This paper conducts a bibliometric review of the research on the relationship between boards of directors and the internationalization of companies. Boards of directors play an important role in the success of the internationalization process of companies, as they contribute to strategic decision-making and support access to the resources and capabilities needed to enter the international market. The bibliometric analysis documents the most influential articles, authors, journals and countries in this field of knowledge, highlighting the diversity of topics addressed. In addition, the co-occurrence analysis reveals the theoretical and conceptual core of the research, knowing the main theories and study variables analyzed. This review lays the groundwork for future research on boards of directors and the internationalization of companies, highlighting the need for more research at a global level, especially in Latin America. It also suggests future lines of research on emerging issues such as board capital and board-to-board networking.

Keywords: Board of Directors, Internationalization of Companies, Corporate Governance, Top Management, CEO


Declaration of conflicting interests: The Authors declare that there is no conflict of interest.
The board of directors is responsible for driving corporate performance, maximizing shareholder returns, participating in decision-making, overseeing management's management, and setting strategic objectives for the organization, according to Trinarinsih et al. (2021). Board composition (Johnson et al., 2013; Kirsch, 2018), board independence (Chen & Hsu, 2009), board structure (Jackling & Joll, 2009; Thakolwiroj & Sithipolvanichgul, 2021), and board qualities (Tahir et al., 2020; Roffia et al., 2022) are among the most researched issues.

As a result, various bibliometric studies on the literature regarding boards of directors have been discovered, covering issues such as board qualities (Zheng & Kouwenberg, 2019; Trinarinsih et al., 2021), the role of the board chair (Banerjee et al., 2020), and board structure in emerging markets (Ararat et al., 2021). However, the use of this sort of study in the research on the link between the board of directors and corporate internationalization is limited and recent (Lee et al., 2022; Debellis et al., 2023).

Therefore, the purpose of this analysis was to examine the evolution of the literature on the relationship between boards of directors and firm internationalization by addressing the following research questions:

RQ1: What is the volume of publications by time, geographic distribution, and patterns of collaboration in research on the relationship between boards of directors and firm internationalization?

RQ2: Which journals, authors and publications have had the most significant influence on research on the relationship between boards of directors and corporate internationalization?

RQ3: What are the study variables, theories and methods that have been applied in the development of research on the relationship between boards of directors and the internationalization of companies?

This review seeks to examine the role of boards of directors in the internationalization of companies, learning about the different practices and characteristics that influence the international strategies and activities of companies. To address these questions, 125 articles extracted from Web of Science (WoS) and Scopus databases were analyzed. Bibliometric methods such as citation analysis and co-occurrence analysis for keywords were adopted, the latter together with a content analysis of the abstracts, provided insight into the evolution of the literature over time. This paper contributes to the literature by providing a bibliometric review of the literature on boards of directors, differing from other published articles because the analysis not only focuses on the characteristics of boards but specifically focuses the search on the research that examines their relationship or impact on the internationalization of companies.

The paper is structured as follows. In Section 2, the methodology used and the search strategy are described. Section 3 presents the results, answering the research questions based on the analysis of the information obtained from the databases and the VOSViewer software. Section 4 presents the discussion based on the content of the selected articles, obtaining the state of the literature in terms of theories, themes and methodologies applied. Finally, Section 5 provides the conclusions.

2. RESEARCH FRAMEWORK

The bibliometric analysis employs several quantitative methods to examine the bibliographic information associated with articles published in a certain field of knowledge. The main characteristics associated with the production of knowledge about the investigated topic are revealed via these analyses (Zheng & Kouwenberg, 2019). As a result, this bibliometric review was created to supplement the literature and findings from previous studies.

2.1. Data sources and search strategy

The WoS and Scopus databases were used to perform the bibliometric analysis on the relationship between the board of directors and the internationalization of companies, because they are considered objective data sets for the literature review, which include the journals with the highest impact factor and provide detailed information on sources, authors, institutions, countries, citations, which are usually indicators used to develop a solid bibliometric analysis. Following the guidelines of Moher et al. (2010) we followed the four steps to identify and select the information for a bibliometric review that are described in Figure 1.

The first step was to identify articles related to boards of directors and their relationship with the internationalization of companies, for which an initial search was performed with the following search equation: “boards of directors” AND “internationalization”. Since not all scholars have referred to the topic of boards of directors with the same terms, the search was expanded to include other similar terms such as: “corporate governance” and “board structure”. We used the following search equation: search term = “boards of directors” or “corporate governance” or “board structure” and “internationalization”.

The selection of published documents began with a search for titles, summaries, and keywords for all types of documents in both databases. This first search yielded 329 publications from WoS and 252 from Scopus.

In the second step, publications were filtered according to the following research areas: business, administration, and economics. This classification resulted in the exclusion of 31 WoS articles and 32 Scopus articles.

In the third step of the 518 publications obtained, those that are articles in English were selected because most of the research is published in this language. With the 428 articles obtained, a manual review was carried out comparing both databases to identify repeated articles, obtaining a database of 282 articles. Subsequently, the titles and abstracts were manually reviewed to determine their relevance to the research topic, especially to identify articles investigating the relationship between the board of directors and the internationalization of companies. This led to the exclusion of 157 papers resulting in a database of 125 articles published between 1998-2022.
Figure 1. Flow chart of the search strategy

<table>
<thead>
<tr>
<th>Literature identification</th>
<th>Database: WoS and Scopus</th>
<th>Search equation: “boards of directors” or “corporate governance” or “board structure” and internationalization</th>
<th>Area: all</th>
<th>Years: 1996–2022</th>
<th>581 papers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Preliminary list</td>
<td>Database: WoS and Scopus</td>
<td>Search equation: “boards of directors” or “corporate governance” or “board structure” and internationalization</td>
<td>Area: business, management, and economics</td>
<td>Years: 1998–2022</td>
<td>518 papers</td>
</tr>
<tr>
<td>Selection of studies</td>
<td>Database: WoS and Scopus</td>
<td>Search equation: “boards of directors” or “corporate governance” or “CEO” or “board structure” and internationalization</td>
<td>Area: business, management, and economics</td>
<td>Filter: English articles</td>
<td>428 papers</td>
</tr>
</tbody>
</table>

2.2. Data analysis

Once the articles were selected, the WoS and Scopus databases were downloaded including information such as title, authors, affiliations, journal name, abstract, and number of citations. Several descriptive analyses were performed using the WoS and Scopus tools, as well as the VOSviewer software. WoS and Scopus tools were used to identify patterns within the database such as the number of publications by year and country, as well as the elaboration of tables to describe the average number of authors in the publications, identify influential articles and journals, and citation analysis recognized as a means to establish the academic impact of publications.

VOSviewer software was used to identify co-authorship and thematic foci by mapping keyword co-occurrence. By reviewing the content of the articles, they were classified according to the thematic approach describing the variables studied around the board of directors and the internationalization of companies, the theories adopted, and the research methods employed.

3. RESEARCH RESULTS

The results of the bibliometric analysis are presented in this section, following the research questions posed in the Introduction.

3.1. Volume, collaboration patterns, and geographical distribution

The first analysis refers to the volume of literature. The research on boards of directors is broad because it contemplates different thematic axes around it, however, a total of 125 journal articles were identified as relevant to the relationship of boards of directors with the internationalization of companies. The evolution of the literature was analyzed based on the progression of the volume of publications over time (see Figure 2). Research on the topic began to take shape in the late 1990s from key works focused on agency theory (Sanders & Carpenter, 1998), and strategy theory (Sherman et al., 1998), analyzing the relationship between the degree of internationalization of firms and their governance represented under the term board or council. Although the literature on corporate governance began to boom in 2002, until 2012 there were few publications per year on the relationship between the board of directors and the internationalization of companies, however, the growth of emerging economies generated a turning point in the evolution of the literature, which began to focus research on this relationship in emerging countries, with studies on small and medium-sized enterprises (SMEs) and family businesses standing out. Finally, in the last two years, research on the subject has increased significantly, continuing with the interest in emerging markets, but involving a more detailed analysis of the different structural characteristics of boards of directors.

Figure 2. Number of publications over time
Research on the relationship between the board of directors and company internationalization was mainly carried out by 2 to 4 authors, accumulating 84% of the publications (117 articles). Researchers worked in small groups, where 5 or more authors wrote 8 articles (6.2%). Only 12 articles (9.6%) were written by one author. Table 1 shows the distribution of the number of authors per article.

Authors with at least two articles are shown in Figure 3, this threshold in the number of publications was chosen taking into account the tendency of authors to research in small groups. van Essen, M. is the most central author in the research with a collaboration of 4 authors. There was no author with a significant number of publications, Calabrò, A. was found with five publications, followed by 6 authors with 3 publications.

Table 1. Number of authors per publication

<table>
<thead>
<tr>
<th>No. of authors</th>
<th>No. of publications</th>
<th>Percentage (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>12</td>
<td>9.6%</td>
</tr>
<tr>
<td>2</td>
<td>36</td>
<td>28.8%</td>
</tr>
<tr>
<td>3</td>
<td>43</td>
<td>34.4%</td>
</tr>
<tr>
<td>4</td>
<td>26</td>
<td>20.8%</td>
</tr>
<tr>
<td>5</td>
<td>5</td>
<td>4.0%</td>
</tr>
<tr>
<td>6</td>
<td>1</td>
<td>0.8%</td>
</tr>
<tr>
<td>7</td>
<td>2</td>
<td>1.6%</td>
</tr>
<tr>
<td>Total</td>
<td>125</td>
<td>100%</td>
</tr>
</tbody>
</table>

Figure 3. Network visualization map of authors active in research with a minimum of 2 publications

Source: Authors’ elaboration using VOSviewer software.

Figure 4 shows the geographical distribution of the literature obtained from WoS and Scopus reports. In total, authors from 41 countries contributed to the publication of the selected literature, showing the 15 countries with the most research on the relationship between the board of directors and company internationalization. Authors from the United States (US) produced the most literature on the subject with 38 publications (17.7%) followed by England with 20 articles (15.9%) and Italy with 18 articles (9.3%). European countries dominated the top 15 with nine countries, followed by four Asian countries, one North American country and one from Oceania. The US as a country predominates in the field of knowledge, and as a continent Europe leads with 82 publications (38.1%), finding that the predominance in the literature comes from developed economies where the OECD has become an advocate of good corporate governance practices (Trinarningsih et al., 2021). However, the number of articles originating from emerging economies such as China, India, Taiwan, and South Korea with 47 publications (21.9%) is remarkable, indicating that the topic has attracted the attention of researchers from these economies, evidencing a global relevance on the subject, given that academic production has originated in most continents.

Figure 4. Number of publications by country
This field, such as corporate governance, identifies other journals in the first journal in the ranking that has a focus on Management and Governance of internationalization of companies. The subject, and in particular, highlighting the field of knowledge of internationalization. The main journals of administration and management, identified that within this top 4 are located some of the largest number of articles on the relationship between the board of directors and the internationalization of companies.

### 3.2. Journal analysis and citations

For this analysis, descriptive statistics in Excel were used to integrate the data obtained from WoS and Scopus to generate tables that identify the patterns within the databases related to the number of articles per journal, most cited articles and authors (see Tables 3, 4, and 5). In each table, the number of citations obtained in both databases is discriminated. The analysis of the number of citations makes it possible to establish the academic impact of the publications by identifying the most influential journals, articles and authors in the literature on the relationship between the board of directors and the internationalization of companies.

### Table 2. Institutions with 4 or more published articles

<table>
<thead>
<tr>
<th>Ranking</th>
<th>Institutions</th>
<th>Country</th>
<th>No. of articles</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Indian Institute of Management (IIM) System</td>
<td>India</td>
<td>9</td>
</tr>
<tr>
<td>2</td>
<td>University System of Georgia</td>
<td>United States</td>
<td>5</td>
</tr>
<tr>
<td>3</td>
<td>Kennesaw State University</td>
<td>United States</td>
<td>4</td>
</tr>
<tr>
<td>4</td>
<td>Loughborough University</td>
<td>England</td>
<td>4</td>
</tr>
<tr>
<td>5</td>
<td>Northeastern University</td>
<td>United States</td>
<td>4</td>
</tr>
<tr>
<td>6</td>
<td>Texas A&amp;M University, College Station</td>
<td>United States</td>
<td>4</td>
</tr>
<tr>
<td>7</td>
<td>Texas A&amp;M University System</td>
<td>United States</td>
<td>4</td>
</tr>
<tr>
<td>8</td>
<td>University of St. Gallen</td>
<td>Switzerland</td>
<td>4</td>
</tr>
<tr>
<td>9</td>
<td>Utrecht University</td>
<td>Nederland</td>
<td>4</td>
</tr>
</tbody>
</table>

As with the number of publications by country, US institutions are among the most productive in research on the relationship between the board of directors and the internationalization of companies. Table 2 shows that, although the IIM System is in first place with 9 publications, a total of 5 institutions in the ranking are from the US, with a total of 21 publications on the subject.

### Table 3. Top 20 journals with the largest number of published articles

<table>
<thead>
<tr>
<th>Ranking</th>
<th>Journals name</th>
<th>Publisher</th>
<th>No. of articles</th>
<th>No. of citations (WoS)</th>
<th>No. of citations (Scopus)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>International Business Review</td>
<td>Elsevier</td>
<td>12</td>
<td>196</td>
<td>46</td>
</tr>
<tr>
<td>2</td>
<td>Journal of Business Research</td>
<td>Elsevier</td>
<td>7</td>
<td>82</td>
<td>-</td>
</tr>
<tr>
<td>3</td>
<td>Global Strategy Journal</td>
<td>Wiley</td>
<td>6</td>
<td>234</td>
<td>-</td>
</tr>
<tr>
<td>4</td>
<td>Journal of World Business</td>
<td>Elsevier</td>
<td>20</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>5</td>
<td>Journal of Management and Governance</td>
<td>Springer</td>
<td>5</td>
<td>2</td>
<td>182</td>
</tr>
<tr>
<td>6</td>
<td>Management International Review</td>
<td>Springer</td>
<td>5</td>
<td>119</td>
<td>-</td>
</tr>
<tr>
<td>7</td>
<td>Asia Pacific Journal of Management</td>
<td>Springer</td>
<td>4</td>
<td>87</td>
<td>-</td>
</tr>
<tr>
<td>8</td>
<td>Corporate Governance: An International Review</td>
<td>Wiley</td>
<td>3</td>
<td>198</td>
<td>-</td>
</tr>
<tr>
<td>9</td>
<td>Review of International Business and Strategy</td>
<td>Emerald</td>
<td>3</td>
<td>21</td>
<td>-</td>
</tr>
<tr>
<td>10</td>
<td>Small Business Economics</td>
<td>Springer</td>
<td>3</td>
<td>74</td>
<td>-</td>
</tr>
<tr>
<td>11</td>
<td>Journal of International Management</td>
<td>Elsevier</td>
<td>3</td>
<td>14</td>
<td>40</td>
</tr>
<tr>
<td>12</td>
<td>Strategic Management Journal</td>
<td>Wiley</td>
<td>2</td>
<td>193</td>
<td>-</td>
</tr>
<tr>
<td>13</td>
<td>Entrepreneurship Theory and Practice</td>
<td>Sage</td>
<td>2</td>
<td>107</td>
<td>-</td>
</tr>
<tr>
<td>14</td>
<td>Journal of Small Business Management</td>
<td>Wiley</td>
<td>2</td>
<td>112</td>
<td>-</td>
</tr>
<tr>
<td>15</td>
<td>International Journal of Globalisation and Small Business</td>
<td>Inderscience</td>
<td>2</td>
<td>-</td>
<td>69</td>
</tr>
<tr>
<td>16</td>
<td>Management and Organization Review</td>
<td>Cambridge University Press</td>
<td>2</td>
<td>36</td>
<td>-</td>
</tr>
<tr>
<td>17</td>
<td>Academy of Management Journal</td>
<td>AOM Journals</td>
<td>2</td>
<td>-</td>
<td>648</td>
</tr>
<tr>
<td>18</td>
<td>Journal of International Entrepreneurship</td>
<td>Springer</td>
<td>2</td>
<td>26</td>
<td>40</td>
</tr>
<tr>
<td>19</td>
<td>Research in International Business and Finance</td>
<td>Elsevier</td>
<td>2</td>
<td>3</td>
<td>37</td>
</tr>
<tr>
<td>20</td>
<td>Journal of Strategy and Management</td>
<td>Emerald</td>
<td>2</td>
<td>6</td>
<td>7</td>
</tr>
</tbody>
</table>

Table 3 reveals that the journal where the largest number of articles on the relationship between the board of directors and the internationalization of companies has been published in *International Business Review*, whose publisher is Elsevier and is indexed in WoS and Scopus. In second place is the *Journal of Business Research* from the same publisher and in third place is the *Global Strategy Journal* published by Wiley, both of which are indexed in WoS. The fourth place is occupied by the *Journal of World Business*. It is identified that within this top 4 are located some of the main journals of administration and management, demonstrating the interdisciplinary nature of the subject, and in particular, highlighting the field of internationalization of companies. The *Journal of Management and Governance* ranked fifth, is the first journal in the ranking that has a focus on corporate governance, identifying other journals in this field, such as *Corporate Governance and International Review* (ranking 8) that relate both fields (governance and internationalization). However, most of the journals within this top 15 are in the field of knowledge of internationalization.

The data reveal an interesting pattern in terms of the number of citations, where journals that have published a small number of articles have the highest citation count in the WoS database among the top 15 journals, as is the case of the *Academy of Management Journal* with two articles and 648 citations in Scopus for one of them, *Strategic Management Journal* with two publications and 393 citations in WoS, and *Entrepreneurship Theory and Practice* with the same number of publications and 307 citations in WoS. The publication of *Academy of Management Journal* is a representative article of the beginnings of research on the topic published in 1998, the two articles of *Strategic Management Journal* were published one in 2003 and the other in 2014. For their part, the articles on
Entrepreneurship Theory and Practice were published in 2012 and 2017 when the number of publications on the subject begins to grow. Therefore, despite the scarcity of articles on the topic in these journals, the articles published have had a high impact on the field. It is worth noting that the most cited journals are among the leading journals in the fields of international business, management and strategy (e.g., International Business Review, Journal of World Business, Strategic Management Journal, Entrepreneurship Theory and Practice), highlighting the centrality of studies in these three fields. The two journals focused on the study of corporate governance, Journal of Management and Governance and Corporate Governance and International Review, also stand out in the list of the most cited journals.

Table 4. Top 20 most cited articles

<table>
<thead>
<tr>
<th>Ranking</th>
<th>Article title</th>
<th>Authors</th>
<th>Journals name</th>
<th>No. of citations</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>Institutional ownership differences and international diversification: The effects of boards of directors and technological opportunity</td>
<td>Tihanyi et al. (2003)</td>
<td>Academy of Management Journal</td>
<td>292</td>
</tr>
<tr>
<td>3</td>
<td>Testing a model of reasoned risk-taking: Governance, the experience of principals and agents, and global strategy in high-technology IPO firms</td>
<td>Carpenter et al. (2003)</td>
<td>Strategic Management Journal</td>
<td>282</td>
</tr>
<tr>
<td>4</td>
<td>Does ownership structure of emerging-market firms affect their outward FDI? The case of the Indian automotive and pharmaceutical sectors</td>
<td>Bhaumik et al. (2010)</td>
<td>Journal of International Business Studies</td>
<td>221</td>
</tr>
<tr>
<td>6</td>
<td>How do boards of directors contribute to family SME export intensity? The role of formal and informal governance mechanisms</td>
<td>Calabro and Mussolino (2013)</td>
<td>Journal of Management and Governance</td>
<td>156</td>
</tr>
<tr>
<td>7</td>
<td>Why is family firms’ internationalization unique? A meta-analysis</td>
<td>Arregle et al. (2017)</td>
<td>Entrepreneurship Theory and Practice</td>
<td>141</td>
</tr>
<tr>
<td>9</td>
<td>Board influence on a firm’s internationalization</td>
<td>Barroso et al. (2018)</td>
<td>Corporate Governance: An International Review</td>
<td>123</td>
</tr>
<tr>
<td>11</td>
<td>Internationalization of family firms: The effect of ownership and governance</td>
<td>Mitter et al. (2014)</td>
<td>Review of Managerial Science</td>
<td>78</td>
</tr>
<tr>
<td>12</td>
<td>External managers, family ownership and the scope of SME internationalization</td>
<td>D’Angelo et al. (2016)</td>
<td>Journal of World Business</td>
<td>76</td>
</tr>
<tr>
<td>13</td>
<td>State ownership and political connections</td>
<td>Tihanyi et al. (2019)</td>
<td>Journal of Management</td>
<td>75</td>
</tr>
<tr>
<td>14</td>
<td>The effects of ownership and governance on SMEs’ international knowledge-based resources</td>
<td>Zahra et al. (2007)</td>
<td>Small Business Economics</td>
<td>73</td>
</tr>
<tr>
<td>15</td>
<td>Family involvement in the board of directors: Effects on sales internationalization</td>
<td>Sciascia et al. (2013)</td>
<td>Journal of Small Business Management</td>
<td>68</td>
</tr>
<tr>
<td>17</td>
<td>Two dimensions of the internationalization of firms</td>
<td>Hassel et al. (2003)</td>
<td>Journal of Management Studies</td>
<td>65</td>
</tr>
<tr>
<td>18</td>
<td>The role of board of directors in the internationalisation process of small and medium-sized family businesses</td>
<td>Calabro et al. (2009)</td>
<td>International Journal of Globalisation and Small Business</td>
<td>63</td>
</tr>
<tr>
<td>19</td>
<td>Venturing abroad by emerging market enterprises a test of dual strategic intents</td>
<td>Luo et al. (2011)</td>
<td>Management International Review</td>
<td>63</td>
</tr>
</tbody>
</table>

Another important aspect of the bibliometric review is to identify the most representative articles within the line of research. Citation analysis is used to determine the leading research with the greatest academic impact in the field of study. Table 4 lists the 20 most cited articles in the WoS and Scopus databases. The results indicate that the article by Sanders and Carpenter (1998) entitled Internationalization and Firm Governance: The Roles of CEO Compensation, Top Team Composition, and Board Structure is the most cited paper in the literature. This article, which belongs to the Scopus-indexed database, is representative of the beginnings of research on the relationship between the board of directors and firm internationalization, constituting a theoretical basis for the literature in the following years. The following two articles in the list are also part of the publications made within the first five years of the beginning of research on the subject, with
Tihanyi et al. (2003) and the article Institutional Ownership Differences and International Diversification: The Effects of Boards of Directors and Technological Opportunity and Carpenter et al. (2003) with Testing a Model of Reasoned Risk-Taking: Governance, the Experience of Principals and Agents, and Global Strategy in High-Technology IPO Firms. It should be noted that these papers are included in the WoS database of indexed journals. The 19 most cited papers are empirical studies, only the paper by De Massis et al. (2018) entitled Family Firms in the Global Economy: Toward a Deeper Understanding of Internationalization Determinants, Processes, and Outcomes is a theoretical study (ranking 8). Finally, the data in Table 3 support the leading position of the Academy of Management Journal, Strategic Management Journal, and Entrepreneurship Theory and Practice, as 6 of the top 20 cited papers were published in these journals.

**Table 5. Top 10 most cited authors**

<table>
<thead>
<tr>
<th>Ranking</th>
<th>Author</th>
<th>Institution</th>
<th>Country</th>
<th>No. of articles</th>
<th>No. of citations</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Carpenter, M. A.</td>
<td>Witten Institute for Family Business</td>
<td>United States</td>
<td>2</td>
<td>936</td>
</tr>
<tr>
<td>2</td>
<td>Sanders, W. G.</td>
<td>National Kaohsiung University of Science &amp; Technology</td>
<td>United States</td>
<td>1</td>
<td>648</td>
</tr>
<tr>
<td>3</td>
<td>Hitt, M. A.</td>
<td>Mays Business School</td>
<td>United States</td>
<td>3</td>
<td>603</td>
</tr>
<tr>
<td>4</td>
<td>Arregle, J. L.</td>
<td>Birla Institute of Technology &amp; Science Pilani</td>
<td>France</td>
<td>2</td>
<td>307</td>
</tr>
<tr>
<td>5</td>
<td>Pollock, T. G.</td>
<td>Birla Institute of Technology &amp; Science Pilani</td>
<td>United States</td>
<td>1</td>
<td>288</td>
</tr>
<tr>
<td>6</td>
<td>Leary, M. M.</td>
<td>Loughborough University</td>
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<td>Bhaumik, S. K.</td>
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<td>8</td>
<td>Driffield, N.</td>
<td>Second University of Naples</td>
<td>Inglaterra</td>
<td>2</td>
<td>267</td>
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<td>9</td>
<td>Tihanyi, L.</td>
<td>University of Wisconsin System</td>
<td>United States</td>
<td>2</td>
<td>296</td>
</tr>
<tr>
<td>10</td>
<td>Johnson, R. A.</td>
<td>EMLYON Business School</td>
<td>United States</td>
<td>1</td>
<td>260</td>
</tr>
</tbody>
</table>

Table 5 lists the most representative authors according to the number of citations in journals indexed in WoS and Scopus. The results reveal the leadership of US academics, 7 of the top 10 authors are from the United States. The top three authors according to the number of citations are Carpenter, M. A., Sanders, W. G., and Hitt, M. A. Of these authors, none have a significant number of publications, Hitt, M. A. has 3 articles, the highest number of publications on the list.

### 3.3. Thematic approaches to the board of directors-internationalization of companies literature

A keyword co-occurrence analysis is conducted to identify the frequently studied themes around the relationship between the board of directors and company internationalization, as well as their underlying relationship. According to Zupic and Čater (2015), when words co-occur frequently in papers, it means that the concepts behind those words are closely related, therefore, the result of co-occurrence analysis is a network of topics and their relationships that represent the conceptual space of a field of knowledge and reveals patterns and trends in the topics studied within the field.

The keyword co-occurrence analysis conducted (see Figure 5) identified 53 keywords. The five most co-occurring keywords were “corporate governance” (89 links), “internationalization” (57 links), “performance” (47 links), “ownership” (36 links), and “diversification” (22 links). These results reveal that the studies consider a close relationship between corporate governance and internationalization, with an emphasis on the study of the ownership structure of companies, and internationalization in terms of performance and international diversification.

**Figure 5. Network visualization map of keywords**

Source: Authors' elaboration using VOSviewer software.
The analysis carried out by VOSviewer shows that the 53 keywords identified form 4 groups of words according to the strength of the relationships. The first group, identified in Figure 5 with red lines, is made up of 16 words where diversification and directors are the words with the highest number of links (40 and 46, respectively). In this group, agency theory words such as experience, senior management team compensation, performance, research and development (R&D), and internationalization of companies stand out. A second group identified with green lines made up of 13 words led by the word ownership with 47 links, has in common the resource-based perspective associated with the words with the highest number of links such as board composition, board of directors, family businesses and management, and in terms of internationalization it is related to entry modes. The third group identified with blue lines, made up of 13 words, with the term internationalization as the center of the network with 51 links, poses stronger relationships with the words ownership structure, performance, innovation, governance and compensation. The last group identified with yellow lines, made up of 11 words, with corporate governance as the center of the network with 52 links, proposes as the words with the strongest relationships: business groups, emerging economies, foreign direct investment (FDI), strategy, and boards.

4. DISCUSSION OF THE RESULTS

Several research studies have been conducted to analyze the relationship between boards of directors and the internationalization of companies, however, the number is limited. Through a content analysis of the keywords and abstracts of the selected articles, several characteristics were identified in the publications that have been useful to have a broader overview of the advances in the field of knowledge. The main theoretical approaches on which the research focused were: theories of internationalization (34 articles), corporate governance theory including the definition of board of directors (31 articles), resource-based perspective (23 articles), agency theory (21 articles), and institutional theory (11 articles). Other theories used in the studies were the upper echelon theory, family business and international business literature, signaling theory, social capital theory, and information perspective, among others. Of the 125 articles, 18 were qualitative studies, of which 6 were literature reviews, and the remaining 12 were case studies. 106 articles were quantitative studies using samples of large companies, SMEs and family-owned companies in different countries, as well as studies in private and state-owned multinationals. One of the studies was conducted under mixed methodology (Arreola & Bandeira-de-Mello, 2018) integrating a quantitative study with a sample of Brazilian multinational companies and a case study.

Table A.1 in Appendix presents a summary of the articles reviewed, classified according to six identified themes: corporate governance structure, board of directors structure, board capital, board of directors networks, international diversity in boards of directors, and a last category where articles dealing with other aspects of boards of directors different from those previously presented are gathered. These six topics are usually positively related to the internationalization of companies in their different forms of measurement such as entry modes, degree of internationalization, export intensity, propensity to internationalize, export performance, international performance, and FDI, among others. Finally, studies analyze the influence of different board characteristics on firm internationalization, however, some studies analyze the opposite relationship, i.e., the influence of firm internationalization on the composition of boards of directors (Gozzi et al., 2008; Liu et al., 2020; Kravchenko, 2021; Chandler et al., 2022), or the moderating effect of board characteristics on the relationship between firm internationalization with other innovation and performance variables (Carpenter et al., 2003; Sahin et al., 2015; Corsi & Prencipe, 2018; Bauweraerts et al., 2022).

The first topic analyzed is the corporate governance structure. To compile the articles on this topic, it was taken into account that corporate governance structure is defined by aspects of ownership concentration and internal and international management against possible shareholder interference (Guerini et al., 2022). Therefore, reviewing the summary and content of the articles, it is found that one part analyzes the ownership structure of private companies and the effects on their internationalization variables such as level and degree of internationalization, export intensity, FDI, international investment (Hu & Cui, 2014; Santulli et al., 2019; Zhou et al., 2016; Manogna & Mishra, 2021a, 2021b; Sinha et al., 2021; Ossorio, 2018; Herrmann et al., 2010; Liu et al., 2020; Molina-Sieiro et al., 2023). Wang (2015) and Herrmann et al. (2010) discuss managerial compensation and/or remuneration, while Calabrò and Mussolino (2013) analyze formal and informal characteristics of corporate governance such as governance mechanisms, norms, relationships and trust.

A large part of the articles on this topic analyzes the corporate governance system and its influence on the level of internationalization and entry modes (Bbaumik et al., 2019; Cristiano, 2018; Gozzi et al., 2008; Cuervo-Cazurra & Li, 2021; Beyer & Hassel, 2002; Wang et al., 2008; Lu et al., 2013; Zahra, 2014; Filippov, 2012; Ahsan et al., 2020; Gammeltoft & Cuervo-Cazurra, 2021; Li et al., 2021; Compagno et al., 2005; Arreola & Bandeira-de-Mello, 2018; Shamugasundaram, 2020; Corsi & Prencipe, 2018; Panicker et al., 2021; Chou et al., 2021; Rygh & Benito, 2022; Purkayastha & Gupta, 2023; Lee et al., 2022; Jamaleh & Shukla, 2022; Chandler et al., 2022). Other studies add variables such as knowledge management and human management (Filippov, 2012), innovation and R&D (Chou et al., 2021; Adebayo and Adebayo 2021) of these literature review on public companies and Zhou and Guillen (2016) compare public and private companies in Norway. In these researches, it stands
out that most of the quantitative studies are conducted with samples of firms in emerging markets, applied mainly to samples of SMEs and family firms in Asian emerging economies and developed countries such as the US and Germany.

5. CONCLUSION
This study analyzed the profile of articles published in the Web of Science and Scopus databases from 1998 to 2022, on the relationship between “board of directors” and “internationalization of companies” in the field of business, management and economics knowledge. The board of directors is a key player in determining the success of the internationalization strategy of companies, being responsible for providing the resources, finding the opportunities and generating the strategies for companies to enter foreign markets. This bibliometric analysis helps researchers to know the current research trend, the most influential research articles, and the most studied topics in the relationship under study, which would help them to obtain an overview to be used later in applied research that seeks to test or examine in greater depth, the behavior of the variables identified in different business contexts globally. A total of 585 articles were retrieved that contained the words “board of directors”, “corporate governance” or “board structure”, together with the word “internationalization”, in the title, abstract and keywords. After applying the different steps of a bibliometric review, a database of 125 articles extracted from the Web of Science and Scopus databases was obtained. The research had few publications between 1998 and 2011, after this stagnation from 2012 began to see a growing trend, showing a significant improvement in 2018, and finding a large number of articles published in the last years 2021 and 2022 (count 33% of the total number of articles analyzed). Most of the published articles were written by researchers from the United States and European institutions, however, research in China, Taiwan and India stand out as the most productive emerging economies in the research field. This is also reflected in their performance at the institutional level, where an institution in India appears as the most productive, but these institutions received a lower impact with respect to institutions in the United States and England.

The co-occurrence of keywords in this study revealed emerging research themes in the relationship between boards of directors and the internationalization of firms. Five board research themes were found all related to firm internationalization variables: corporate governance (CG) structure, board directors (BD) structure, capital, networks, international diversity, and finally other characteristics. On the other hand, most of the published articles related to boards of directors frequently discuss the degree of internationalization and international performance, which become one of the ultimate strategic objectives of the board in a firm.

The results provide several interesting contributions. First, this study analyzes the profile of publications on the relationship between boards of directors and firm internationalization, authors, countries, institutions, journals, influential articles, and years of publication. Second, the study maps the thematic structure using co-occurrence and analyzing the content of article abstracts, helping researchers to identify stagnation in topics, and evolve towards improving the field of knowledge. Third, this research suggests the existence of great potential for more research on the topic, in emerging Latin American countries, as well as on topics beyond governance and board structure, such as, for example, board equity, this could greatly improve the quality of research.

Some limitations are presented in this bibliometric review. First, this study only includes publications considered in the Web of Science and Scopus databases, which, although they are the most representative for having the highest impact journals indexed, leave out literature from other research databases in which publications in countries where research on the topic was not identified, as well as articles in other languages, could be identified. Third, it is possible that some articles on the topic were not included because other similar terms were not included in the search equation. Although the database was cleaned, there may be articles that are not strictly related to the study variables.

The research began with the study of corporate governance structure and its effect on internationalization starting in 1998 and evolved towards topics such as board structure and board capital, and their effects on internationalization. However, it can be identified that in the last three years (2020–2022), the corporate governance structure continues to be the focus of research with topics on ownership and compensation, evolving towards the relevance of board capital which has had several publications in that period, being the subject of future research.

REFERENCES


## APPENDIX

### Table A.1. Key themes, theories and methodologies of the selected articles (Part 1)

<table>
<thead>
<tr>
<th>Approach</th>
<th>Authors</th>
<th>Applied theories</th>
<th>Study type</th>
<th>Type of companies and location</th>
</tr>
</thead>
<tbody>
<tr>
<td>Capital (capabilties, experience, knowledge, skills, skills, social and human capital)</td>
<td>Schmid and Dauth (2014), Searman et al. (1998), Bjørnåli and Aspelund (2012), Nam et al. (2018), Volonè and Gantenbein (2016), Kunisch et al. (2019), Chen et al. (2017), Puthusseri (2021), Popli et al. (2021), Chen and Yu (2017), Pukarayasha et al. (2021), Weihong et al. (2020), Pérez-Calo-Sánchez et al. (2015), Bužavaté and Korsakienė (2022), Defebils et al. (2023), González and González-Galindo (2022), Hussain et al. (2022), Singla et al. (2017), Kravchenko (2021)</td>
<td>Resource-based perspective - International business literature - Internationalization theories - Signaling theory - Social capital theory - Upper echelon theory - Human capital theory - Strategic leadership theory - Institutional theory - International entrepreneurship theory</td>
<td>Quantitative</td>
<td>SMEs (20) Spin-offs (1) Countries analyzed: South Korea (1), Germany (1), China (1), Spain (1), India (2), Italy (1), Japan (1), Taiwan (2), Lithuania (1), United States (2), Mexico (1), Norway (1), Netherlands (1), Warsaw (1), and Spain (1)</td>
</tr>
<tr>
<td>Networks (strategic alliances, relations, networks)</td>
<td>Heemskerk and Schnydere (2008), De Jong et al. (2010), Wang et al. (2019), Marx (2019), Lebedev et al. (2021), Veileaux and Roy (2015), Yildiz et al. (2021), Edacharian and Panicker (2022), De Beule et al. (2022)</td>
<td>Corporate governance - Internationalization theories - Institutional theory - Resource-based perspective - Variety of capitalism approach (VoC) - International business literature</td>
<td>3 qualitative 6 quantitative</td>
<td>SMEs (8) Multinationals (1) Countries analyzed: Switzerland (1), Netherlands (2), China (2), Germany (1), USA (1), Canada (1), Sweden (1), and India (1)</td>
</tr>
</tbody>
</table>
Table A.1. Key themes, theories and methodologies of the selected articles (Part 2)

<table>
<thead>
<tr>
<th>Approach</th>
<th>Authors</th>
<th>Applied theories</th>
<th>Study type</th>
<th>Type of companies and location</th>
</tr>
</thead>
</table>
| International diversity (nationality)| Schmid and Roedder (2021), Oh et al. (2021), Kaczmarek and Ruigrok (2013), Hooghiemstra et al. (2019), Shehadeh et al. (2021), Liutho (2017) | - Corporate governance
- Resource-based perspective
- Upper echelon theory
- Agency theory
- Internationalization theories | 1 qualitative 5 quantitative | • Large companies (1)
• SMEs (5)
• Countries analyzed: Japan (1), China (1), Netherlands (1), Switzerland (2), United States (2), United Kingdom (1), Nordic countries (1), and Russia (1) |
| Other characteristics (associated committees, power of attorney, meeting frequency) | Panicker and Upadhyayula (2021), Pisano et al. (2017), Hussain et al. (2021), Zucco et al. (2018), Terjesen and Hessels (2009) | - Corporate governance
- Family-owned companies
- Theories of internationalization
- VoC | 2 qualitative 3 quantitative | • SMEs (4)
• Large companies (1)
• Countries analyzed: India (2), Italy (1), Spain (1), Pakistan (1), Japan (1), Hong Kong (1), Brazil, and other Asian countries (1) |