></td>
<td>9. When we find that customers would like us to modify a product or service, the departments involved make concerted efforts to do so.</td>
</tr>
</tbody>
</table>

Within the MO literature, the importance of the MARKOR scale has also been recognized in different contexts (Selnes et al., 1996), in research focused on marketing channels (Harris, 2000) and internal marketing (Lings & Greenley, 2010) and in the evaluation of the positive role of MO for the firm (Chang & Chen, 1998; Vorhies, et al., 1999). For example, Kara et al. (2005) employed the MARKOR scale in order to investigate the influences of MO in small-sized service retailers. Based on a qualitative
study the scale was used to determine the dimensions of a market-oriented organization. The findings detected by these authors suggest that the MARKOR scale provided a good measure of MO in this setting. Likewise, building on the MARKOR scale, Hoe and McShane (2010) observed how informal knowledge acquisition and informal knowledge dissemination increase with the level of shared vision.

As we mentioned before, the marketing literature provides numerous papers that examine the two measures of the MO construct, MARKOR and MKTOR. Table 11 provides an overview of prior studies on the constructs of MO. Two eligibility criteria were included in the papers listed in Table 11. First, they had to measure MO using items inspired by either MARKOR or MKTOR. Second, the studies had to have been conducted and published between 1993 and 2011. A systematic search of the Thomson Reuters Web of Science (formerly ISI Web of Knowledge), and the ABI/Inform databases was conducted using the following keywords: MKTOR and MARKOR. Based on the citation range (≥10), a final sample of 13 studies was selected, and these contained sufficient information for our analysis. However, this review is intended as a current overview of the application of MO scales and not as a review of the entire population of works. Quantitative works dominate the literature, although conceptual studies and literature reviews are also reasonably well represented.
Table 11 The two main measurement of Market Orientation: different studies focus on the MARKOR and MKTOR

<table>
<thead>
<tr>
<th>Author (s)</th>
<th>Scale</th>
<th>Country</th>
<th>Sample</th>
<th>Methodology</th>
<th>Data collecting and analysis technique</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ellis (2006)</td>
<td>MARKOR</td>
<td>Multi-country</td>
<td>56 papers</td>
<td>Literature review</td>
<td>A meta-analysis of studies investigating the link between MO-performance</td>
</tr>
<tr>
<td>Farrell, and Oczkowski (2002)</td>
<td>MKTOR</td>
<td>Australia</td>
<td>340 firms</td>
<td>Quantitative</td>
<td>Key informant technique, data analyzed by regression, two-stage least squares estimations.</td>
</tr>
<tr>
<td>Harris (2002)</td>
<td>MKTOR</td>
<td>UK</td>
<td>43 firms</td>
<td>Quantitative</td>
<td>Survey to test for inter-rater reliability, scale reliability, content validity, criterion-related validity and construct validity.</td>
</tr>
<tr>
<td>Macedo and Pinho (2006)</td>
<td>MARKOR</td>
<td>Portugal</td>
<td>392 firms</td>
<td>Quantitative and Qualitative</td>
<td>Data collecting by questionnaire, hypothesis testing by ANOVA and Student T-test.</td>
</tr>
<tr>
<td>Matsumo et al. (2000)</td>
<td>MARKOR</td>
<td>U.S.A.</td>
<td>1,334 firms</td>
<td>Quantitative</td>
<td>Following validation of questionnaire data by MANOVA and univariate F test, Structural Equation Model.</td>
</tr>
<tr>
<td>Racela et al. (2007)</td>
<td>MKTOR</td>
<td>Thailand</td>
<td>388 firms</td>
<td>Quantitative</td>
<td>Using mail survey, data analyzed by Structural Equation modeling.</td>
</tr>
</tbody>
</table>
From the papers that report results’ using the existing scales (see Table 11), it is difficult to justify the selection of either MARKOR or MKTOR for studying the MO of BG firms. Gauzente (1999) argued that the use of one scale or the other will show a specific theoretical orientation, with MARKOR more centered on the organizational aspects of MO and MKTOR on the customer dimension. A meta-analysis by Ellis (2006) aggregating empirical evidence from the extensive MO literature concluded that the MKTOR has a strong nomological relationship with customer value. By contrast, “MARKOR is more narrowly defined in terms of intelligence gathering and disseminating activities, activities that may be less well linked with performance” (p. 1098).

Likewise, both scales have been tested with various adaptations and reductions in items. The main achievements have been synthesized in the study presented by Farrell and Oczkowski (1997). In fact, from their research these authors suggested that an eight-item MKTOR measure produces a better fit of the model, while they prefer the MARKOR measure with ten items because it allows a balance between the various sub-constructs.

### 2.2.2.3 Examining the impact of market orientation on firms’ performance

Many scholars have demonstrated a link between a higher MO level and better performance (Hooley et al., 2003; Jaworski & Kohli, 1993; Narver & Slater, 1990). Moreover, they have identified several variables that influence the effects of MO on performance. These variables included relative size, relative cost, ease of entry, supplier power, buyer power, market growth, competitive intensity, market turbulence, and technological turbulence.

Marketing academics suggest that the two main classical and empirical works explain the relationship between MO and performance. Thus, Kohli and Jaworski (1990) offered a theoretical foundation for the probability that this orientation should lead to higher firm performance. Jaworski and Kohli (1993, p.64) stated that “managers should strive to improve the market orientation of their businesses in their efforts to attain higher business performance”. Narver and Slater (1990) provided the first empirical evidence linking MO and profitability in the strategic business units of a large firm. Since these empirical papers were published, a large body of studies has appeared that show the positive effect of MO on business performance. However
Haugland et al. (2007) confirm that “most empirical studies testing the MO-performance link utilize the MKTOR” (p. 1193).

In general, empirical studies in this field show that MO has a positive impact on organizational performance. For instance, controlling by size of firm, the evidence presented by Pelham (2000) establishes a positive association between MO and performance; Pelham also analyzed the effect on the growth strategy of the firms. He also considered that MO is one of several ingredients of success for small firms.

In sum, using Narver and Slater’s (1990) and/or Kohli et al.’s (1993) scales, many empirical studies have tested the MO–performance link. However, to the best of our knowledge, the impact of MO on BG firms’ performance has not yet been addressed. Our review of MO and the international new ventures literature shows an absence of theoretical and empirical work extending MO research to the quickly internationalizing firms, although some authors recognize its relevance. Only a relatively small number of empirical works have expanded MO research to include international new ventures (INVs) and BG firms (Wood et al., 2011; Ripollés et al., 2012). For instance, Ripollés et al. (2012) highlighted the influence of the international learning effort of INVs through their international MO. Other studies address the role of MO as a strategy that influences the success of INVs when combined with entrepreneurial orientation and learning orientation (Frishammar & Andersson 2009; Ruokonen & Saarenketo 2009; Ripollés et al., 2012). Although past studies have made significant progress toward understanding MO in early internationalizing firms, conceptual and measurement issues for BG firms require further exploration (Blesa et al., 2008). As Knight and Cavusgil (2004) point out, MO may be especially important in the performance of BG firms.

2.2.2.4 Market orientation in the context of international firms, and its impact on performance

The role of MO in the international business environment was initially explored by the seminal research of Cadogan et al. (1999), drawing on traditional exporter firms; these authors developed a measurement scale called “export market orientation” (EMO). This scale was based on the MARKOR items and adapted to the export context by adding three constructs: export intelligence generation, export intelligence dissemination and export intelligence responsiveness. The EMO scale has been empirically tested on exporter firms (Cadogan, et al., 2001; Cadogan et
al., 2002; Cadogan et al., 2003; Ju, et al., 2011; Chung, 2012; Nagy & Beracs, 2012; Boso et al., 2013).

However, other researchers who have been focused on traditional exporter firms (e.g. He & Wei, 2011; Küster & Vila, 2011) and other types of firm (which have been called new entrepreneurial ventures, new exporter ventures, small software firms, smaller firms with international activity and exporter ventures) have been studying the influence of MO in an international context based on the original MARKOR or MKTOR scales (Balas et al., 2012; Brettel et al., 2009; Dimitratos et al., 2012; Evers, 2011; He & Wei, 2011; Ruokonen et al., 2008).

Although a growing body of literature has attempted to explain the role of MO in BG firms/INVs, research in this area has been scarce. As pointed out by Kirpalani and Gabrielsson (2012), “it is important that many more studies be done on the effect of enhanced MO in many different markets and on the many different products/services that BGs and other categories of SMEs have” (p.122).

In order to identify the intellectual voids and confirm the research gaps, we reviewed the literature on MO in the context of BG firms/INVs, utilizing a keyword search of available online journal databases: Thomson Reuters Web of Science (formerly ISI Web of Knowledge), and Scopus. We searched with the major keywords phrase, “market orientation and born global firms/ international new ventures ” on December 4, 2014 to provide an overview mainly of the methodologies and scales that had been used (e.g. EMO, MKTOR or MARKOR) and whether the researchers analyzed the impact of MO on performance.

After introducing the keywords, we had approximately one hundred articles. The full text of each article was reviewed to eliminate those articles that were not related to MO linked with BG firms/INVs. The selection criteria were as follows:

(1) Only those articles that had been published in the research areas: business economics or business, management and accounting were selected, as these were the most appropriate outlets for research into MO and BG firms/INVs (Li & Cavusgil, 1995).

(2) We chose articles that were focused only on BG firms/INVs and analyzed MO.
(3) Articles about other types of firms such as SMEs, multinational companies, domestic joint ventures, new ventures, etc. were ignored.

(4) Articles that were only focused on other orientations, like entrepreneurial orientation, learning orientation or marketing orientation, were ignored.

After filtering these original articles, we selected five pieces of research that took into account the impact of MO on INVs and BG firms (Table 12) and that had been published within the previous five years (2009 to 2014). In spite of the relevance of MO in the context of international markets Dong et al. (2013) say that “MO has been advocated and recognized as one of the most important strategic orientations in international markets” (p. 591), the amount of MO research in the context of firms that have undergone early internationalization has been small. A similar result was found by Cadogan (2012), who performed an extensive review of MO research over 20 years. He found around 800 papers and confirmed the positive performance outcomes, but stated that research with internationalizing firms had been limited.

MO plays a vital role in the internationalization of firms (Dong et al., 2013). Previous studies refer to MO as strategic orientation (Odorici & Presutti, 2013) and organizational capability (Kocak & Ambibola, 2009), and as an element of the international entrepreneurship culture (Gabrielsson et al., 2014). Many studies (e.g. Liao et al., 2011) have treated MO as a composite construct and explored its relationship with other variables. In a similar vein, the five studies in our review analyzed MO by looking at it in combination with other strategies, mostly with entrepreneurial orientation (e.g. Gabrielsson et al., 2014; Kocak & Ambibola 2009; Odorici & Presutti, 2013). Thus we observed that none of these studies modeled the individual components of MO and investigated their impact on performance.

As can be seen in Table 12, the methodology selected in the studies was mainly case studies. For instance, Arpa et al. (2012), based on the perceptions of the owners/managers of four BG firms from Ireland, proposed a theoretical model that combines the internationalization and orientation approaches (entrepreneurial/ market orientations). Kocak and Abimbola (2009) conducted a multi-case analysis with five BG firms, and found that entrepreneurial capital, entrepreneurial/ market orientation and innovation were the main sources of positive performance for BG firms. In spite of the predominance of the qualitative studies, only the research of
Ripollés et al. (2012) used quantitative methodology based on structural equation modeling in order to test how early international entry, entrepreneurial orientation and international market orientation influence the entry mode to foreign markets. The results highlighted that MO is a key element of a firm’s choice of entry mode, involving a higher commitment of resources.

Many of the studies do not mention the scale of MO that is employed – only two of them refer to this. Gabrielsson et al. (2014) adopted the MKTOR scale as an element of the scale measuring international entrepreneurial culture (IEC). The study indicated that IEC positively affects the early growth of INVs. Ripolles et al. (2012) measured the degree of MO, based on MKTOR and MARKOR, of INVs in the international market.

In general, the literature on MO has established that it has a positive effect on business performance (Kirca et al., 2005). As we can see in Table 12, of these five articles, only one examined the impact of MO on performance. In the qualitative exploration, Kocak and Ambibola (2009) refers to the positive effect of MO on performance. Indeed, given the level of attention that the link between MO and performance receives in the literature, the other four articles did not consider it to be within their objectives to study this relationship. These studies call for research exploring the effects of MO on performance of INVs/BG firms (e.g. Gabrielsson et al., 2014; Hallbéck & Gabrielsson, 2013; Odorici & Presutti, 2013).
Table 12 Empirical studies of born global firms/international new ventures and market orientation

<table>
<thead>
<tr>
<th>Author name (year)</th>
<th>Firm</th>
<th>Methodology</th>
<th>Dimensions</th>
<th>Country of origin</th>
<th>Sector of the firms</th>
<th>Sample size</th>
<th>Measurement scale of MO</th>
<th>Performance effect</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gabrielsson et al. 2014</td>
<td>INVs</td>
<td>Qualitative</td>
<td>International motivation, international innovativeness, international risk attitude, international market orientation and international learning Orientation</td>
<td>Finland</td>
<td>Industrial</td>
<td>4</td>
<td>MKTOR</td>
<td>Not include</td>
</tr>
<tr>
<td>Hallbäck and Gabrielsson, (2013)</td>
<td>INVs</td>
<td>Qualitative</td>
<td>Marketing strategies, market orientation</td>
<td>Finland</td>
<td>Industrial</td>
<td>4</td>
<td>No specified</td>
<td>Not include</td>
</tr>
<tr>
<td>Kocak and Ambibola (2009)</td>
<td>BGs</td>
<td>Qualitative</td>
<td>Entrepreneurial capital, learning orientation, entrepreneurial orientation, market orientation, organizational structure and Innovation</td>
<td>Turkish</td>
<td>Industrial</td>
<td>5</td>
<td>No specified</td>
<td>Positive</td>
</tr>
<tr>
<td>Odorici and Presutti (2013)</td>
<td>BGs</td>
<td>Qualitative</td>
<td>Learning, market, and entrepreneurial orientations</td>
<td>Italy</td>
<td>Industrial</td>
<td>8</td>
<td>No specified</td>
<td>Not include</td>
</tr>
<tr>
<td>Ripolles et al. 2012.</td>
<td>INVs</td>
<td>Quantitative</td>
<td>Entrepreneurial orientation and market orientation</td>
<td>Spanish</td>
<td>Industrial, Service and others.</td>
<td>135</td>
<td>MARKOR and MKTOR</td>
<td>Not include</td>
</tr>
</tbody>
</table>
2.3 RESEARCH QUESTIONS

Taking into account the general conclusion of our literature review, the main research aim of this study is to enhance the comprehension of the impact of MO on BG firms’ performance.

The significance of MO as a phenomenon has fostered a steady stream of research in the marketing literature since the works of Kohli and Jaworski and Narver and Slater were published. However, the extant literature indicates that an area of research that continues to captivate the attention of scholars involves the validation of measurement scales (Oczkowski & Farrell, 1998; Schlosser & McNaughton, 2009; Siguaw & Diamantopoulos, 1994).

Therefore, our first step towards achieving our purpose is to validate the suitability of the traditional concept of MO, as well as the measurement scales for MO, for a specific type of firm: a firm that becomes international almost from inception. As we have seen, MO measurements have been designed in the context of the domestic market, and some modification of the items should perhaps be observed when the interest is in measuring the consequence of MO on the performance of firms that have undergone rapid internationalization.

This is translated into the specific research questions (RQ) for this research:

RQ1: Are the traditional MO concept and measurement scales adequate for BG firms?

RQ2: If they are not, how should they be modified? Is it necessary to extend the traditional concept of MO by considering other constructs? Should some item or items of the traditional scales be removed or other items be added and, if so, which item or items should these be?

RQ3: What is the impact of MO, or the impact of the extended MO concept, on the performance of BG firms?

2.4 METHODOLOGY

To explore, first of all, the adequacy of the traditional MO concept and the measurement scales for BG firms, and then to obtain an impression of the consequences of MO on the
performance of this type of firm, we believe that a qualitative methodology, and especially case study research, is convenient.

Autio et al. (2000) and Rialp et al. (2005) called for deeper case studies in order to move one step forward and try to do a more fine-grained analysis related to BG firms. Following these recommendations, this study will implement case studies for clarifying the MO concept for BG firms and for anticipating its effect on firms’ performance. According to Eisenhardt (1989, p.548), “case study research is likely to have important strengths like novelty, testability and empirical validity”.

This section is focused on presenting the methodology used in this research. First, we would like to emphasize some fundamental reasons for the selection of our research method; second, we will describe the different stages of this study; third, we will discuss the development of the process for the selection of firms, and finally, we will focus on the issues arising from the interviews, and their analysis.

2.4.1 Research method: Exploratory study

Exploratory study is appropriate when the interest is to obtain the first knowledge about an unexplored aspect that could also be a context-specific phenomenon. By employing a case study approach it is possible to obtain deeper information and understand the reasons why we observe the phenomenon under observation. In this case, the research method selected has to be able to tell us if the traditional concept of MO and the scales for measuring it are useful in the specific context of BG firms.

Yin (2003) considers the case study method to be appropriate for topics that are relatively new. Furthermore, the method can be used when the following distinctive features are present: (i) a contemporary phenomenon is to be examined and investigated in its actual environment; (ii) the boundaries between the phenomenon and its context are not clearly evident, (iii) multiple sources of data are considered, and(iv) a unique case or multiple cases could be considered. In this research we are going to use multiple cases (we will analyze five firms). Eisenhardt (1989) argues that the minimum number of study cases in the sample can be four: “if there is no ideal number of cases, a number between four and ten cases usually works well” (p. 545).

Despite all its challenges (it is time-consuming and laborious, it needs skilled interviewers, and general conclusions are not usually obtained), the results of choosing
case study research can be very useful. In fact, as we showed in the literature review section, an important part of the research about the BG phenomenon and MO has been developed with this methodology. Furthermore, this type of study has been considered necessary by different researchers in this field (Andriopoulos & Slater, 2013; Gabrielsson & Pelkonen, 2008; Rialp, et al., 2005).

2.4.2 Research design
According to Miles and Huberman (1994), the purpose of a research design is to obtain a complete comprehension of the context being studied. The case studies will be used to explain what the concept of MO should be for BG firms, and how it should be measured. Ghauri (2004) states that in international business research, “the case study method provides excellent opportunities for respondents and researchers to check their understanding and keep on asking questions until they obtain sufficient answers and interpretations” (p.111).

One of the traditional procedures for building the design of a study has been developed in the ladder of analytical abstraction (Miles & Huberman, 1994). This is used to guide the analysis process (figure 4) after a piece of data has been collected. In the following, the research design of this study are described: the data collection process, protocol development, and qualitative data analysis.

Figure 4 The Ladder of Analytical Abstraction (Miles & Huberman, 1994).
2.4.3 Data collection

Spain was chosen as the test site. This context has previously been adopted in the BG firms and MO literature. Regarding the early internationalization phenomenon, for example, some researchers have described and explained aspects of internationalization (Rialp & Rialp, 1996), others have compared the rapid internationalization process and the gradual one (Pla-Barber & Cobos, 2002), and others have analyzed export activity in Spanish firms (Alonso & Danoso, 2000; Valenzuela, 2000).

In studies focused on MO based on Spanish firms, different aspects have been tested; for instance Lado et al. (1998) developed an operational measure of MO that measures this theoretical construct as closely as possible. Based on the Inditex-Zara case, Mazaira et al. (2003) “examined the effects of organizational culture in general and MO on the behavior and results of managerial organizations” (p. 220). Accordingly, there is existing support in previous research for using the Spanish context, and in our case we will present empirical results from Spanish firms in order to answer our research questions.

The sample for the study was drawn from the “Sistema Anual de Balances Ibéricos” (SABI) database, which contains business accounts, ratios, activities, and shareholdings for 1,249,005 Spanish companies. Since we are only interested in studying BG firms, we first subtracted a sub-sample using the next three criteria:

1. Firms should be SMEs: according to the European Commission definition, the number of employees is considered when establishing the size of a firm: A) medium-sized:< 250, B) small: < 50 C) micro:< 10.
2. Firms should have started their international activity within three years after inception, if they are to be considered born global (Knight et al., 2004).
3. Firms must be exporting 25% of their sales (Knight & Cavusgil 1996; Knight, 1997; Madsen et al., 2000).

Under these three criteria, 231 firms were identified. As we mentioned before, we chose five of these companies. The case firms were chosen using a number of different characteristics, as suggested by Eisenhardt (1989), such as representing one of the three
categories of manufacturing company, service company or research organization, and having grown and survived during their international expansion. The firms were drawn from the low-tech and high-tech industry sectors. Firms from traditional industries such as design, decoration and medical instruments were included, as were one firm using advanced technology to develop telecommunication systems and another using information technology to provide advertising services. This sample thus enabled us to explore the phenomena of interest across industry sectors, which was recently identified as a desirable approach (Mort & Weerawardena, 2006; Kocak & Abimbola, 2009).

Between June and July 2010 we conducted interviews with the general manager and/or chief marketing officer in each business. We chose to conduct interviews with the managers that had been responsible for managing the firms’ internationalization processes and marketing activities. Consistent with the guidelines recommended by Gray (1997), which have been widely adopted (Ever & Knight, 2008; Sullivan-Mort & Weerawardena, 2006), the use of a single respondent enables the opinion of the key informant to be collected, in order to avoid data distortion, “due to the fact that for SMEs, the decision making competence on internationalization falls only on one person” (Casillas et al., 2010 p. 166).

The interviews ranged in time from 40 to 60 minutes. The interviews were recorded, and transcripts of our field notes and observations were kept. A database was created to maintain the prepared case study protocol. In addition to in-depth interviews, we utilized different sources to collect information about the firms (Yin, 2003).

2.4.4 Protocol development
Taking into account the main purpose of this research (to determine the usefulness of the traditional MO concept and the scales for measuring it for BG firms), the scales that were identified in the literature (the MARKOR and MKTOR scales) were used as starting point. We then developed the interview protocol. Respondents were asked about aspects regarding the international activity of their firms (the role of international operations, the international experience of the management and the percentage of international sales) and about how they evaluated the MO of their firms; finally, they

---

1 Although we acknowledge that use of the case study concept is not enough because we only conducted the in-deep interview with key managers of the company, following other scholars (e.g. Kocak & Abimbola, 2009; Odorici & Presutti, 2013; Sullivan-Mort et al., 2012) we will refer to case study within our qualitative analysis.
were asked to assess both scales (to check the suitability of each item). See the protocol in Appendix 2 (Spanish version) and Appendix 3 (English version).

2.4.5 Qualitative data analysis
Once the data were collected, the next step in the process was the qualitative data analysis (QDA). This process was carried out with the help of a well-known software application for text analysis (Muhr & Friese 2004). Computer aided qualitative analysis software (CAQDAS) has been developed for this exact purpose and is being used more frequently owing to the increasing popularity of qualitative methods as a whole. ATLAS.ti is a software program that is suitable for helping researchers to code, sort and analyze qualitative data. In this research, ATLAS.ti 6.1 computer software based on the grounded theory techniques (Strauss & Corbin 1990, 1994) was used for optimizing the QDA process.

ATLAS.ti is a powerful tool that supports the researcher in handling large amounts of data during the process of QDA. According to Muhr (2004), different types of data can be analyzed, including textual, graphical, audio, and video data. Within this software, various quotations, codes and memos can be respectively selected, assigned, or created, in the process of refining data from interviews. In general, the QDA in this research was addressed as follows:

A) Assigning documents: When we started the ATLAS.ti application, we were presented with the concept of a hermeneutic unit (HU). The HU contains all the entire primary documents (texts and sound files) for this project. Primary documents play a major role in the ATLAS.ti framework. They are the interface between the HU and the data.

B) Creating quotations and codes: We can select specific quotations and assign codes. A total of 33 codes were created. Some of them were “In-vivo” code (e.g. “propose items”, “technological competence”). The term “In-vivo” in this context stems from grounded theory, and draws the researchers’ attention to expressions used by the interviewees themselves. Other codes were created with “open coding”, which assigns the selected code to the current data segment. This is efficient for the consecutive coding of segments using the most recently used code, such as “MKTOR or MARKOR”. The 33 codes were later divided into four family codes that grouped together codes related to the same theme.
Creating networks: The relationships between the codes became clearer by creating networks and coding them after reading the whole text. ATLAS.ti uses networks to help represent and explore conceptual structures.

The use of ATLAS.ti allowed us to read the whole texts, create free quotations, and link them with codes in order to enrich our QDA. The findings that emerge from the QDA are presented and discussed in the next section.

2.5 FINDINGS

This section presents an analysis of the data obtained through the protocol implemented for obtaining information related to the MO of BG firms. It begins with a within analysis of our five cases, and then we discuss our cross-case analysis for answering our research questions.

As we have already mentioned, data and interview notes were coded by the author using the ATLAS.ti 6.1 software. This was done for each firm for a number of dimensions. This program makes it easier to identify the different statements that represent each dimension that is being studied, because in the left margin of the document you see the code words, and the corresponding statement is then marked. In the within analysis section the firms and their BG profiles were described. The cases were then classified according to the three dimensions that were deemed to be most important for exploring their MO. Finally, in this section, we present a comparison between the five cases studied.

2.5.1 Within analysis

As has already been established, the BG enterprises constitute the units of analysis. As we illustrate in Table 12, the protocol was answered by the CEO or the marketing manager of the company. They were requested to provide information to prove the BG profile of the firm, to give their views on the effect of MO on performance, to evaluate the usefulness of the traditional MO concept and the scales measuring the MO of a company in foreign markets, and, based on their experience and if they considered it necessary, to add another construct or constructs to the scale or to make any modifications in the current constructs and items for evaluating MO in this type of firm. Therefore, as a previous step and in order to investigate their international involvement,
it was necessary to obtain a characterization of the individual firms. We briefly describe each company below.

Table 13 summarizes the main relevant characteristics of the firms analyzed in this research. Next we present a brief description of the five companies.
### Table 13 The five born global Firms: general overview

<table>
<thead>
<tr>
<th>Items</th>
<th>Case firm A</th>
<th>Case firm B</th>
<th>Case firm C</th>
<th>Case firm D</th>
<th>Case firm E</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Responders information</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Name</td>
<td>G. Bans</td>
<td>D. Bermejo</td>
<td>M.. Acosta</td>
<td>H. Bolstad</td>
<td>R. Pugga</td>
</tr>
<tr>
<td>Position</td>
<td>Director</td>
<td>Marketing manager</td>
<td>Marketing manager</td>
<td>Marketing manager</td>
<td>Marketing manager</td>
</tr>
<tr>
<td>Previous experience</td>
<td>Key account manager/marketing manager</td>
<td>Management/marketing manager</td>
<td>Product manager/publicist</td>
<td>Chief operating officer</td>
<td>Direct sales</td>
</tr>
<tr>
<td><strong>Firms profile</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Size</td>
<td>Small</td>
<td>Small</td>
<td>Medium</td>
<td>Small</td>
<td>Small</td>
</tr>
<tr>
<td>Sector</td>
<td>Design</td>
<td>Decoration</td>
<td>Telecommunications system</td>
<td>Advertise service</td>
<td>Medical</td>
</tr>
<tr>
<td>Tech level</td>
<td>Low-tech</td>
<td>Low-tech</td>
<td>High-tech</td>
<td>High-tech</td>
<td>Low-high tech</td>
</tr>
<tr>
<td><strong>International business activities</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Time after foundation for starting exports</td>
<td>From the first year of operations</td>
<td>Second year</td>
<td>From the first year of operations</td>
<td>Second year</td>
<td>Third year</td>
</tr>
<tr>
<td>Export sales as percentage of total sales (per cent)</td>
<td>80%</td>
<td>25%</td>
<td>40%</td>
<td>60%</td>
<td>35%</td>
</tr>
<tr>
<td>Foreign markets (Regions of the world)</td>
<td>Europe, Asia</td>
<td>Europe, North America</td>
<td>Europe, Africa, South America</td>
<td>Europe, South America</td>
<td>South America</td>
</tr>
</tbody>
</table>
2.5.1.1 Case summaries:

Case firm A
Established in 2005, the firm produces and exports fine earthenware, kitchen articles and other pottery products. The firm exports 80% of its annual turnover of less than €.5 million per annum, and operates in a high-value niche market in the global design industry. The manager of this firm is very proactive in searching for international markets: for instance, the company works in Sweden, Germany, Portugal, Japan, France, and the UK. The company’s commitment to its customers is to make excellent products, to be innovative and to ensure accessibility for the purchase of the products.

Case firm B
This firm was established in 2004 and specializes in creating and designing printed and wallpaper and fabrics within the interior design framework. The company designs and produces decorative concepts. It is always innovative. The firm has grown rapidly since its inception in 2004, and annual turnover has grown to between €.5 million and under €1 million (with an average growth of 10-15 percent per year). One quarter of the production is exported to 36 markets. The company employs 30 workers, most of whom are involved in the production of wallpaper.

Case firm C
Founded in 2001, this is a private Spanish aerospace company providing high-quality engineering solutions as well as high-technology and added-value systems. The Technology Transfer Division capitalizes on the knowledge acquired within the aerospace field in other business sectors at the forefront of technology like telecommunications, transport or industry, becoming a primary source of development for the firm. The firm exports 40 percent of its annual turnover of more than €1.5 million per year. It is currently present in Europe, Africa and America (France, Germany, England, Portugal, Angola, Algeria, Morocco, Ivory Coast, Iraq, Chile, Bolivia, Brazil, and Venezuela).

With 230 employees, this firm is engaged in projects with the largest and most important European space companies (EADS Astrium, Alcatel Alenia Space, etc.), and has even succeeded in diversifying towards non-institutional customers (Eutelsat) and other high-technology sectors, such as Civil Air Navigation (Eurocontrol).
Case firm D

Having begun its operations in 2006, this firm provides services to media groups, media agencies, advertisers, brands and mobile operators. Its internationalization allows it to have a presence in Europe, the United States, Latin America and the Middle East. Its annual turnover has grown to between €0.5 million and €1 million, and 20 percent is exported. This business is conceived as a global, market-driven, technology-based and dynamic company, with the capability of adapting advertising products and services to the new and changing needs of the market. The firm employs 10 workers, and operates in a high-value niche market in the global advertising industry.

Case firm E

This firm was created in 2003, and employs 13 people who combine the results of knowledge and experience. This company started exporting in the third year after it was founded, and the export rate is currently 35 percent; the company has a turnover in the range of €0.5 million to €1 million. This firm enables research and development to be conducted specifically for projects oriented towards the medical/surgical market. This is an innovative and technology-based company dedicated to the research and development of surgical products through the creation, analysis, design, production, and commercialization of innovative medical equipment. This company has a great deal of prestige and is a certified producer of medical devices, implementing the complete ISO 9001-2000 and ISO 13485-2003/AC: 2007 quality systems. This firm researches, develops, produces and commercializes medical devices that contribute to improving the quality of life, thanks to advances in the medical techniques that facilitate surgery and patient treatment.

2.5.2 Cross-case analysis

To analyze the data from the five case studies, we used cross-case analysis. This technique treats each individual case as a separate study, and the analysis can reveal similarities as well as differences between the firms (Yin, 2003). All the interviews were transcribed and codified with ATLAS.ti 6.1 software. The codification permitted us to identify a list of issues and links between them. From this analysis, figure 5 shows the links between the five BG firms across the three key insights: (1) impact of market orientation on performance in born global firms; (2) selection and evaluation of measurement scales; and (3) proposed scale items for the extended concept of market
orientation in BG firms. Thus in the next subsection, we discuss the insights revealed in discussions with the five BG firms about the concept of the MO.

Figure 5 Network View: Market Orientation and Born Global Firms

2.5.2.1 Impact of market orientation on performance in born global firms

As mentioned above, there is a growing consensus that MO has a positive effect on the performance of traditional firms, and BG firms are no exception here. Generally speaking, the interviewee from each of the five case firms perceived MO as a critical part of their company’s performance. The positive effect of the magnitude of MO on performance was examined using the managers’ information and their financial reports.

The level of international sales at the time the companies participated in the ranged from 25% to 80%. For instance, allow level of export sales was detected for firm [B]. By contrast, firm [A] showed a high level of export sales (around 80%) in foreign markets. Firms [A] and [C] are examples of firms that began exporting within one year of founded. Companies that began exporting within two years after establishment were case firms [B] and [D]. For our five BG firms, the average time for beginning exporting was 1.8 years. The BG literature argues that internationalization has a positive effect on firm performance and that, despite the challenges faced, BG firms are likely to enhance their performance through greater internationalization (Pangakatar, 2008; Trudgen & Freeman, 2014). As indicated previously, many studies have analyzed the positive
relationship between MO and performance. Our five BG firms highlight similar results. The measurement of performance varies across different empirical pieces of research. Scholars have selected different concepts of financial performance, including sales growth (e.g. Sin et al., 2005) and return on assets (e.g. Narver & Slater, 1990), according to the objective of their empirical study.

In line with this reasoning, Ellis (2006) identified several studies that focused on the relation between MO and performance and that relied on both financial measures (return on assets and sales growth). We asked each responder to evaluate his or her company’s current business performance with respect to these two measures. The managers from companies [B] and [E] reported only that there was a favorable situation for their respective companies regarding the relation between MO and performance. The interviewees from the rest of the companies gave more extensive opinions:

*Under the perspective that our company operates in international markets for indices of ROA, and growth in sales related to market orientation, we reported a strong positive relationship, because from the beginning our company has been profitable every year (Bans).*

*Yes, because the market orientations are necessary to achieve to ensure optimum performance in this company. This is a young Spanish aerospace company, born out the vision and enthusiasm of a group of professionals in the space sector. Subsequently, we are planning to continue with our positive profit (Acosta).*

*Talking about our performance, I would say we are dependent upon new technologies within mobile phone-technologies and the fact that the MO allows us to have a favorable profit in our sales levels on domestic and international markets in addition we are small firm playing on the global market with competitors and customers of all sizes (Bolstad).*

Regarding sales growth, we reviewed the financial reports of all the case companies, which indicated the range of percentage sales growth among the companies was 17% to 46%. In summary, our study suggests that the general effect of MO on performance is
perceived to be positive for BG firms, in spite of the different levels of technology development (Madsen & Servais, 1997). We show these relationships between MO and performance in figure 6.

Figure 6 Market Orientation and Performance in Born Global Firms

2.5.2.2 Selection and evaluation of market orientation scales

As we mentioned earlier, there is wide consensus about the relevance of the MARKOR and MKTOR scales for the measurement of MO for companies. Given that the aim of this study is the exploration of the preference of BG managers for different scales of MO, the data analysis reveals that for BG firms the MKTOR scale is preferred to the MARKOR one. The greater importance given to customers could be related to the selection of MKTOR, according to the responder from case firm [A]:

*After that we examined the items list of the MO measures presented, in our company we chose MKTOR because it’s more suitable because the items in this scale allow us to identify who are potential customers, supplier and distributors...in our company we operate much within customers' needs. (Bans)*
The MO literature has created a link between MKTOR and customer orientation. Company [A] has a well-established customer base in multiple sectors that is spread around the world (e.g. Desigual, Panasonic, Hewlett-Packard, Seat, etc.). The recognition by customers that products from this company are user-friendly is the result of the high creativity level of this BG firm. According to Campo et al. (2014) and Wrenn (1997), MKTOR tends to be considered as a measurement related to customer orientation.

Company [B] has direct relationships with most of the end users of its products, and provided empirical evidence that the items of MKTOR are well accepted and evaluated; the company’s marketing manager stated:

> Decision to internationalize the firm’s, require country knowledge and as result our customer orientation, is reflected by MKTOR constructs. It was reinforced by the business that we started doing well right from the start of our operation followed the MO. This company applied every item of MKTOR but also we incorporate other issues as internationalization factors (Bermejo).

All the sampled cases displayed a high degree of internationalization; from inception they had products targeting international markets. MO enables BG firms to connect with their potential customers and their customers’ needs. For example, the marketing manager of case firm [C], when selecting and evaluating the traditional measurements of MO, took both.

> Yes, because the two measures are necessary to achieve a market orientation to ensure optimum performance of a company. One of the measures analyzed the behavior of the environment that affects the market (MKTOR) and the other measure (MARKOR) analyzes the characteristics of the firms across the market. (Acosta)

Company [C] is present in foreign markets, and its interaction with foreign customers is absolutely necessary. It started with customers from different sectors such as space (e.g. the European Space Agency, Thales Alenia Space), and currently its key customers are growing in other industries: telecommunications (e.g. Orange, Telefónica, Nokia, and
Ericsson), transportation (e.g. ADIF, FGC, and RENFE Cercanias), public administration (the European Union), and others.

The other hi-tech company (firm [D]) is similar to company C in that it has also increased its presence in foreign markets during its continuing internationalization. Company [D] expanded its customer base between 2006 and 2008 so that it has a commercial presence in Mexico, Colombia, Bolivia, Ecuador, Honduras, Portugal, France, Germany, Sweden, Finland, the UK, South Africa, Russia, Italy, and Austria.

Company reported a preference for the MKTOR scale:

\[
\text{The items referred are working in the evaluation of the MO, in our opinion the three constructs of the MKTOR are perfect... and all are necessary for evaluation of the MO (Bolstad).}
\]

The MKTOR scale selected by company [D] responds to its wide spread connections, its global presence with highly specialized knowledge, and its clients. Currently this firm works with various companies, operators, advertisers, and publishers (e.g. Adidas, Toyota, Nokia, Red Bull, and Carrefour).

Finally, when the responder for case firm [E] considered the selection and evaluation of the measuring scales for the MO concept, he reported favorably on the general usefulness of MKTOR scale:

\[
\text{We are depending upon new technologies within medical technologies and in our case we select the MKTOR because we need to work very closely with our customer to create a product. We work for them... The fourteen items presented by MKTOR are really fundamental in our business (Pugga).}
\]

The research results from the exploratory study provide evidence of the preference of BG firms for the MKTOR scale over the MARKOR scale (see Table 14). According to O'Sullivan and Butler (2009), for instance, the MKTOR instrument is more comprehensive as it includes a range of control and moderator variables. Many recent studies have based their study on the selection of MKTOR for exploring the association of MO and business performance; the influence of alternative orientations has been

Table 14 Market orientation: Scales and items selection by Born Global firms

<table>
<thead>
<tr>
<th>Case firm</th>
<th>MARKOR</th>
<th>MKTOR</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Intelligence generation</td>
<td>Intelligence dissemination</td>
</tr>
<tr>
<td>A</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>B</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>C</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>D</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>E</td>
<td>✓</td>
<td>✓</td>
</tr>
</tbody>
</table>

2.5.2.3 Born global firms’ proposals of constructs and items of MO to create OIM

The adaptation of the traditional MO concept to the international context, which is different from the domestic one, may require the incorporation of other aspects precisely because of the international dimension of the concept. In some senses, the type of discussion we present here is similar to the one proposed by Covin and Miller (2014) when they raised the question of “whether Entrepreneurial Orientation (EO) and International Entrepreneurial Orientation are treated as distinct constructs within the International Entrepreneurship (IE) literature or, alternatively, whether international is simply a context in which EO research has been pursued” (p. 13).

Cadogan et al. (1999) developed the “export market orientation” (EMO) scale as a measurement of MO for exporting firms, because “the shift from a domestic to an export setting suggests that ‘merely modifying existing measures by ‘internationalizing’ their terminology is unlikely to be sufficient. Additional items will most probably be required which are qualitatively very different from those occurring in domestic markets’ (Cadogan & Diamantopoulos, 1995, p. 51)” (pp. 690-691). These authors, on the basis of the original Kohli et al. (1993) scale, introduced the following new constructs in the export context: export intelligence generation, export intelligence dissemination and export intelligence responsiveness (this scale has been empirically tested in the context of exporting firms (see, for example, Cadogan et al. 2003; Murray et al., 2011; Chung 2012; Boso et al. 2013; Chi & Sun 2013). In some sense, this
research can contribute to this stream of academic interest because we are focusing on what could stimulate a company to orientate itself towards international markets, specifically when this orientation takes place very soon after the company’s inception.

The interviews with BG firms reinforced the need to incorporate other constructs into the traditional MO concept when we extended this concept towards international markets. In fact, a common theme suggested by the BG firms was associated with their internationalization operations. The only exception was the case of company [C]: the marketing manager did not consider it necessary to add other constructs or items for evaluating the MO of BG firms:

\[
\text{We believe that it is not necessary to incorporate other construct, within both scale. We are a company of engineering and solutions which are offered under the guidelines and requirements of the clients whereupon the orientation to the customers is a requirement to carry out the projects of the company (Acosta).}
\]

However, according to the executive of firm [A]:

\[
\text{We suggest add specific aspects where the analysis of the type of networks features: dealer, direct sales and intermediary.}
\]

Likewise, the managers of companies [B], [D], and [E] also expressed the need to “establish international scope” in the MO measurement for their companies. This need is in line with Deshpande and Farley’s (1998) empirical findings. These authors also point out the need for further inquiry into the effects of geography on the firm’s MO. Reflecting this, the executive of company [B] states that:

\[
\text{Yes. We proposed aspects regarding the local financing, local grants, fiscal situation and strategic position logistics, services, etc. We had enough information and experience around the 36 foreign countries, and this aspect allows us to reach an informed decision (Bermejo).}
\]

For the manager of firm [D], the traditional measure of MO applied in context different from the domestic one may require the incorporation of other aspects:
The MKTOR measurement is adequate for our evaluation of MO and we also considered important to incorporate: the technical innovation, communication, and the roles of global technological competence (Bolstad).

The marketing manager of company [E] considered MO to be important in their operations; however, when we asked if she suggested other constructs or items for the MO concept she commented:

*We believe that early operation in foreign market needs the support of the networks, because the introduction of our products were support for the functional networks that were based experience to access to the customer wherever they were located* (Pugga).

Therefore, across firms, it was found that in spite of the different company profiles and operations on the international markets, the integration of different concepts and/or variables is needed. It should be noted that Kohli and Jaworski (1990) also suggest this as a future research track in their MO construct. Several elements may reasonably be added to the MO model to extend its reach and improve its general applicability.

Based on the cross-case analysis of the five Spanish BG firms from the high-tech and low-tech industries, we can thus identify new components (see figure 7). Basically, the extended concept of MO for BG companies incorporates more constructs of the internationalization process, which are, essentially, networks and technological competence. Therefore, from a theoretical perspective, the traditional MO concept and the scales developed by Kohli and Jaworski or Narver and Slater in their current form do not completely reflect the MO concept for BG firms: the concept has to be extended to incorporate other components that allow firms to extend their market orientation to international markets. We propose the concept that we call “Orientation towards International Markets (OIM)”, which is related to the Market Orientation (MO) concept, but has a broader content due to the international dimension of the concept.
The extension of MO to the context of BG firms was done by employing the recommendations of Churchill (1979): we adopted multiple items for each construct in an effort to increase construct reliability. Starting with the literature review, a comprehensive list of items was drawn up, based upon the discussions in the literature. We present a complete list of the construct and items in Table 15. The proposed OIM scale incorporates two new constructs and three constructs from the MKTOR scale (Narver & Slater, 1990). All the proposed items will be assessed using the Likert scale (1= “strongly disagree” and 7= “strongly agree”).

Following previous research (Kocak & Abimbola, 2009; Kim et al., 2011) and the results from our exploratory study in Spanish BG firms, we extended Narver and Slater’s (1990) MKTOR scale, a multidimensional construct that comprises customer orientation (six items), competitor orientation (four items) and interfunctional coordination (five items), by adding two new constructs: innovativeness and technological capability, and the influence of networks. Taking into account one of the approaches that is employed in some IEO research, as Covin and Miller (2014) mention, we assume that OIM shares the core elements of the MO construct yet includes an additional distinguishing element – namely, an “international” emphasis.
Table 15 The Scale proposed: OIM

<table>
<thead>
<tr>
<th>Construct</th>
<th>Items</th>
<th>Sources</th>
</tr>
</thead>
<tbody>
<tr>
<td>Customer orientation (CuO)</td>
<td>CuO1: Our business objectives are driven by customer satisfaction.</td>
<td>Adapted from Narver and Slater (1990); Kim et al. (2011)</td>
</tr>
<tr>
<td></td>
<td>CuO2: We monitor our level of commitment and orientation to serving customers’ needs.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>CuO3: Our strategy for competitive advantage is based on our understanding of customer needs.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>CuO4: Our business strategies are driven by our beliefs about how we can create greater value for customers.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>CuO5: We measure customer satisfaction systematically and frequently.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>CuO6: We pay close attention to after-sales service.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>CuO7: We collect customer information using external sources (such as market research agencies, syndicated data sources and consultants).</td>
<td></td>
</tr>
<tr>
<td>Competitor orientation (CO)</td>
<td>CO1: Our salespeople share information within our business concerning competitors’ strategies.</td>
<td>Adapted from Narver and Slater (1990)</td>
</tr>
<tr>
<td></td>
<td>CO2: We respond to competitive actions that threaten us.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>CO3: We target customers and customer groups in which we have (or can develop) a competitive advantage.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>CO4: The top management team regularly discusses competitors’ strengths and strategies.</td>
<td></td>
</tr>
<tr>
<td>Interfunctional coordination (IC)</td>
<td>IC1: We communicate information about our successful and unsuccessful customer experiences across all business functions.</td>
<td>Adapted from Narver and Slater (1990)</td>
</tr>
<tr>
<td></td>
<td>IC2: All of our business functions (e.g., marketing/sales, manufacturing, R&amp;D, accounting) are integrated to serve the needs of our target markets.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>IC3: All of our managers understand how everyone in our company can contribute to creating customer value.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>IC4: Our top managers from every function visit our current and prospective customers.</td>
<td></td>
</tr>
<tr>
<td>Innovativeness and Technological capability (ITC)</td>
<td>ITC1: Technical innovation based on research results is readily accepted in the supply chain.</td>
<td>Adapted from Han, Kim and Srivastava(1998), Andersson and Wictor (2003), Menguc and Auh (2006).</td>
</tr>
<tr>
<td></td>
<td>ITC2: We actively seek innovative ideas.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>ITC3: We use knowledge-intensive technologies to improve existing offerings.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>ITC4: We have excellent leadership in product/process innovation.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>ITC5: We engage in innovative, proactive and risk-seeking behavior that crosses national borders as developed by our managers.</td>
<td></td>
</tr>
<tr>
<td>Influence of networks (NW)</td>
<td>NW1: We use network relationships for market entry and market development.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>NW2: External financial supports allow us to operate in foreign markets.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>NW3: Our use of channels as system integrators/distributors, networks, and the internet helps us to reach new business space in international markets.</td>
<td></td>
</tr>
</tbody>
</table>
nnovativeness and technological capability has previously been identified in the BG literature as one of the factors that has a strong influence on the BG internationalization process (Zahra et al., 2000; Freeman et al., 2006; Zhang & Dodgson 2007). Furthermore, Kim et al. (2011) analyze the relationship for BG firms between customer orientation, which is one of the traditional components of the MO scale, and innovativeness and technological capability for customer relationship management (CRM) and external customer information management. The innovativeness measure was proposed in accordance with Menguc and Auh’s (2006) construct. This construct included the elements of technical innovation, searching for innovative ideas and the acceptance of innovation. According to Knight and Cavusgil (2004), “The literature specifies numerous approaches for achieving international business success, but innovative processes that drive the development of superior, unique products appear particularly important to born-global success” (p.137). We based our technological capability measure on Han et al. (1998) proposal. This construct captures two items related to the use and importance of technology. Several studies have described the importance of the role of technological capability in BG firms (for example, technological knowledge may be used to sell the firm’s products in the international markets; there may be a high impact of changes in technology on the firm’s processes and operations; or success in introducing a product rapidly into the market may depend upon technological knowledge) (Almor et al., 2014; Blomqvist et al., 2008; Madsen & Servais, 1997; Moen & Servais, 2002; Nordman & Melén, 2008).

On the other hand, the previous literature has also identified financial conditions and the networks in which companies operate as factors that heavily influence the internationalization process of BG firms (Sharma & Blomstermo 2003; Gabrielsson et al., 2004; Kocak & Abimbola 2009). In this regard, some authors, such as, for example, Cadogan et al. (2003) or Ellis (2010), also relate MO and networks. Cadogan et al. (2003) included network capabilities in the scale they developed to measure a firm’s marketing capabilities. We included the influence of networks by a multi-item scale. The construct was adapted from Kim et al. (2011) and Coviello (2006). We proposed asking managers for their perception of the impact of networks on each indicator (customer information using external source; and the relationship between networks and market entry and market development). These proposed network items are similar to
those found in previous studies (e.g. Camuffo et al., 2006; Mort & Weerawardena, 2006; Sharma & Blomstermo, 2003), and highlight the role of networking in the internationalization process for BG firms. We believe the addition of these new components allows us to pass from the general market orientation concept to the orientation towards international markets concept. Therefore, based on the literature review and the qualitative study, we proposed 23 items to measure the five components of the proposed scale for assessing OIM.

It is precisely the fact of being focused on this type of company that justifies our decision not to adopt EMO directly. First of all, BG firms may simultaneously use many internationalization modes, and not just exports. Besides, these firms are small and entrepreneurial in terms of ownership and organization (Almor & Hashai 2004; Melén & Nordman 2009), which renders their mode of functioning essentially different from that of traditional gradual exporters. Moreover, EMO was developed on the basis of the MARKOR scale, which did not measure the construct of customer orientation, and this construct is considered a key factor for BG firms (Aspelund & Moen 2001; Kim et al., 2011). These are the reasons why we do not propose to use EMO for measuring OIM for BG firms, and why we have worked on a new scale for OIM based on the conceptualization of MO.

2.6 CONCLUSIONS, LIMITATIONS AND FUTURE RESEARCH
This study contributes to the MO literature by extending this concept into the context of BG firms. We have explored whether the traditional MO concept and scales (MARKOR and/or MKTOR) are adequate for applying the MO construct in the context of BG firms, or whether they require modifying before they can be applied to these firms.

The results of the study indicate that when we think about BG firms we should refer to OIM instead of to MO; OIM shares the core elements of the MO construct yet includes an additional distinguishing element – namely, an “international” emphasis. That is the reason why the components of the MKTOR scale can be used (the utility of the components of the MKTOR scale for BG firms in the past may have been due to the fact that all of the BG firms had a very high level of customer orientation (Kim et., al 2011; Knight et al., 2004; Wong & Merrilees, 2012)). In fact, the Narver and Slater (1990) scale has been considered to be more accurate because it explicitly encapsulates
concern with both customers and competitors (Wrenn, 1997), but these components have to be completed with two new constructs: (1) innovativeness and technological capability, which have previously been identified in the BG literature as factors with a strong influence on the BG internationalization process; and (2) financial conditions and the networks in which companies operate, which have similarly been recognized as factors with a large influence.

Our empirical results also indicated that it might be useful to incorporate or modify items in the constructs of the traditional MKTOR scale when we are focusing on BG firms. For instance, we modified the construct of customer orientation by adding the item CuO7: “We collect customer information using external sources (such as market research agencies, syndicated data sources and consultants)” and we incorporated two constructs: (1) innovativeness and technological capability and (2) networks. This enabled us to consider the factors that facilitate the internationalization process of BG firms and that have been considered by scholars to be sources of positive performance for BG firms (Kocak & Abimbola, 2009; McDougall & Oviatt, 1996; Nordman & Melén, 2008; Sharma & Blomstermo, 2003). This finding is in line with the results of Kirca et al., (2005), who showed that market orientation is still an area in need of further investigation, especially in international contexts.

On the other hand, the well-researched connection between market orientation and performance allowed us to explore this relationship in the specific field of BG firms. Even though the five BG firms analyzed were not from the same industry, all of them confirmed the relationship between OIM and performance. Similar findings were reported by Verbees and Meulenberg (2004), who confirmed that the relationship holds for small firms “in line with the growing amount of evidence about the positive impact of the MO on company performance” (p.147).

Keeping in mind the fact that this study focuses on BG firms from a specific context, more empirical work is needed before the relation between the extended concept of OIM and performance can be generalized. Further studies should be made to investigate a larger sample of those firms that have undergone early internationalization, but it must be noted that the aim of the research was not to obtain general results but to explain the evaluation of the MO concept and its measures in the context of BG firms, with the
purpose of building the theory. Addressing these limitations should lead to fruitful avenues for future research.

From our perspective, further empirical research is needed to test our proposed scale for measuring OIM. Constructs validity and reliability must be assessed using psychometrical procedures in line with the recommendations of Nunnally (1978) and Churchill (1979). Secondly, further empirical research should be focused on testing the following hypothesis:

*The higher the orientation towards international markets of a born global firm, the higher the performance of this company.*
2.7 REFERENCES


Senglen, Per O. (1997). Why the impact factor of journals should not be used for evaluating research. BMJ. 314, 7079, 497.


APPENDIX 2  Interview protocol (Spanish version)

PROTOCOLO A ENTREVISTAS EVALUACION DE LA ORIENTACION AL MERCADO EN LAS EMPRESAS BORN GLOBAL EN ESPAÑA

Estamos interesados en cómo y por qué las empresas de rápida internacionalización conocidas como Born Globals (BGs) miden la orientación al mercado (OM). Se buscan los ítems para la evaluación de la OM. Apreciamos su cooperación en responder el cuestionario, el cual solo se completa durante solo 30 minutos aproximadamente. Por favor proporcione la siguiente información.

a. Personal Entrevistado

1. Nombre:

2. Cargo en la empresa y duración en el mismo:

3. Experiencia previa (tanto en su empresa actual como en otras)

b. Información de la empresa

Años de existencia:

Servicios o productos que ofrece:

Porcentaje de exportación:

Países a los que exporta:

Años transcurridos de inicio de exportación después de la fundación de la empresa:

¿Cuántas personas trabajan en su empresa? (Por favor seleccione una de las opciones)

☐ Un sola persona  ☐ 2-5
☐ 6 a 10  ☐ 11 a 25
☐ 26 a 49  ☐ 50 a 99
☐ 100 a 199  ☐ 200 o más
¿Cuáles son sus ventas totales anuales? (Por favor seleccione una de las opciones)

- Menos de 0.5€ millón
- Entre 0.5€ y 1€ millón.
- Más de 1.5€ millones

C) Orientación al mercado: escala de medición

La OM promueve la gestión empresarial basada en la satisfacción de las necesidades de los clientes con mayor excelencia que la competencia.

Por favor, ¿podría indicar cómo mediría la orientación al mercado de su empresa?, ¿en qué ítems, variables se fijaría y por qué?

De acuerdo a lo explorado en artículos de corte académico, se han identificado dos principales escalas de medida para la evaluación de la orientación del mercado en las empresas, las cuales son:

a. MTKTOR (elaborada por Narver and Slater): evalúa aspectos en la dimensión del cliente (FICHA 1)

b. MARKOR (elaborada por Kohli and Jaworski): Centrada en aspectos de organización (FICHA 2)

MOSTRAR LA FICHA 1 Y LA FICHA 2

Con base a su experiencia en su empresa:

1. ¿Cuál de las dos medidas mencionadas anteriormente se ajusta de mayor medida para la evaluación de la orientación al mercado? ¿Y POR QUÉ?

   Opción A_______  Opción B________  ambas______

   ¿PORQUÉ?

2. Como puede ver, cada escala considera 3 constructos fundamentales:

<table>
<thead>
<tr>
<th>MTKTOR</th>
<th>MARKOR</th>
</tr>
</thead>
<tbody>
<tr>
<td>Orientación al cliente</td>
<td>Generación de la inteligencia</td>
</tr>
<tr>
<td>Orientación a la competencia</td>
<td>Diseminación de la inteligencia</td>
</tr>
<tr>
<td>Coordinación interfuncional</td>
<td>Capacidad de respuesta</td>
</tr>
</tbody>
</table>

   a. ¿Considera apropiados dichos constructos?
b. ¿Considera necesario agregar otros constructos que agrupen unos ítems específicos para la operación de su empresa: Sí, No ¿Por qué? ¿Cuáles?

3. Con relación a los ítems de cada una de las escalas:

   a. ¿Considera que todos ellos son necesarios para medir la OM de una empresa de rápida internacionalización?

   b. Si considerara que alguno es prescindible, por favor, indique ¿cuál/es y por qué?

   c. Si considera que para una empresa de rápida internacionalización como la suya sería necesario agregar ítem, por favor, ¿podría indicar cuál/es y por qué?

4. ¿Cuál es el impacto e importancia que tiene la OM en los resultados (basados en el crecimiento en ventas y su ROA) en su empresa de rápida internacionalización?

Gracias por el tiempo y participar en nuestra entrevista. Siéntase libre de hacer cualquier otro comentario en relación con las empresas de rápida internacionalización y su orientación al mercado.
FICHA 1.
Escala de orientación al mercado: Narver y Slate (1990)

Orientación al cliente
A. Los objetivos de nuestra empresa se basan en el logro de la satisfacción de nuestros clientes.
B. Nosotros monitoreamos continuamente nuestro compromiso de servir a las necesidades de los clientes.
C. Nuestra estrategia competitiva está basada en la comprensión de las necesidades de los clientes.
D. Nuestras estrategias se fundan en la convicción de que es necesario crear valor para los clientes.
E. La satisfacción de nuestros clientes es medida en forma constante y sistemática.
F. Ponemos especial cuidado en la atención de post-venta.

Orientación a la competencia
G. Los vendedores o ejecutivos comerciales de nuestra compañía comparten información respecto a nuestros competidores.
H. Nuestra empresa responde rápidamente a las acciones de nuestros competidores.
I. Los altos ejecutivos de nuestra empresa discuten regularmente las acciones de los competidores.
J. En nuestra empresa fomentamos el conocimiento de nuestro clientes como aspectos clave para descubrir oportunidades competitivas.
K. La alta gerencia analiza regularmente las fortalezas y debilidades de los competidores.

Coordinación interfuncional
L. Información con respecto a los clientes es comunicada fluidamente a través de nuestra organización.
M. En nuestra empresa, las áreas funcionales están integradas para satisfacer las necesidades de nuestro mercado objetivo.
N. Nuestros gerentes y jefes de área saben cómo los diferentes empleados pueden contribuir a dar valor a nuestros clientes.
FICHA 2.
Escala de orientación al mercado de 
Kohli, Jaworski y Kumar (1993)

Generación de inteligencia
- En esta unidad de negocio, nosotros nos juntamos al menos una vez al año para averiguar qué productos o servicios necesitarán ellos en el futuro.
- En esta unidad de negocios, nosotros hacemos mucha investigación de mercado en casa.
- Nosotros somos lentos para detectar los cambios de preferencias de productos de nuestros clientes.
- Nosotros encuestamos consumidores finales al menos una vez al año para determinar la calidad de nuestros productos y servicios.
- Nosotros somos lentos en detectar los cambios fundamentales de nuestra industria (competencia, tecnología, regulación).
- Nosotros revisamos periódicamente los efectos posibles de los cambios en nuestro ambiente de negocios (por ejemplo, regulación) sobre nuestros consumidores.
- Nosotros tenemos reuniones departamentales al menos una vez al trimestre para discutir tendencias y desarrollos del mercado.

Diseminación de inteligencia
- El personal de marketing de nuestra unidad de negocios destina tiempo a discutir las necesidades futuras de los consumidores con otros departamentos funcionales.
- Cuando ocurre algo importante a un consumidor relevante o en un mercado mayor la unidad de negocios entera conoce acerca de esto en un período corto.
- Los datos acerca de la satisfacción de los consumidores son diseminados en toso los niveles y en forma regular.
- Cuando un departamento descubre algo importante respecto de los competidores, normalmente es lento para alentar a los otros departamentos.
- Nos toma mucho tiempo decidir cómo responder a los cambios de precios de nuestros competidores.
- Por una razón u otra, tendemos a ignorar los cambios en las necesidades de productos y servicios de nuestros clientes.
- Nosotros revisamos periódicamente nuestros esfuerzos de desarrollo de nuevos productos para asegurarnos de que ellos se encuentren alineados con lo que nuestros clientes quieren.

Capacidad de respuesta
- Muchos departamentos se reúnen periódicamente para planear la respuesta a los cambios que ocurren en el medio ambiente de negocios.
- Si un competidor importante fuera lanzar una campaña intensiva destinada a nuestros clientes, nosotros implementaríamos una respuesta en forma inmediata.
- Las actividades de los diferentes departamentos de la unidad de negocios están bien coordinadas.
- Las quejas de los clientes caen en oídos sordos en esta unidad de negocios.
- Aunque desarrollemos un gran plan de marketing, probablemente no seremos capaces de implementarlo a tiempo.
- Cuando encontramos que nuestros clientes quieren que modifiquemos un producto o servicio, los departamentos involucrados realizan esfuerzos concertados para cumplirlo.
APPENDIX 3 Interview protocol (English version)

Interview Guide
Interview guide: Evaluation of market orientation of born global firms in Spain
Introduction: We would like you to answer the questions of how and why the born
global firms measure market orientation. We seek for items that allow us to measure the
market orientation, by completing the questions, which should take 30 minutes.

1. Interviewer information
- Name
- Position
- Previous experience.

2. Company information
- Funded year
- What are your products/Service?
- % of Sales in International Markets
- Which are your markets (countries)?
- When did the company first become involved in International Markets?

- No of employees,

☐ 1  ☐ 2-5
☐ 6 - 10  ☐ 11 - 25
☐ 26 - 49  ☐ 50 - 99
☐ 100 - 199  ☐ 200 and more

- Total of sales

☐ Less of .5€ million  ☐ Between .5€ and 1€ millón.
☐ more of 1.5€ million
3. MARKET ORIENTATION: SCALE OF MEASUREMENT

Market orientation promotes business management on meeting the needs of customers with the mayor excellence competition.

How would you measure the market orientation in your firm? Which items would you take into account and why?

According to our literature review, we identified two scale of measurement the market orientation called: MKTOR and MARKOR. (Show the list of the items)

Based on your experience, could you please indicate:

1. In your opinion, what is the scale best representing the market orientation?
   Why?

2. Each scale is integrated by which three constructs in your opinion,

<table>
<thead>
<tr>
<th>MKTOR</th>
<th>MARKOR</th>
</tr>
</thead>
<tbody>
<tr>
<td>Customer orientation</td>
<td>Intelligence generation</td>
</tr>
<tr>
<td>Competitor orientation</td>
<td>Intelligence dissemination</td>
</tr>
<tr>
<td>Interfunctional coordination</td>
<td>Responsiveness</td>
</tr>
</tbody>
</table>

a. Are such constructs considered appropriate?

b. Would consider it necessary to add other constructs that grouped a few specific items for your company's operation: If yes which ones? If not why?

3. Regarding the Items of each scale

a. Do you think that all of them are necessary to measure market orientation of earlier international firm?
b. If you consider that an item is dispensable, please, indicate to us which one and why?

c. If you believe that for a company of rapid internationalization such as yours would need to add an item, please, could indicate which one and why?

4. What is the importance and the impact that market orientation has on your firm’s performance (sales growth and ROA)?

Thanks for the time and participating in our interview. Feel free to make any additional comments
CHAPTER THREE
VALIDATION OF THE SCALE FOR MEASURING THE ORIENTATION TOWARDS INTERNATIONAL MARKETS OF BORN GLOBAL FIRMS

ABSTRACT

Purpose- Although there is a considerable amount of research on market orientation, research on this concept in the context of born global firms is still lacking a precise definition and full operationalization. Using the in-depth interviews and content analysis presented in the previous chapter, in this study the objective is to validate the extended concept of orientation towards international markets (OIM) with its five components: customer orientation, competitor orientation, and interfunctional coordination (these three factors are rooted in the traditional scale for market orientation of Narver and Slater (1990); and the two new suggested factors, networks and innovativeness and technological capability. Moreover we respond to calls for the cross-cultural validation of measures using samples from the Nordic countries and Spain.

Design/Methodology/Approach- This study uses data collected in a webmail survey of 216 born global firms for the measurement model and a subsample of 165 born global firms to check the measurement invariance. The results were analyzed using confirmatory factor analysis. Various statistical tests show that the results are reliable and valid.

Findings- Using samples of born global firms from the Nordic countries and Spain, we assess the dimensionality of OIM by considering the optimal number of scale items, with the exception of the network construct, and assess the measurement invariance of the construct across the samples. The results support the conceptualization of OIM as a multidimensional construct, using customer orientation, competitor orientation, interfunctional coordination, and innovativeness and technological capability. Measurement invariance was assessed using multi-group confirmatory factor analysis. The factors outlined above have a similar dimensionality and factor structure across countries.

Research limitations/Implications- Examining the test in other countries could help establish the generality of findings beyond Nordic and Spanish firms.

Originality/Value- We extend the concept of market orientation with the OIM scale for born global firms. The current study increases the applicability and generalizability of the OIM scale through refinement and validation across countries.

Keywords: Market orientation, born global firms, multi-item measurement scale development, confirmatory factor analysis.

Paper type: Research paper.

JEL Classification: C38, M13, M31, L25.
3.1 INTRODUCTION
Born global (BG) is a phenomenon that challenged the traditional approach to the internationalization of firms, because BG firms undertake international business at or near the time they are founded. BG firms demonstrate a strong customer orientation and superior marketing capability as key drivers of their accelerated internationalization (Kim et al., 2011; Sullivan Mort et al., 2012). In spite of its relevance, the effects of strategic marketing for BG firms have not been widely studied. More specifically, researchers have suggested that there is a need for further research on market orientation (MO) in early internationalizing firms (Evers, 2011; Hallböck & Gabrielsson, 2013). To fill this gap, this study highlights the concept of orientation towards international markets, which is an extension of MO, for BG companies.

On the basis of the in-depth interviews and content analysis presented in the previous chapter, the OIM scale includes the constructs of customer orientation, competitor orientation, and interfunctional coordination (rooted in the MKTOR scale of Narver and Slater (1990)), and, specifically, networks, and innovativeness and technological capability, which are the constructs added by this study. Our purpose in this chapter is to present a reliable and valid measure of orientation towards international markets for born global firms. Therefore, we answer the following questions with this research: “How do born global firms assess the proposed scale for measuring their orientation towards international markets?” “Is the proposed scale valid for BG firms from different countries?” As recommended by previous research, testing the proposed scale in different countries strengthens its validity.

This chapter is organized into four sections: the first section presents the literature review conducted in the area of scale development. Following this, we explain how the OIM instrument was developed. Thirdly, a description of the procedures used to assess the psychometric properties of the proposed scale is presented. Finally, a discussion of the results and implications of the study follows, and the chapter concludes with the limitations of the study and future research suggestions.

3.2 LITERATURE REVIEW

3.2.1 Scale development and validation
According to DeVellis (2011), “we develop scales when we want to measure phenomena that we believe to exist because of our theoretical understanding but that we
cannot assess directly” (p. 11). In order to explore the main features of the process of scale development and validation, we conducted a review of the empirical studies. The search covered two online journal databases: Scopus and Thomson Reuters Web of Science (formerly ISI Web of Knowledge), both of which have a comprehensive coverage of business and management journals. We used the major keyword phrase: “scale development and validation” on March 20, 2014. The searches yielded 761 journal articles altogether, and we filtered these, following Senglen (1997), using the criterion of relevance (with citation range 100-1100), resulting in 23 articles for our sample. We reviewed the scale development articles published in the 17 years between 1990 and 2007. An overview of these articles indicates that the development and assessment of scales falls broadly into two streams: the procedure/stages applied to develop the scale and the statistical methods used (see Appendix 4).

### 3.2.2 The procedure/stages

Although there is a little variation in the sequence of the steps for the development of valid and reliable multi-item instruments by researchers, a number of authors have recommended the following stages in constructing a scale: item generation, scale purification based on a reliability assessment, scale validation, and measurement invariance (Byrne, 2001; Churchill, 1979; DeVellis, 2003; Steenkamp & Baumgartner, 1998).

Studies frequently report item generation as the first stage in scale development (Bearden et al., 2001; Dabholkar et al., 1996; Flynn & Goldsmith, 1999; Judge et al., 2003; Liden & Maslyn, 1998). In the process of item generation, as guided by Churchill (1979), researchers generate a pool of items based on a literature review and qualitative input from focus groups or interviews. The studies in our review mainly used a literature review and interviews to generate the items of the scale, with the only exception being the study of Yang et al. (2005), which used the combination of a literature review and a focus group.

In parallel with developing a pool of items it is considered necessary at this stage to have the items reviewed by experts to assess their quality through content validity (DeVellis, 2003; Netemeyer et al., 2003). Most of the papers included a report on content validity that refers to item sampling adequacy (DeVellis, 2003, p. 49). Tian, et al. (2001), for instance, aiming to develop a scale to measure consumers’ need for
uniqueness, conducted a comprehensive review of consumer behavior literature and analyzed the qualitative data; as result of this process they generated an initial pool of 93 items. The content validity of this pool of items was assessed in two steps: first, there was an evaluation of the dimensions based on the opinion of five judges, which suggested the deletion of 19 items; and second, in a similar step, four judges evaluated the definition of each dimension and eliminated 27 items. As result of this item generation, three dimensions and 45 items were selected for a questionnaire to perform the evaluation.

After an initial pool of items has been developed, the second stage in the scale development and evaluation process is called scale purification (Churchill, 1979). In order to carry out scale purification, researchers use a reliability assessment. Reliability refers to “the degree of dependability and stability of a scale” (Ahire et al., 1996, p.36). The most common methods of estimating reliability are the calculation of Cronbach’s alpha (Cronbach, 1951; Cronbach & Shavelson, 2004), and composite reliability (Leo & Russell-Bennett, 2014).

Although several measures of reliability can be calculated in order to establish the internal consistency of an instrument, the use of Cronbach’s alpha is the most common and accepted form of reliability estimation, and therefore the majority of the empirical papers reviewed reported that the scales were refined using this method (Cadogan et al., 1999; Patterson et al., 2005; Richins & Dawson, 1992). According to Nunnally (1978), an acceptable reliability score for a scale must be greater than .70. A meta-analytic study of the use of Cronbach’s alpha by Peterson (1994) supports the predominant use of Cronbach’s alpha as a generalized measure of reliability, based on the review of 832 studies, and suggests that overall the median of .77 was sufficient for most research purposes. Additionally, as part of the purification of the scale, researchers include the composite reliability test (Netemeyer et al., 2003). According to Anderson and Gerbing (1988), as a minimum a value of composite reliability .70 is required. Following the guidelines of Bagozzi (1981) and Werts et al. (1974), some of the papers reviewed (Judge et al., 2003; Li et al., 2005; Menor & Roth, 2007) used the composite reliability test in conjunction with Cronbach’s alpha; for instance, Li et al. (2005) reported that two tests were undertaken to establish the reliability of the constructs. Initially, Cronbach’s alpha was calculated, and the results showed good reliability, with values
ranging from .73 to .93. This was followed by the composite reliability test, for which all coefficients were greater than .70, indicating good reliability of all the constructs.

Followed the check for internal consistency, the next assessment of the scale is for scale validity. Carmines and Zeller (1979) state that “validity is evidenced by the degree that a particular indicator measures what it is supposed to measure rather than reflecting some other phenomenon” (p.16). A review of the literature indicates that in order to test the validity of a scale, researchers have used various indicators. One of the first indicators to be used for scale validity is convergent validity. To assess the convergent validity of constructs, “we look at each item in the scale as a different approach to measure the construct and determine if they are convergent” (Li et al., 2005, p.629). In order to strengthen the validity of the scale further, the second test is the discriminant validity which“ is the extent to which latent variable A discriminates from other latent variables (e.g., B, C, D)” (Farrell, 2010, p. 324).

In addition, other evaluations used by researchers to assess scale validity are nomological validity (Cadogan et al., 1999; Flynn & Goldsmith, 1999; Menor & Roth, 2007), which“ is provided by a construct’s possession of distinct antecedent causes, consequential effects, or modifying conditions, and quantitative differences in the degree to which a construct is related to antecedents or consequences or varies across conditions in exhibiting consequential effects” (Tian et al., 2001, p.58), and criterion-related validity (Liden & Maslyn, 1998; Yang et al., 2005), which“ is at issue when the purpose is to use an instrument to estimate some important form of the behavior that is external to the measuring instrument itself” (p. 87). However, most of the studies reviewed reported that the researchers evaluated the constructs using the two main types of test: convergent and discriminant validity.

The last stage in scale development is the assessment of measurement equivalence or measurement invariance (ME/I). When a researcher is concerned only with the extent to which an instrument is equivalent across independent samples ME/I needs to be assessed. “ME/I generally focuses solely on the invariant operation of the items and, in particular, on the factor loadings” (Byrne, 2008, p. 873). Generally speaking, there are six levels of ME/I: configural invariance, metric invariance, scalar invariance, factor covariance invariance, factor variance invariance, and error variance invariance (Hansen et al., 2006). According to Horn and McArdle (1992) and Schmitt and Kuijnanin (2008),
it is rare for all of these tests of ME/I to be performed in studies. The selection of the type of invariance is based on the particular research objectives. The previous literature supports the importance of, as a minimum, configural and metric invariance. These are needed to explore the scale in cross-cultural studies (Runyan et al., 2012; Schmitt & Kuijanin, 2008; Steenkamp & Baumgartner, 1998; Vandenberg, 2002).

The use of ME/I in studies has recently increased (Deshpandé et al., 2013; Sass et al., 2014; Story et al., 2015). However, despite numerous calls for the use of ME/I for measures, it is still rarely assessed by researchers (Netemeyer et al., 1991; Hult et al., 2008; Schreiber et al., 2006; Vandenberg & Lance, 2000; Watkins, 2010; Yu & Shek, 2014). For instance, in the extensive review conducted by Hult et al. (2008) in the five top journals in international business, fewer than 20% of the studies assessed ME/I. A similar result was found from our review: only five studies (21%) reported ME/I.

In the literature on the scale development, researchers from several disciplines have attempted to analyze the use of ME/I in order to identify best practice and prescribe recommendations to improve its application (Raykov et al., 2012; Schmitt & Kuijanin, 2008; Sharma & Weathers, 2003; Vandenberg & Lance, 2000). However, some of the studies that offer guidelines to the sequence of steps for scale development, in different research areas such as entrepreneurship (Slavec & Drnovšek, 2010), marketing (Terblanche & Boshoff, 2008), organization (Hinkin, 1995), and counseling psychology (Worthington & Whittaker, 2006), omitted ME/I in their recommendations. In general, critical reviews of the literature suggest that “there is a lack of concern with measurement invariance in cross-cultural research and tests for such are rarely presented” (Watkins, 2010, p. 702).

3.2.3 The statistical methods
In order to obtain a robust evaluation of the quality of the items, in most of the studies the statistical methods of exploratory factor analysis (EFA), followed by confirmatory factor analysis (CFA), were used as part of the scale development process. In general, researchers use these two statistical methods to assess the constructs of a scale (Watkins, 2010).
3.2.3.1 Exploratory factor analysis

Most of the empirical papers reviewed reported that EFA was carried out during the initial development of the scale. EFA can help refine a scale through defining the number of dimensions and evaluating the constructs (Gaskin & Happell, 2014). Worthington and Whittaker (2006), based on an extensive literature review of scale development research, showed that there are many decisions confronting users of EFA such as (a) the selection of the extraction method, (b) the choice of the rotation method, (c) the number of factor retentions, and (d) item deletion.

Regarding extraction methods, there are two main factor extraction methods reported by the papers reviewed in the scale development research: principal component analysis (PCA, seven studies, 30%) and common-factors analysis (principal-axis factoring, four studies, 17%). Each method has a different purpose; according to Worthington and Whittaker (2006), “the PCA aims to reduce the number of the items while retaining as much of the original item variance as possible” (p.818), while principal-axis factoring shows the underlying dimensions within the facets (Tabachnick & Fidell, 2007). Therefore, as shown by Velicer and Jackson (1990) and Conway and Huffcutt (2003), PCA and common-factors analysis often produce similar results; however, most researchers prefer PCA. A survey of scale development in organizational behavior conducted by Hinkin (1995), which was based on 277 scales from 75 studies, found that PCA was the most frequently reported extraction method in the papers reviewed.

Related to rotation methods, Costello and Osborne (2011) state that there are two rotation methods performed by researchers: one is called orthogonal, and produces factors that are uncorrelated (varimax is a frequently-used example of this method), and the second is oblique rotation, which allows the factors to be correlated. In our review, most articles used either the orthogonal method (e.g. Ahiro et al., 1996; Reidenbach & Robin, 1990; Yang et al., 2005) or the oblique rotation method (Antoncic & Hisrich, 2001; Carlson et al., 2006; Liden & Maslyn, 1998; Richins & Dawson, 1992).

Regarding factor retention, DeVellis (2003) pointed out that it is difficult to determine how many factors can be extracted from the data. There are a variety of criteria that may be selected by researchers for the purpose of factor retention, such as parallel analysis (Horn, 1965), approximating simple structures (McDonald, 1985), the scree test (Cattell, 1966), the eigenvalue rule (Kaiser, 1960), and whether the variance explains
more than 50-60% (Hair et al., 1998). The most widely used method for selecting the number of factors to retain during scale development is the eigenvalue rule (DeVellis, 2003; Hinkin, 1995). “An eigenvalue represents the amount of information captured by a factor” (DeVellis, 2003, p.114). The eigenvalue rule is that factors whose eigenvalues are less than 1.0 should be eliminated because those factors contain less information than the items on an average scale (DeVellis, 2003).

Some of the studies reviewed reported the use of a combination of methods for deciding on the number of factors. For instance, the eigenvalue rule and the extraction of variance were reported by two studies (Carlson et al., 2006; Ferris et al., 2005), and in another two studies the eigenvalue rule and the scree plot test were chosen (Liden & Masly, 1998; Yang et al., 2005). Carlson et al. (2006) purified a scale that measured work–family enrichment through carrying out EFA with the principal component method, and used multiple criteria for determining the number of the factors to retain: those with eigenvalues greater than 1.0 and a variance that explained more than 60%. As a result of this analysis, they found that the work–family scale is composed of three factors, with 15 items.

Finally, with regard to item deletion/retention, several criteria for determining item deletion or retention have been presented in the literature on scale development, including loadings, cross-loadings, communalities and item analysis (Worthington & Whittaker 2006). Researchers most frequently report loadings and cross-loadings as criteria for item deletion (Hinkin, 1995). In our literature review, the studies reported using loadings and cross-loadings (e.g. Ahire et al., 1996; Bearden et al., 2001; Muylle et al., 2004; Voss et al., 2003). “With multiple cross-loadings, items with lower communalities assisted in determining which items to remove” (Leo & Russell-Bennett, 2014, p. 3).

### 3.2.3.2 Confirmatory factor analysis

CFA has become one of the more commonly-implemented techniques reported by researchers in scale development literature, in place of the multitrait–multimethod model (Knight, 1997). The purpose of the analysis is to evaluate the dimensionality and factor structure of the scale (Fornell & Larcker, 1981; Anderson & Gerbing, 1988). “This method also provides the fit of the individual items within the specified model using the modification indices” (Hinkin, 1998, p. 114).
CFA has been used to test the psychometric properties of measurement scales in a number of studies, through the goodness-of-fit model with a variety of fit indices (Bentler & Bonett, 1980; Schreiber et al., 2006). Some common fit indices reported by researchers in scale development literature are the chi-square statistic for testing the overall model fit, the incremental fit indices detailed in Appendix 5 (the Normed Fit Index (NFI), the Tucker-Lewis Index (TLI), and the Comparative Fit Index (CFI)), and the absolute fit indices (the Goodness-of-Fit Index (GFI), the Adjusted Goodness-of-Fit Index (AGFI), the Root Mean Square Residual (RMR), the Standardized Root Mean Square Residual (SRMR) and the Root Mean Square Error of Approximation (RMSEA)) (Byrne, 2001; Kline, 2005; Worthington & Whittaker, 2006). In our review, most of the studies reported using some of these indices (twenty studies, 87%).

In studies of scale development, there are different preferences with regard to which indices should be reported. For instance, in a review by Schreiber et al. (2006) it was found that the most commonly reported fit indices are the CFI, the TLI, and the RMSEA. Boomsma (2000) and Kline (2005) suggested the chi-square test, the RMSEA, the CFI and the SRMR. The threshold values for acceptable fit are less than .80 for the RMSEA and the SRMR, and more than .90 for the CFI and the TLI (Bentler & Bonett, 1980).

CFA also offers multi-group analysis (MGCFA) to assess the measurement invariance of scales for various levels of invariance (Jöreskog & Sörbom, 1999). Byrne (2001) recommended that “researchers assess the parameters most commonly of interest in answering questions related to multi-group equivalence: (a) factor loadings, (b) factor covariances, and (c) structural regression paths” (p. 199). According to Akoto (2014), certain fit indices that are often recommended for testing the fit of the MGCFA are the chi-square test, the RMSEA and the CFI. In our review, similar fit statistics were reported by Carlson et al. (2006) when testing the ME/I in the work–family enriched scale. However, in addition to the chi-square test, the RMSEA and the CFI, other studies include other fit indices such the AGFI (Dabholkar et al., 1996), the GFI, the TLI (Netemeyer et al., 1996), and the NFI (Voss et al., 2003).

In summary, we will adopt the suggested stages and the reviewed research techniques in the validation of the scale for measuring OIM. Thus, we will perform the statistical analyses EFA, CFA and MGCFA on the OIM scale.
3.3 RESEARCH METHODOLOGY

3.3.1 Research context
A cross-country study was chosen as the research approach of this chapter because it is the most appropriate for a scale validation process (Horn & McArdle, 1992). As a consequence, it was necessary to establish the invariance of the proposed scale, so we had to test whether the measurement instrument was equivalent across different samples (Byrne, 2008). This approach is one of the ways in which this research gives added value, because within the literature on BG firms there is a special call for performing research across countries; in existing studies such research has been limited and scarce (Jones et al., 2011). As pointed out by Cannone and Ughetto (2014), most of the research on BG firms has been performed in a single country (e.g. Sepulveda & Gabrielsson, 2013), and the few attempts to compare several contexts have mainly followed a qualitative approach (e.g. Moen, 2002).

European countries were selected as the research context because they are the location for the core of the research into BG firms (Cesinger et al., 2012; Peiris et al., 2012). We carried out our analysis by studying firms from Denmark, Finland and Spain. This number of countries is seen as acceptable by Franke and Richey (2010): “There is no mandatory number of settings to examine for useful research findings. A study of two or three countries may provide important insights and stimulate a stream of future research” (p.1289). Following the recommendation of Malhotra et al. (1996), the choice of Spanish and Nordic small firms as the subject of this chapter was made because these companies are culturally and economically very different from each other. However, these European countries are alike in having firms that show rapid internationalization (Cesinger et al., 2012). Moreover, these countries allowed us to interpret our findings in a more context-sensitive way.

3.3.2 Data collection and sample
The sample for developing this project, as mentioned earlier, produced information from three countries: Denmark, Finland and Spain. The web-based survey instrument, along with the initial covering letter, is presented in Appendix 9 (Spanish version) and Appendix 10 (English version).

We collected the names and contact information for international firms from different databases: Danish BG firms (a database developed from previous studies conducted by
Professor Tage Koed Madsen at the University of Southern Denmark (Sørensen & Madsen, 2012; Madsen, 2013)), Kohdistamiskone (a database that contains information on Finnish companies), and ICEX (the Spanish Institute for Foreign Trade). A web-based survey was distributed by e-mail from March 2012 to January 2013 to firms that met the following three criteria: 1) having 250 or fewer employees, 2) having international activity, and 3) being active. A total of 6,489 companies were identified and contacted (see the process in Table 16); 955 complete questionnaires were collected, which represents a response rate of 15%, the lower limit suggested by Menon et al. (1996). Of these valid answers, it was possible to identify 216 BG firms (23% of the total sample) meeting the criteria of the three traits of scope, time and extent that have previously been mentioned (Ceasing et al., 2012; Madsen, 2013). We therefore obtained a sample of BG firms from Spain and two Nordic countries (82 BG firms from Spain and 134 from Finland and Denmark).

Table 16 Data collection process and final answers identified

<table>
<thead>
<tr>
<th>Database and features</th>
<th>Preliminary database construction process and periods</th>
</tr>
</thead>
</table>
| Kohdistamiskone B2B: Contains information of Finnish firms with basic information of the companies, financial reports, and decision makers. | -After introducing our searched criteria, we created a data base of 4,308 firms with companies’ names, and e-mail contact.  
-Data collected from December 2012 to January 2013 |
| ICEX (Spanish Institute for Foreign Trade): Contains information of exporter firms from Spain, focuses in different sectors, with information of name of the firms, website and email contact. | -Explore the database for obtain the companies name, and the website.  
-Create a database with a total of 1,981 companies’ names, and e-mail contact.  
-Data collected within March to April, 2012. |
| Denmark BGs firms: Based on previous study developed by Prof. Tage Koed Madsen. Contains information of 200 BGs firms from Danish context. | -In order to confirm the previous e-mail contact, we searched for the website of the companies, and in general we found a new email contact.  
-Creating a database with 200 companies’ name, and email contact.  
-Data collected during April to May, 2012. |

Table 17 contains profile information on the survey firms. Non-response biases were evaluated by comparing early with late respondents, following the procedure recommended by Armstrong and Overton (1977). No significant differences were found with variables like number of employees ($p = .720$), industries ($p = .702$), number of
export markets \((p = 0.420)\), export sales \((p = 0.236)\), and export experience \((p = 0.070)\). Therefore, non-response bias was not expected to be a serious problem.

**Table 17 Characteristics of the BG firms: Nordic firms and Spain firms (percentage)**

<table>
<thead>
<tr>
<th>Size of the firms</th>
<th>Industry/sector</th>
<th>Export sales</th>
</tr>
</thead>
<tbody>
<tr>
<td>Size</td>
<td>Spain</td>
<td>Nordics</td>
</tr>
<tr>
<td>Micro</td>
<td>22</td>
<td>27</td>
</tr>
<tr>
<td>Small</td>
<td>36</td>
<td>45</td>
</tr>
<tr>
<td>Medium</td>
<td>42</td>
<td>28</td>
</tr>
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</table>

**3.3.3 Common method bias**

An extensive review of international business research conducted by Chang et al. (2010) found that previous studies in this field had been ignoring the common method bias when data came from one respondent. They recommended that the common method variance (CMV) test should be included, especially if a cross-country study was conducted (Chang et al., 2010).

We followed the procedural and statistical remedy suggested by Podsakoff et al. (2003). For the procedural remedies, firstly, we adopted well-established measurement scales from existing literature (international entrepreneurship, market orientation). The use of previously developed measures helped minimize concerns about CMV (Boso et al., 2013; Chetty et al., 2014). Secondly, during the data collection process we guaranteed anonymity and confidentiality of respondents to reduce evaluation apprehension. Thirdly, we conducted our data collection using a different set of instructions and all constructs and items were separated.
From a statistical point of view, we examined the possibility of CMV using Harman’s single-factor test (Podsakoff et al., 2003). We conducted the factor analysis in both samples to determine whether the majority of the variance was concentrated in one factor (Podsakoff & Organ, 1986). The factor analysis for the Spanish BG firms resulted in 6 factors with eigenvalue greater than 1 (accounting for 68.36% of the total variance), and the first factor accounted for 36.29% of the variance. The factor analysis for the Nordic BG firms resulted in 5 factors with eigenvalue greater than 1 (accounting for 62.27% of the total variance), and the first factor accounted for 32.20% of the variance. Thus, CMV was not a significant concern in this study.

3.3.4 SCALE DEVELOPMENT
The development of an integrated measurement model for OIM is based on a multi-stage research design that is outlined in figure 8 and follows the psychometric measurement theory (Churchill, 1979; Gerbing & Andesson, 1998) that includes qualitative and quantitative research.

Before the quantitative analysis of OIM within the context of BG firms, an initial qualitative stage was needed to provide an initial list of the scale items related to the different components and subcomponents of the OIM scale (this is the content of chapter two).

As noted by Churchill (1979), researchers are strongly recommended to use a multiple item scale instead of a single item scale, in order to increase reliability and decrease measurement error. Consistent with the scaling literature, multiple items were developed for each dimension.
After the scale purification step, where dimensionality and reliability were considered, we refined the measures and assessed the construct reliability and validity for both the Nordic and the Spanish samples, following Anderson and Gerbing (1988) a two-step approach. First, EFA was conducted to identify the underlying structure in each construct, and then CFA was carried out, to allow us “to test measurement scales for evidence of convergent and discriminant validity” (Froehle & Roth, 2004, p.11).

### 3.3.4.1 Stage one: Scale generation
The guidelines recommended in Churchill’s (1979) traditional approach to scale development were adopted. The scale of OIM for BG firms resulted from a combination of exploratory qualitative in-depth interviews and a comprehensive review of the literature on BG firms and marketing (the details of which are in chapter two of this thesis).
The five proposed dimensions were based on previously validated scales. This facilitated the establishment of the content validity of the instrument. Additionally, to ensure the content validity of the measures, an in-depth analysis of the measures was performed by ten managers and two academic experts who were familiar with the topic under investigation, with the aim of refining the instructions, the format, and the wording of the items (DeVellis, 2003). After feedback from the academics and practitioners, the final dimensions of the scale for OIM were modeled as a reflective second-order construct (the selection of a reflective construct is supported in section 3.3.4.3 below) with five reflective first-order dimensions: customer orientation (CuO, with 7 items), competitor orientation (CO, with 4 items), interfunctional coordination (IC, with 4 items), innovativeness and technological capability (ITC, with 5 items) and influence of networks (NW, with 3 items). Appendix 6 presents a final list of the 23 items remaining in the questionnaire, which will be measured using a 7-point Likert scale ranging from 1 (“strongly disagree”) to 7 (“strongly agree”).

3.3.4.2 Stage two: Scale purification
As previously mentioned, following the guidelines on scale validation, we assessed the unidimensionality of the constructs and the reliability of the scale (Gerbing & Anderson, 1988). To purify the measurement scale for OIM, the total sample of BG firms was split into two subsamples: Spanish BG firms and Nordic BG firms (DeVellis, 2003).

As recommended by Pallant (2001), Bartlett’s Test of Sphericity and KMO were performed on the data prior to factor extraction, to ensure that the characteristics of the data set were suitable for the factor analysis to be conducted. Table 18 reports that Bartlett’s Test of Sphericity is significant (p<.05) in both samples, and the value of the KMO index is above .50 (Kaiser, 1960). Our results suggest that the data satisfies the psychometric criteria for EFA to be performed.
Table 18 KMO and Bartlett’s Test of Sphericity

<table>
<thead>
<tr>
<th>Constructs</th>
<th>Spanish KMO</th>
<th>Bartlett’s Test of Sphericity</th>
<th>Nordics KMO</th>
<th>Bartlett’s Test of Sphericity</th>
</tr>
</thead>
<tbody>
<tr>
<td>CuO</td>
<td>.803</td>
<td>141.287 D.F. 15 Sig. .000</td>
<td>.778</td>
<td>159.357 D.F. 15 Sig. .000</td>
</tr>
<tr>
<td>CO</td>
<td>.767</td>
<td>105.372 D.F. 6 Sig. .000</td>
<td>.805</td>
<td>115.134 D.F. 5 Sig. .000</td>
</tr>
<tr>
<td>IC</td>
<td>.756</td>
<td>124.305 D.F. 6 Sig. .000</td>
<td>.739</td>
<td>76.968 D.F. 6 Sig. .000</td>
</tr>
<tr>
<td>ITC</td>
<td>.837</td>
<td>207.825 D.F. 10 Sig. .000</td>
<td>.820</td>
<td>179.411 D.F. 10 Sig. .000</td>
</tr>
<tr>
<td>NW</td>
<td>.598</td>
<td>24.847 D.F. 3 Sig. .000</td>
<td>.576</td>
<td>22.036 D.F. 3 Sig. .000</td>
</tr>
</tbody>
</table>

3.3.4.2.1 Exploratory Factor Analysis

The purpose of this step (EFA) is to verify that all previously generated items effectively aggregate into five unidimensional, non-redundant and constituent components of OIM. EFA was performed using a principal component extraction method, with SPSS v21.0. The unidimensionality of the five constructs was proved in both the Spanish and the Nordic samples, with one exception: the construct of CuO. After conducting an analysis of the factor matrix, we detected that the item “We collect customer information using external sources (such as market research agencies, syndicated data sources and consultants)” was not related to the remainder of the items that measure the construct of CuO, in either the Spanish or the Nordic BG samples; thus, this item was eliminated from the CuO construct measurement. Once we had deleted the item, the unidimensionality of the five constructs with 22 items was ensured for measuring the OIM in both samples.

To assess reliability, the item-to-total correlation and Cronbach’s alpha were computed (Table 19). First, it is convenient to mention that the consideration of multiple items for each construct increases construct reliability (Terblanche & Boshoff, 2008). Analyses of the item-to-total correlation, which measures the correlation of each item with the sum of the remaining items that constitute the scale, showed that it was greater than .30, as recommended by different authors (Nurosis, 1993; Field, 2000), in the Spanish as well as in the Nordic BG samples. All Cronbach’s alpha values were computed to test the internal consistency. These Cronbach’s alpha values exceeded the recommended threshold of .70 (Nunnally & Bernstein, 1994) in all the constructs (ranging from .756 to .861) with the exception of the network construct in both samples (Spanish α=.574, Nordic=.542).
In assessing the EFA, we ensured that all the items exceeded the required factor loading of .50 and that the dimensions exceeded 50% of the explained variance with eigenvalues $\geq 1.0$ (Hair et al., 2006).
Table 19 Exploratory Factor Analysis

<table>
<thead>
<tr>
<th>Construct</th>
<th>Item</th>
<th>Spanish (n=82)</th>
<th>Nordics (n=134)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Item-total correlation</td>
<td>Factor Loading</td>
</tr>
<tr>
<td>Cuo</td>
<td>Cuo1</td>
<td>.609</td>
<td>.764</td>
</tr>
<tr>
<td></td>
<td>Cuo2</td>
<td>.677</td>
<td>.806</td>
</tr>
<tr>
<td></td>
<td>Cuo3</td>
<td>.546</td>
<td>.711</td>
</tr>
<tr>
<td></td>
<td>Cuo4</td>
<td>.494</td>
<td>.661</td>
</tr>
<tr>
<td></td>
<td>Cuo5</td>
<td>.494</td>
<td>.661</td>
</tr>
<tr>
<td></td>
<td>Cuo6</td>
<td>.425</td>
<td>.571</td>
</tr>
<tr>
<td>CO</td>
<td>Co1</td>
<td>.657</td>
<td>.826</td>
</tr>
<tr>
<td></td>
<td>Co2</td>
<td>.722</td>
<td>.863</td>
</tr>
<tr>
<td></td>
<td>Co3</td>
<td>.463</td>
<td>.656</td>
</tr>
<tr>
<td></td>
<td>Co4</td>
<td>.639</td>
<td>.811</td>
</tr>
<tr>
<td>IC</td>
<td>Ic1</td>
<td>.541</td>
<td>.796</td>
</tr>
<tr>
<td></td>
<td>Ic2</td>
<td>.633</td>
<td>.845</td>
</tr>
<tr>
<td></td>
<td>Ic3</td>
<td>.687</td>
<td>.873</td>
</tr>
<tr>
<td></td>
<td>Ic4</td>
<td>.726</td>
<td>.718</td>
</tr>
<tr>
<td>ITC</td>
<td>Itc1</td>
<td>.428</td>
<td>.564</td>
</tr>
<tr>
<td></td>
<td>Itc2</td>
<td>.773</td>
<td>.873</td>
</tr>
<tr>
<td></td>
<td>Itc3</td>
<td>.724</td>
<td>.836</td>
</tr>
<tr>
<td></td>
<td>Itc4</td>
<td>.779</td>
<td>.886</td>
</tr>
<tr>
<td></td>
<td>Itc5</td>
<td>.726</td>
<td>.849</td>
</tr>
<tr>
<td>NW</td>
<td>Nw1</td>
<td>.331</td>
<td>.674</td>
</tr>
<tr>
<td></td>
<td>Nw2</td>
<td>.477</td>
<td>.814</td>
</tr>
<tr>
<td></td>
<td>Nw3</td>
<td>.363</td>
<td>.730</td>
</tr>
</tbody>
</table>
3.3.4.3 Stage three: Scale validation

To analyze the proposed measurement model, confirmatory factor analysis (CFA) was performed, with maximum-likelihood estimation, on the samples of BG firms, using AMOS v21 software (figure 9). This approach is commonly used in the development process for measurement instruments, to assess the reliability and validity of the constructs in the model (Yi & Gong, 2013). Consistent with the structural equation modeling literature (Byrne, 2008), it is important to establish whether the constructs and model are of a formative or a reflective type, and to establish the higher order factor of the proposed measure for OIM, because this distinction is essential for the proper specification of a measurement model and is necessary if meaningful relationships are to be assigned in the structural model (Coltman et al., 2008). In fact, there is extensive debate regarding the reflective versus formative nature of observed measures and models in the literature (e.g. the Journal of Business Research special issue (61/12) covers the controversy about the formative versus reflective model specification).

We propose that OIM is a reflective second-order construct measured by five reflective first-order dimensions (customer orientation (CuO), competitor orientation (CO), interfunctional coordination (IC), innovativeness and technological capability (ITC) and influence of networks (NW)) because variation in the level of OIM leads to variation in its indicators, and also because those indicators are presumed to be interrelated (Judge & Kammeyer-Mueller, 2012). Therefore, we suggest a Type 1 model, using Jarvis et al.’s (2003) terminology (“first-order latent factors with reflective indicators and also that these first-order factors are themselves reflective indicators of an underlying second-order construct” (p.204)). Although several authors have recommended the use of formative indicator models, where causality flows from the items to the latent variable, as an alternative to traditional scale development (Jarvis et al., 2003; Rossiter, 2002; Salzberger & Koller, 2013), there is still a predominance of the use of a reflective indicator in scale development. Reflective measurement has filled the role of creating measures of constructs within marketing research and within the market orientation scale. The previous literature review confirms that researchers typically consider MO as a reflective measure (Diamantopoulos & Siguaw, 2006; Hult et al., 2005; Smirnova et al., 2011). In addition, within international business research the reflective model is considered to be the most
suitable for performing measurement invariance (Diamantopoulos & Papadopoulos, 2010). In this regard, in our research we used the reflective model for our proposed scale.

To confirm the existence of multidimensionality in the OIM concept, an alternative model strategy was developed (Diamantopoulos & Papadopoulos, 2010). Thus, we compared a second-order model in which various dimensions measured the multidimensional construct under consideration with a first-order model in which all items weighed on a single factor (Steenkamp & Van Trijp 1991). The results showed that the second-order model had a much better fit than the first-order model. These results enabled us to conclude that the OIM construct demonstrated a multidimensional nature.

**Figure 9 Original Measurement Model of OIM of BG Firms**
3.3.4.3.1 Measurement model

The normality assumption for the data was assessed prior to conducting the analysis (Kaplan, 2009). Skewness (<±3) and Kurtosis (<±10) tests were conducted for each item (Kline, 1986). The results do not support the normality assumption in the two BG firms samples. Furthermore, for various items, the critical values exceeded +2 or -2, and therefore the results revealed the non-normal distribution of the data. One method to correct for non-normality is to use the Bollen-Stine p-value rather than the usual maximum likelihood-based p-value to assess the overall model fit. Furthermore, the bootstrapping method (1,000 subsamples) was utilized to produce parameter estimates, standard errors, and p-values (Efron & Gong, 1983).

The scale refinement process followed the multiple decision rules proposed by Jöreskog and Sörbom (1993): (a) weak convergence requiring the elimination of indicators that did not have a significant factorial regression coefficient for Student’s t distribution of at least 2.58 (p = 0.01); (b) strong convergence forcing the elimination of those indicators that were not substantial, i.e., those whose standardized coefficient (λ) was less than .50; and (c) a selective elimination of indicators that least contributed to the explanation of the model, given the cut-off point of $R^2$ less than .3. Following all these recommendations, we eliminated three items from the CuO scale (CuO4, CuO5 and CuO6), two items from the CO scale (CO3 and CO5), one item from ITC (ITC1) and the construct NW. We would like to point out that the elimination of this construct was unexpected because the literature, from our perspective, provides arguments that justify its consideration as a component of the orientation towards international markets (as we have mentioned in the previous chapter, there is research showing how networks are factors that heavily influence the internationalization process of BG firms (Sharma & Blomstermo 2003; Gabrielsson et al., 2004; Kocak & Abimbola 2009)). As we mention in the discussion section, we believe that more research is needed on this construct, especially regarding the items that could be used for measuring it. The 13 retained items are a parsimonious way of capturing OIM, and were used for the final measurement model in all the subsequent analyses.

A series of CFAs were conducted in AMOS v21 to assess the psychometric properties of the scale and identify the optimal model. First, CFA was performed on the entire sample of 216 firms. Subsequently two additional separate CFAs were performed on the two sub-samples: the 82 Spanish firms and the 134 Nordic firms. The overall Bollen-Stine bootstrap results indicate a good fit in all three models (p=0.347 in the entire sample;
p=0.240 in the Spanish sample; p=0.247 in the Nordic sample). In addition, the fit of the models was assessed via five indices: the normed chi-square, the SRMR, the RMSEA, the TLI and the CFI. For an adequate fit, the SRMR and RMSEA values should be less than .08 and .06 respectively (Gardner & Pierce, 2010) and there should be large values (at least .90) for the TLI and the CFI (Hinkin, 1998; Sharma & Weathers, 2003). Table 20 shows the SRMR, RMSEA, TLI, CFI and Bollen-Stine bootstrap indices for the overall sample and the subsamples (Nordic and Spanish firms).

Table 20 Goodness-of-Fit Summary of the OIM Scale

<table>
<thead>
<tr>
<th>Model</th>
<th>Bollen-stine Bootstrap</th>
<th>$x^2$</th>
<th>p</th>
<th>$x^2/df$</th>
<th>SRMR</th>
<th>RMSEA</th>
<th>TLI</th>
<th>CFI</th>
</tr>
</thead>
<tbody>
<tr>
<td>Overall BGs</td>
<td>p=.347</td>
<td>79.264</td>
<td>.040</td>
<td>1.343</td>
<td>.04</td>
<td>.04</td>
<td>.976</td>
<td>.982</td>
</tr>
<tr>
<td>Spanish BGs</td>
<td>p=.240</td>
<td>81.029</td>
<td>.030</td>
<td>1.373</td>
<td>.05</td>
<td>.06</td>
<td>.945</td>
<td>.958</td>
</tr>
<tr>
<td>Nordics BGs</td>
<td>p=.247</td>
<td>81.767</td>
<td>.027</td>
<td>1.386</td>
<td>.06</td>
<td>.05</td>
<td>.952</td>
<td>.964</td>
</tr>
</tbody>
</table>

Construct reliability and validity

The reliability of a measure is the extent to which it is free from random error. To estimate the reliability of each dimension, we employed Cronbach’s alpha and examined the internal consistency of the indicators that measured each CFA factor (Cronbach & Shavelson, 2004). Table 21 presents the Cronbach’s alpha scores, and shows that they were all above the recommended threshold of .70, with the exception of the CuO in the Nordic sample (α=.699).

Construct validity is “the extent to which a set of measured items actually reflects the theoretical latent construct those items are designed to measure” (Hair et al., 2006, p. 776). We evaluated construct validity through convergent and discriminant validity.

Convergent validity indicates whether or not all the factor loadings of the items in the scale are significant (Bagozzi & Yi, 1991). We adopted the three criteria recommended by Hair et al. (2006) for satisfying convergent validity: (1) the factor loadings should be above .50, (2) the average variance extracted (AVE) should reach .50 as a minimum, and (3) the composite reliability (CR) should be above .60 or .70.

Table 21 shows that all the factor loadings of the items ranged between .575 and .902, and all were significant (p<0.001). They are all adequate and demonstrate loadings on the appropriate factor in the three models, indicating convergent validity of the scale of OIM. The value of AVE varied from .59 to .69 in the Spanish sample and .45 to .58 in the
Nordic, thus modestly satisfying the criterion of .50. The CR of the four constructs exceeded the recommended level of .60-.70. Therefore, all of the parameters in the models were considered reasonable and acceptable.

**Table 21 Internal consistency and convergent validity**

<table>
<thead>
<tr>
<th></th>
<th>Overall BGs</th>
<th>Spanish BGs</th>
<th>Nordics BGs</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Factor</td>
<td>A</td>
<td>CR</td>
</tr>
<tr>
<td></td>
<td>loading</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CuO</td>
<td>.735</td>
<td>.757</td>
<td>.510</td>
</tr>
<tr>
<td>CuO1</td>
<td>.774</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CuO2</td>
<td>.667</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CuO3</td>
<td>.699</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CO</td>
<td>.790</td>
<td>.792</td>
<td>.560</td>
</tr>
<tr>
<td>CO1</td>
<td>.716</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CO2</td>
<td>.764</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CO4</td>
<td>.764</td>
<td></td>
<td></td>
</tr>
<tr>
<td>IC</td>
<td>.782</td>
<td>.785</td>
<td>.552</td>
</tr>
<tr>
<td>IC1</td>
<td>.655</td>
<td></td>
<td></td>
</tr>
<tr>
<td>IC2</td>
<td>.807</td>
<td></td>
<td></td>
</tr>
<tr>
<td>IC3</td>
<td>.759</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ITC</td>
<td>.862</td>
<td>.864</td>
<td>.614</td>
</tr>
<tr>
<td>ITC2</td>
<td>.826</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ITC3</td>
<td>.726</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ITC4</td>
<td>.789</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ITC5</td>
<td>.791</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Discriminant validity represents the extent to which one construct is empirically distinct from other constructs or, in other words, “the construct measures what it is intended to measure” (Hair et al., 2014, p.112). The discriminant validity of the four-dimensional scale was evaluated by comparing the squared correlation with the AVE value for each of the latent constructs (Fornell & Larcker, 1981).

We found that all the squared correlations in the scale were below the AVE value for the respective construct (Table 22). Farrell (2010) stated that “a lack of discriminant validity reduces confidence in results” (p.326), but we found that discriminant validity was supported for all pairs of dimensions for the OIM scale.
Table 22 Discriminant validity of the theoretical construct measures

<table>
<thead>
<tr>
<th></th>
<th>Overall BG firms</th>
<th>Spanish BG firms</th>
<th>Nordics BG firms</th>
</tr>
</thead>
<tbody>
<tr>
<td>CuO</td>
<td>0.51</td>
<td>CuO</td>
<td>0.45</td>
</tr>
<tr>
<td>CO</td>
<td>0.18</td>
<td>CO</td>
<td>0.06</td>
</tr>
<tr>
<td>IC</td>
<td>0.34</td>
<td>IC</td>
<td>0.36</td>
</tr>
<tr>
<td>ITC</td>
<td>0.10</td>
<td>ITC</td>
<td>0.11</td>
</tr>
</tbody>
</table>

Taken together, these results indicate that the measurement model of OIM in both samples of BG firms (the Spanish and the Nordic) appears to fit the data reasonably well, so it can be used as the baseline model to investigate further invariance (Byrne et al., 1989).

3.3.4.4 Stage four: assessing measurement invariance

To establish cross-national applicability and external validity, it is necessary to show that our scale of OIM has measurement invariance across the Spanish and Nordic samples. The differences that could exist between the ratings given by the scales in the two subsamples could be the result of either real differences between the companies or systematic errors produced by the manner in which people in different companies responded to certain items. As Horn (1991) proposed, “without evidence of invariance of the measurement instrument, the study conclusions would be weak” (p. 119). In order to examine measurement invariance, we conducted multi-group CFA (Vandenberg & Lance, 2000). In addition to the $\chi^2$ difference test, the fit of the model in each step was also assessed by examining the normed chi-square ($\chi^2/df$) ratio, the CFI, the TLI, and the RMSEA (Steenkamp & Baumgartner, 1998).

In this section we show how we sought to establish whether OIM can be conceptualized in the same way across the countries, and how we explored whether different scores for the items can be meaningfully compared across countries. To meet these objectives, we tested configural and metric invariance following the procedure suggested by Steenkamp and Baumgartner (1998). They state that “configural invariance is needed to explore the basic meaning and structure of a construct in a cross-cultural setting, and metric invariance is required to relate a central construct to others in a nomological net” (p.82).

Following other studies, to make between-country comparisons, the samples should preferably be of similar size (Finn & Kayande, 1997; Sharma & Weathers, 2003). Thus, a sample of 82 Spanish BG firms and 83 randomly identified Nordic BG firms was selected. As a first step, we evaluated the loose cross-validation or single group solution. CFA was
conducted to assess the fit across each group (a good fit in both samples is required). Scholars have addressed the importance of conducting single-group analysis prior to multi-group comparisons (Brown, 2006; Freitag & Bauer, 2013). As Table 23 shows, the results indicated that the measurement model in both groups appeared to fit the data well, so it could be used to investigate further invariance (Byrne et al., 1989).

The next step in establishing invariance across Spanish and Nordic firms was to test configural invariance. Configural invariance examines whether the items comprising the measurement instrument exhibit the same configuration of factor loadings across the countries (Steenkamp & Baumgartner, 1998, p.80). The four-factor measurement model established above was now examined using multi-group analysis to test the validity of the factor structure across the two group-countries simultaneously. In other words, the model was estimated simultaneously in the two groups. This model serves as a basis for determining whether the restrictions that are incorporated affect the adjustment negatively. The fit of the configural invariance model was satisfactory. As shown in Table 23, all the fit indices were within acceptable ranges ($\chi^2=176.22, \chi^2/df=1.49$, $p=.01$, TLI=.92, CFI=.94, RMSEA=.05), indicating that the same factor structure was found for the two samples. We observe how the chi-square value and the degrees of freedom are the sum of the two previous values (see Table 23), and although they remain significant, the remainder of the indicators show that it is reasonable to assume the same factorial structure in both samples.

Once configural invariance had been established, metric invariance could be tested. Metric invariance examines whether the factor loadings are the same for each scale item across samples. In other words, we ensured that the concepts had been measured in the same way in both cases. We tested metric invariance by constraining the factor loadings of the baseline model to be the same across sample splits. As the results show, $\chi^2=192.32, \chi^2/DF=1.51$, $p=.01$, TLI=.91, CFI=.93, and RMSEA=.05. Thus, it is necessary to compare the chi-square value from the second (equal form) and third (equal factor loadings) steps to verify that the fit of the new model is not significantly worse. As recommended by Byrne (2001), based on results of the chi-square test for the difference between the models of OIM, we found that the measurement model for the Spanish and Nordic BG firms had no significant differences ($\Delta \chi^2=16.10, \Delta DF=9, p = 0.065$). Thus, we can conclude that imposing restrictions on the equality of factorial loadings does not significantly and negatively influence the fit. Based on these results, it can be claimed that this structure fits the data very well across the countries. Metric invariance for this model
was supported. In fact, the current results supported the configural and metric invariance of OIM across the countries.

<table>
<thead>
<tr>
<th>Model</th>
<th>Bollen-stine bootstrap</th>
<th>$\chi^2$</th>
<th>D.F.</th>
<th>$\chi^2$/DF</th>
<th>TLI</th>
<th>CFI</th>
<th>RMSEA</th>
<th>Model Comparison M2-M1</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>$\Delta \chi^2$</td>
</tr>
<tr>
<td>Single group</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nordics BGs</td>
<td>.298</td>
<td>83.212</td>
<td>59</td>
<td>1.410</td>
<td>.920</td>
<td>.940</td>
<td>.061</td>
<td></td>
</tr>
<tr>
<td>Spanish BGs</td>
<td>.240</td>
<td>93.009</td>
<td>59</td>
<td>1.576</td>
<td>.923</td>
<td>.942</td>
<td>.052</td>
<td></td>
</tr>
<tr>
<td>Invariance</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>M2. Metric invariance</td>
<td>192.327</td>
<td>127</td>
<td>1.514</td>
<td>.918</td>
<td>.934</td>
<td>.056</td>
<td>16.10</td>
<td>9</td>
</tr>
</tbody>
</table>

### 3.4 DISCUSSION AND CONCLUSIONS

The purpose of this chapter was to validate the scale of OIM for born global firms. As a starting point (as described in chapter two), in-depth interviews and a comprehensive review of the literature were taken into consideration when formulating the 23-item pool. In order to ensure content analysis, we used constructs that had been validated in prior research.

Two analyses were conducted to establish the reliability and validity of the scale that had been developed. The EFA performed allowed us to develop scale purification and examine the dimensionality of the scale, which yielded a 22-item scale. This was followed by CFA that tested the factor structure, and in turn produced a multidimensional scale with four constructs and 13 items (see Table 24).

The result revealed that the proposed OIM scale consists of four dimensions, labeled customer orientation, competitor orientation, interfunctional coordination, and innovativeness and technological capability. With regard to the first three of these dimensions, our analysis suggested that they each make a unique contribution to the overall construct of orientation towards international markets. A study by Mavondo and Farelle (2000) suggests that these three constructs are useful when market orientation is employed in multiple countries. Our results are in a similar vein, taking into account the fact that BG firms operate in an international arena across the countries. However, our findings contrast
with previous studies that concluded that interfunctional coordination was not part of the construct of international market orientation. For instance, Dimitratos et al. (2012), on the basis of a quantitative study of SMEs with international activities, stated that interfunctional coordination is not part of the international market orientation construct. These authors took the view that “a mixture of customer and competitor orientations is what is principally required for an effective market strategy at both the domestic and international levels” (p.716). Similarly, a qualitative study based on eight BG firms highlighted that only two dimensions of MO (customer orientation and competitor orientation) were the main sources of learning by habitual entrepreneurs (Odorici & Presutti, 2013).

Table 24 Scale of orientation towards international markets of Born Global firms

<table>
<thead>
<tr>
<th>Constructs</th>
<th>Items</th>
</tr>
</thead>
<tbody>
<tr>
<td>Customer orientation (CuO)</td>
<td>CuO1: Our business objectives are driven by customer satisfaction.</td>
</tr>
<tr>
<td></td>
<td>CuO2: We monitor our level of commitment and orientation to serving</td>
</tr>
<tr>
<td></td>
<td>customers’ needs.</td>
</tr>
<tr>
<td></td>
<td>CuO3: Our strategy for competitive advantage is based on our</td>
</tr>
<tr>
<td></td>
<td>understanding of customer needs.</td>
</tr>
<tr>
<td>Competitor orientation (CO)</td>
<td>CO1: Our salespeople share information within our business</td>
</tr>
<tr>
<td></td>
<td>concerning competitors’ strategies.</td>
</tr>
<tr>
<td></td>
<td>CO2: We respond to competitive actions that threaten us.</td>
</tr>
<tr>
<td></td>
<td>CO3: The top management team regularly discusses competitors’</td>
</tr>
<tr>
<td></td>
<td>strengths and strategies.</td>
</tr>
<tr>
<td>Interfunctional coordination (IC)</td>
<td>IC1: We communicate information about our successful and unsuccessful</td>
</tr>
<tr>
<td></td>
<td>customer experiences across all business functions.</td>
</tr>
<tr>
<td></td>
<td>IC2: All of our business functions (e.g., marketing/sales, manufacturing, R&amp;D, inane/accounting) are integrated to serve the needs of our target markets.</td>
</tr>
<tr>
<td></td>
<td>IC3: All of our managers understand how everyone in our company can</td>
</tr>
<tr>
<td></td>
<td>contribute to creating customer value.</td>
</tr>
<tr>
<td>Innovativeness and technological</td>
<td>ITC1: We actively seek innovative ideas.</td>
</tr>
<tr>
<td>capability (ITC)</td>
<td>ITC2: We use knowledge-intensive technologies to improve existing</td>
</tr>
<tr>
<td></td>
<td>offerings.</td>
</tr>
<tr>
<td></td>
<td>ITC3: We encourage leadership in product/process innovation.</td>
</tr>
<tr>
<td></td>
<td>ITC4: We engage in innovative, proactive, and risk-seeking behavior</td>
</tr>
<tr>
<td></td>
<td>that crosses national borders as developed by our managers.</td>
</tr>
</tbody>
</table>

For BG firms acting in different foreign markets, the business objectives should be driven by customer satisfaction; their strategy for obtaining competitive advantage should be based on their understanding of all of their customers’ needs. Accordingly, these firms should monitor their level of commitment and orientation to serving customers’ needs. However, in addition to monitoring, the management team must communicate information regarding successful and unsuccessful customer experiences across all business functions. In this manner, it is possible to integrate all business functions (e.g. R&D, manufacturing, marketing, sales, and accounting) to serve the needs of the target markets. All managers
can understand how everyone in the firm can contribute to creating customer value. Moreover, top management should regularly discuss competitors’ strengths and strategies and respond to competitive and threatening actions by competitors. Hence, salespeople, who are likely to be the first to encounter such strategies, must share information in relation to competitor strategies with the entire organization.

The findings also show that innovativeness and technological capability is an element of the scale of OIM. This dimension was previously identified in the BG literature as one of the factors influencing the BG internationalization process (Zahra et al., 2000; Freeman et al., 2006; Zhang & Dodgson 2007). Furthermore, previous research suggests that BG firms seek to develop new products, designs, services, or ideas for international markets through innovativeness and technological capability (Efrat & Shoham, 2012; Zhang et al., 2009). Moreover, the integration of this construct for the measurement of the OIM of the BG firms is in line with the literature on MO that suggests that this construct drives a continuous and proactive disposition towards meeting customers’ needs (Han et al., 1998). The strong customer intimacy of BG firms enhances the successful development of innovative products (Sullivan et al., 2012).

Finally, regarding the network constructs, unlike our qualitative study (chapter two) and previous research (Coviello, 2006) which indicate that networks are relevant for BG firms, and could be an element of OIM, our empirical findings reveal that the psychometric proprieties of the networks were not supported by the empirical analysis performed under the context of both samples. As we mentioned earlier, this result is contrary to our expectation and the literature that previously linked the networks and the MO constructs. For instance, Ruokonen et al. (2008), argued that market orientation of international firms is integrated by the customer orientation and competitor orientation, proposing that the interfuntional coordination should be replaced by the construct of networks coordination. In a similar vein, Dimitratos et al. (2012) argued that there is a similar relationship between international networking and international market orientation in their study of international firms.

In the context of this study, then, a potential explanation could be that networks for born global firms are more of an external source that helps to overcome resource scarcity at the early stage of a firm’s establishment (such as financial networks that create a relationship to help with market entry and to reach new space in foreign markets). The proposed scale
validated by the BG firms managers reflected the role of the OIM as an internal capability of the firms that increasingly requires a focus on customers’ needs and market opportunities. Further, as pointed out by Park and Rhee (2012) “the number of networks is a pre-condition that is more influential in building knowledge competencies for international activities (p. 1375).

Therefore, the quantitative study provides no support for a relationship between networks and OIM for BG firms, thus our results are more in line with Gerschewski et al. (2015) and Thai and Chong (2008), than contrary to their expectation, to find limited support of the relationship between BG firms and their networks. According to Thai and Chong (2008) "prior international personal and business network is not a “must-have”"(p.95). Furthermore, in order to increase the comprehension between the networks and the proposed orientation (OIM), future research might try to explore the role of networks as a mediating factor between OIM and performance (Zhou et al., 2007).

After checking the psychometric properties of the proposed scale, we established the measurement invariance across firms from different countries. A significant criticism in the literature is the fact that many studies are based on a single country and have not been generalized to other contexts. In this research, we tested the cross-country measurement invariance of the scale. Our results established the measurement invariance of the four OIM constructs for born global firms from different countries, and this can facilitate comparison studies using cross-cultural samples.

Our contribution is to offer a significant advance in the current literature on international entrepreneurship and international marketing by affording an integrative framework to give a thorough understanding of how the MO concept can be extended into companies with specific features such as BG firms. We explore MO and provide a conceptualization of the OIM construct, and then develop a scale of OIM with four components, namely: customer orientation, competitor orientation, interfunctional coordination, and innovativeness and technological capability. We provide empirical evidence on the testable constructs that is both reliable and valid. The scale was tested in order to ensure measurement invariance, and we give a theoretical insight into how OIM can be generated and applied within different contexts.
3.4.1 LIMITATIONS AND FUTURE RESEARCH

This study assessed the psychometric properties and cross-country equivalence of an OIM scale for BGs through an examination of 165 of these companies from three countries, which helped us to deal with external validity aspects. However, the sample sizes were relatively small, which is one of the limitations of this study. Therefore, future studies are required, in order to validate the findings of this study with a larger sample and in other regions such as Central and South America and Africa that are under-researched areas for early internationalizing firms. Likewise, it could also be relevant to determine the validity of the proposed OIM scale for firms with different degrees of international involvement. For example, the assessment of this scale for those companies that followed a gradual internationalization process would allow us, if the scale is also valid for this type of firm, to provide a scale for measuring orientation towards international markets regardless of the internationalization pattern followed by the company. In this sense, the use of our scale with a comparative study of a large group of firms with different levels of internationalization could be helpful in providing answers to such questions, and could extend the validation of the scale to other types of firms.

Another limitation is related to the reliance placed on the perceptions of managers. As Rong and Wilkinson (2011) argue, studies that rely on perceptual information from managers may tell us only about sense-making by managers. Likewise, Uncles (2011) points out that a manager might believe that his organization can sense the market, but that customers or other stakeholders (suppliers, shareholders, analysts or competitors) might not think the same. Although we agree with Uncles (2011), we believe that having multiple respondents from each company to reflect the perspectives of managers with varied roles, functions, experiences, and life stages, and not simply relying on one senior manager as the key informant, is one option for overcoming this limitation; for this research this was not a possible alternative because of the management of the available information.

In conclusion, the 13-item validated OIM scale is a useful instrument to examine this issue, and can help us to understand further, for example, the relationship between OIM and BG firms’ performance. Future research would need to determine the degree to which BG firms’ performance is impacted by OIM.
3.5 REFERENCES


Vandenberg, R. J. (2002). Toward a further understanding of and improvement in measurement invariance methods and procedures. *Organizational Research Methods*, 5 (2), 139-158.


## APPENDIX 4  Scale development and validation

<table>
<thead>
<tr>
<th>Authors</th>
<th>Procedure/Stages</th>
<th>Statistical methods</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ahire, Golhar &amp; Waller (1996)</td>
<td>Scale refinement and validation, content validity analysis, unidimensionality, reliability, convergent, and discriminant validity analysis, criterion-related validity analysis.</td>
<td>Exploratory and confirmatory factor analysis</td>
</tr>
<tr>
<td>Amabile et al. (1996)</td>
<td>Scale structure, internal consistency, test-retest reliability, convergent and discriminant validity.</td>
<td>Confirmatory Factor Analysis.</td>
</tr>
<tr>
<td>Antoncic &amp; Hisrich (2001)</td>
<td>Measurement instrument, convergent and discriminant validity and for cross-cultural comparability</td>
<td>Exploratory and confirmatory factor analysis</td>
</tr>
<tr>
<td>Carlson et al., (2006)</td>
<td>Content adequacy, item validation, dimensionality, internal consistency, discriminant validity, measurement invariance and convergent validity.</td>
<td>Exploratory and confirmatory factor analysis</td>
</tr>
<tr>
<td>Diamontopolous &amp; Winklhofer (2001)</td>
<td>Content specification, indicator specification, indicator collinearity, and external validity.</td>
<td>Multiple indicators and multiple causes (MIMIC) model.</td>
</tr>
<tr>
<td>Ferris et al. (2005)</td>
<td>Development and initial validation (measures, dimensionality, reliability, fit statistics and alternative models and convergent, discriminant validity, measurement and predictive properties), factor structure confirmation and construct validity (convergent and discriminant validity) and criterion-related validity.</td>
<td>Exploratory and confirmatory factor analysis</td>
</tr>
<tr>
<td>Flynn &amp; Goldsmith (1999)</td>
<td>Scale development: item generation, internal consistency, test–retest reliability of the scale, construct validity, dimensionality and reliability validity and convergent and nomological</td>
<td>Exploratory and confirmatory factor analysis</td>
</tr>
<tr>
<td>Reference</td>
<td>Methodology</td>
<td>Analysis Method</td>
</tr>
<tr>
<td>----------------------------</td>
<td>-----------------------------------------------------------------------------------------------</td>
<td>----------------------------------------</td>
</tr>
<tr>
<td>Flynn et al. (1996)</td>
<td>Scale development: item generation, internal consistency, discriminant validity, test-retest reliability.</td>
<td>Exploratory and confirmatory factor analysis</td>
</tr>
<tr>
<td>Judge et al. (2003)</td>
<td>Item development and scale construction. Psychometric properties and evidence of a general factor. Convergent and discriminant validity</td>
<td>Exploratory and confirmatory factor analysis</td>
</tr>
<tr>
<td>Liden &amp; Maslyn (1998)</td>
<td>Item generation, scale development: tests of item variance, reliability, validity, response bias susceptibility, convergent, discriminant, criterion-related.</td>
<td>Exploratory and confirmatory factor analysis</td>
</tr>
<tr>
<td>Menor &amp; Roth (2007)</td>
<td>Development and validation of NSD competence measurement items and scales: item-sorting analyses and survey analyses (item and scale refinement, examination of nomological validity)</td>
<td>Confirmatory Factor Analysis</td>
</tr>
<tr>
<td>Netemeyer et al. (1996)</td>
<td>Item generation and judging, measure purification, dimensionality and internal consistency, measurement invariance tests and validity assessment.</td>
<td>Exploratory and confirmatory factor analysis</td>
</tr>
<tr>
<td>Patterson et al. (2005)</td>
<td>Model exploration and refinement, refinement of factor structure, scale refinement, assessment of proposed dimension structure and scale measures, internal homogeneity, confirmatory factor analysis of dimensional structure (consensual and discriminant validity, concurrent validity</td>
<td>Confirmatory Factor Analysis</td>
</tr>
<tr>
<td>Reidnbach &amp; Robin, 1990.</td>
<td>Initial scale development, testing measures, measure reliability, measure validity and dimension identification.</td>
<td>Exploratory factor analysis and multitrait-multimethod analysis</td>
</tr>
<tr>
<td>Richins &amp; Dawson</td>
<td>Scale development: item generation, item refinement, structure of the measure (reliability)</td>
<td>Exploratory and</td>
</tr>
<tr>
<td>Year</td>
<td>Authors</td>
<td>Methodology</td>
</tr>
<tr>
<td>------</td>
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</tr>
<tr>
<td>1992</td>
<td></td>
<td>and scale validation.</td>
</tr>
<tr>
<td>2001</td>
<td>Tian et al</td>
<td>Scale development: item development and Item refinement. Assessment of the latent structure, scale reliability, and scale norms: evaluation of the latent structure, scale reliability and scale norms. Nomological validity.</td>
</tr>
<tr>
<td>2005</td>
<td>Yang et al</td>
<td>Scale items development, confirmatory factor analysis: reliability and validity tests</td>
</tr>
</tbody>
</table>
# APPENDIX 5  Summary of model fit indices

<table>
<thead>
<tr>
<th>Indexes</th>
<th>Shorthand</th>
<th>Recommended values/references</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Absolute fit indices</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Chi-squared</td>
<td>$X^2$</td>
<td></td>
<td>Measure of fit of a model on data, which when multiplied sample size.</td>
</tr>
<tr>
<td>Normalized Chi-square</td>
<td>$X^2/DF$</td>
<td>$&lt;3$ (Hayduk, 1987)</td>
<td>Adjust for sample size</td>
</tr>
<tr>
<td>Goodness-of-fit index</td>
<td>GFI</td>
<td>$\geq .80$ (Scott, 1994)</td>
<td>Scaled between 0 and 1, with higher values indicating better model fit.</td>
</tr>
<tr>
<td>Adjusted GFI</td>
<td>AGFI</td>
<td>$\geq .80$ (Scott, 1994)</td>
<td>Adjusts the GFI based on the number of parameters in the model. Values can fall outside the 0-1.0 range.</td>
</tr>
<tr>
<td>Root mean square residual</td>
<td>RMR</td>
<td>$&lt;.1$ (Hu and Bentler, 1999)</td>
<td>Residual based. The average squared differences between the residuals of the sample covariances and the residuals of the estimated covariances. Unstandardized.</td>
</tr>
<tr>
<td>Standardized RMR</td>
<td>SRMR</td>
<td>$\leq .08$ (Hu and Bentler, 1999)</td>
<td>Standardized version of the RMR. Easier to interpret due to its standardized nature.</td>
</tr>
<tr>
<td>Root Mean Square Error of Approximation</td>
<td>RMSEA</td>
<td>$\leq .06$ (Hu and Bentler, 1999) $\leq .08$ (Browne and Cudeck, 1993)</td>
<td>Is the root mean square error of approximation.</td>
</tr>
<tr>
<td><strong>Incremental fit indices</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Normed fit index</td>
<td>NFI</td>
<td>$\geq .80$ (Ullman, 2001).  $\geq .90$ (Bentler &amp; Bonett, 1980). $\geq .95$ (Hooper et al., 2008).</td>
<td>Assesses fit relative to a baseline model which assumes no covariances between the observed variables</td>
</tr>
<tr>
<td>Tucker–Lewis index</td>
<td>TLI</td>
<td>$\geq .90$ (Bentler &amp; Bonett, 1980). $\geq .95$ for acceptance (Hooper et al. 2008)</td>
<td>Non-Normed, values can fall outside the 0-1 range.</td>
</tr>
<tr>
<td>Comparative fit index</td>
<td>CFI</td>
<td>$\geq .80$ (Bagozzi &amp; Yi, 1988) $\geq .90$ (Bentler &amp; Bonett, 1980). $\geq .95$ (Hu and Bentler, 1999)</td>
<td>Normed, 0-1 range.</td>
</tr>
</tbody>
</table>
## APPENDIX 6  The proposed scale for measuring the OIM of BG firms

<table>
<thead>
<tr>
<th>Construct</th>
<th>Items</th>
<th>Previous scales</th>
</tr>
</thead>
<tbody>
<tr>
<td>Customer orientation (CuO)</td>
<td>CuO1: Our business objectives are driven by customer satisfaction. CuO2: We monitor our level of commitment and orientation to serving customers' needs. CuO3: Our strategy for competitive advantage is based on our understanding of customer needs. CuO4: Our business strategies are driven by our beliefs about how we can create greater value for customers. CuO5: We measure customer satisfaction systematically and frequently. CuO6: We pay close attention to after-sales service. CuO7: We collect customer information using external sources (such as market research agencies, syndicated data sources and consultants).</td>
<td>Adapted from Narver and Slater (1990); Kim, et al. (2011)</td>
</tr>
<tr>
<td>Competitor orientation (CO)</td>
<td>CO1: Our salespeople share information within our business concerning competitors' strategies. CO2: We respond to competitive actions that threaten us. CO3: We target customers and customer groups in which we have (or can develop) a competitive advantage. CO4: The top management team regularly discusses competitors' strengths and strategies.</td>
<td>Adapted from Narver and Slater (1990)</td>
</tr>
<tr>
<td>Interfunctional coordination (IC)</td>
<td>IC1: We communicate information about our successful and unsuccessful customer experiences across all business functions. IC2: All of our business functions (e.g., marketing/sales, manufacturing, R&amp;D, accounting) are integrated to serve the needs of our target markets. IC3: All of our managers understand how everyone in our company can contribute to creating customer value. IC4: Our top managers from every function visit our current and prospective customers.</td>
<td>Adapted from Narver and Slater (1990)</td>
</tr>
<tr>
<td>Innovativeness and technological capability (TC)</td>
<td>ITC1: Technical innovation based on research results is readily accepted in the supply chain. ITC2: We actively seek innovative ideas. ITC3: We use knowledge-intensive technologies to improve existing offerings. ITC4: We have excellent leadership in product/process innovation. ITC5: We engage in innovative, proactive and risk-seeking behavior that crosses national borders as developed by our managers.</td>
<td>Adapted from Han et al., (1998); Andersson and Wictor (2003); Menguc and Auh (2006)</td>
</tr>
<tr>
<td>Influence of networks (NW)</td>
<td>NW1: We use network relationships for market entry and market development. NW2: External financial support allow us to operate in foreign markets. NW3: Our use of channels as system integrators/distributors, networks, and the internet helps us to reach new business space in international markets.</td>
<td>Adapted from Andersson and Wictor (2003); Gabrielsson and Kirpalani (2004); Coviello (2006)</td>
</tr>
</tbody>
</table>
CHAPTER FOUR
THE EFFECT OF ORIENTATION TOWARDS
INTERNATIONAL MARKETS ON THE BUSINESS
PERFORMANCE OF BORN GLOBAL FIRMS

ABSTRACT

Purpose- This chapter examines how the extended concept of market orientation for born global firms that we have called orientation towards international markets (OIM, which has four components: customer orientation, competitor orientation, interfunctional coordination and innovativeness and technological capability) affects business performance, as measured by customer performance and financial performance, in the context of born global firms, and whether this effect varies between countries.

Design/Methodology/Approach- The chapter uses data collected by web survey in a sample survey of a data set of 165 born global firms. The technique of confirmatory factor analysis is used to test the measurement properties of the study constructs, and multi-group confirmatory factor analysis is used in testing the measurement invariance. Subsequently, a structural equation modeling procedure is used to test the research hypothesis developed on the basis of the literature review.

Findings- The results show that the OIM components have a positive and significant effect on business performance in born global firms in both contexts (Nordic and Spanish companies) through customer and financial performance.

Originality/Value- This chapter advances the domain of international entrepreneurship into a new concept, OIM, which contributes to the achievement of superior performance in BG firms.

Keywords: Born global firms, orientation towards international market, performance, structural equation model.

Paper type: Research paper.

JEL Classification: C12, M13, M31, L25.
4.1 INTRODUCTION
The exploration of the relationship between MO and performance in the context of BG firms has been limited, with a few exceptions (Arpa et al., 2012; Gabrielsson et al., 2014). The lack of consistency in the findings about the importance of the MO construct for firm performance in BG firms might be partly attributable to the fact that the literature provides varying perspectives about the role of the different components of market orientation. In particular, Lengler et al. (2013) argued that, in the international context, the effect of firms’ market orientation is still at an early stage of development.

The purpose of this chapter is to examine how the extended concept of market orientation, in other words, orientation towards international markets, affects business performance in the context of BG firms, and whether this effect varies between countries. Therefore we address the following question: “To what extent are born global firms’ performances impacted by their orientation towards international markets?” To answer this question, we use structural equation modeling (SEM), and consider BG firms from three different countries (Denmark, Finland and Spain).

This chapter is organized as follows. In the next section we review some of the relevant literature that provides the foundation for this study. The focus is on the discussion in the literature of the performance of BG firms, and we derive a hypothesis for empirical examination. The next section introduces the methodological design for the assessment, and the SEM. The fourth section presents the findings of the data analysis and the results of the hypothesis. The final section discusses the findings and their implications for academics, and further research.

4.2 LITERATURE REVIEW
In line with the study’s objective of examining the impact of OIM on BG firms’ performance, first, we present a brief review of the link between strategic orientation and performance. Second, we review which type of performance measure is most relevant to BGs. Third, we briefly present the two most prominent theoretical frameworks that are associated with the sustainable business performance of OIM for BG firms: the resource based view (RBV) and dynamic capability (DC).
4.2.1 Born global firms and strategic orientation

Recent studies have revealed the business strategies employed by BG firms influenced them to succeed in the international markets and improved their performance (Hagen & Zucchella; 2014; Su, 2013; Sui & Baum, 2015; Weerawardena et al., 2015). As pointed out by Hagen et al. (2012) "strategic orientations influence organizational behaviour which in turn might become manifest in strategies leading to competitive advantage that ultimately influences performance" (p. 371). Studies exploring different types of strategic orientations include international entrepreneurial orientation, learning orientation and international-growth orientation (Gerschewski et al., 2015; Jantunen et al., 2008); customer orientation and technological orientation (Jeong et al., 2006); market orientation (Arpa et al., 2012; Laforet, 2008; Zhou et al., 2005). The strategic orientations are defined as “the guiding principles that influence a firm’ marketing and strategy-making activities” (Noble et al., 2002, p.25).

According to Cadogan (2012) "Strategic orientations do not exist in isolation: firms can and do have multiple strategic orientations” (p. 346). In this sense, scholars have highlighted the incorporation of various strategies within their studies, thus they have adopted the multiple orientations and explored how strategic orientations are related amongst themselves and their relationship with performance (Aziz & Omar, 2013; Etemad, 2015; Hult et al., 2001; Kropp et al., 2006; Laukkanen et al., 2013; Sürer & Mutlu, 2015). In relation to the question of if strategic orientation influences performance, Hagen et al. (2012) described that market orientation, entrepreneurial orientation and innovation orientation show a generally positive relationship with performance in the international scope. Thus, several studies highlight the importance of strategic orientation to the performance of BG firms. Kocak and Ambibola (2009) for example, based on five BG firms, analyzed the effect of learning orientation, entrepreneurial orientation and market orientation. The results show a positive effect on firms’ performance. Likewise, in their study of 299 Finnish companies, Jantunen et al. (2008) explored the relevance of strategic orientation such as: entrepreneurial orientation, learning orientation and International-growth orientation on performance. They found that strategic orientation is related to the performance of the BG firms.
Although the evidence points to a general support for strategic orientations-performance relationship (e.g., learning orientation, entrepreneurial orientation, brand orientation; market orientation), MO is recognized as the key strategic orientation of the firms to gain improved performance (Chad, 2014; Grinstein, 2006, 2008). Grinstein (2008), aimed to understand the relationship of the MO with alternative strategies that have been relevant for the business performance of the companies by conducting a meta-analysis. The results of the relationship between MO and other strategies orientations (innovation, learning, entrepreneurial, employee) was positive, thus MO can be viewed as a core strategy of the firms.

Based on an extensive review of the literature that investigated multiple orientation and the performance within the period of 1987 to 2010, Hakala (2011) covered a total of 67 articles. The findings show that the most relevant strategy was MO in comparison to other orientations, like entrepreneurial orientation, learning orientation and technology orientation. In a similar vein, Chad (2014) suggested that for non-profit companies, the MO provides the most positive effect in enhancing performance "over and above all other strategic orientations" (Chad, 2014 p. 92). Moreover, according to Odorici and Presutti (2013) "market orientation have emerged relatively recently as potentially important dimensions of strategic orientation that might explain the phenomenon of BG" (p. 270).

In summary, strategic orientations are considered as an important source to the international performance of the firms. Earlier works (Jantunen et al. 2008; Luostarinen & Gabrielsson, 2006; Kirpalani & Gabrielsson, 2012; Knight, 2015) have shown the importance of increasing research of MO as a key strategy of the BG firms. In response to this call, in this study, we aim to explore OIM and its implication on business performance of BG firms.

### 4.2.2 Measurement of performance in the context of born global firms

A close examination of the existing literature reveals a general consensus that an increase in a firm’s international operations will contribute positively to the performance of the firm (Hult et al., 2008). However, as Zhou and Wu (2014)
recognize, there is still room for more research in the field of international entrepreneurship (IE) linking early internationalization and performance: “theoretical development and empirical examination in the performance implications of early internationalization has become a central topic in International Entrepreneurship (IE) research” (p. 133). We have to recognize that performance has been used in the literature on BG firms from different perspectives and with multidimensional measures (Jones et al., 2011). The following discussion is organized according to the frame of reference, the operationalization of performance, the data collection method, and the measures themselves that are set out by Gerschewski and Xiao (2015) in their classification of performance in BG research.

4.2.2.1 Frame of reference

Matthyssens and Pauwels, 1996, in their extensive review of how performance can be measured, highlight two main frames of reference: the objective frame and the subjective one. In a similar manner, according to Jones et al. (2011) and Aspelund et al. (2007), most of the studies in the BG literature have adopted objective and/or subjective measures of performance.

According to González-Benito and González-Benito (2005): “The measurement of performance can focus on objectively quantifiable accounting or operative indicators, or on the subjective assessment of performance in comparison to objectives and competitors” (p.798). For instance, Jantunen et al. (2008) aimed to evaluate the impact of strategic orientation (entrepreneurial, learning, and international growth orientation) on the international performance of Finnish BG firms. They used six items to evaluate performance, and based their evaluation on subjective measures: sales volume, market share, profitability, market entry, image development, and knowledge development. Their results indicated that strategic orientation had a positive impact on international performance. On the other hand, Park and Rhee (2012) linked knowledge competency with an objective performance measurement that included six indicators (export sales, resale of imported products, domestic sales of products manufactured, domestic sales connected to licensing and royalties, foreign sales connected to licensing and royalties and other sources). Their results, based on 271 South Korean BG firms, reveal that the international business experience of managers and the use of networks are important preconditions for building a knowledge base, and that this leads to superior international performance.
Although seminal reviews of the literature (Aspelund et al., 2007; Hult et al., 2008) have emphasized the value of using a combination of objective and subjective indicators to measure performance, a preference for subjective indicators of performance was recommended by some authors (Bener & Glaister, 2010). These authors detected that subjective measures offer a better reflection of performance and are more direct measures than objective measures. Thus, as is recommended in many BG studies (Jantunen et al., 2008), in this research subjective measures will be considered.

4.2.2.2 Operationalization of performance

According to Hult et al. (2008) and Venkatraman and Ramanujam (1986), a broader conceptualization of performance includes financial and operational dimensions, including non-financial measures. Most of the studies of BG firms have adopted financial measures, although there are a few exceptions that measure non-financial performance (e.g. Mort & Weerawardena, 2006; Venkatraman & Ramanujan, 1986). In one of the studies that measures non-financial performance, Mort and Weerawardena (2006) measure performance using two non-financial items: entry into multiple markets and rapid market expansion. They argue that “it would be inappropriate to use profit and ROI as indicators as these firms have not reached the stage of sustained growth” (p.565).

Financial performance has been measured using a variety of different indicators on different dimensions (Venkatraman & Ramanujan, 1986). Appendix 7 presents the items employed in empirical studies that measure performance in terms of accounting performance (Gleason et al., 2006), business performance (Zhou et al., 2007), export performance (Kuivalainen et al., 2007), financial performance (Zhang et al., 2013), growth performance (Han & Celly, 2008), international performance (Park & Rhee, 2012), sales performance (Kuivalainen et al., 2007), and strategic performance (Efrat, & Shoham, 2012; Zhang et al., 2013).

After analyzing 96 studies in the field of international business, Hult et al. (2008) found that the largest body of studies focus on financial performance (sales, ROA, ROI, and profitability) and operational performance (market share and productivity). In a similar way, the empirical work reviewed suggested that the dominant way of measuring financial performance at the firm level was to consider sales growth, sales volume,
ROE, ROI, and profitability. The measure most often used for operational performance was market share.

4.2.2.3 Data collection methods for measuring the performance of BG firms

In the research on BG firms, a variety of data collection methods has been applied for measuring performance. As shown in Appendix 6, primary data collection was mainly used by the scholars. The majority of the studies reviewed here used surveys for data collection, and employed quantitative methods (e.g. Kundu & Katz, 2003; Park & Rhee, 2012; Zhou & Wu, 2014). This position is the same as in SME internationalization research, where the quantitative approach still dominates (Fillis 2007, p.123).

The studies on BG firms tend to use just one method, relying on the quantitative approach. Only three studies integrated qualitative and quantitative approaches (Crick, 2009; Efrat & Shoham, 2012; Zhou et al., 2007). Even those studies applied a simple two-step approach, such as interviews followed by a survey. Furthermore, Efrat and Shoham (2012) and Zhou et al. (2007) reported only their survey results, again highlighting the quantitative emphasis. Only Crick (2009) reported findings of both interviews and surveys.

In general, when primary sources were used, performance was assessed in the studies as a multidimensional/multilevel construct (see Appendix 7, with an exception being the paper of Zhou et al. (2010)). The link between internationalization and performance has received scholarly attention from several authors, and a positive connection between these two aspects is generally assumed.

4.2.2.4 Extant measures of born global performance

The performance of BG firms has been conceptualized as “the extent to which financial and other goals are achieved as a function of business strategies” (Knight & Cavusgil 2004, p. 129). Scholars have measured performance in BG firms in a variety of ways, measuring such things as marketing performance (Clark, 2000), brand performance (O’Cass & Ngo, 2007), employment performance (Sadikoglu & Zehir, 2010), innovation performance (Rosenbusch et al., 2011), and new product performance (Gatignon & Xuereb, 1997), among others. In our literature review of research on BG firms, we detected that the majority of the studies included export performance,
international performance, and firm performance (Crick, 2009; Jones et al., 2011; Zhou et al., 2010).

Export performance has attracted a great deal of attention among researchers during the last couple of decades (Cavusgil & Zou, 1994; Katsikeas et al., 2000). In a comprehensive meta-analysis, Gemünden (1991) found that there are many explanatory variables for measuring export performance at the export venture level. This multiplicity in the number of variables arises from the multi-disciplinary scope of the possible assessment of export performance, which includes international business, international entrepreneurship, and international marketing (Kahiya & Dean, 2014). However, as pointed out by Katsikeas et al. (2000), “export performance is one of the most widely researched but least understood and most contentious areas of international marketing” (p. 333). As result, there are difficulties in conceptualizing, operationalizing, and measuring export performance (Leonidou & Katsikeas, 2010; Kahiya & Dean, 2014). In BG research several studies have evaluated the impact on export performance of strategic orientation (Kuivalainen et al., 2007), resources and intentions (Kundu & Katz, 2003), social networks (Zhou et al., 2007), information technology capability (Zhang et al., 2013) and the role of the Internet (Sinkovics et al., 2013).

International performance has been theoretically and empirically linked to BG firms research. There are a variety of determinants and measures employed in international performance studies: for instance, according to Cicic et al. (2002), in order to measure a firm’s international performance four indicators could be used – sales, profits, change in sales and change in profits. In the study conducted by Zhou et al. (2010), a one-dimensional construct of international performance (international sales growth) was employed to evaluate its relationship with the learning advantages of newness in 436 Chinese firms. Madsen (1987), taking into account the strategic view, identified two strategies that impact positively on international performance: (1) communications with customers/local representatives; and (2) the level of marketing/financial support for local intermediaries. Along the same lines, Knight and Cavusgil (2004) found a positive relationship between international performance and business strategies and organizational culture. Their findings supported the proposition that strategies and organizational culture maximize the international performance of BG firms.
The measurement of firm performance involves several alternatives in many of the studies of BG firms. In an extensive overview of the IE field that highlighted opportunities for marketing researchers, Styles and Seymour (2006) recommended understanding performance in terms of survival, growth and profit. Many of the BG firms studies included these measurements of firm performance (Gerschewski et al., 2015; Johanson & Martin, 2015). Efrat and Shoham (2012) “assessed the survival of the BGs firms that refers to firms’ ability to maintain independent operations” (p. 677). They classified the survival of the firm as a long-term factor, and strategic performance as having a short-term impact on the firm. Their findings reveal that management, marketing, and technological capabilities affect the survival rates of firms.

Most of the studies reviewed suggested that there is a positive relationship between being a BG and performance, in terms of growth and profit (Aspelund et al., 2007). In a similar vein, Zhou and Wu (2014) examined the impact of early foreign market entry on growth and profitability. The results indicated that early international entry had a positive impact on sales growth, but unfortunately they did not find a positive relationship with profitability.

### 4.2.3 Orientation towards international markets and performance: Using the approaches of the resource based view and dynamic capability

As we mentioned in the previous chapters of this thesis, the components of OIM are rooted in the MO concept. The literature extensively documents the positive relationship between market orientation and firm performance (Chang et al., 2014; Kirca et al., 2005; Martin & Grbac, 2003; Tsai et al., 2008; Wang et al., 2012; Voss & Voss, 2000). The conceptual frameworks that have supported the relationship between the components of MO and performance in the academic literature are most often the resource based view and dynamic capability (Armario et al., 2008; Hunt & Lambe, 2000; Martelo et al., 2011). These approaches have received growing attention in strategic management, marketing and international business as sources of competitive advantage for firms (Covin & Miller, 2014; Peng, 2001; Zahra et al., 2006). Liao et al. (2011) stated that “according to RBV, MO might increase an organization’s ability to understand and satisfy customers, thereby increasing its organizational capabilities” (p. 305). Because in this study OIM is rooted in the components of MO, we draw on the
RBV and DC as frameworks that support its relationship with performance. Thus, in the next subsection we briefly explore these two approaches (RBV and DC).

4.2.3.1 The resource based view

The RBV of the firm has emerged from the strategic management field (Barney, 1991; Peteraf, 1993; Wernerfelt, 1984) and is now also known as resource based theory (RBT) (Barney et al., 2011; Peiris et al., 2012). It asserts that a firm’s valuable, rare, inimitable and non-substitutable resources allow it to develop long-term competitive advantages that translate into superior performance (Barney, 1991). According to Nath et al. (2010), RBT is built from the perspective that firms will have different resources and capabilities that produce different performance results.

The rapid expansion of the RBT within the field of international business (IB) and marketing has been analyzed in different pieces of research. Regarding the link between the RBT and IB research, Peng (2001), on the basis of 66 articles, found that the RBT played a part in different areas of IB such as the management of multinational firms, strategic alliances, market entries, emerging markets, and IE. According to Peng (2001)“the RBV has made IB research more theoretically rigorous” (p.819). An extensive review of 291 articles on IE conducted by Peiris et al. (2012) found that the RBT is one of the dominant frameworks used in the understanding of IE.

On the other hand, growing evidence in practice and academic research supports the link between the RBT and marketing (Barney et al., 2011; Bharadwaj et al., 1993; Capron & Hulland, 1999; Wernerfelt, 2014). An extensive literature review conducted by Kozlenkova et al. (2014) showed that the use of the RBT within the field of marketing had increased by more than 500% over a decade. Regarding the contribution of the RBT within marketing, Kozlenkova et al. (2014) stated that RBT “offers a compelling framework for integrating multiple, dissimilar resources to explain their synergistic, differential effects on performance and their associated contingencies” (p.18).

In the marketing literature, there has been extensive use of the RBT as a key theoretical framework for analyzing the components of MO (Evanschitzky, 2007; He et al., 2013; Hult & Ketchen 2001; Lonial & Carter, 2013; Tokarczyk et al., 2007). For instance, drawing on the RBT, Menguc and Auh (2006) argued that MO, when linked with a high
level of innovativeness, has a stronger impact on firm performance. In a similar vein, Hult and Ketchen (2001) found that innovation capability, entrepreneurship, organizational learning, and MO enhance a firm’s positional advantage. The authors highlighted the fact that MO generates the strongest positional advantage. Lonial and Carter (2013) connected MO, learning orientation, and entrepreneurial orientation as sources of sustainable advantage that tend to lead to superior company performance. Based on MO as a resource of the firm, Armario et al. (2008) found that this orientation is viewed as an antecedent of the internationalization process for those SMEs that adopt the sequential approach for operating in foreign markets.

Jaakkola et al. (2010), Merrilees et al. (2011), and Morgan et al. (2009), found that MO, coupled with other marketing capabilities, enables the firm to gain competitive advantage, which consequently leads to superior performance. In addition to the MO components, the RBT also supports the components of OIM that are known as innovativeness and technological capability (Kocak & Ambibola, 2009; Shou et al., 2014). Thus, the RBT is particularly suitable for explaining OIM, because this orientation can be understood as a company capability with a positive impact on firm performance (Armario, et al., 2008; Hult et al., 2005).

4.2.3.2 Dynamic Capability
The dynamic capability (DC) framework is an extension of the RBV (Eisenhardt & Martin, 2000). Teece et al. (1997) argued that DC enables firms to create a competitive advantage. Additionally, researchers have demonstrated a positive relationship between DC and performance (Eisenhardt & Martin, 2000; Hung et al., 2010; Lin & Wu, 2014; Slater et al., 2006; Zott, 2003). For example, Eriksson (2014) conducted a survey of 142 studies using DC and found that the outcomes of DC have been analyzed mainly in terms of performance. Zahra et al. (2006) explored the role of DC within the entrepreneurship literature, and, for them, “the effect of dynamic capabilities on performance will depend on the quality of the organization’s knowledge base” (p. 943).

The quantity of research conducted on the topic of DC has grown significantly, and scholars have adopted the use of DC in the fields of IB and marketing (Cavusgil et al., 2007; Peiris et al., 2012). Regarding IB and the DC approach, the existing literature has focused on the influence of DC on international expansion (Luo, 2000) and the internationalization process and performance (Prange & Verdier, 2011), and the
relationship of DC with the accelerated internationalization of BG firms/INVs (Evers, 2011; Weerawardena et al., 2007). Furthermore, according to Evers (2011) and Schweizer et al. (2010), the capabilities of networking and learning have a positive effect on the internationalization process. On the other hand, the use of DC in the marketing research shows the emergence of a diversity of approaches such as marketing capability (Vorhies et al., 2011), marketing dynamic capability (Fang & Zou, 2009), and dynamic marketing capabilities (Wang et al., 2013). According to Morgan (2012), dynamic marketing capability has emerged from DC theory and the strategic marketing literature, and is composed of market learning, resource reconfiguration, and capability enhancement. Blesa and Ripollés (2008) explored the impact of marketing capability on performance. Their results indicated that marketing capability has a positive effect on firms’ performance. According to Barrales-Molina et al. (2013), marketing capability incorporates the role of MO. Some studies (e.g. Barreto, 2010; Foley & Fahy, 2009; Van Raaij & Stoelhorst, 2008) found a clear relationship between DC and the MO components. The definition offered by Kyriakopoulos and Moorman (2004) describes MO as “a firm's capability to anticipate market requirements ahead of competitors and to create durable relationships with customers, channel members, and suppliers” (p.220).

The components of MO have a positive relationship with a number of capabilities, such as market-sensing capability (Day, 1994), knowledge management (Martelo et al., 2011), and customer relationship management (Hooley et al., 2005). Likewise, the integration of DC into the MO field has been addressed as a determinant of performance; for instance, Menguc and Auh (2006), using a survey of 242 Australian firms, argued that MO as a DC, in combination with innovativeness, has a positive effect on firm performance. Olavarrieta and Friedmann (2008) linked the MO components and DC and identified the components as factors that determine firms’ performance. Moreover, the components of OIM (innovativeness and technological capability) have previously been referred to as the DC of firms (McAdam et al., 2014; Weerawardena et al., 2015).

Therefore, studies have indeed concluded that MO provides firms with market-sensing and customer-linking capabilities that enhance organizational performance (Hult & Ketchen, 2001). In terms of customer-related benefits, MO has been found to enhance customer satisfaction and loyalty, because market-oriented firms are well positioned to
anticipate customer needs and to offer goods and services to satisfy those needs (Slater & Narver, 1994). In relation to this, it has been asserted by BG scholars that the components of OIM are critical determinants for performance (Gerschewski et al., 2015; Knight & Cavusgil, 2004). Consequently, much of the empirical research on MO (including in the context of domestic firms and exporters) has tested the relationship between MO and performance, and the mainstream theory seems to suggest a positive impact of the extended construct of MO, OIM, on performance; therefore, this study presents the following hypothesis:

*The higher the orientation towards international markets of a born global firm, the higher the performance of this company.*

### 4.3 METHODOLOGY

#### 4.3.1 Sample

In this study, as detailed in chapter three, the data collected in the multi-country context were evaluated through the recommended test of non-response bias. In order to test the hypothesis, and assess the performance construct, we used the total of 165 BG firms.

In addition, as in the previous chapter, this study also examined the common method bias by running Harman’s one-factor tests. Based in Nordics sample (n=83), the factor analytic results indicated the existence of three factors with eigenvalue greater than 1.0. The three factors explained the 63.48% variance. With regards to the Spanish firms (n=82), the results show that three factor were extracted with eigenvalues greater than 1, accounting for 69.12%. There was no single factor that emerged that could account for the majority of the covariance in the measures, suggesting that no common method variance occurred.

#### 4.3.2 Data analysis technique

Structural Equation Modeling (SEM) is an important tool that has been applied in the field of marketing and IE (Iacobucci, 2009; Park & Rhee, 2012). This analytical technique is appropriate for specifying, estimating, and evaluating models of linear relationship among a set of observable variables with respect to what is usually a smaller number of unobserved variables (Bentler, 1995; Bollen, 1989). SEM “also helps to avoid bias that may be cause by running individual regressions, by incorporating measurement errors into the model” (Park & Rhee, 2012, p.1373). In general, SEM is
based on two models: the measurement model that defines the reliability of the constructs, and the structural model that estimates the causal relationship (Anderson & Gerbing, 1988).

We estimated the impact of OIM on BGs’ performance using the SEM method (Bentler, 1995). This was considered to be the most suitable data analysis technique for this research, in view of the research objective, the sample size (Hair et al., 2012), the non-normal distribution of most of the indicators, and the presence of second and higher order reflective constructs in the measurement model (Hair et al., 2012). We performed SEM following the two-step approach (Anderson & Gerbing, 1988): we first conducted an estimate of the measurement model, and followed this by estimating the structural model through adopting the six stages recommended by Hair et al. 2010 (Table 25).

<table>
<thead>
<tr>
<th>Two step approach</th>
<th>Stages</th>
<th>Activities</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Measurement model</strong></td>
<td>1. Defining the individual constructs</td>
<td>OIM and the four constructs were identified in chapter two, based on the qualitative approach and the literature review. The construct of performance was defined based on the literature review performed in chapter one and this chapter four.</td>
</tr>
<tr>
<td></td>
<td>2. Develop and specify the measurement model</td>
<td>The measurement model contains the elements of the MO and performance. The validation of the constructs of the OIM were performed within chapter three, we included the measurement invariance. The incorporation of the construct of the performance has been developed in this chapter.</td>
</tr>
<tr>
<td></td>
<td>3. Designing a study to produce empirical results</td>
<td>This stage include activities regarding the data collection (detailed in chapter three), the methodological issues of SEM such sample size, selection of software for performing SEM, estimation method, etc.</td>
</tr>
<tr>
<td></td>
<td>4. Assessing measurement model validity</td>
<td>In order to assess the measurement model of OIM with performance, we conducted in this chapter the analysis of EFA and CFA for the construct of performance. Followed by the assessment of the full measurement model through the CFA and the multi-group analysis for testing the invariance of the full measurement model.</td>
</tr>
<tr>
<td><strong>Structural model</strong></td>
<td>5. Specify structural model</td>
<td>Within this stage we establish the relationship based on the theory of the construct of OIM that impact on performance.</td>
</tr>
<tr>
<td></td>
<td>6. Assess structural model validity</td>
<td>After draw the path diagram, the structural model in this stage is estimated and assessment. Based on the results, we will evaluate if the expected effect of the OIM on performance of BGs firms is consistent with theoretical expectations.</td>
</tr>
</tbody>
</table>
4.3.3 Data analysis tools/issues with SEM
There are several features that need to be taken into account in order to perform SEM, as recommended by Hair et al. (1988) and Shah and Goldstein (2006): the sample size, whether the data follow a normal distribution, the estimation method, and the fit indices.

4.3.3.1 Sample size
Sample size is an important aspect to consider when SEM becomes the technique to be implemented in research. There are some guidelines about the appropriate sample size when using SEM. According to Hair et al. (2010) the sample size depends on the model characteristics – the model size and the score characteristics of the measured variables. For instance, the recommended sample size for a model with five or fewer constructs that each contains around three items is 100 observations. If the model has a large number of constructs (each one with fewer than three items) then the minimum sample size is 500 observations (Hair et al., 2010).

Nevertheless, there is an ongoing debate about appropriate sample size. According to Ding et al. (1995), the smallest sample size that should be used in studies when conducting SEM is between 100 and 150 observations. In a similar vein, Anderson and Gerbing (1988) suggested that a sample size of between 100 and 150 will be sufficient for performing SEM. In an extensive review of studies that use SEM, conducted by Schumacker and Lomax (2010), it was found that the sample sizes were between 250 and 500 subjects. Regarding the discussion on sample size for performing SEM, Iacobucci (2010) stated that “the vague, folklore rule of thumb considering requisite sample size, e.g., ‘n>200’ can be conservative, and is surely simplistic” (p. 92). She found that even with smaller samples, within the range of 50 to 100, SEM can perform well.

In order to determine the suitability of the sample size of this study, we used the estimator developed by Westland (2010) for computing the minimum sample size needed to detect a minimum effect at given power and significance levels in the SEM. This estimator takes into account the ratio of indicators (measures) to latent variables, and statistical power. Following the recommendation of Westland (2010), we used the power calculator (Soper, 2014) for our model that has six latent variables and 18 observed variables. The results indicated a minimum sample size of 128 observations. Our sample size exceeded this recommendation, because we used a total sample of 165
BG firms (83 Nordic firms (Finnish and Danish) and 82 Spanish firms) for which the born global phenomenon had been identified in previous studies (Peiris et al., 2012).

### 4.3.3.2 Data normality

Prior to performing the data analysis, it is important to ensure that the data meet the assumed distribution of their estimation approach. The common approaches to estimating structural equation models assume that indicator variables have multivariate normal distributions (e.g. generalized least squares (GLS) or maximum likelihood (ML)). An extensive review of 92 strategic management studies that use SEM, conducted by Shook et al. (2004), found that around 80% of the studies did not mention sample distribution. As a result, the authors suggested that data normality should be reported. Thus, we showed that the model has multivariate non-normality that can be dealt with by bootstrapping, as we detailed in chapter three (Bryne, 2001).

### 4.3.3.3 Estimation method

There are different estimation methods for SEM, including unweighted or ordinary least squares (ULS or OLS), generalized least squares (GLS), partial least squares (PLS) and maximum likelihood (ML) (Jöreskog, 1990). ML has become one of the most common methods across disciplines such as marketing and business. According to Lomax and Schumacker (2012), “the ML estimates are consistent, unbiased, efficient, scale invariant, scale free, and normally distributed if the observed variables meet the multivariate normality assumption” (p.86). We adopted the ML estimator, and we took into account the fact that many authors have suggested that when the data shows non-normality, the ML estimator can still be applied (Hair et. al., 2010; Hu & Bentler, 1998; Lei & Lomax, 2005; Shah & Goldstein, 2006).

### 4.3.3.4 Fit indices

There are two stages involved in the evaluation of several of the fit indices: stage one, the measurement model and stage two, the structural model (these are stages five and six in section 4.4 in below ). As a result, a variety of goodness-of-fit measures, which are often categorized as absolute fit indices and incremental fit indices, need to be evaluated in both stages (Bollen, 1989). Some of the most popular fit indices reported for both measurement model and structural model fit, according to Hair et al. (2006), are: $\chi^2$, df, the GFI, the TLI, the CFI, the RMSEA, and the SRMR. Schumacker and Lomax (2010) and Hammervold and Olsson (2012) have similar recommendations, but
also advise including the AGFI, the RMR, the NFI, the parsimony fit index (PNFI), and the Akaike information criterion (AIC). In this regard, we selected the following profile of indices, as recommended by Jöreskog and Sörbom (1993) and Kline (2005): $\chi^2$, df, the CFI, the TLI, the SRMR, the RMSEA and the Normed $\chi^2$. We summarize in figure 10 the issues that were considered for the analysis: the sample, the non-normality of the data, which relates to the choice of estimation method, and, finally, the fit indices selected.

### Figure 10 Features of the SEM

<table>
<thead>
<tr>
<th>Sample size</th>
<th>Data normality</th>
<th>Estimation method</th>
<th>Fit indices</th>
</tr>
</thead>
<tbody>
<tr>
<td>N=165 firms (82 Spanish and 83 Nordic)</td>
<td>non-normal data analyzed through p-value of Bollen-Stine bootstrap test</td>
<td>ML</td>
<td>$\chi^2$, DF, the CFI, the TLI, the SRMR, the RMSEA and the Normed $\chi^2$.</td>
</tr>
</tbody>
</table>

### 4.3.4 Measurements of constructs

The measure of OIM for BG firms was derived from previously validated measures selected from the existing literature, which allowed us to enhance the reliability and validity of the constructs we adopted. Also, the findings from the exploratory interviews with BG firm managers were incorporated in the measurements, thus improving the criterion validity of the survey instrument.

OIM includes four constructs: customer orientation (CuO), competitor orientation (CO), interfunctional coordination (IC) and innovativeness and technological capability (ITC). All the dimensions of OIM are measured with three-item scales, with the exception of ITC which has four items. All the items are measured using seven-point Likert scales (which are summarized in Table 24 of chapter three, where the construct and indicator (item) acronyms used throughout this chapter are also shown). We incorporated the construct of performance, which is considered the dependent variable, and the selected
SEM technique for testing the hypothesis; we detail the construct of performance in the following section.

**4.3.5 Performance**
As we show in Table 26, the scale for business performance consisted of ten items, measured using a five-point scale ranging from “much worse” to “much better”; these items were adapted from prior firm-level studies (Crick, 2009; Fornell, 1992; Cheng & Krumwiede, 2012).

As described in section 4.2.2.1 of this chapter, previous studies of BG firms have tended to use objective and subjective indicators as a frame of reference. The measurement of firm performance with objective indicators is a challenging task. For instance, Sapienza et al. (1988) argued that “it is quite common for owner/entrepreneurs to refuse to provide objective and actual measures of organizational performance to researchers” (p.46). Furthermore, performance is often subject to different national accounting standards, and firms typically omit to report financial information about their international activities (Leonidou et al., 2002).

Because of the complexities of collecting objective measures of the performance of firms, subjective evaluations are an attractive alternative for quantifying them. In this study, we decided to use subjective measures of performance. The previous literature has shown that a positive correlation exists between subjective and objective measures, which supports the validity of the subjective ones (Menguc & Auh, 2006). Additionally, we are using a multi-context approach, and subjective measures are preferred in studies that seek to make statistical generalizations and use a multi-country approach (Ketokivi & Schroeder, 2004; Khavul et al., 2010).
Table 26 Performance of Born Global firms

<table>
<thead>
<tr>
<th>Code</th>
<th>Item</th>
<th>References</th>
</tr>
</thead>
<tbody>
<tr>
<td>PERF1</td>
<td>Level of customer loyalty compared with your competitors</td>
<td>Crick, 2009</td>
</tr>
<tr>
<td>PERF2</td>
<td>Level of customer satisfaction compared to previous year</td>
<td>Fornell, 1992</td>
</tr>
<tr>
<td>PERF3</td>
<td>Level of customer loyalty compared to previous year</td>
<td>Cheng &amp; Krumwiede, 2012</td>
</tr>
<tr>
<td>PERF4</td>
<td>Sales volume achieved compared to your competitors</td>
<td></td>
</tr>
<tr>
<td>PERF5</td>
<td>Sales growth compared to your competitors</td>
<td></td>
</tr>
<tr>
<td>PERF6</td>
<td>Market share compared to your competitors</td>
<td></td>
</tr>
<tr>
<td>PERF7</td>
<td>General profit level achieved compared to your competitors</td>
<td></td>
</tr>
<tr>
<td>PERF8</td>
<td>Profit margins compared to your competitors</td>
<td></td>
</tr>
<tr>
<td>PERF9</td>
<td>Return on invest (ROI) compared to your competitors</td>
<td></td>
</tr>
<tr>
<td>PERF10</td>
<td>Return on assets (ROA) compared to your competitors</td>
<td></td>
</tr>
</tbody>
</table>

4.4 DATA ANALYSIS AND RESULTS

4.4.1 Assessment of the construct of performance

In spite of the fact that the measures used in this thesis were adopted from existing scales that had already been validated and were strongly grounded in the literature, as mentioned earlier (Table 26) we followed Anderson and Gerbing’s (1988) two-step procedure to assess the validity, unidimensionality, and reliability of the construct of performance with the sample of 165 BGs firms (82 Spanish and 83 Nordic firms), prior to the full measurement model being estimated. First, we conducted EFA. Secondly, we performed CFA in order to ensure the psychometric properties of the construct, and then we tested for measurement invariance across both samples.

Following the recommendations of Finn and Wang (2014), who advises researchers to avoid the misspecification of the construct direction, and as we did for the OIM construct (see section 3.3.4.3 of chapter three), we needed to establish the direction of the relationship between the latent construct of performance and its associated observables as formative or reflective indicators. The causality direction for formatively indicated constructs is from the items to the construct, and for reflectively indicated constructs the causality direction is from the construct to the items. Thus, the main difference between formative and reflective indicator constructs is the direction of causality between the constructs and the items that compose them (MacKenzie et al., 2005).
Guided by Jarvis et al. (2003), business performance was modeled as a reflective measure, for three reasons: (1) the latent variables are theoretically defined on the basis that they causally affect the measurement variables or indicators (Edwards & Bagozzi, 2000); (2) conceptualizing performance reflectively is consistent with previous structural equation modeling applications such as (Blindenbach-Driessen et al., 2010; Papadopoulos & Martin, 2010); and (3) the ten performance measures are expected to be positively and significantly correlated (Diamantopoulos & Winkhofer, 2001).

4.4.1.1 EFA of performance

EFA is performed to assess the initial factor structure of a construct, which allows the reflective items of performance to be purified and the discriminant validity to be assessed. We followed the recommendation of Costello and Osborne (2005), who suggested the use of principal component analysis (PCA) with varimax rotation. Prior to performing EFA, the suitability of the analysis was further established through Bartlett’s Test of Sphericity and KMO (Stewart, 1981). The results show that the dataset was adequate for conducting EFA (Table 27). For instance, within the total sample of BG firms, the KMO value of .83 and a significant chi-square value for Bartlett’s Test of Sphericity ($\chi^2=1233.365, p<.000$) indicated that factor analysis was an appropriate analysis.

<table>
<thead>
<tr>
<th>Sample</th>
<th>KMO</th>
<th>$X^2$</th>
<th>D.F.</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Spanish firms</td>
<td>.871</td>
<td>770.816</td>
<td>36</td>
<td>.000</td>
</tr>
<tr>
<td>Nordics firms</td>
<td>.755</td>
<td>546.556</td>
<td>36</td>
<td>.000</td>
</tr>
<tr>
<td>Total sample of BGs</td>
<td>.831</td>
<td>1233.365</td>
<td>36</td>
<td>.000</td>
</tr>
</tbody>
</table>

We explored the dimensionality of the construct with the samples of Spanish and Nordic firms and the total sample. The results show that performance is a multidimensional construct with two dimensions, except that the Nordic sample reflected three factors. We adopted the three recommended methods for determining the number of factors to retain (Gaskin & Happell, 2014). First, there is the rule of thumb that eigenvalues must be greater than one (Kaiser, 1960). Second, factors with only one item were deleted because of the need to develop a multi-item measure (DeVellis, 1991; Netemeyer et al., 2003). Third, the extracted factors should account for 50%-60% of the variance explained (Hair et al., 1998). Taking into account these criteria, we deleted the
item PERF1 (level of customer loyalty compared with your competitors) because it constitutes a dimension on its own (it was the single item that was not related to any dimension) in the sample of Nordic firms. After we had deleted this item, we ran the analysis again, and the multidimensionality of the performance construct (with two components) was ensured for measuring the performance in the two subsamples and the total sample. More precisely, guided by the mentioned criteria, a two factor, nine-item solution was selected within the three samples. The decision to use a varimax rotation was corroborated by the final component correlation matrix that indicated that the factors were positively and significantly correlated (Table 28).

The first items were sales volume achieved compared to your competitors (PERF4), sales growth compared to your competitors (PERF5), market share compared to your competitors (PERF6), general profit level achieved compared to your competitors (PERF7), profit margins compared to your competitors (PERF8), ROI compared to your competitors (PERF9), and ROA compared to your competitors (PERF10); these were loaded in factor 1, and labeled financial performance (FPERF). The level of customer satisfaction compared to previous year (PERF2) and level of customer loyalty compared to previous year (PERF3) items were loaded in factor 2, and labeled customer performance (CPERF). The use of multiple performance measures has been recommended in the literature (Venkatraman & Ramanujam, 1986). The loadings for the nine indicators ranged from .738 to .906, suggesting construct validity in the total sample of BGs (see Table 28 for the Spanish and Nordic samples). Cronbach’s alphas for each subscale ranged from .85 to .92. These reliability estimates exceeded .70 (Nunnally, 1978).
Table 28 Performance Factors

<table>
<thead>
<tr>
<th>Perf</th>
<th>Overall BGs=165</th>
<th>Spanish BGs (n=82)</th>
<th>Nordics BGs (n=83)</th>
</tr>
</thead>
<tbody>
<tr>
<td>FPERF</td>
<td>CPERF</td>
<td>FPERF</td>
<td>CPERF</td>
</tr>
<tr>
<td>PERF2</td>
<td>.158</td>
<td>.901</td>
<td>.242</td>
</tr>
<tr>
<td>PERF3</td>
<td>.044</td>
<td>.906</td>
<td>.065</td>
</tr>
<tr>
<td>PERF4</td>
<td>.738</td>
<td>.279</td>
<td>.879</td>
</tr>
<tr>
<td>PERF5</td>
<td>.739</td>
<td>.276</td>
<td>.833</td>
</tr>
<tr>
<td>PERF6</td>
<td>.795</td>
<td>.090</td>
<td>.898</td>
</tr>
<tr>
<td>PERF7</td>
<td>.899</td>
<td>.077</td>
<td>.918</td>
</tr>
<tr>
<td>PERF8</td>
<td>.875</td>
<td>.052</td>
<td>.864</td>
</tr>
<tr>
<td>PERF9</td>
<td>.901</td>
<td>.021</td>
<td>.914</td>
</tr>
<tr>
<td>PERF10</td>
<td>.899</td>
<td>.038</td>
<td>.923</td>
</tr>
</tbody>
</table>

Eigenvalue 1=5.149  
Eigenvalue 2=1.600  
% of Variance=74.979  
Cronbach’s α=.899  

Eigenvalue 1=5.979  
Eigenvalue 2=1.466  
% of Variance=82.724  
Cronbach’s α=.929  

Eigenvalue 1=4.343  
Eigenvalue 2=1.846  
% of Variance=68.763  
Cronbach’s α=.854  

4.4.1.2 CFA of Performance

We used CFA to check the psychometric properties of the performance construct across the samples (Nordic, Spanish and overall BG firms), using AMOS v21. The nine items were entered into a single confirmatory model using the covariance matrix and maximum likelihood estimation. Using the recommendation of Jöreskog and Sörbom, (1993), we deleted four items of the financial construct (PERF4, PERF5, PERF6, and PERF8) that had low factor loadings. The five remaining items had factor loadings greater than .60, and were assessed through testing the model fit (the SRMR, the RMSEA, the TLI and the CFI), followed by internal consistency, and convergent and discriminant validity.

We performed three CFAs, and the models converged with acceptable fit (see figure 11 with the final measurement model). For each sample, the fit of the measurement model was judged by employing the Bollen-Stine bootstrap (1,000 subsamples), the chi-square statistic, with its associated degrees of freedom, and several traditional approximate fit indices, including the SRMR, the RMSEA, the TLI and the CFI.
Thus, the significance level of the Bollen-Stine bootstrap allowed us to conclude that the three models performed adequately (p=.240 for overall BGs; p=.728 for Spanish firms and p = .476 for Nordic firms). The results of the fit of the models are provided in Table 29. Across the overall and country samples, the SRMR ranged from .029 to .035. The RMSEA was .046 for the overall sample and 0.000 for the Spanish and Nordic firms. The TLI and CFI were .994, 1.0, 1.0 and .997, 1.0, 1.0, respectively.

<table>
<thead>
<tr>
<th>Model</th>
<th>Bollen-strine bootstrap</th>
<th>X²</th>
<th>D.F.</th>
<th>SRMR</th>
<th>RMSEA</th>
<th>TLI</th>
<th>CFI</th>
</tr>
</thead>
<tbody>
<tr>
<td>Overall BGs</td>
<td>p=.240</td>
<td>6.704</td>
<td>5</td>
<td>.029</td>
<td>.046</td>
<td>.994</td>
<td>.997</td>
</tr>
<tr>
<td>Spanish BGs</td>
<td>p = .728</td>
<td>2.485</td>
<td>5</td>
<td>.035</td>
<td>0.000</td>
<td>1.0</td>
<td>1.0</td>
</tr>
<tr>
<td>Nordics BGs</td>
<td>p = .476</td>
<td>4.663</td>
<td>5</td>
<td>.035</td>
<td>0.000</td>
<td>1.0</td>
<td>1.0</td>
</tr>
</tbody>
</table>

**Internal consistency of performance**

Consistent with the CFA literature (Nunnally & Bernstein, 1994), internal consistency was assessed using Cronbach’s alpha. Table 30 demonstrates that Cronbach’s alpha for the customer performance construct ranged between .799 and .818 across the samples, and for the financial performance construct ranged from .906 to .971. All exceeded the threshold of .70.
Table 30 Internal consistency and convergent validity of the Performance

<table>
<thead>
<tr>
<th>Construct/Item</th>
<th>Overall BGs</th>
<th>Spanish BGs</th>
<th>Nordics BGs</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Loads</td>
<td>A</td>
<td>CR</td>
</tr>
<tr>
<td>CPERF</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PERF2</td>
<td>.864</td>
<td>.807</td>
<td>.810</td>
</tr>
<tr>
<td>PERF3</td>
<td>.786</td>
<td></td>
<td></td>
</tr>
<tr>
<td>FPERF</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PERF7</td>
<td>.796</td>
<td>.933</td>
<td>.937</td>
</tr>
<tr>
<td>PERF9</td>
<td>.976</td>
<td></td>
<td></td>
</tr>
<tr>
<td>PERF10</td>
<td>.956</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Construct validity of performance

As shown in Table 30, all constructs present desirable levels of convergent validity as recommended by Hair et al. (2010). First, we found that all factor loadings were above .50 in all three models for both constructs. Second, all average variance extracted (AVE) values were greater than .50. Third, the composite reliability (CR) for all the models was greater than the recommended level of .60 to .70, ranging between .808 and .960. Hence, the results from these analyses confirmed the convergent validity of the constructs.

The discriminant validity was examined by comparing the squared correlation with the AVE value of the latent constructs (Fornell & Larcker, 1981). All tests for discriminant validity were supportive. Table 31 shows that the square of the correlation between each pair of constructs was less than the AVE estimates of the two constructs for all pairs of constructs, and this indicated the existence of discriminant validity.

Table 31 Discriminant validity of the Performance

<table>
<thead>
<tr>
<th></th>
<th>Overall BG firms</th>
<th>Spanish BG firms</th>
<th>Nordics BG firms</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>FPERF</td>
<td>CPERF</td>
<td>FPERF</td>
</tr>
<tr>
<td>FPERF</td>
<td>.833</td>
<td></td>
<td>.890</td>
</tr>
<tr>
<td>CPERF</td>
<td>.036</td>
<td>.682</td>
<td>.174</td>
</tr>
</tbody>
</table>

Measurement invariance for performance

Finally, to ensure the measurement invariance across the countries of the performance construct, a multi-group CFA was conducted (Steenkamp & Baumgartner, 1998). Before performing the multi-group CFA, following the recommendation of Byrne et al. (1989), single-group CFAs were conducted. The results show that each model in both groups demonstrated acceptable fit (Table 32).
As suggested by Vandenberg and Lance (2000), when testing configural invariance we first tested the validity of the factor structure across the two groups of countries simultaneously. Fortunately, equality of factor structures in the samples from both areas (the Nordic and the Spanish companies) was supported, further justifying country comparisons. Table 32 shows the results of the configural invariance tests ($\chi^2=7.148$; TLI=1.0; CFI=1.0; RMSEA=.00); all the fit indices were in acceptable ranges.

Second, after configural invariance was established, we tested metric invariance by constraining the factor loading of the baseline model to be equal in the two samples. Goodness-of-fit statistics related to this constrained model showed a good fit ($\chi^2=13.675$; TLI=.99; CFI=.99; RMSEA=.02), indicating invariance between the two groups. Following Byrne (2001), based on the results of the chi-square test for the difference between the models, we found that the models for the Spanish and Nordic BG firms have no significantly different parameters ($\Delta \chi^2=6.827$, $\Delta$df=3, $p=.078$). Based on these results, it can be claimed that this structure fits the data very well across the countries.

### 4.4.2 Complete measurement model (six constructs)

In order to assess the complete measurement model (the model including the constructs of OIM and performance), the first step recommended by Anderson and Gerbing, (1988) is to use CFA. Before testing the overall measurement model, each construct in the model was analyzed separately (OIM in chapter three and performance in the current chapter). In this section, we report on the examination of the measurement
model with all latent constructs and observed variables included in one full measurement model (figure 12), for the overall sample of BG firms (n=165) and as a single group assessment for the Spanish (n=82) and Nordic (n=83) samples.

Figure 12 Full Measurement Model of OIM and Performance

The 18 items of the six latent constructs was submitted to CFA using the maximum likelihood estimation method, and the statistical parameters were calculated using the bootstrap method (1,000 subsamples). The model fit measures suggested by Hu and Bentler (1999) and Steenkamp and Baumgartner (1998) were used to evaluate the model fit of the measurement model in the overall sample and the single country samples (82 Spanish firms and 83 Nordic firms). As shown in Table 33, the significance level of the Bollen-Stine bootstrap test indicated a good fit in the three models (p=.247 for the overall sample; p=.329 for the Spanish firms; p=.704 for the Nordic firms). In addition,
the fit indices, which included $\chi^2$, $\chi^2$/df, the CFI, the TLI, and the RMSEA, indicated a good fit of the models to the data, based on the recommended criteria. After assessing the overall model, each construct was evaluated separately by examining the internal consistency and the construct validity.

### Table 33 Full measurement model: OIM and performance

<table>
<thead>
<tr>
<th>Model</th>
<th>Bollen-stine Bootstrap</th>
<th>$\chi^2$</th>
<th>df</th>
<th>$\chi^2$/df</th>
<th>SRMR</th>
<th>RMSEA</th>
<th>TLI</th>
<th>CFI</th>
</tr>
</thead>
<tbody>
<tr>
<td>Overall BGs</td>
<td>p=.247</td>
<td>173.31</td>
<td>128</td>
<td>1.34</td>
<td>.05</td>
<td>.04</td>
<td>.965</td>
<td>.970</td>
</tr>
<tr>
<td>Spanish BGs</td>
<td>p=.329</td>
<td>181.02</td>
<td>121</td>
<td>1.46</td>
<td>.05</td>
<td>.07</td>
<td>.922</td>
<td>.938</td>
</tr>
<tr>
<td>Nordics BGs</td>
<td>p=.704</td>
<td>128.18</td>
<td>121</td>
<td>1.05</td>
<td>.06</td>
<td>.02</td>
<td>.987</td>
<td>.989</td>
</tr>
</tbody>
</table>

**Internal consistency**

We measured the internal reliability of each dimension using Cronbach’s alpha. Scholars generally consider reliability coefficients of .70 or higher to be adequate for the purpose of internal consistency (Nunnally, 1978). As shown in Table 34, the results for Cronbach’s alpha for all the latent constructs were above the recommended cut-off of .70, in all three samples, and thus we have the necessary evidence that all the constructs are reliable.

**Construct validity**

Following the recommendation of Hair et al. (2006), we considered convergent and discriminant validity to assess construct validity. We adopted the following three criteria for assessing convergent validity: factor loading of at least .50; composite reliability (CR) of at least .60; and average variance extracted (AVE) of at least .50.

For the overall sample, the factor loadings for the 18 indicators ranged between .62 and .97, which exceeded the recommended threshold of .50 (Hair et al., 2010). Furthermore, all factor loadings were statistically significant ($p=.001$). The CR of all constructs exceeded the usual .60 reference, ranging from .77 to .93; and finally the AVE for each construct exceeded .53 (Table 34).

Regarding convergent validity in the country samples, the results were: (1) all factor loadings were highly significant ($p<0.001$) and above 0.50 in both countries; (2) the CR varied between .81 and .96 in Spanish sample and between .72 and .91 for the Nordic
firms; and (3) the AVE varied between .59 and .89 in the Spanish sample and between .46 and .79 in the Nordic sample (Table 34), thus modestly satisfying the criterion of .50 (Bagozzi & Yi, 1988; Bhuian et al., 2005).
<table>
<thead>
<tr>
<th></th>
<th>Overall BGs</th>
<th>Spanish BGs</th>
<th>Nordics BGs</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Factor loading</td>
<td>A</td>
<td>CR</td>
</tr>
<tr>
<td>CuO</td>
<td>.752</td>
<td>.771</td>
<td>.531</td>
</tr>
<tr>
<td>CuO1</td>
<td>.831</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CuO2</td>
<td>.667</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CuO3</td>
<td>.647</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CO</td>
<td>.814</td>
<td>.817</td>
<td>.599</td>
</tr>
<tr>
<td>CO1</td>
<td>.757</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CO2</td>
<td>.780</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CO4</td>
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<td></td>
<td></td>
</tr>
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<td>.777</td>
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<td>.551</td>
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<tr>
<td>IC1</td>
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<tr>
<td>IC2</td>
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<td>IC3</td>
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<td></td>
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<td>ITC</td>
<td>.851</td>
<td>.852</td>
<td>.591</td>
</tr>
<tr>
<td>ITC2</td>
<td>.771</td>
<td></td>
<td></td>
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<tr>
<td>ITC3</td>
<td>.763</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ITC4</td>
<td>.772</td>
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</tr>
<tr>
<td>ITC5</td>
<td>.770</td>
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</tr>
<tr>
<td>CPERF</td>
<td>.807</td>
<td>.821</td>
<td>.698</td>
</tr>
<tr>
<td>Cperf2</td>
<td>.762</td>
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<td></td>
</tr>
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<td></td>
</tr>
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<td>FPERF</td>
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<td>.937</td>
<td>.835</td>
</tr>
<tr>
<td>Fperf7</td>
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</tr>
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<td>Fperf9</td>
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<td></td>
</tr>
<tr>
<td>Fperf10</td>
<td>.954</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
The discriminant validity of the full model was assessed by comparing the square correlation with the AVE value of the latent constructs. The diagonal elements represent the square roots of the AVE, whereas the off-diagonal elements represent the correlations among constructs. In the results shown in Table 35, all the diagonal elements are larger than any other corresponding row or column entry (with an exception in the Nordic sample, in column IC). Therefore, the discriminant validity of each construct is established with the given samples.

Table 35 Discriminant validity of the full measurement model

<table>
<thead>
<tr>
<th></th>
<th>CuO</th>
<th>CO</th>
<th>IC</th>
<th>ITC</th>
<th>CPERF</th>
<th>FPERF</th>
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</thead>
<tbody>
<tr>
<td>Overall BG firms</td>
<td>CuO</td>
<td>.53</td>
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</tr>
<tr>
<td></td>
<td>CO</td>
<td>.20</td>
<td>.59</td>
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<td></td>
<td></td>
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<tr>
<td></td>
<td>IC</td>
<td>.38</td>
<td>.39</td>
<td>.55</td>
<td></td>
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</tr>
<tr>
<td></td>
<td>ITC</td>
<td>.14</td>
<td>.38</td>
<td>.37</td>
<td>.59</td>
<td></td>
</tr>
<tr>
<td></td>
<td>CPERF</td>
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<td>.12</td>
<td>.10</td>
<td>.11</td>
<td>.69</td>
</tr>
<tr>
<td></td>
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<td>.12</td>
<td>.04</td>
<td>.10</td>
<td>.02</td>
</tr>
<tr>
<td></td>
<td>CuO</td>
<td>.59</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>CO</td>
<td>.52</td>
<td>.59</td>
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<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>IC</td>
<td>.37</td>
<td>.54</td>
<td>.63</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>ITC</td>
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<td>.35</td>
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</tr>
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<td></td>
<td>CPERF</td>
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<td>.32</td>
<td>.12</td>
<td>.12</td>
<td>.70</td>
</tr>
<tr>
<td></td>
<td>FPERF</td>
<td>.08</td>
<td>.14</td>
<td>.07</td>
<td>.13</td>
<td>.09</td>
</tr>
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<td>Spanish BG firms</td>
<td>CuO</td>
<td>.47</td>
<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td></td>
<td>CO</td>
<td>.04</td>
<td>.59</td>
<td></td>
<td></td>
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</tr>
<tr>
<td></td>
<td>IC</td>
<td>.40</td>
<td>.27</td>
<td>.46</td>
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<tr>
<td></td>
<td>ITC</td>
<td>.14</td>
<td>.43</td>
<td>.63</td>
<td>.52</td>
<td></td>
</tr>
<tr>
<td></td>
<td>CPERF</td>
<td>.02</td>
<td>.00</td>
<td>.06</td>
<td>.10</td>
<td>.69</td>
</tr>
<tr>
<td></td>
<td>FPERF</td>
<td>.00</td>
<td>.10</td>
<td>.01</td>
<td>.04</td>
<td>.00</td>
</tr>
<tr>
<td>Nordics BG firms</td>
<td>CuO</td>
<td>.47</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>CO</td>
<td>.04</td>
<td>.59</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>IC</td>
<td>.40</td>
<td>.27</td>
<td>.46</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>ITC</td>
<td>.14</td>
<td>.43</td>
<td>.63</td>
<td>.52</td>
<td></td>
</tr>
<tr>
<td></td>
<td>CPERF</td>
<td>.02</td>
<td>.00</td>
<td>.06</td>
<td>.10</td>
<td>.69</td>
</tr>
<tr>
<td></td>
<td>FPERF</td>
<td>.00</td>
<td>.10</td>
<td>.01</td>
<td>.04</td>
<td>.00</td>
</tr>
</tbody>
</table>
4.4.3 Configural and metric invariance of full measurement model

Before proceeding to test the hypotheses in the proposed baseline model, multi-group CFA was used to assess measurement invariance (Steenkamp & Baumgartner, 1998). The configural and metric tests were performed using the CFA criteria discussed above. The fit criteria (the RMSEA, CFI, TLI, and $\chi^2$/df ratio) are widely used to evaluate measurement scales in cross-country studies (Cheung & Rensvold, 2002).

**Configural invariance**

The six-factor model established above was now examined in order to test the validity of the factor structure across the Nordic and Spanish samples simultaneously. This unconstrained model established the baseline model (the same for all samples) against which subsequent models can be compared.

The resulting fit statistics are shown in Table 36. For the configural invariance model, $\chi^2=309.21$; CFI=0.95; TLI=0.94; RMSEA=0.04 and $\chi^2$/DF=1.27; all these values are within acceptable ranges. These results indicate that the full measurement model exhibits adequate configural invariance across the countries.

<table>
<thead>
<tr>
<th>Invariance</th>
<th>Bollen-Strine bootstrap</th>
<th>$X^2$</th>
<th>D.F.</th>
<th>$\chi^2$/df</th>
<th>CFI</th>
<th>TLI</th>
<th>RMSEA</th>
<th>Model comparisons</th>
</tr>
</thead>
<tbody>
<tr>
<td>M1. Configural</td>
<td></td>
<td>309.21***</td>
<td>242</td>
<td>1.27</td>
<td>.95</td>
<td>.94</td>
<td>.04</td>
<td>M2-M1</td>
</tr>
<tr>
<td>M2. Metric</td>
<td></td>
<td>336.16***</td>
<td>254</td>
<td>1.32</td>
<td>.95</td>
<td>.94</td>
<td>.045</td>
<td>26.9  12</td>
</tr>
</tbody>
</table>

*** significant at 0.001 level.

**Metric invariance**

Metric invariance is a stronger test of factorial invariance because it tests for equal scale intervals or metrics across the Nordic and Spanish samples. Metric invariance is tested by constraining the factor loadings of the baseline model to be the same across countries. As shown in Table 36, there was no significant increase in $\chi^2$ between the models of configural and metric invariance ($\Delta \chi^2$ (12)=26.9, $p=0.08$). Moreover, the relative fit measures (TLI=0.94; CFI=0.95 and RMSEA=0.045) indicate adequate fit for the metric invariance model. These results support metric invariance across the countries.
Based on these results, there is adequate support for measurement invariance (configural and metric) of the constructs across the two samples of BG firms. It is therefore suitable to pool the two data sets to test the hypothesis proposed in the structural model.

### 4.4.4 Structural Model

After having validated the full measurement model, we describe the evaluation of the structural model in this section. Figure 13 sets out the proposed structural model, showing the association between the four dimensions of OIM and performance. To estimate the model, as mentioned earlier, conventional maximum likelihood estimation was used.
The summary of the results of the structural equation modeling technique is presented in Table 37. In their studies, Hinkin (1998) and Sharma and Weathers (2003) suggested that values greater than .90 are desirable for the CFI and TLI, while Browne and Cudeck (1993) required a value of less than .80 for the RMSEA.
Table 37 Measures of the fit in the structural model

<table>
<thead>
<tr>
<th>Bollen-strine bootstrap</th>
<th>X²</th>
<th>D.F.</th>
<th>P.</th>
<th>X²/D.F.</th>
<th>CFI</th>
<th>TLI</th>
<th>RMSEA</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>.226</td>
<td>174.14</td>
<td>.005</td>
<td>1.35</td>
<td>.97</td>
<td>.96</td>
<td>.04</td>
</tr>
</tbody>
</table>

Since the chi-square index ($\chi^2$/df=1.35) is less than 3.0, as suggested by Bagozzi and Yi (1988), and the remaining indices (CFI=.97; TLI=.96; RMSEA=.04) are well within their commonly acceptable levels, this suggests that the structural model fits well.

4.4.5 Hypothesis Testing

In the hypothesis testing stage, the proposed hypothesis was examined using the SEM technique. As we demonstrate in Table 38, the finding for the hypothesis (OIM of BGs→Perf=.591; p=.001) implies that OIM has a positive and significant relationship with performance.

Table 38 Structural results: OIM of BG firms impacted on performance

<table>
<thead>
<tr>
<th>Linkages in the model</th>
<th>Hypotheses Sign</th>
<th>Standardize parameter estimates</th>
<th>Result</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Estimate</td>
<td>S.E.</td>
</tr>
<tr>
<td>OIM of BGs→Perf</td>
<td>+</td>
<td>.591</td>
<td>.162</td>
</tr>
</tbody>
</table>

Furthermore, following Schumacher and Loan (2010) “for the structural model, we could test whether the structure coefficients are equal across the samples” (p.224). A structural path model was therefore estimated, to analyze whether the relationship between OIM and performance varies across countries (83 Nordic and 82 Spanish firms). Therefore, in the same way as for the results based on the entire data set, the impact of OIM on firms’ performance within each subsample was analyzed.
Table 39 Measurement results of the final model of Spanish and Nordics subsamples: OIM of BGs impacted on performance

<table>
<thead>
<tr>
<th>Country</th>
<th>Linkages in the model</th>
<th>Hypotheses</th>
<th>Sign</th>
<th>Standardize parameter estimates</th>
<th>Result</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>OIM → Perf</td>
<td>+</td>
<td></td>
<td>Estimate S.E. C.R p-value</td>
<td></td>
</tr>
<tr>
<td>Spain</td>
<td></td>
<td></td>
<td></td>
<td>0.585 0.168 3.47 0.001***</td>
<td>Supported</td>
</tr>
<tr>
<td>Nordics</td>
<td></td>
<td></td>
<td></td>
<td>0.501 0.253 1.94 0.04**</td>
<td>Supported</td>
</tr>
</tbody>
</table>

Table 39 displays the results of the estimation of the effect of OIM on performance for each subsample. Overall, the structural model demonstrated that in the Nordic and Spanish firms the effect of OIM on firm performance was positive and significant (Spain: $\beta = .585, p = .001$; Nordic countries: $\beta = .501, p = .04$). Furthermore, the results of the $\chi^2$ differences test suggest that an assumption of the equality of the structural loads among BG firms in the two groups of countries is not supported ($\Delta \chi^2 = 12.685(5); p = 0.027$), indicating that differences in the path relationships between Nordic and Spanish firms exist, thus further justifying national comparisons.

Subsequently, in order to test the robustness of the results, we attempted to compare whether the proposed scale for OIM and the traditional scale for market orientation (MKTOR) have a different effect on business performance. However, after assessing the measurement model of MKTOR, the results of the fit of the model for the Bollen-Stine bootstrap test ($p = .01$) indicated that the hypothesized model should be rejected. Therefore, the measurement model did not fit the data well (detailed in Appendix 8).

### 4.5 DISCUSSION AND CONCLUSION

This chapter demonstrates how we tested the OIM scale for different industries and countries, and the effect of OIM on born global firms’ business performance. The creation of this scale responds to the need expressed in the literature in the field of international entrepreneurship for progress in the knowledge of MO in the context of born global firms, by developing an instrument (OIM) that allows an organizational level of capability to be evaluated in an extension of MO for born global firms.

We analyzed OIM into its underlying dimensions: customer orientation, competitor orientation, interfunctional coordination, and innovativeness and technological capability. For performance, we considered customer and financial performance. Further, the stability and robustness of the model was tested across two country samples: Spanish and Nordic companies. We hypothesized a positive relationship...
between OIM and performance for BG firms, and, for our data, the results show that this relationship is significant. This finding is consistent with previous studies that were focused on a similar relationship in the context of BG firms (Hallbäck & Gabrielsson, 2013; Kocak & Ambibola, 2009), although from a qualitative approach. In combination with other marketing strategies such as international entrepreneurship, learning orientation, and entrepreneurial capital, the results of these studies showed that MO enables the internationalization process and has a positive effect on performance in the context of BG firms.

Most papers automatically assume that MO has a positive influence on performance. This chapter empirically demonstrates that, for BG firms, OIM, the concept that extends MO for firms that internationalize from inception by adding the construct of innovativeness and technological capability, also impacts positively on performance. Earlier literature on the relationship between BG firms and MO has tended to emphasize the positive effect of innovativeness and technological capability on performance (Frishammar & Andersson, 2009; Zhang et al., 2013). Indeed, Hallbäck and Gabrielsson (2013) argue that “It has been previously suggested that market orientation relates to the innovativeness”(p. 1018).

Another interesting result is that, looking at the direct effects of OIM on performance for Nordic and Spanish firms, there are differences between these countries. Even though the effects are statistically significant in both groups of countries, it seems that OIM makes a greater contribution to business performance in Spanish BG firms than in Nordic BG firms. In the context of this study, a possible explanation is that institutional environment or environmental conditions (Nummela et al., 2014) may have had an impact on the relationship between OIM and performance. Despite the fact that previous studies argue that there is no difference across countries in the relationship between MO and business performance (Liao et al., 2011; Cano et al., 2004), it seems clear that different characteristics of country-specific business environments influence the effectiveness of OIM, thus one cannot say for certain whether successes in these countries are caused predominantly by superior OIM practices or by favorable business environments. This is consistent with prior empirical research (e.g. Day & Wensley, 1988; Ellis, 2006; Murray et al., 2011; Raju et al., 2011) which suggests that the desired level of MO for a business depends on its environment.
Foley and Fahy (2009), for example found that the institutional environment influences the relationship between MO and performance. According to North (1990), each country creates its own unique institutional environment consisting of both formal and informal institutional structures (Veciana & Urbano, 2008). Formal institutions consist of statute law, common law, and regulations. Informal institutions refer to “conventions, norms of behavior, and self imposed rules of behavior” (North, 1992, p.4). Within the context of Spanish firms the institutional environment relies more on informal institutions than formal structures (Alvarez et al., 2011). On the other hand regarding Nordic firms, Chatzopoulou (2015), suggested that the firms use both structures: formal and informal.

Thus, despite differences in institutional environment across the Nordics and Spain, it can be said that the structure of institutions will influence and may help explain differences in OIM activity between countries which is consistent with Renko et al. (2009) and Gaur et al. (2011) who pointed out that "depending on the level of development of the institutional environment in a particular country, the need for being market oriented may vary" (p.1188).

Moreover, following Matsuno et al. (2005) in this study we attempted to compare the empirical results obtained in relation to the OIM scale with those obtained in relation to the original MKTOR scale for our samples of BG firms. However, the model fit for MKTOR indicated that was not possible to estimate the model, and as a consequence no comparative approach between OIM and MKTOR can be adopted.

**4.5.1 Limitations and future research**

This study offers important and novel contributions to the literature on international marketing and international entrepreneurship, but has a number of limitations that could serve as starting point for future lines of research. First, our research did not take into consideration the specific impact that each construct of OIM has on performance for BG firms. A promising direction of research may be a further examination of each construct, in order to highlight whether one of them has a stronger effect on performance. Second, although evidence from different countries helped to establish the cross-country validity of the measure and findings, future studies would benefit greatly
from including other contexts such as Africa or Latin America, where BG research has been limited.

The final limitation has to do with the sample size; although in this study we utilized several techniques to boost our response rate, including follow-up communications and the offer of an incentive to respondents (in the form of a research summary), our sample employed within this chapter was 165 firms. A larger sample size might help to improve the validity of the results established (Hair et al., 2010).

Our existing study focused on OIM and its relationship with performance for BG firms. There may be other strategies that influence the success of this type of firms (Etemad, 2015). Prior researches have acknowledged the positive effect of entrepreneurship orientation (EO) and MO on firm's performance (Frishammar & Andersson, 2009; Hakala, 2011; Monferrer et al., 2012). Both Chandra Badoli (2014) and Hong et al. (2013) argue that MO and EO are complementary strategies to achieve competitive advantage. Therefore, we suggest future research to analyze the effect of international entrepreneurship orientation (IEO) and OIM on business performance of BG firms.

IE scholars modify the EO into IEO concept (Boehe, 2009; Covin & Miller, 2014; Dimitratos et al., 2012; Freeman & Cavusgil, 2007; Gerschewski et al., 2015; Glavas & Mathews, 2014; Jones & Coviello, 2005; Knight, 2001; Knight & Cavusgil, 2004), in same the vein that our study does (that adapted the concept of MO for BG firms by suggesting the OIM). According to Slevin and Terjesen (2011), a minority of scholars of IE studies utilize the classic "EO" concept. Likewise, as pointed out by Covin and Millers (2014), the IEO concept shares the core elements of EO that can be viewed as a combination of proactiveness, innovativeness, and risk-taking (Covin and Slevin 1989). Moreover, Born global scholars, found a positive impact of IEO on performance (e.g. Gerschewski et al., 2015), thus this analysis must be extended to study the relationship between these orientations (OIM and IEO) and the performance implication for BG firms.
4.6 REFERENCES


Iacobucci D. (2009). Everything you always wanted to know about SEM (structural equations modeling) but were afraid to ask. *Journal of Consumer Psychology, 19*, 673-680.


### APPENDIX 7  Performance measurement of empirical studies of BG firms

<table>
<thead>
<tr>
<th>Author</th>
<th>Measure</th>
<th>Construct/dimension</th>
<th>Items</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Export performance</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Kuivalainen, et al. 2007</td>
<td>Sales performance</td>
<td></td>
<td>1. Sales growth relative to the industry average</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>2. Degree of satisfaction with the export volume</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>3. Degree of satisfaction with the market share in its export markets</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>4. Degree of satisfaction with its rate of new market entry</td>
</tr>
<tr>
<td></td>
<td>Profit performance</td>
<td></td>
<td>1. Its degree of satisfaction with its export profits over the last three years</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>2. The overall profitability of its exporting operations during the previous financial year</td>
</tr>
<tr>
<td></td>
<td>Sales efficiency performance</td>
<td></td>
<td>1. The ratio of the firm’s total annual export sales turnover to the total number of employees working in it</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>2. The ratio of its total annual export sales turnover to the total number of countries it exported to</td>
</tr>
<tr>
<td>Kundu &amp; Katz, 2003</td>
<td>Export performance</td>
<td></td>
<td>1. Export as percentage of total sales</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>2. Export sales in the local currency</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>3. Export growth in percentage as compared to the previous year</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>4. Export profitability in percentage in relation to the early year</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>2. Export sales volume</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>3. Contribution of exporting to profits</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>4. New products exported</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>5. Overall export performance</td>
</tr>
<tr>
<td><strong>International performance</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Jantunen et al. 2008</td>
<td>International performance</td>
<td></td>
<td>1. Sales volume</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>2. Market share</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>3. Profitability</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>4. Market entry</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>5. Image development</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>6. Knowledge development</td>
</tr>
<tr>
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<td>International performance</td>
<td></td>
<td>1. Export sales of products manufactured by the firm</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>2. Resale of imported products by the firm</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>3. Domestic sales of products manufactured by the firm</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>4. Domestic sales connected to licensing and royalties</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>5. Foreign sales connected to licensing and royalties</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>6. Other sources</td>
</tr>
<tr>
<td>Zhang et al. 2013</td>
<td>Financial performance</td>
<td></td>
<td>1. Has been very profitable</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>2. Has generated a high volume of sales</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>3. Has achieved rapid growth</td>
</tr>
<tr>
<td></td>
<td>Strategic performance</td>
<td></td>
<td>1. Has improved our global competitiveness</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>2. Has strengthened our strategic position</td>
</tr>
</tbody>
</table>
### Firm performance

<table>
<thead>
<tr>
<th>Reference</th>
<th>Category</th>
<th>Measures</th>
</tr>
</thead>
<tbody>
<tr>
<td>Zhou et al. 2010</td>
<td>International</td>
<td>1. International sales growth</td>
</tr>
<tr>
<td></td>
<td>performance</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>3. Has significantly increased our global market share.</td>
</tr>
<tr>
<td>Crick, 2009</td>
<td>Firm performance</td>
<td>1. Sales growth</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2. Sales volume</td>
</tr>
<tr>
<td></td>
<td></td>
<td>3. Profitability</td>
</tr>
<tr>
<td></td>
<td></td>
<td>4. Market share</td>
</tr>
<tr>
<td>Efrat, &amp; Shoham, 2012</td>
<td>Strategic performance</td>
<td>This export venture:</td>
</tr>
<tr>
<td></td>
<td></td>
<td>1. Has improved our global competitiveness</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2. Has strengthened our strategic position</td>
</tr>
<tr>
<td></td>
<td></td>
<td>3. Has significantly increased our global market share</td>
</tr>
<tr>
<td>Gleason et al. 2006</td>
<td>Accounting</td>
<td>1. ROE</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2. Sale growth</td>
</tr>
<tr>
<td>Han &amp; Celly, 2008</td>
<td>Profit</td>
<td>1. Net profits.</td>
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<tr>
<td></td>
<td></td>
<td>2. Profit margin.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>3. Return on capital/investment</td>
</tr>
<tr>
<td></td>
<td>Growth</td>
<td>1. Growth in market share.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2. growth in sales volume.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>3. new market creation.</td>
</tr>
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<td></td>
<td></td>
<td>4. market share.</td>
</tr>
<tr>
<td>Knight &amp; Cavusgil, 2004</td>
<td>Firm performance</td>
<td>1. Market share in this market</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2. Sales growth in this market</td>
</tr>
<tr>
<td></td>
<td></td>
<td>3. Pre-tax profitability in this market</td>
</tr>
<tr>
<td></td>
<td></td>
<td>4. sales growth of this product in its main export market</td>
</tr>
<tr>
<td></td>
<td></td>
<td>5. the success of this product in its main export-market over the past 3 years.</td>
</tr>
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<td></td>
<td></td>
<td>6. the total ROI of this product in its main export market</td>
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<td>Zhou et al. 2007</td>
<td>Business performance</td>
<td>1. export growth</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2. profitability growth</td>
</tr>
<tr>
<td></td>
<td></td>
<td>3. total sales growth</td>
</tr>
<tr>
<td>Zhou &amp; Wu, 2014</td>
<td>Firm performance</td>
<td>1. sales growth</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2. ROA</td>
</tr>
</tbody>
</table>
APPENDIX 8  MKTOR scale with born global firms sample

In addition to analyzing the hypothesis with our proposal scale of OIM for BG firms that included the items and construct previously validate in this thesis (Chapter 3), we included a comparison with the traditional scale of MKTOR (Narver & Slater, 1994) and the impact on performance for BG firms. Therefore, we aimed to analyze whether any difference exist across MKTOR scale and our specified scale of OIM for BG firms. A similar analysis to that outlined above was conducted: first performed the EFA and CFA analysis, followed by SEM with the total sample of BG firms (n=165).

Exploratory Factor Analysis

An EFA was performed using SPSS v21.0. The unidimensionality of the three constructs was proved in the sample of BG firms (n=165). In similar manner that the previous EFA of OIM presented in chapter three, the unidimensionality of the three construct of MKTOR scale was proved with an exception of CuO construct. We analyzed the factor matrix and we deleted the item CuO7. After we deleted the item the unidimensionality of the three constructs was ensured.

Following Hair et al. (2006), we ensure that the factor loading of each item exceed the .50 (see Table A8.1), the dimensions exceeding the 50% of explained variance with eigenvalues ≥1.0. Regarding the reliability of each construct of the MKTOR scale, all of the Cronbach’s alpha values were computed. The results indicated that the Cronbach’s alpha values exceeded the recommendation of .70 (Nunnally and Bernstein, 1994) in all the constructs (ranged from .786 to .809).
Table A8.1 Exploratory factor analysis of MKTOR

<table>
<thead>
<tr>
<th>Constructs</th>
<th>Items</th>
<th>Factor loading</th>
<th>α</th>
<th>Variance Explained</th>
</tr>
</thead>
<tbody>
<tr>
<td>CuO</td>
<td>Cu1</td>
<td>.736</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Cuo2</td>
<td>.813</td>
<td>.794</td>
<td>51.245</td>
</tr>
<tr>
<td></td>
<td>Cuo3</td>
<td>.736</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Cuo4</td>
<td>.695</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Cuo5</td>
<td>.666</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Cuo6</td>
<td>.636</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CO</td>
<td>CO1</td>
<td>.830</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>CO2</td>
<td>.850</td>
<td>.809</td>
<td>64.170</td>
</tr>
<tr>
<td></td>
<td>CO3</td>
<td>.696</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>CO4</td>
<td>.814</td>
<td></td>
<td></td>
</tr>
<tr>
<td>IC</td>
<td>IC1</td>
<td>.748</td>
<td></td>
<td></td>
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<tr>
<td></td>
<td>IC2</td>
<td>.847</td>
<td>.784</td>
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<td></td>
<td>IC3</td>
<td>.823</td>
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<tr>
<td></td>
<td>IC4</td>
<td>.716</td>
<td></td>
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</tbody>
</table>

Confirmatory Factor Analysis

We conducted a CFA to estimate the measurement proprieties of the multi-item constructs in AMOS v.21. In figure A8-1 we show five constructs of the measurement model, and include 19 indicators. In order to assess the overall model fit, the (non-significant) Bollen-Strine p value, two absolute fit measures (Chi-square and RMSEA), two incremental fit measures (TLI and CFI), and one parsimonious fit measures (Normed Chi-square) were used.

As shown in table A82 all of the measures meet the recommended values. However the results of the fit for the model of the Bollen-Stine bootstrap (p=.01) indicated that the hypothesized model should be rejected. Therefore, the measurement model did not fit the data well.

Table A8.2. Measures of goodness of fit for measurement model: MKTOR

<table>
<thead>
<tr>
<th>Bollen-strine bootstrap</th>
<th>X²</th>
<th>D.F.</th>
<th>X²/D.F.</th>
<th>RMSEA</th>
<th>TLI</th>
<th>CFI</th>
</tr>
</thead>
<tbody>
<tr>
<td>p=.017</td>
<td>252.125</td>
<td>142</td>
<td>1.776</td>
<td>.06</td>
<td>.91</td>
<td>.92</td>
</tr>
</tbody>
</table>
Fig. A8-1 Measurement model of MKTOR
CHAPTER FIVE: CONCLUSIONS

5.1 INTRODUCTION
This thesis has enhanced the understanding of born global (BG) firms and of how orientation towards international markets (OIM) relates to performance. As outlined in chapter one, we aimed to contribute to the IE field by extending the knowledge of market orientation (MO) in the context of BG firms. On the basis of an extensive literature review and interviews with BG managers, we conceptualized the notion of OIM for such firms. While there is a flourishing area of studies that in recent years have investigated MO in the context of BG firms, there is a need for deeper studies that investigate in more detail how MO influences the performance of BG firms. The objective of this thesis was to fill the research gap suggested by Frishammar and Andersson (2009): “the problems associated with using ‘traditional’ MO (...) constructs in an SME setting and point to the need of developing more appropriate constructs tailored to this context” (p.57). The thesis also addressed a research gap in terms of the impact of MO on performance for BG firms (Knight, 2015).

In order to enrich the results of this thesis, the research design we adopted used a mixed method approach, with a sample from different industries and more than one country. We comment first on the choice of a mixed method design to develop and validate the OIM concept. As pointed out by Jick (1979), the mixed methods approach is based on the assumption that a weakness in any single method will be compensated by strengths in another.

The advantage of the application of mixed methods in this study over the selection of a single methodology is that it increased the robustness and the rigor, thus enhancing the validity of the proposed OIM construct. The use of the qualitative study made it possible to develop and propose the OIM scale. In addition to the interviews conducted with the five managers of BG firms, the adoption of operational measures from the existing literature increased the reliability. In order to test the applicability of the proposed scale in the context of BG firms, the quantitative approach served as a reliability and validity check on the OIM construct and then on the effect on performance.
The majority of the previous studies of MO components in the field of marketing and BG firms have adopted either a purely qualitative (Gabrielsson et al., 2014; Kocak & Ambibola, 2009) or a quantitative (Wong & Merrilees, 2012) approach. Liao et al. (2011) reviewed over 500 empirical studies on MO in order to gain a good understanding of this research stream. The authors carried out a systematic analysis of articles, focusing on the relationships between MO and performance, MO and marketing, and MO and innovation, among others. They called for the integration of methodologies to avoid incomplete conclusions and to allow a complete picture of MO to be obtained. Hohenthal (2006) also highlighted the need for a mixed methods research design in the field of IE. The author pointed out that “using mixed methods is an often proposed but rarely used research design” (p. 175). By following a path of research that embraces a mixture of methods from both the IE and the marketing fields, this thesis explores the benefits of embracing statistical techniques, methods, and analytical tools from different research areas such as case studies, scale development literature, and SEM, in order to gain a better understanding of OIM for born global firms.

Regarding our sample, this study incorporates a heterogeneous industry approach that allows us to generalize the results. In the field of IE, studies tend to focus on sector-specific data (Coviello & Jones, 2004). It is common for research on the BG phenomenon to be carried out mainly in high-tech industries (Jones et al., 2011; Crick & Crick, 2014; Mainela et al., 2011) or in sector-specific areas such as manufacturing firms (e.g. McDougall & Oviatt, 1996; Knight & Cavusgil, 2004). As illustrated in Table 17 of chapter three, the firms in our sample represent a variety of industries, and thus in this thesis the conceptualization and application of OIM as an antecedent of performance is not focused on any specific industry.

Moreover, we adopted the multi-country approach. In general the analysis in BG studies has been conducted for a single country (Pettersen & Tobiassen, 2012; Uner et al., 2013) or within a country or cultural unit (Coelho et al., 2014; Efrat & Shoham, 2012), and therefore multi-country research is somewhat limited (Zahra & George, 2002). In addition, “in spite of the importance of ensuring instrument equivalence in cross-national investigations, IE research is weak in this area” (Coviello & Jones 2004, p. 496).
Our study adopted the multi-country approach at the stage of validating the OIM scale, and, as a consequence, considered the influence on performance for samples made up of Spanish and Nordic BG firms. With the aim of ensuring the instrument equivalence of OIM, in line with Vandenberg and Lance (2000), the measurement equivalence was checked. Thus, first of all for the OIM measurement, we tested the psychometric proprieties of the scale with the full sample of the BG firms, and then, following Vandenberg and Lance (2000), we checked the invariance of the OIM measurement with a single-group analysis of the country, and then tested the invariability (chapter three). A similar process was adopted for the performance construct (chapter four). The empirical results indicated that our proposed tools of OIM and performance measurement had metric and configural invariance in the context of Nordic and Spanish firms.

The objective in this chapter is to present an overview and the main conclusions of the three empirical studies, which were aimed at understanding the concept of OIM for BG firms and its role in explaining the performance of this type of firm. The specific contributions of this dissertation are shown first in the section on theoretical contributions. After this, we present the managerial implications. This dissertation concludes with a discussion of the limitations of the research and the suggestion of avenues for future research.

5.2 THEORETICAL CONTRIBUTIONS

The main purpose of this study was to conceptualize MO in the context of BG firms, to identify whether any adaptation was necessary, and to determine whether the suggested OIM has an impact on performance.

Taking into account the fact that BG firms do not only act in the domestic market, because they operate in very different markets in their early stages, and that the traditional concept of MO does not recognize the international emphasis of BG firms, we proposed the concept of OIM, which is related to the concept of MO but has a broader content due to the international dimension of the concept. This orientation is rooted in the components of the MKTOR scale and also incorporates other components that allow firms to extend market orientation to international markets. Next, the main theoretical contributions of the three original studies, as shown in Table 40, are discussed in further detail.
### Table 40 Orientation towards international markets of born global firms: research conclusions

<table>
<thead>
<tr>
<th>Chapter</th>
<th>Objective</th>
<th>Theory/approach</th>
<th>Methodology</th>
<th>Conclusions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Two</td>
<td>To explore the concept of MO in the context of BG firms</td>
<td>Born global firms and market orientation</td>
<td>Case study of five BG firms from Spain.</td>
<td>Drawing from the literature review and BG managers’ opinions, we concluded that the concept of MO needed to be extended for BG firms. Thus we proposed the concept of orientation towards international markets (OIM) with five dimensions: customer orientation, competitor orientation, interfunctional coordination, innovativeness and technological capability, and networks.</td>
</tr>
<tr>
<td>Three</td>
<td>To validate the proposed scale OIM</td>
<td>Scale development approach</td>
<td>EFA, CFA and MGCFA for OIM</td>
<td>On the basis of the ideas in the previous chapter, we collected data from BG firms across two contexts: Spain and two Nordic countries (Denmark and Finland). After we had conducted several statistical tests, we concluded that the psychometric properties of the OIM scale were supported by four dimensions: customer orientation, competitor orientation, interfunctional coordination, and innovativeness and technological capability. In addition, we responded to numerous calls for the cross-country validation of the proposed OIM measure. Our results confirmed the validation in the context of Nordic and Spanish firms.</td>
</tr>
<tr>
<td>Four</td>
<td>To examine how OIM affects the business performance of BG firms</td>
<td>Resource-based theory and dynamic capability</td>
<td>EFA, CFA and MGCFA of performance; SEM</td>
<td>With the aim of evaluating the effect of OIM on performance, we first assessed the construct of business performance. The results indicate the multidimensional nature of performance, with customer and financial constructs. We also tested measurement invariance between the Nordic and the Spanish firms. After this, we evaluated how OIM affects business performance. The results showed that the OIM components have a positive and significant effect on business performance; moreover, they have different effects on business performance for Nordic and Spanish BG firms.</td>
</tr>
</tbody>
</table>
First, drawing on born global firms literature and the market orientation literature, this study makes a key theoretical contribution by suggesting how MO should be reconceptualized for BG firms. Our findings provide evidence that it is necessary to incorporate components that relate to the international scope of this type of firm, with the concept of “orientation towards international markets (OIM)”. The OIM scale proposed provides a more comprehensive means of operationalizing the MO of BG firms than is currently found in the literature. A significant criticism in the literature of research into international firms is that many studies lack justification for adopting the original scales for MO (MKTOR and/or MARKOR), and/or do not use the items fully to capture the nature of BG firms, which operate mainly in the international environment (Frishammar & Andersson, 2009). As pointed out by Knight and Kim (2009), “smaller international firms may manifest specific resources comprising orientations and competences that are instrumental to the conception and implementation of activities in international markets” (p. 257).

Moreover, our results support the view that both innovativeness and technological capability and networks should be taken into account for a full understanding of OIM. A central tenet of the RBV is that firm capabilities interact with each other, thus these combinations create capabilities for firms that will produce a superior competitive advantage (Menguc, 2006). An important theoretical contribution to the resource based theory and the dynamic capabilities of our study is the finding that the BG firms require additional capabilities (innovativeness and technological capability) in comparison to the firms that have just developed domestic operations. Thus these capabilities will be able to leverage this to their advantage to improve firm performance. The RBV suggests that firms should create and develop their valuable, rare, imperfectly imitable resources and utilize them to succeed in the domestic market and/or abroad.

Based on the five components proposed for OIM, the second study analyzed the psychometric properties of the OIM scale by adopting insights from the extent scale development literature. Although the components of the OIM scale have previously been used in research on an individual basis, no prior study has used all of these constructs simultaneously. This answers Knight (2015) call for the BG literature to explore the relevance of MO, and also answers Ruokonen et al. (2008) who pointed out "that traditional measures do not cover all aspects of the phenomenon, and that a more comprehensive approach is needed” (p. 1311).
In the validation process, the confirmatory factor analysis clearly corroborated the existence of four of the dimensions mentioned in the qualitative work: customer orientation, competitor orientation, interfunctional coordination and innovativeness and technological capability. This novel conceptualization received empirical support for the operational measure OIM, which is a new second-order reflective construct with four first-order reflective constructs. In addition, the results support the measurement invariability of OIM across the context of Nordic and Spanish firms and have responded to calls for research which include measurement invariance that is not always thoroughly addressed (Steenkamp & Baumgartner, 1998).

However, contrary to expectations, the results also indicated that the proposed construct of networks was not supported by our BG sample, although many studies have highlighted the networks approach as a key element in BG firms’ success in the international markets. As we mentioned earlier, a possible explanation is that the items employed were inadequate because they were focused at the organizational level. Thus it is possible that the incorporation of interpersonal-level networks could help in an understanding of the relationship between OIM and networks (Perris et al., 2012).

After we validated the OIM scale, drawing on the resource-based theory and the dynamic capability, we examined the relationship between OIM and business performance in the third study. Although the components of the OIM scale (customer orientation, competitor orientation, and interfunctional coordination, all rooted in the MKTOR scale, and innovativeness and technological capability) have generally been found to have a positive impact on business performance for domestic firms and traditional exporters, these relationships have not been studied in the context of born global firms. As we earlier explained, previous studies that linked MO and BG firms lacked the specification of the concept and/or the scale adopted for MO. Moreover, these studies did not analyze the impact on performance. The empirical findings of our study suggested that OIM could give a firm competitive advantage through the continuous monitoring of the firm’s customers and competitors, through interfunctional coordination and through the capability for innovation, because these have a positive effect on the firm’s performance. Our study confirms that there are benefits to using resource-based theory and dynamic capability to assess the OIM, its effects on the business performance in the born global context.
In addition, whilst we attempted to compare the results of OIM with the original MKTOR scale using the BG sample, the model fit for MKTOR showed it that was not possible to estimate the model, and as a consequence no comparative approach between OIM and MKTOR can be adopted.

To summarize, as we illustrate in figure 14, this dissertation contributes to born global research by providing a scale of orientation towards international markets and demonstrating the effect of this orientation on the performance of born global firms.

**Figure 14 Traditional Market Orientation, and Orientation towards International Markets of Born Global Firms**

<table>
<thead>
<tr>
<th>Traditional view</th>
<th>MARKOR</th>
<th>MKTOR</th>
<th>EMO (rooted in MARKOR)</th>
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<tbody>
<tr>
<td>Born global firms</td>
<td>Customer orientation, competitor orientation, interfunctional coordination and innovativeness and technological capability.</td>
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</table>

**5.3 MANAGERIAL IMPLICATIONS**

The findings of this study have important implications for born global business managers. With a stronger focus on return on investment and restricted budgets, an effective OIM for a company is more important than ever. However, to date the managers of BG firms have lacked the tool that is necessary to allow them to measure this relevant yet intangible asset in their firms. The scale we have developed can provide a reliable and valid analytical tool for assessing the orientation towards international markets of these firms. Thus born global managers may adopt the scale for a better understanding of the reality of foreign markets and to develop effective strategies to attract and retain customers in different markets overseas. Furthermore, this measurement scale allows for an item-based prioritization. For marketing managers in particular, an application of the items of the scale can provide detailed information on
marketing activities that meet the needs and expectations of customers in foreign markets. As a consequence, the OIM scale provides managers of BG firms with important means for taking action, not only to increase their firms’ OIM but also to manage the consequences of OIM, such as the satisfaction of customers’ expectations, effectively.

5.4 Study Limitations
This thesis has outlined the research undertaken, which involved different approaches and stages, and a mixed methodology. As a result, there are several limitations of this study that should be taken into account.

The sample for the first study was drawn from five BG firms based in Spain. In spite of the fact that the sample size is small if we are generalizing the results, the five companies studied were from different sectors (e.g. design, telecommunications systems, and advertising services), which allowed us to test samples from different sectors in the further analyses. However, regarding the quantitative studies, the sample size of BG firms (n=165) is considered small in the SEM literature.

An additional limitation is that our empirical study relied on the key informant approach. However, the use of a single informant was found to be necessary and appropriate for this thesis. The informants were not chosen on a random basis: their participation was requested because they had special knowledge of the international and marketing activities of their companies. Adopting this strategy offers an advantage over the use of several informants (Phillips, 1981). For instance, Narver and Slater (1990) acknowledge, as one limitation of their study, that all the measures used the average of the responses from all the responders in each SBU. In spite of the fact that a multi-informant approach increases the reliability of a study, marketing research still tends to rely on a single informant (Kumar et al., 1993; Lukas & Ferrell, 2000).

5.5 Suggestions for Future Research
This study has identified that there is room for further research on the application of OIM adopted by BG firms. Some of the possibilities for further investigation are described below.

Our analysis was based on BG firms in Nordic countries and Spain, with the objective being to validate and measure OIM and performance. Future research can also attempt
to examine the relationship between OIM and performance for traditional firms that operate in international markets. As we mentioned in chapter three, we collected a total of 955 valid observations, but because of our focus on BG firms, we used only 25% of the total sample collected. Thus with the rest of our dataset it would be possible to carry out further exploration with the 739 firms that followed a different speed in the internationalization process. Zhang et al. (2009) say: “We believe a comparison of born global firms and traditional exporters might be of interest to IE researchers” (p.293). Therefore, it will be interesting to see the link between OIM and performance and identify whether the OIM scale follows the same operationalization and has the same effects on performance for firms that are not “born global”.

The relationship between OIM and business performance was examined with cross-sectional data, instead of longitudinal data. BG firms are similar to other international firms in that their global business environment is very competitive and dynamic, so some of the variables measured will change over time, and this may modify the results. Further study using a longitudinal approach would provide a richer and clearer understanding of the dynamics and complexity of the proposed relationship between OIM and performance in a BG context (Fillis, 2007; Hagen & Zucchella, 2014; Noble, Sinha & Kumar, 2002).

Another promising avenue for future research would be to study the effect of OIM under multi-group analysis with manufacturing firms and service firms. The role of service firms has hardly been studied in the literature, because most previous studies have been focused on manufacturing firms (Perris et al., 2012). In a similar way to the way in which we performed the comparison across countries, future studies could examine whether the impact of OIM across services and manufacturing varies, and increase the generality of our findings.

Likewise, another area that deserves future attention is related to the role of the network construct. Initially, and based on the literature review and the managers of the BG firms, we included the role of networks as part of OIM. However the statistical results of the CFA performed in chapter three showed that the role of networks was not part of the OIM scale. As we mentioned, future research should explore the relationship between OIM and networks to determine whether new items of the construct should be taken into account and included in the OIM scale.
Finally, this study explores OIM and its effect on performance. Previous studies in the field of MO investigate how each component of MO influences performance (e.g. Gaur et al., 2011; Sørense, 2009). For future research, an effort should be made to assess, using disaggregation, the construct of OIM. It will be interesting to identify the construct that has the strongest effect on business performance.
5.6 REFERENCES


APPENDIX 9  Survey Spanish version

Estimado Sr. / Sra.

Soy Rosalina Torres y estoy desarrollando mi tesis doctoral en el Departamento de Economía de la Empresa en la Universidad Autónoma de Barcelona.

He obtenido su contacto a través de la base de datos del ICEX y la información que le voy a solicitar me permite recoger los datos necesarios para la elaboración de un estudio sobre la relación entre la orientación al mercado y el resultado de la empresa.

Como se puede imaginar, su colaboración respondiendo las siguientes preguntas es crucial para la conclusión de mi investigación, y su participación no le llevará más de 8 minutos.

Le garantizo que toda la información recopilada será analizada de manera confidencial y global.

Agradeciendo de antemano su colaboración, aprovecho este mensaje para enviarle un cuestionario.

Por favor, no dude en contactarme en caso de tener algún problema para completar la encuesta o si desea comentar alguna de las preguntas. Mi dirección de correo es la siguiente:

s@uab.es

---

1. Por favor, ¿podría decirnos el nombre completo de su empresa?

2. Debido a la naturaleza internacional de nuestra investigación, por favor, ¿podría decirnos donde se encuentra la sede de su empresa (indicar el país)?

3. ¿En qué año se fundó la empresa?

4. ¿Podría decirnos el tamaño de su empresa (número de empleados) en el año 2011?

5. ¿Podría indicarnos la industria donde opera la empresa?

6. ¿Podría decirnos un promedio del ratio de I+D sobre ventas totales (en porcentaje)?

7. ¿Puede decirnos si su empresa ha desarrollado acuerdos de colaboración durante sus años de actividad?

---

210
Orientación al mercado

Información general de la empresa

8. Por favor, ¿podría decirnos en qué año comenzó a exportar su empresa?

9. ¿Podría definirse su empresa como una exportadora estable, entendiendo por estable una vez que inició las exportaciones ha continuado exportando?  
   - Si  
   - No

10. ¿Cuáles son los principales mercados de exportación de su empresa? (puede marcar más de una opción)
   - 1. Asia  
   - 2. Europa  
   - 3. América del Norte  
   - 4. América Latina y Brasil  
   - 5. Oceania  
   - Otros (por favor, especificar): ...

11. Durante el tiempo que la empresa exporte o exportó, ¿cuál es o fue el porcentaje promedio de las exportaciones superiores a las ventas totales?

   ...

   %

Orientación al mercado

Capacidades empresariales

12. ¿Puede valorar de 1 a 10, donde 1 es muy poco importante y 10 muy importante, las siguientes orientaciones para garantizar el éxito de una empresa?

   Orientación al aprendizaje  
   Orientación empresarial  
   Orientación innovadora  

   ...

   %

Orientación al mercado

Orientación al mercado

El propósito de la teoría relacionada con este cuestionario es evaluar el concepto de orientación al mercado a nivel internacional. Para ello, vamos a utilizar una modificación de la escala desarrollada por Narine y Snavel en 1990 (consúltese constructo orientación al cliente, orientación a la competencia y coordinación interfuncional), además de considerar otros constructos derivados de una investigación cualitativa. Por favor, si considera oportuno añadir algún otro ítem no mencionado en las siguientes secciones, utilice la opción de "otros" para incorporarlo y le valga de la misma manera que los demás.

13. Por lo que se refiere a la ORIENTACIÓN AL CLIENTE, en comparación con sus competidores, valore en una escala tipo Likert de 7 puntos (1: totalmente en desacuerdo - 7: totalmente de acuerdo) los siguientes ítems:

   1. Nuestros objetivos empresariales están basados principalmente en la satisfacción del cliente.
   2. Contratamos a personas con alto rendimiento que se centren en la satisfacción del cliente.
   3. Nuestra estrategia de marketing se basa en el cumplimiento de las necesidades del cliente.
   4. Nuestra estrategia de marketing se basa en nuestras creencias acerca de cómo podemos crear valor para los clientes.
   5. Nuestro personal se centra en la satisfacción del cliente.
   7. Recopilamos información de nuestros clientes, utilizando fuentes externas (tales como campañas de investigación de mercados, fuentes de datos médicos y consultoría).

   Otros (por favor, especificar):

   ...

   %
14. Por lo que se refiere a la ORIENTACIÓN A LA COMPETENCIA, en comparación con sus competidores, valore en una escala tipo Likert de 7 puntos (1: totalmente en desacuerdo - 7: totalmente de acuerdo) los siguientes ítems:

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<tr>
<td>1. Nuestros vendedores comparan información regularmente dentro de nuestra organización relativa a las estrategias de los competidores.</td>
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<tr>
<td>2. Rápidamente y oportuna a las decisiones que nos amenacen.</td>
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<td>3. Nos insinuamos a clientes y a grupos de clientes con los que tenemos o podamos desarrollar una relación competitiva.</td>
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<td>4. Lealtad regularmente se ve las fortalezas de los competidores y sus estrategias.</td>
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<td>5. Nuestros altos ejecutivos de todas las divisiones visitan a nuestros clientes actuales y potenciales.</td>
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16. Por lo que se refiere a la COORDINACIÓN INTERFUCIONAL, en comparación con sus competidores, valore en una escala tipo Likert de 7 puntos (1: totalmente en desacuerdo - 7: totalmente de acuerdo) los siguientes ítems:

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<tr>
<td>1. Comunicamos información sobre experiencias existentes y fracasos con los clientes a todas las áreas de negocio.</td>
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<tr>
<td>2. Todos nuestros áreas de negocio (v. e. marketing, ventas, producción, investigación y desarrollo, etc.) están integrados y trabajan como equipo para servir a las necesidades de nuestros clientes.</td>
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<tr>
<td>3. Todos nuestros gerentes comprenden cómo cada persona en nuestra empresa puede contribuir a crear valor para el cliente.</td>
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16. En cuanto a la INNOVACIÓN y la CAPACIDAD TECNOLÓGICA, valore en una escala Likert de 1 a 7 (donde 1 es totalmente en desacuerdo y 7 totalmente de acuerdo) los siguientes elementos:

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<tr>
<td>1. La innovación técnica, sobre la base de resultados de investigación, es de facil aceptación en la compañía.</td>
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<tr>
<td>2. Brevettamos activamente las ideas innovadoras.</td>
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<tr>
<td>3. Utilizamos tecnologías innovadoras para mejorar la eficiencia.</td>
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<tr>
<td>4. Inversiones en la innovación de productos / proceso</td>
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<td></td>
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<tr>
<td>5. Tenemos una cultura innovadora, proactiva y no contraria al algo que ciuda las fronteras nacionales desarrollados por nuestros administradores.</td>
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<td>Otros (por favor, especificar)</td>
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17. En cuanto a las REDES de la empresa, valore en una escala Likert de 1 a 7 (donde 1 es totalmente en desacuerdo y 7 totalmente de acuerdo) los siguientes elementos:

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<tr>
<td>1. Apoyos financieros existen es para permitir operar en mercados extranjeros.</td>
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<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>2. Utilizamos las relaciones de nuestras redes tanto en la entrada a los mercados como en el desarrollo de los mismos.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>3. En el empleo de canales como intermediarios de sistemas / distribuidores, redes e Internet nos ayudan a alcanzar el espíritu de nuevos negocio en los mercados internacionales.</td>
<td></td>
<td></td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Otros (por favor, especificar)</td>
<td></td>
<td></td>
<td></td>
<td></td>
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<td></td>
</tr>
</tbody>
</table>
18. Teniendo en cuenta su empresa, valore en una escala de 1 a 5, donde 1 es “mucho peor” y 5 es “mucho mejor”, los siguientes aspectos en 2011:

<table>
<thead>
<tr>
<th>Aspecto</th>
<th>1. Mucho peor</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5. Mucho mejor</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nivel de fidelidad de los clientes en comparación con los competidores</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nivel de satisfacción de los clientes comparado al año anterior</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nivel de fidelidad de los clientes comparado con el año anterior</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Volumen de ventas logradas en comparación con los competidores</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Crecimiento de las ventas en comparación con las competidores</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Participación de mercado en comparación con los competidores</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nivel de beneficio general alcanzado en comparación con los competidores</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Margenes de beneficio en comparación con los competidores</td>
<td></td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Retorno de la inversión (ROI) en comparación con los competidores</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Rentabilidad sobre activos (ROA) en comparación con sus competidores</td>
<td></td>
<td></td>
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<td></td>
</tr>
</tbody>
</table>

[Image: Orientación al mercado]

19. Por favor, podrá decirnos:

- su nombre:
- su puesto:
- número de teléfono en ese puesto:
- su e-mail personal:

[Image: Orientación al mercado]

MUCHAS GRACIAS POR SU COLABORACIÓN!!

[Image: Orientación al mercado]
APPENDIX 10  Survey English version

Dear Mr./Ms.,

My name is Rosalina Torres and I am currently visiting University of Southern Denmark for three months while developing my doctoral dissertation. I have obtained your contact from a previous research developed by Prof. Tage Kjeld Madsen from Dept. Marketing & Management at the University of Southern Denmark. The survey allows me to collect information for elaborating my study about the relationship among market orientation & performance.

As you can imagine, your collaboration answering the following questions is crucial for concluding my research and it will not take you more than 8 minutes to complete it.

I guarantee that all the collected information will be analyzed in a confidential way, so that no single company can be identified.

Thanking in advance your collaboration. Please, do not hesitate to contact me in case you have any problem for completing the survey or would like any help. My e-mail address is ros@sam.sdu.dk

Rosalina Torres
Statsforsker
Dept. Marketing & Management
Tel: +45 6506 5948
Web: http://www.sdu.dk
Adress: Campusvej 55, DK-5230 Odense M, Denmark
SYDDANSK UNIVERSITET
DENMARK

---

Dear Mr./Ms.,

My name is Rosalina Torres and I am currently visiting Turku Yliopisto for six months while developing my doctoral dissertation. I have obtained your contact from KOKDISTAMSKUONE database. The survey allows me to collect information for elaborating my study about the relationship among market orientation & performance.

As you can imagine, your collaboration answering the following questions is crucial for concluding my research and it will not take you more than 8 minutes to complete it.

I guarantee that all the collected information will be analyzed in a confidential way, so that no single company can be identified.

Thanking in advance your collaboration. Please, do not hesitate to contact me in case you have any problem for completing the survey or would like any help. My contact details are:

ROSALINA TORRES
Turku School of Economics
Postal addr.: 20014 Turku Yliopisto, Finland
Ph: +358 2 333 9188

---

As I have already mentioned, we got some information about your company from a previous research developed by Prof. Tage Kjeld Madsen. However, for updating and completing some instead information that is needed, I am going to ask you some questions related to your firm.

1. Please, could you give us the full name of your firm?

2. Due to the international nature of our research, please, could you tell us where is located the headquarters of your firm (indicate country)?

3. When was the company founded?
4. Could you tell us the size of your company (number of employees) in the year 2011?

5. Could you indicate the industry where your firm performs?
   - Agriculture, forestry, fishery, and hunting
   - Other (specify)

6. Can you tell us the average ratio of R&D expenditures over total sales (in percentage)?

7. Can you tell us if your company has developed collaboration agreements during the last activity years?
   - Yes [ ]
   - No [ ]
   - 25%

8. Please, could you tell us the year when your firm started export?

9. Could your firm be defined as a stable exporter (understanding by stable that once you started export you have continued doing it)?
   - Yes [ ]
   - No [ ]

10. What are your main export markets? (you can mark more than one option)
    - Africa
    - Asia
    - Europe
    - Other (please specify)

11. During the time the firm has exported, what is the average percentage of exports over total sales?
    - 33%

12. Can you assess from 1 to 10, where 1 is not very important and 10 very important, the following orientations for guaranteeing the success of a company?

<table>
<thead>
<tr>
<th>Learning orientation</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
<th>10</th>
</tr>
</thead>
<tbody>
<tr>
<td>Market orientation</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Entrepreneurial</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Innovative</td>
<td></td>
<td></td>
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<td></td>
<td></td>
</tr>
</tbody>
</table>
Market Orientation

The purpose of the dissertation related to this survey is to assess internationally the Market Orientation concept. We are going to use a modification of the scale developed by Naver & Slater in 1990 with three constructs (customer orientation, competitor orientation and interfunctional coordination) plus another construct obtained from a qualitative research (Please, if you miss any item in the next sections, use the "other option" for telling it to us and assess it in the same way than the others).

13. Regarding Customer Orientation, in comparison with your competitors, assess in a scale from 1 to 7 (where 1 means totally disagree and 7 totally agree) the following items:

<table>
<thead>
<tr>
<th>Item</th>
<th>1 Totally disagree</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7 Totally agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Our business objectives are driven by customer satisfaction.</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>2. We monitor our level of commitment and dedication to serving customers' needs.</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>3. Our strategy for competitive advantage is based on our understanding of customer needs.</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>4. Our business strategies are driven by our beliefs about how we can create greater value for customers.</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>5. We measure customer satisfaction systematically and frequently.</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>6. We give close attention to after-sales service.</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>7. We collect customer information using external sources (such as market research agencies, syndicated data sources and consultants)</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
</tbody>
</table>

Other (please specify) ____________________________________________

50%

14. Regarding Competitor Orientation, in comparison with your competitors, assess in a scale from 1 to 7 (where 1 means totally disagree and 7 totally agree) the following items:

<table>
<thead>
<tr>
<th>Item</th>
<th>1 Totally disagree</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7 Totally agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Our salespeople share information within our business concerning competitors' strategies.</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>2. We respond to competitive actions that threaten us.</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>3. We target customers and customer groups where we have, or can develop, a competitive advantage.</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>4. The top management team regularly discusses competitors' strengths and strategies.</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>5. Our top managers form every function visit our current and prospective customers.</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
</tbody>
</table>

Other (please specify) ____________________________________________

50%

15. Regarding Interfunctional Coordination, in comparison with your competitors, assess in a scale from 1 to 7 (where 1 means totally disagree and 7 totally agree) the following items:

<table>
<thead>
<tr>
<th>Item</th>
<th>1 Totally disagree</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7 Totally agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. We communicate information about our successful and unsuccessful customer experiences across all business functions.</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>2. All of our business functions (e.g. marketing, sales, manufacturing, R&amp;D, etc) are integrated in serving the needs of our target markets.</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>3. All of our managers understand how everyone in our company can contribute to creating customer value.</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
</tbody>
</table>

Other (please specify) ____________________________________________

67%
### Market Orientation

16. Regarding innovativeness and technological capability, assess in a scale from 1 to 7 (where 1 means totally disagree and 7 totally agree) the following items:

<table>
<thead>
<tr>
<th>Item</th>
<th>1 Totally disagree</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7 Totally agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Technical innovation, based on research results, is readily accepted in the supply chain.</td>
<td></td>
<td></td>
<td></td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. We actively seek innovative ideas.</td>
<td></td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>3. We use knowledge-intensive technologies for improving existing offerings.</td>
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</tr>
<tr>
<td>4. We have excellent leadership in product-process innovation.</td>
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</tr>
<tr>
<td>5. We have an innovative, proactice, and risk-taking behavior that crosses the national borders developed by our managers.</td>
<td></td>
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<td></td>
<td></td>
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</tr>
<tr>
<td>Other (please specify)</td>
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<td></td>
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</tr>
</tbody>
</table>

17. Regarding firm’s networks, assess in a scale from 1 to 7 (where 1 means totally disagree and 7 totally agree) the following items:

<table>
<thead>
<tr>
<th>Item</th>
<th>1 Totally disagree</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7 Totally agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. External financial support allows us to operate in foreign markets.</td>
<td></td>
<td></td>
<td></td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>2. We use network relationships on market entry and market development.</td>
<td></td>
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<td></td>
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<td></td>
</tr>
<tr>
<td>3. Our use of channels such as system integrators/distributors, networks, and the internet helps us to reach new business space in international markets.</td>
<td></td>
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<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other (please specify)</td>
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</tr>
</tbody>
</table>

---

### Performance

18. Considering your company, please assess on a scale from 1 to 5, where 1 is “much worse” and 5 is “much better” the following aspects in 2011:

<table>
<thead>
<tr>
<th>Aspect</th>
<th>1 Much worse</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5 Much better</th>
</tr>
</thead>
<tbody>
<tr>
<td>Level of customer loyalty compared to your competitors</td>
<td></td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Level of customer satisfaction compared to previous year</td>
<td></td>
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<td></td>
</tr>
<tr>
<td>Level of customer loyalty compared to the previous year</td>
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</tr>
<tr>
<td>Sales volume achieved compared to your competitors</td>
<td></td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sales growth compared to your competitors</td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Market share compared to your competitors</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>General profit level achieved compared to your competitors</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Profit margins compared to your competitors</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Return on investment (ROI) compared to your competitors</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Return on assets (ROA) compared to your competitors</td>
<td></td>
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<td></td>
</tr>
</tbody>
</table>
19. Please, can you tell us:

- your name:
- your position:
- number of years in this position:
- your personal e-mail:

THANK YOU VERY MUCH FOR YOUR COLLABORATION!!!