RESEARCH ARTICLE



The evolution of the field of family business research over a decade (2012–2022)

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Abstract The continuous challenges to which family firms are subjected have led research in this field to focus on various aspects, thus generating a large and heterogeneous body of literature. This paper describes the evolution, status, and trends in family business literature over the decade 2012-2022 and also identifies gaps that may require further investigation. In that regard, new opportunities for additional analyses are also determined. To this end, a bibliometric study has been carried out based on a collection of articles from the Business Source Premier, Web of Science, and Scopus databases, yielding a total of 4064 articles. We analyze the main indicators of activity in family business research over the aforementioned period. The most productive authors and institutions, leading journals, and main research topics of these publications are reflected in this analysis. Likewise, the relationships between the most frequent co-authorships within the field are mapped, as well as the connections between co-words in published articles. In addition, the 10 most influential works published during those 10 years and changes in trends related to the most popular topics, in contrast to previous years, are also highlighted.

Plain English Summary Trends in the field of family business research have changed over the last decade, with "entrepreneurship and innovation" becoming the most researched topic. Our work updates knowledge on how family business studies have evolved and highlights the current lack of micro-research on this subject. Thus, by recognizing the importance of micro-level variables and under-explored areas, this paper paves the way for further scholarly inquiry in this discipline. As they conduct their own investigations and contribute to the growing body of knowledge in this area, researchers and scholars in this field will benefit from the insights provided in this article.

JEL Classification $M00 \cdot M10 \cdot M21$

1 Introduction

In almost every country across the world, the majority of businesses are family-owned. Approximately 90% of companies fall into this category, and their contribution to global gross domestic product (GDP) is over 70% (Osunde, 2017). Family businesses also generate most of the employment in the economy (European Commission, Enterprise & Industry Directorate-General, 2008). These conditions make family

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Research into family businesses first took off in the 1960s with an article by Trow (1961) entitled "Executive succession in small companies," which was published in Administrative Science Quarterly. Since then, academics have begun to further develop and expand studies in this field, leading to the exponential growth of papers published in this area over the years.

Research in this field makes it one of the most relevant subjects in business management (Benavides-Velasco et al., 2013; Bernadich & Urbano, 2013; López-Fernández et al., 2016; Rovelli et al., 2022). As a result of the numerous challenges faced by family businesses to remain in activity, either on a day-to-day basis or through one-off circumstances, studies have diversified into a wide range of thematic lines. Thus, as interest in this field increases, numerous topics have emerged that were not considered a decade ago.

In small businesses, knowing the current state of research in the field is crucial in determining what progress has been made, what the current trends are, and what can be further improved or explored in the future (Kraus et al., 2023). In this regard, systematic literature reviews and bibliometric studies offer valuable contributions regarding the state of the art. In terms of management and business research, it is worth mentioning the guidelines of Sauer and Seuring (2023), which suggest how to conduct systematic literature reviews; alternatively, Kraus et al. (2022) offer valuable suggestions on treating them as independent works. Regarding the method applied specifically in small business and entrepreneurship research, the article by Kraus et al. (2020) focuses on the elaboration of systematic literature reviews and providing insights and best practices specific to this field.

In terms of literature reviews in this area of research, Pounder (2015) investigates how family business literature has evolved and examines the factors influencing family-owned and family-managed businesses. This paper analyzes, in a general way, the literature within the field of family business research. However, there are other studies that focus on specific topics, such as the literature reviews that consider social capital (Stasa & Machek, 2022), innovation in succession (Baltazar et al., 2023), absorptive capacity (Pütz & Werner, 2023), trust and reputation (Chaudhary et al., 2021), or gender (Maseda et al., 2023).

There are a few bibliometric reviews within the field that refer to the discipline in general, such as Benavides-Velasco et al., (2011, 2013) and Xi et al. (2015), which have laid the foundations for this paper. Valenza et al. (2021) develop a recent comparative bibliometric study on small and medium-sized family businesses by analyzing a small-scale sample of 155 articles. On the other hand, various other bibliometric analyses on family firms can be found which have a special focus on specific topics, such as internationalization (Alayo et al., 2021; Casprini et al., 2020), entrepreneurship (Anwar et al., 2023), tourism (Shekhar et al., 2022), or the integration of technology (Aparicio et al., 2019).

The aim of this paper is to update and continue the investigations conducted by Benavides-Velasco et al., (2011, 2013) and Xi et al. (2015) and to provide up-to-date evidence on the state of family business research. Moreover, we examine its evolution and trends over the decade 2012-2022 to identify the main differences with respect to previous periods. Finally, we aim to identify gaps in the literature and, therefore, suggest potential future lines of research. To achieve these objectives, a bibliometric study was carried out by applying both activity and relationship indicators. A review was performed on the articles published on family business in various databases (Business Source Premier, Web of Science, and Scopus) in the period between January 2012 and December 2022: a total of 4064 articles were included in the database. To date, to the best of the authors' knowledge, this is the first work to examine such a large volume of literature and, therefore, to provide a more accurate picture of the current state of the art of family business research.

2 Methodology

Figure 1 presents the bibliometric analysis procedure employed, following the bibliometric analysis guidelines for the field of business research recommended by Donthu et al. (2021).

Bibliometric analysis is commonly used to analyze large volumes of scientific data. It stands out as a rigorous method that enables us to unpack the evolutionary distinctions of a specific field and shed light on emerging areas (Donthu et al., 2021). The bibliometric analysis for this study is based on performance analysis and science mapping. In the latter, we have

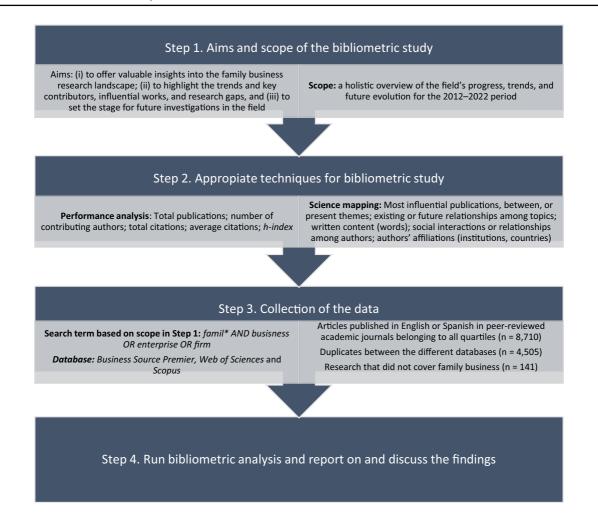


Fig. 1 Bibliometric analysis procedure. Source: authors' own elaboration, following guidelines from Donthu et al. (2021)

chosen co-word and co-authorship analysis because they are the techniques that most closely match the objective of this work. Our aim was to provide an upto-date overview of family business research and to identify potential gaps in the literature.

By focusing on the written content of the publications themselves, the co-word analysis helped us explore existing or future relationships among the topics in family business research. The co-authorship analysis was used to examine the social interactions or relationships among authors and their affiliations and equivalent impacts on the development of the research field (Donthu et al., 2021).

In the performance analysis, activity indicators were analyzed to determine the volume and impact of research on family businesses. To determine which activity indicators could be used, we relied on the global count of publications, which shed light on the evolution of a field and the researchers' productivity in the subject. This calculation was defined as the total number of articles published in a specific period of time divided by a given unit, in this case, academic journals and institutions. The aim was to identify which journals were the most representative in the field of family business research and, therefore, which had the largest number of articles dedicated to this topic. Similarly, our goal was to analyze which institutions and countries were the pioneers in terms of scholarship on this subject, and therefore, how this research was distributed spatially.

Regarding the relationship indicators, a distinction was made between the first- and second-generation types. The former do not deal directly with the articles' content, but instead analyze the authorship of the papers. Therefore, the objective was to show the most common relationships and work networks between authors (co-authorships). On the other hand, the second-generation indicators do examine the content of the studies, mainly by examining co-words, co-occurrences, and repetitions of keywords between works and the distinction of clusters. The aim was to show which topics were the most frequently covered and enjoyed the most interest, as well as the relationship with other topics in the field over time. These analyses were relevant in the sense that they allowed us to identify potential lines of research by graphically showing the different combinations of possible themes among the papers.

In this analysis, the bibliometric analysis enrichment toolbox was also employed, with techniques based on clustering and visualization. Clustering is an enrichment technique for bibliometric analysis. Its primary goal is to create thematic or social clusters, depending upon the type of analysis being conducted (Donthu et al., 2021). Bibliometric analysis is often used together with network visualization software so that the main results can be seen more clearly. All bibliometric analyses were supported with *Microsoft Excel* version 16.77.1 (Microsoft Corporation, 2023) and *VOSviewer* version 1.6.19 (van Eck & Waltman, 2010).

For collecting and subsequently analyzing the articles of interest, we used the Business Source Premier database, as well as the multidisciplinary databases Web of Science and Scopus. These were chosen because they represented the main academic search engines in the field of social sciences. They were selected with great care to facilitate broad identification of the target publications. In order to determine which studies dealt with the topic of interest, the strategy employed with the search engines was to identify papers that incorporated the following combination of keywords in the title: *famil* AND business OR enterprise OR firm.* This search resulted in a longitudinal database containing a total of 8710 articles published between 2012 and 2022.

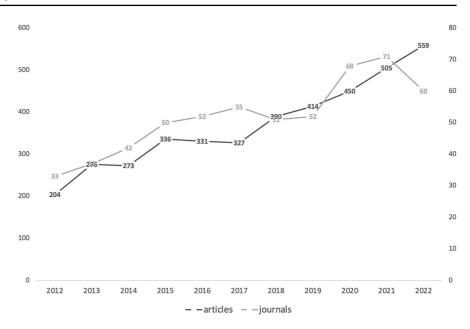
We selected 2012 as the starting year of this analysis because this was when the most recent bibliometric review in the field of family business research was published (Xi et al., 2015). It also allowed us to expand the content analysis of Benavides-Velasco et al., (2011, 2013). The studies analyzed in this article were those published in English or Spanish in peer-reviewed academic journals belonging to all quartiles and classified as articles (following Benavides-Velasco et al., 2011). The justification for considering only this type of document was to better reflect scientific production and progress on the topic of interest in the discipline.

After eliminating duplicates between the different databases (n=4505), each article identified was again checked manually to verify whether it covered the field of family business research, even though it complied with the search strategy. Research that did not cover this area was also excluded (n=141), and the final number of articles was 4064. To help us export bibliographic references, manage articles, and eliminate duplicates, the software for systematic and literature reviews, *Rayyan* (Ouzzani et al., 2016), was used.

3 Activity and relationship indicators in family business literature

The indicators that analyze the structure and quantitative evolution of family business literature have shown a remarkable increase in recent years in terms of the number of publications based on the subject. From the beginning of the period (2012), the number of articles grew from 211 papers published in that year to more than double (573) in 2022. A noteworthy fact is that, in 2022 alone, as many articles were published as in the entire period from the first one published in family business research in 1961 until 2008 (the period of analysis studied by Benavides-Velasco et al., 2011). As for new journals that emerged and began to publish about family business research, a similar trend can be observed. In 2012, only 33 journals were published on this topic, but this figure nearly doubled in 2022 (60). Both the increase in the number of journals based on publishing papers on family business research and the rise in academic articles on the subject reflect how interest is growing in this recent scientific discipline among academics. Figure 2 shows how both the number of articles published and the number of new journals published in this field have increased significantly since 2012.

Fig. 2 Evolution of the number of articles on family business research and the journals that publish them. Source: authors' own elaboration



3.1 The main authors of articles on family business research

The results depicted in Table 1 reveal the top 50 most representative authors in the field of family business research. The scientific production of these authors totals 1289 articles (i.e., almost 32% of all the literature on family businesses in the last decade). The 10 main authors alone account for 11% of the total number of articles published on family business research. In addition to the global calculation of the number of articles per author, the global calculation of citations and the Hirsch *h-index* (Hirsch, 2005) were also analyzed. The first and fifth authors with the highest number of published articles (De Massis and Chrisman) are those who have received the highest number of citations in the period of analysis (5316 and 4963 citations, respectively).

However, there are researchers who, with a lower volume of scientific production than the authors in the first positions, have managed to have their work cited to the same or greater extent than those who publish more, as is the case of Zellweger, Chua, or Cruz. In addition to the total number of citations, we also provide the Hirsch *h-index* achieved in the analysis period by each of the authors. Unlike the total number of citations, it more effectively indicates the quality of the researcher. This index is based on finding a balance between the number of publications by an author and

the quantity of citations of their papers. In this sense, a researcher has an *h*-index if he or she has published h papers with at least h citations for each. This index can take very low values even when the overall number of citations of the author is high. It may be the case that most of the citations are only focused on one or a few papers, and the rest of the author's production has not achieved the same effect or impact. On the contrary, the index can take very high values, as the citations are distributed throughout the researcher's publications. Within the field of family business research, the authors with the highest number of publications and citations are those with the highest h-index, demonstrating their own relevance in the area of study through various contributions. De Massis is once again the most productive author, with an h-index of 42, which means that, of the 91 papers he has published in the period under analysis, 42 of them have received at least 42 citations.

In addition, if we longitudinally analyze the authors with the highest number of publications, we can observe that their productivity does not decline over time. Instead, it remains more or less constant or even increases in some cases, such as De Massis, Calabro, and Kammerlander. This trend highlights the influence of the top authors on the list (Table 1) in continually advancing the discipline.

It may also be useful to see the working networks between authors and to identify with whom they

 Table 1
 Top 50 authors in family business research

Author	Number of articles	Citations	h-index
1. De Massis, Alfredo	91	5316	42
2. Kellermanns, Franz W	57	3147	28
3. Kraus, Sascha	45	1952	24
4. Calabro, Andrea	44	1364	21
5. Chrisman, James J	43	4963	29
6. Patel, Pankaj C	40	2738	21
7. Kammerlander, Nadine	38	1522	18
8. Eddleston, Kimberly A	37	1692	20
9. Miller, Danny	37	1548	21
10. Wright, Mike	31	1568	18
11. Chirico, Francesco	31	1302	20
12. Memili, Esra	31	887	16 22
13. Kotlar, Josip	30 20	2171 1263	22
14. Block, Jörn	30 30	1203 841	15 16
 15. Basco, Rodrigo 16. Steijvers, Tensie 	30 27	728	10
17. Gomez-Mejia, Luis R	27	2841	14
18. Nordqvist, Mattias	26	1843	17
19. Voordeckers, Wim	26	764	17
20. Hack, Andreas	26	456	10
21. Le Breton-Miller, Isabelle	25	1115	18
22. Jaskiewicz, Peter	23	1378	13
23. Carney, Michael	23	1105	15
24. Botero, Isabel C	23	431	11
25. Campopiano, Giovanna	22	995	15
26. Fang, Hanqing	22	812	14
27. Sharma, Pramodita	21	996	16
28. Kallmünzer, Andreas	21	569	14
29. Ratten, Vanessa	20	344	9
30. Frattini, Federico	19	1889	14
31. Minichilli, Alessandro	19	902	13
32. Zellweger, Thomas	18	2714	18
33. Sciascia, Salvatore	18	555	15
34. Ramadani, Veland	18	416	10
35. Mahto, Raj	18	406	9
36. Chua, Jess H	17	2419	16
37. Hiebl, Martin	17	418	12
38. Dawson, Alexandra	17	355	11
39. Holt, Daniel T	16	593	12
40. Daspit, Joshua	16	567 542	10
41. Craig, Justin B	16 16	543 350	10 8
42. Pittino, Daniel43. Madison, Kristen	16 15	350 462	8 9
43. Madison, Kristen 44. Sánchez-Marin, Gregorio	15 15	462 354	9
44. Sanchez-Marin, Gregorio 45. Kidwell, Roland E	15 15	334 345	9 10
	1.J	545	10

Table 1	(continued)
Table 1	(continued)

Author	Number of articles	Citations	h-index
46. Arzubiaga, Unai	15	168	7
47. Halkias, Daphne	15	1	1
48. Adendorff, Christian	15	1	1
49. Combs, James G	14	546	9
50. Dibrell, Clay	14	491	10

Authors' own elaboration. Note: the *h-index* relates to authors' publications on family business research, within the established period

frequently work. To study the co-authorship relationships in the field of family business research, a bibliometric analysis was carried out based on the number of articles in which the authors appear. The threshold for the number of published articles was set at 10 or more, and, for each of the authors, the total strength of co-authorship links with other authors was calculated. The final results provide a selection of researchers with the highest total link strength, where the number of networks (threads) determines the connections between authors, and the thickness the coauthorship frequency.

Figure 3 shows the total number of relationships in a clearer and more visual way. De Massis has the highest number of co-authorships with the remaining researchers in the field. The strong frequency of co-authorship can also be perceived, and, therefore, the relationship between the authors Miller and Le Breton-Miller, or between Kellermanns and Eddleston. With the map, one can detect at a glance those authors who are outside the most popular network of co-authorships and who work alone, as is the case of Ramadani with Ratten or Adendorff with Halkias. This network was created using the bibliometric software *VOSviewer* version 1.6.19 (van Eck & Waltman, 2010).

3.2 Main family business research institutions

As is the case with authors, the literature on family businesses also concentrates on a certain number of institutions. The main and most productive ones in this field from 2012 to 2022 are shown in Table 2. In this period, 157 institutions (mostly universities) from 34 different countries have contributed at least 10 or more articles on family business research. This represents a total of 3147 papers, 77% of all the literature

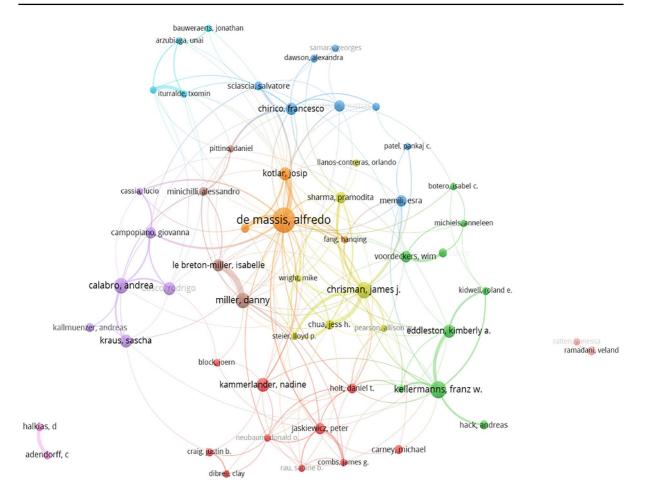


Fig. 3 Map of co-authoring interrelationships in articles on family business research. Source: authors' own elaboration

in the area over the last decade. After analyzing these by country, we obtain Fig. 4, in which the distribution and the most productive countries in terms of publications on family business research can be observed in a more visual way.

3.3 Main journals that publish on family business research

Table 3 shows the list of the main journals that publish papers on family business research. This list includes the top 50 journals that have been published in this area in the period under analysis. Unlike the article by Benavides-Velasco et al. (2011), where there was only one single journal specializing in this area, there are currently many more. One of these, the Journal of Family Business Management has the largest number of articles published in this area: 250 in the last decade. There are four journals that have published more than 100 articles on this area in the last decade, three of which specialize in this field: the Journal of Family Business Management, with 250 articles; the Journal of Family Business Strategy, with 249 articles; and the Family Business Review, with 173 articles. Another, general journal specializing in entrepreneurship is Entrepreneurship Theory and Practice, with 110 articles.

4 Evolution of topics in family business articles

This section describes the main research trends in the field of family business research. In addition to providing evidence on what topics have been investigated in this field over time, this analysis makes it possible to identify gaps in the literature and, therefore, predict

Table 2 Top 50 institutions	_ Ir
in family business research	11

Institution	Country	Num- ber of articles
1. Lancaster University Management School	United Kingdom	93
2. WHU Otto Beisheim School of Management	Germany	81
3. Jönköping International Business School	Sweden	75
4. Mississippi State University	USA	73
5. University of North Carolina	USA	66
6. Witten Herdecke University	Germany	63
7. Zhejiang University	China	62
8. Free University of Bozen-Bolzano	Italy	57
9. University of Alberta	Canada	51
10. Erasmus University Rotterdam	Netherlands	49
11. Bocconi University	Italy	47
12. University of North Carolina Charlotte	USA	46
13. Hasselt University	Belgium	44
14. University of North Carolina Greensboro	USA	41
15. HEC Montreal	Canada	40
16. University of Bergamo	Italy	39
17. Concordia University Canada	Canada	35
18. University of Bern	Switzerland	34
19. University of Montreal	Canada	32
20. Lancaster University	United Kingdom	31
21. Polytechnic University of Milan	Italy	31
22. IPAG Business School	France	31
23. University of Basque Country	Spain	30
24. American University of Sharjah	United Arab Emirates	30
25. University of St. Gallen	Switzerland	29
26. University of Extremadura	Spain	29
27. Bryan School of Business and Economics	USA	29
28. Northeastern University	USA	27
39. University of Texas System	USA	27
30. D'Amore – McKim School of Business	USA	24
31. State University System of Florida	USA	24
32. Johannes Kepler University Linz	Austria	24
33. University of Castilla La Mancha	Spain	23
34. University of Granada	Spain	23
35. Stockholm School of Economics	Sweden	22
36. University of Salamanca	Spain	22
37. University of Malaga	Spain	22
38. Sun Yat-Sen University	China	22
39. University of Trier	Germany	22
40. University of Innsbruck	Austria	21
41. University of Naples Federico II	Italy	20
42. California State University System	USA	20
43. Texas A&M University System	USA	20
44. Kennesaw State University	USA	20
45. University of Calgary	Canada	20

Table 2 (continued)

Institution	Country	Num- ber of articles
46. John Molson School of Business	Canada	20
47. Technical University of Munich	Germany	20
48. University of Murcia	Spain	19
49. University of Beira Interior	Portugal	18
50. LIUC Cattaneo University	Italy	18

Authors' own elaboration

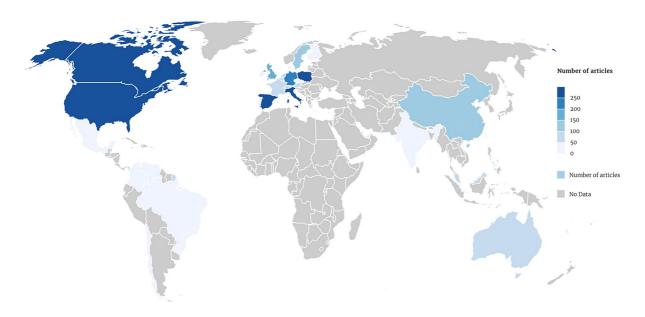


Fig. 4 Most productive countries (by institution) with 10 or more family business publications. Source: authors' own elaboration

potential future directions. To this end, this paper studies the main topics covered by most of the publications in this area, along with their evolution and interrelationships, based on the results obtained from the bibliometric analysis by co-word occurrence.

4.1 Topic networks and co-word occurrence

By means of the individualized reading of the title, summary, and keywords of the articles finally selected, it was possible to outline the main themes in family business research over the last decade.

It should be noted that there is no generally accepted topic classification that categorizes this business discipline by subject. Consequently, it was decided to continue with the classification proposed by Benavides-Velasco et al. (2011) and then increase it according to the new areas emerging in recent years. Table 4 shows all the family business research topics, ordered by the total frequency of articles published in the period under analysis. This table also shows the number of articles published per topic according to sub-periods, to conduct a longitudinal analysis of how the relevance of different topics has evolved.

To analyze discipline knowledge in greater depth, a bibliometric analysis was carried out based on the articles' keyword networks. From the final selected publications, a quantitative analysis of the structure of the content of the articles was performed. It measured the intensity and connection between them through the occurrence of co-words. This method is based on the idea that any scientific text can be reduced to

Journal	Num- ber of articles
1. Journal of Family Business Management	250
2. Journal of Family Business Strategy	249
3. Family Business Review	173
4. Entrepreneurship Theory and Practice	110
5. Journal of Business Research	84
6. Sustainability	78
7. European Journal of Family Business	64
8. International Journal of Entrepreneurship and Small Business	57
9. Journal of Small Business Management	52
10. Journal of Business Ethics	42
11. Small Business Economics	41
12. International Journal of Entrepreneurial Behavior & Research	33
13. European Journal of International Management	29
14. Review of Managerial Science	28
15. International Entrepreneurship and Management Journal	27
16. Business History	26
17. Journal of Small Business Strategy	24
18. Asia Pacific Journal of Management	24
19. Journal of Corporate Finance	22
20. Contributions to Management Science	19
21. Routledge Companion to Family Business	19
22. Corporate Ownership and Control	17
23. Journal of Small Business and Entrepreneurship	16
24. Journal of Management & Governance	15
25. Corporate Governance-An International Review	15
26. Frontiers in Psychology	15
27. Emerald Emerging Markets Case Studies	14
28. International Small Business Journal-Researching Entrepreneurship	14
29. Journal of Small Business and Enterprise Development	14
30. Entrepreneurship Research Journal	14
31. International Business Review	13
32. Academia Revista Latinoamericana de Administración	13
33. Management and Organization Review	13
34. Journal of Business Strategy	13
35. Technological Forecasting and Social Change	13
36. Journal of Management Studies	13
37. Journal of Family and Economic Issues	13
38. BRQ-Business Research Quarterly	12
39. Entrepreneurial Business and Economics Review	12
40. Governance in Immigrant Family Businesses: Enterprise, Ethnicity and Family Dynamics	12
41. Entrepreneurship and Regional Development	12
42. International Journal of Business and Globalisation	12
43. Management Research Review	12
44. Business Strategy and The Environment	11

Table 3 (continued)

Journal	Num- ber of articles
45. Strategic Management Journal	11
46. Family Firms and Institutional Contexts: Business Models, Innovation and Com- petitive Advantage	11
47. International Journal of Management Practice	11
48. Academy of Entrepreneurship Journal	11
49. Revista Espacios	11
50. European Journal of Innovation Management	11

Authors' own elaboration

the set of joint occurrences between the words that make it up (Callon et al., 1995). In this way, a particular specialty, such as family business research, can be identified by its own vocabulary or by the associations that exist between words. Thus, the method of associated words or co-words resides in the computation of joint appearances of words that define different documents. By means of the title, abstract, and keywords assigned to the articles, this network of words was elaborated using the bibliometric software *VOSviewer*.

Using the clustering technique, several groups of strongly cohesive connections between words were identified. In order to get a clearer picture and to better interpret the map, the keywords that appeared more than 15 times among the different articles were plotted and the main trends in the field of analysis were identified. After a total of 37 keywords had been analyzed, the total strength of co-occurrence connections with other keywords was calculated for each of them. The keywords with the highest total connection strength were selected. Figure 5 presents the map of word connections, which visually shows the most frequent keywords, as well as the interrelationships between them among the keywords within family business research articles.

4.2 Topics covered in family business research

The following is a classification of the multiple topics covered in the literature on family business research over the last decade. We examine each word's importance according to each topic, as well as the current research trends.

4.2.1 Entrepreneurship and innovation

Over the last decade, "entrepreneurship and innovation" has been the most covered topic in the articles published on family business research, with a total of 452 publications. As shown in Table 4, interest in this subject has risen relatively recently. At the beginning of the period between 2012 and 2015, the theme most covered by publications in the field was "business performance." In the review by Benavides-Velasco et al. (2011) considering the period 1961 to 2008, few studies on entrepreneurship existed. We can see that it is not until 2016 that the topic began to gain special relevance among academics, and from there, it appears as a leading topic in the two subsequent subperiods.

The interest that this topic has garnered in recent years is perhaps due to the set of new challenges faced by family businesses, such as globalization or digitalization. Markets are constantly changing. Likewise, the innovative orientation that a company can adopt has an impact on its productivity and the employment it is capable of generating. This factor, in turn, has repercussions for the labor market and the economy of the community where it is based. Therefore, entrepreneurship and innovation represent a vital engine of economic growth in the recovery from economic crises. Duran et al. (2016) is the most cited work in this field and the seventh most cited of all the literature on family businesses in the last decade (see Table 5).

In the papers grouped under the theme of "entrepreneurship and innovation," there is a high frequency of keywords, such as technological innovation, innovative capacity, innovative efficiency, sustainable innovation, barriers, new markets, Table 4 Evolution of the main topics covered in family business research articles

Торіс	Number of articles (total)	2012–2015	2016–2019	2020-2022
1. Entrepreneurship and Innovation	452	92	181	179
2. Business Performance	439	141	161	137
3. Succession	315	81	109	125
4. Financial Management, Finance	304	98	98	108
5. Internationalization and Globalization	189	44	75	70
6. Human Resources	167	30	77	60
7. Family Dynamics and Intra-Family Relations	166	57	49	60
8. Gender, Ethnicity and Diversity	145	33	60	52
9. Corporate Governance	136	42	57	37
10. Socioemotional Wealth	120	24	44	52
11. Strategic Management	107	28	38	41
12. Marketing	92	19	40	33
13. Corporate Social Responsibility and Ethics	90	17	27	46
14. History, Business History	90	26	35	29
15. Culture	89	20	25	44
16. Organizational Theory	81	31	33	17
17. State	72	12	28	32
18. Sustainability and Environment	71	8	27	36
19. Training, Teaching and Transmission of Knowledge	62	22	20	20
20. Accounting and Auditing	57	21	21	15
21. Conflict	56	13	18	25
22. Social and Family Capital	48	22	9	17
23. Continuity and Longevity of the Business	46	13	11	22
24. Macroeconomic System and Externalities	44	7	15	22
25. Religion and Philanthropy	40	10	11	19
26. Professionalization	24	6	10	8
27. Concept and Definition of Family Business	21	4	7	10
28. Health and Quality of Life	20	9	3	8
29. Digitalization and Digital Economy	14	0	0	14
30. Human and Intellectual Capital	21	9	3	9
31. Production Management and Supply Chains	10	1	2	7
Others	476	120	135	130

Authors' own elaboration. Note: The category "others" groups together those subjects for which 10 or more articles have not been published in the period under analysis. Values in bold indicate the topic with the most published articles in the selected period

patents, developing countries, and crisis, which provide a glimpse of the main topics investigated by academics in this area of family business research. These keywords are, in turn, also connected to other areas in the same field (Fig. 5). Thus, a connection exists between entrepreneurship and innovation and interpersonal dynamics within the company, socioemotional wealth, internationalization, succession, entrepreneurial sustainability, or the degree of dispersion of business ownership. In this sense, research on "entrepreneurship and innovation" includes studies on how to innovate in a sustainable way (green innovation), how generational succession impacts changes in the entrepreneurial orientation of the business according to the characteristics of the successor, how the degree of concentration of family power affects, to a greater or lesser extent, innovation being carried out, or how socioemotional wealth influences the ways in which increased and better entrepreneurship is achieved.

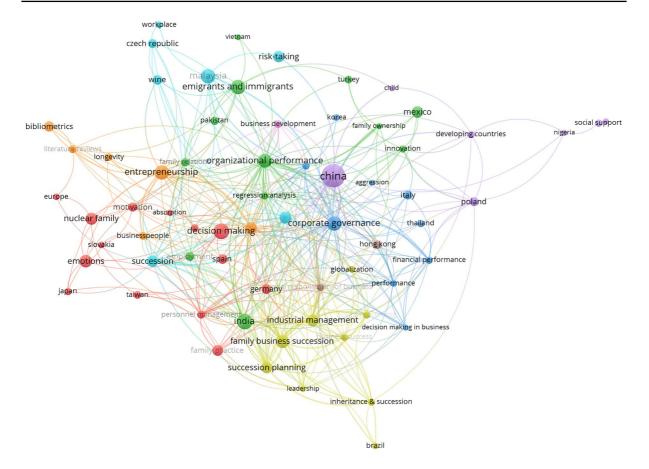


Fig. 5 Map with the interrelationship of co-words in family business research articles. Source: authors' own elaboration

4.2.2 Business performance

The second most frequently addressed topic in the last decade by the papers published on family business research is "business performance." Table 4 shows that, in the subperiod from 2012 to 2015, this topic gathered the most articles in the field by far. It is logical to think that this topic attracts a large number of studies because it is very relevant. If business-people are able to understand the various aspects and mechanisms by which family businesses can perform better and grow, they can create a solid economic engine and, therefore, positively influence the economic development of countries.

In the papers grouped under the topic of "business performance," keywords like success, failure, growth, profitability, objectives, and COVID-19 occur frequently. In this topic, we find articles on the strategy and management practices that help or hinder business performance in both economic and non-economic terms. Among these are brand reputation, environment, social, emotional, and psychological objectives, the role of leadership in the success of the company, and the effect of the family manager versus the non-family manager. In the analysis of co-words, it is evident that many of the contributions in this topic are mainly focused on the financial performance of the business. However, in recent years, business performance that concerns non-financial aspects has gained special interest among academics. In fact, it is worth noting that, of the most cited articles in the entire family business literature, two of them focus on this type of performance. These are the works published by Chrisman et al. (2012) and Zellweger et al. (2013) (see Table 5).

		Citations						
Title	Authors	Journal	Year of publica- tion	2012-2015	2016-2019	2020-2022	Total	Annual average
Socioemotional Wealth in Family Firms: Theoretical Dimensions, Assessment Approaches, and Agenda for Future Research	Berrone, P.; Cruz, C.; Gomez- Mejia, L	Family Business Review	2012	134	448	559	1141	95.08
Variations In R&D Investments of Family and Nonfamily Firms: Behavioral Agency and Myopic Loss Aversion Perspectives	Chrisman, J.; Patel, P	Academy of Management Journal	2012	96	312	328	736	61.33
Partial Least Squares Structural Equation Modeling (PLS- SEM): A Useful Tool for Fam- ily Business Researchers	Sarstedt, M.; Ringle, C.; Smith, D.; Reams, R.; Hair, J	Journal of Family Business Strategy	2014	×	208	418	634	52.83
Family Involvement, Family Influence, and Family-Centered Non-Economic Goals in Small Firms	Chrisman, J.; Chua, J.; Pearson, A.; Barnett, T	Entrepreneurship Theory and Practice	2012	123	232	247	602	50.17
Sources of Heterogeneity in Family Firms: An Introduction	Chua, J.; Chrisman, J.; Steier, L.; Rau, S	Entrepreneurship Theory and Practice	2012	36	203	197	436	36.33
Family Control and Family Firm Valuation by Family CEOs: The Importance of Intentions for Transgenerational Control	Zellweger, T.; Kellermanns, F.; Chrisman, J.; Chua, J	Organization Science	2012	84	156	156	396	33
Doing More with Less: Innova- tion Input and Output in Family Firms	Duran, P.; Kammerlander, N.; Van Essen, M.; Zellweger, T	Academy of Management Journal	2016	0	131	252	383	31.91
Do Family Firms Have Better Reputations Than Non-Family Firms? An Integration of Soci- oemotional Wealth and Social Identity Theories	Deephouse, D.; Jaskiewicz, P	Journal of Management Studies	2013	30	165	185	380	31.67
Why Do Family Firms Strive for Nonfinancial Goals? An Organ- izational Identity Perspective	Zellweger, T.; Nason, R.; Nor- dqvist, M.; Brush, C	Entrepreneurship Theory and Practice	2013	41	116	153	310	25,83

		Citations					
Title	Authors	Journal	Year of publica- tion	2012-2015 201	Year of 2012-2015 2016-2019 2020-2022 Total Annual average publica- tion	2 Total	Annual average
A Comparative Study of CB- Astrachan, C.; J SEM and PLS-SEM for Theory Wanzenried, C Development in Family Firm Research	Astrachan, C.; Patel, V.; Wanzenried, G	Journal of Family Business Strategy	2014	1 110	5 192	309	309 25,75
Authors' own elaboration. Values	in bold indicate the topic with the	Authors' own elaboration. Values in bold indicate the topic with the most published articles in the selected period.	ected period.				

The evolution of the field of family business research over a decade (2012–2022)

4.2.3 Succession

"Succession" is the third most discussed issue in the works that have been published on family business research in the last decade. It is normal for succession to receive so much interest from academics. Not only is it one of the main challenges for most businesses, it is even considered the main threat to this type of organization (García & Cabrera, 2000). Moreover, the relevance of this topic has been greater in previous periods. Until 2008, it was the focus of the greatest number of publications on family business research (Benavides-Velasco et al., 2011). Zellweger et al. (2012) is the most cited work in the field of succession and the sixth most cited in the entire literature on family business (see Table 5).

In the papers grouped under this category, highfrequency keywords include succession plan, business plan, intergenerational relationships, entrepreneurship, and sustainability. These keywords in turn are connected to other topics that are studied within the field of family business research, such as business performance and strategy. "Succession" includes works that focus on various aspects, such as the transfer of leadership from the founder to the successor, problems between different generations, communication, differences between companies according to their size, the impact of the successor's own characteristics, and the greater entrepreneurial intention of the new successor. Likewise, in these papers, "chief executive officer (CEO)" also appears as a recurring term. There are several analyses on the influence of a CEO's characteristics, or the impact of whether or not he/she belongs to the family, on the succession process.

4.2.4 Financial management/finance

The topic of "financial management and finance" ranks fourth in terms of the volume of publications within the family business field. It includes works mainly related to the cost of capital, capital structure decisions, risk, financing, initial public offering (IPO) processes and investment strategies, and portfolio management. Within this topic, the most cited work is by Chrisman and Patel (2012), which is also the second most cited of all the literature on family business research (see Table 5). The most frequent co-words in this type of study are ownership concentration,

leverage, minority shareholders, dividends, capital structure, corporate finance, mergers and acquisitions, and risk management. In addition to the topics studied based on these keywords, other contributions analyze the peculiarities of financial management in family versus non-family firms, or between different generations.

4.2.5 Internationalization and globalization

"Internationalization and globalization" make up the fifth topic in terms of the number of publications in the field of family business research. It has gained special relevance in the last decade, since from 1961 to 2008, it only appeared in 18 publications (Benavides-Velasco et al., 2011), compared to 189 in the last 10 years. Its importance as a research topic lies in the fact that the internationalization of the company is a beneficial aspect for family businesses, since it gives it a competitive advantage and can have an impact on business results. In the papers grouped in this category, there is a high frequency of keywords such as small business, corporate culture, emigrants and immigrants, and entrepreneurship. The studies on this topic analyze the determinants behind the international development of a family business, the factors that prevent it, changes in attitude towards the internationalization of a business according to the generation who runs the business, and, finally, differences between the degree of internationalization in family businesses compared to non-family businesses or between different sizes of companies.

4.2.6 Human resources

The topic of "human resources" has gained special interest in recent years as a subject of study within family businesses. It is closely related to the areas of succession, corporate governance, performance, and professionalization. This area explores the design of compensation and incentive systems, the perception of fairness in the treatment of non-family employees, recruitment, training, and professional development. Several papers have analyzed whether, for example, certain human resources policies (such as salary incentives) are applied differently between family and non-family employees, or whether this is associated with different phases of business growth. It is worth noting the special interest that the study of compensation policies and remuneration among employees has gained within this topic in recent years, representing issues that were non-existent in the literature until 2008 (Benavides-Velasco et al., 2011). Other works examine whether family firms are good employers or consider employees' job satisfaction and motivation.

4.2.7 Personal dynamics and intra-family relations

The topic dealing with personal dynamics and intrafamily relationships has the sixth-highest number of publications on family business research. The impact that family interactions have on the business are analyzed; the most frequent keywords in the studies that cover this topic are emotions, social support, workplace, guanxi, parent-child relationships, and communication. Aspects such as trust, social power within the family, or the cohesion of the family shareholder are analyzed within this topic. These articles have a strong link with other family business topics, such as conflict, gender and ethnicity, performance, and human resources management. In this sense, some papers study the influence of certain ethnicities on business values and the development of conflict, while others examine the company's human resources management style in implementing a strategy for improving the quality of relationships within the business. There are also works that analyze how social relationships within the company affect performance, whether the quality of personal relationships between workers is better than in non-family companies, the influence of divorces on company performance, or whether married couples exhibit better leadership within family companies.

4.2.8 Gender, ethnicity, and diversity

The number of works published on gender perspective, ethnicity, and diversity is increasing in the field of family business research. In recent years, these have gained special relevance. Due to the increasing volume of publications, they have become the seventh most popular topic. Keywords such as corporate director, trust, leadership, decision-making, entrepreneurship, and financial performance have a high frequency of occurrence in studies covering this topic. By analyzing co-words, it has been observed that this topic is particularly related to others in the field, such as succession, entrepreneurship, business performance, and corporate governance. The papers grouped in this category examine the moderating role of women within the family business, analyzing differences in the development of competencies and capabilities, financial and strategic performance, and the degree of involvement in the business. Also noteworthy are the papers that explore factors influencing strategy within an ethnic company, as well as the impact of ethnicity on the succession of the company or on the capital structure.

4.2.9 Corporate governance

Most of the papers related to "corporate governance" focus on the agency theory perspective. One aspect analyzed is the effects of the management team's composition in terms of how many different family members there are or their gender, the size of the family team, the design of the management team structure in decision-making, or the selection of external managers. In the papers grouped under the theme of "corporate governance," high-frequency keywords include the board of directors, organizational performance, ownership structure, and agency costs. Through this co-word analysis, a link between corporate governance and strategic management or business performance has been detected; several studies relate corporate governance to aspects such as competitive advantage or resources.

4.2.10 Socioemotional wealth

"Socioemotional wealth" is a new topic that was not considered until shortly before the period studied in this work. In fact, in the classification by Benavides-Velasco et al. (2011), this term did not appear as a topic on which family business research articles were published. Socioemotional wealth is an aspect that characterizes family businesses. It is based on the concept that there are certain non-economic aspects that bring together the various emotional needs of the owner family, including the desire to maintain control of the business and continue it in future generations or the maintenance of social ties within the company.

The first author to approach this concept was Berrone, who was recognized by Web of Science in 2021 as one of the most influential researchers in the world due to the large volume of citations that his scientific production had received. Indeed, the most cited article in the last decade on family business research is

on this exact topic written by this author (Berrone et al., 2012) (see Table 5).

Table 4 shows how the number of publications has been increasing over the last decade and interest in this topic will continue to monopolize the efforts of academics. In the works grouped under this theme, keywords such as corporate governance, organizational behavior, decision-making, and emotional selectivity theory have a high occurrence. Studies analyzing emotional wealth are directly related to other topics, including business performance, succession, internationalization, entrepreneurship, and corporate social responsibility. In this sense, numerous works based on this concept examine how individual dimensions based on socioemotional wealth determine the financial performance of a family business, or to what extent they are associated with the financial wealth of the company. Likewise, other papers examine the influence that socioemotional wealth has on entrepreneurial orientation; they explain the international performance of entrepreneurially oriented family businesses from a non-economic perspective.

4.2.11 Strategic management

This area includes works that analyze strategic objectives, along with the decisions or tools to achieve them. Through the analysis of co-words, a clear relationship is identified with the topics of entrepreneurship, business performance, and succession. The most frequent of these keywords include strategic plan, legitimacy of the firm, succession, institutional theory, and culture. For example, several studies focus on strategic posture and entrepreneurial performance by analyzing the differences between family and nonfamily firms, the factors associated with developing certain corporate strategic decisions, and the influence of the family on the effectiveness of strategic planning in small firms.

4.2.12 Marketing

The papers grouped under this topic are diverse. The keywords with the highest frequency are consumer behavior, communication, entrepreneurship, commercial strategy, market orientation, and wine. In numerous papers, the topics covered are mainly related to wine company case studies. However, other papers explore the mediating role of the family in the branding of the company; the differences in the efforts invested in marketing between family and nonfamily businesses; the effect of the distinctive reputation of the family business on consumer preferences, how to increase consumer loyalty; and the influence of social networks.

4.2.13 Corporate social responsibility and ethics

This topic is covered in a modest number of family business research publications. The most repeated keywords are disclosure, self-disclosure, family commitment, performance, and benevolence. The studies that analyze this topic focus on, for example, corporate social responsibility among different-sized companies, or whether family businesses are more socially responsible than their non-family counterparts. Other works link corporate responsibility to the location of the company, to the dividend policy, or to the quality of earnings or administration/management.

4.2.14 History and business history

The topic "history and business history" mostly includes published papers on historical business case studies, as well as the historical context in which early family businesses developed. The keywords most frequently used in these papers are longevity, war, and Europe. The topics addressed by most of these works are based on contextualizing the returns obtained by family businesses in the past, the expansion strategies followed at the time, the evolution of labor relations, the succession and continuity of the family business at the time of the Industrial Revolution, and early internationalization.

4.2.15 Culture

"Culture" is a topic for which interest has grown, especially in the last two years. Table 4 shows how the literary production relating to family business research has almost doubled in this topic. This dimension is related to aspects such as family values, political ideology, or various spiritual currents that govern the family nucleus. It directly influences succession, entrepreneurship, and business performance, and most of the keywords collected in the works are emigrants and immigrants, entrepreneurship, Confucianism, and social values. Studies under this topic cover issues such as the value of marriage in family businesses, how national, and/or regional culture impacts the performance or continuity of the family business, how personal values influence the succession process, or how Confucian or Buddhist culture affects the technological innovation of the company.

4.2.16 Organizational theory

"Organizational theory" encompasses works that examine individual and group behavior, organizational structure, and administrative processes based on diverse theoretical frameworks, such as agency, institutional, or transaction cost theory. It is now no longer as relevant as in the past, as research in this area was once required in order to build theoretical frameworks that would provide the discipline with a solid foundation. In this respect, comparisons with non-family businesses are a recurring topic of study, as are the different sizes of businesses. Of particular note are the numerous contributions based on altruism, defined in the family context as the utility function that relates a person's wealth to others, and the papers examining management control systems.

4.2.17 State

This is another emerging topic increasingly catching the attention of academics focused on family business research. In recent years, the volume of papers on this topic has tripled: they address issues such as taxes, the impact of public policies on business performance, institutional stability, and the legal system. Among the high-frequency keywords are aggressiveness, taxes, avoidance, and tax laws, which hint at the main topics studied in this area. The issues addressed in these works include, for example, exploring the determinants of tax aggressiveness in family firms, analyzing tax avoidance in different types of firms and the role of non-family participation in family firms, how to avoid inheritance taxes or how they affect firm innovation, exploring the link between economic policy uncertainty and innovation, or how institutional stability affects business performance.

4.2.18 Sustainability and the environment

As with the previous topic, "sustainability and the environment" is another emerging theme within the family business research field. The volume of papers related to this area has grown exponentially in recent years. These are particularly related to the topic of "entrepreneurship and innovation" and "business performance." The keywords that recur most frequently in these studies are environmental sustainability, sustainable development, policy adoption, competitiveness, and renewable energies. The aspects addressed by works on this topic include whether it really pays to "go green" in family businesses compared to non-family businesses, whether the latter invest more in pollution prevention strategies, which of the two is more sustainable, or to what extent the generational stage determines a greater concern for this commitment.

4.2.19 Training, teaching, and transmission of knowledge

The papers grouped under this topic highlight the importance of family businesses for universities throughout the world. Universities develop courses and programs to help this type of business to stand out. Likewise, it is important to continue identifying potential research projects as well as academic programs related to the most challenging and up-todate concerns that family businesses have to face. The keywords most frequently repeated in these works are competitive advantage, knowledge management, higher education, entrepreneurship, and mentoring.

4.2.20 Accounting and auditing

This topic includes studies that delve into the accounting side of family businesses. Specifically, we find works that analyze aspects such as whether family firms opt for conservative accounting practices, whether family firms hire more non-audit services than non-family firms, the demand for audit services, the role and impact of accounting in the business, sociological structures, and bad accounting attitudes.

4.2.21 Conflict

Conflict, a topic specific to family business research because of its relevance in family dynamics, became

the focus of study in the late 1990s, but, in recent years, an increasing number of papers have been published on the subject. These works cover topics such as strategies for dealing with family conflict, the impact that such conflict has on the company's human resources, and how it influences economic performance. The main keywords identified in these publications are succession, conflict management, and strategic decision. For example, there are several articles that explore the work environments that can trigger conflict, the association between conflict and emotional dissonance in succession processes, and the propensity of non-family workers regarding conflict.

4.2.22 Social and family capital

This concept embraces the structural, relational, and cognitive aspects of family relationships. The studies that address this phenomenon consider, among other questions, to what extent it affects the resilience of family businesses, how it influences business performance to the extent that its relationship with success is studied by moderating for possible conflicts, how it impacts innovative orientation, or the sharing of resources. There are also works that explore immigrant family businesses by investigating how the social capital of these owners helps them to obtain network benefits and improve business performance. In these cases, social and family capitals are analyzed from various perspectives, such as in emerging markets or in rural development.

4.2.23 Continuity and longevity of the business

Although the two are closely related, this topic has been distinguished from "succession" because one does not always mean the same as the other. In this sense, works on the "continuity and longevity of a company" explore various issues outside the succession process, such as the link between corporate diplomacy and the longevity of the family business, the impact of culture, how entrepreneurial orientation can be key to the longevity of a company, and which factors family members associate with the longevity of their company.

4.2.24 Macroeconomic system and externalities

Under this theme, various papers are grouped together. They explore the macroeconomic context and analyze its impact on family businesses through the shocks and externalities that may exist. The keywords most frequently found in these studies are pandemic, COVID-19, economic growth, prediction, and fear. This topic maintains a strong link with the subjects of entrepreneurship and business performance. Thus, these works explore the stability and resilience of family businesses in times of crisis and how they respond to these economic shocks through their adaptive capabilities. They also analyze the peculiarity of the COVID-19 pandemic specifically in family businesses, or how the current labor market influences people's preferences for working in family businesses.

4.2.25 Religion and philanthropy

The number of papers published on this topic has doubled in the last two years. They include studies that consider how different religions impact how family businesses are run. These works therefore maintain a strong link not only with the topic of business performance but also with corporate social responsibility and entrepreneurship. They analyze the moderating role of religion in various aspects of the family environment, and there is a high frequency of keywords such as Buddhism, Hinduism, Islam, giving, charity, and succession. Among the works that explore the role of religion, issues such as its role in risk-taking within the firm or the intention to run the business according to the family's religion are also explored. With respect to papers on corporate philanthropy, these consider how the market reacts to donations made by a family business in a way that increases the value of its social responsibility, how corporate philanthropy affects business performance, or whether the family aspect of companies causes them to donate more than nonfamily-owned businesses.

4.2.26 Other topics

While other topics are relevant, they have not received as much attention from academics in the

last decade. For example, "professionalization" is related to succession planning and refers to the transition from an informal management style to a more formal one in order to guarantee that a company flourishes. Studies related to this topic analyze, among other aspects, the different modes of professionalization in family businesses, the changes in the professionalization process of companies after acquiring other private firms, and how it relates to personal values and how it influences financial performance.

As for the "concept and definition of family business," most of the studies that consider this topic are systematic literature reviews that delve into this question. Many papers examine how the concept has evolved over time. There are also other works that provide theoretical classifications of family business.

"Health and quality of life" have also been recently investigated. Among these studies are those covering, for example, how family members' stress impacts on business performance, the differences between the well-being of workers in family and non-family businesses, the level of promotion of workplace safety and health in family businesses, and whether teenagers are more likely to be injured while working in the family business.

Another topic that has stood out in recent years is "digitalization and digital economy." The papers classified under this theme explore the human determinants that influence the digital transformation strategy of multigenerational family businesses, the impact of the digital economy on "green innovation," and the influence of digital entrepreneurship on the intention of family businesses to adopt artificial intelligence.

With respect to "human and intellectual capital," the two concepts must first be differentiated. While human capital encompasses the experience, knowledge, and technical skills of employees and managerial talent, intellectual capital is the knowledge of a firm and the knowledge capacity that enriches human capital. In this area, we find papers that deal with how firms can create intellectual capital, how the efficiency of intellectual capital affects business performance, and the role of human capital in the internationalization and innovation in a family business.

The final classification is "production management and supply chains." Under this theme, we find studies that compare supply chain integration between international and non-international family firms in the food industry sector; they analyze the situations in which small and mid-sized enterprises (SMEs) should apply a relational or formal supply chain strategy mechanism.

4.3 The most cited articles in family business research

Table 5 summarizes the characteristics of the 10 most cited articles on family business research in the last decade. With a total of 1,141 citations, the article by Berrone et al. (2012) on socioemotional wealth is the most cited work in the period from 2012 to 2022. The authors propose a set of characteristic dimensions for socioemotional wealth in business families. These dimensions are grouped under the acronym FIBER: aspects include family control and influence, the identification of family members with the family business, the creation of binding social relationships, the role of emotions in the context of the family business, and the sense of dynasty for a legacy.

In terms of topics, among the most cited articles on family business research in the last decade, we find "socioemotional wealth," "financial management and finance," "business performance," and "entrepreneurship and innovation."

5 Discussion and conclusions

In recent years, literary production has seen increased publication in prestigious journals and newly established theoretical frameworks that shape and reflect how family businesses are developing. Indeed, it can already be considered that research on family businesses constitutes a consolidated scientific discipline (Ruiz-Perera, 2015; Sánchez-Pulido, 2021). Interest in this field of study within business management has not stopped growing. Within the field of family business research in particular, work based on literature reviews is especially important as the unplanned growth of literature can impede progress. Complex and competing arguments in the ongoing academic dialog may occur, thus diverting the focus of progress within the field (Kraus et al., 2023).

Bibliometric research offers unique opportunities to contribute to theory and practice (Mukherjee et al., 2022). This paper aims to shed light on the major themes and research directions that have shaped family business research in the past decade (2012–2022). By identifying the most frequently studied topics, a useful guide is provided so that researchers can understand the current landscape and potential areas for future investigation (underexplored or not). Using a bibliometric analysis, we (i) offer valuable insights into the family business research landscape; (ii) highlight the trends and key contributors, influential works, and research gaps; and (iii) set the stage for future investigations in the field. This bibliometric study is based on a total of 4064 articles from the Business Source Premier, Web of Science, and Scopus databases, and it has been possible to verify the continuous increase and growing research interest in this discipline.

Great advances have been made in this field, such as the approach to a "family business theory." Thus, various theories can be considered in an attempt to answer one of the questions that Benavides-Velasco et al. (2011) did not address, namely, explaining how and why family businesses behave differently and obtain results that differ from those of nonfamily businesses. In this sense, the work of Chua et al. (2012) is a key contribution to the literature, as well as being the fifth most cited work of all those published in the last decade in the family sphere (Table 5). Aspects that were not dealt with in the period of analysis studied by Benavides-Velasco et al. (2011) have been investigated in recent years. Moreover, new topics have emerged as new challenges arise, such as the management of family businesses in the face of a health pandemic situation never experienced before, as was the case with COVID-19. A major change with respect to the last work that analyzed the state of the literature in family business research concerns the topics investigated. The topic on which most publications focus is "entrepreneurship and innovation," whereas, before 2008, it was "business performance."

The development of research on family businesses in the last decade has mainly focused on two branches. The first identifies and explains the differences in the most important topics with respect to non-family businesses; the second focuses on highlighting the unique and specific aspects of family businesses, limiting research to this type of sample. After reviewing the current literature, it has been found that this discipline continues to offer ample opportunities for research along both lines.

In the areas more focused on micro-level aspects, there are still several unresolved questions. Moreover, leadership theories are not being applied in the various aspects of business development. This paper has identified those topics on which at least 10 articles have been published in the last decade, and at the same time, a comparison has been made with the study by Benavides-Velasco et al. (2011) and Xi et al. (2015) to see in which direction the trends in family business research have developed. The suggestions provided in this article are based on (i) the comparison with the aforementioned article, which makes it possible to identify how the focus of academics has changed over the years and which trends have become more popular; and (ii) on the detailed analysis of Fig. 4, which reveals which topics still remain unrelated to each other, and therefore, may constitute potential lines of research.

5.1 Recommendations for future research

This analysis of the 4064 publications relating to family business research over the last 10 years has revealed the topics that are likely to continue to capture the interest of academics in the coming years (summary in Fig. 6). In this regard, "socioemotional wealth" is of particular relevance, as to date there are still unexplored questions. Most of the studies that deal with the subject have used this concept under the assumption that it simply exists to explain behavior, but does not measure it directly. That is, few works have provided a more precise assessment of this construct. Measures are needed to directly assess socioemotional richness. Most of the studies address this topic always by associating socioemotional wealth with positive outcomes. It would also be interesting to see how authoritarian family behavior and the pursuit of non-economic goals negatively affect individuals in the family.

It is also crucial to adopt a more micro perspective for most of the topics in this area. Future research could be based on explaining how emotions influence a family business from a longitudinal perspective or by taking into account aspects such as commitment to the company, satisfaction, motivation, or fairness. Perhaps this could help to better understand and explain the differences that exist with non-family-owned companies.

On the other hand, if "entrepreneurship and innovation" is given greater attention, future research could focus on analyzing product and/or process innovation through research and development (R&D). New markets could thus be sought to ensure the continuity and success of family businesses. It would also be interesting to deepen the knowledge and research on sustainable entrepreneurship, as it is a topic that currently occupies all international agendas and extremely relevant. The reason for this is not only because of the political commitment to the environment but also because it ultimately translates into improved resource efficiency. Thus, it is paramount to identify the most effective practices; very few studies have produced clear results. Within "business performance," future efforts could focus on the influence of family dynamics in achieving strategic objectives beyond economic/financial ones, thus enabling business growth in successive stages of the organizational life cycle.

As mentioned above, "succession" still has unexplored niches, even though it has been extensively studied. It would be interesting to continue delving into the possible determinants of success or failure in this process. Many family businesses begin their decline in the generational handover. Bearing in mind that a large number of works are based on theoretical, descriptive, or case study frameworks, it would be interesting to apply quantitative methodologies to future research that can generalize and extrapolate the results. In the case of China, for instance, most family businesses have only 30 years of history; they are yet to experience a handover, thus providing a valuable source of data, as well as a research opportunity based on real succession processes.

A potential line of research related to "financial management" would be to further explore sectoral differences between family businesses or to carry out more international comparisons that consider possible causal relationships between country cultures and their impact on family control and thus financial decisions and performance. It would also be interesting to see how financial decisions (such as IPOs) are related to succession and desired levels of centralized family control.

There are also interesting prospects related to less common topics in recent family business literature.

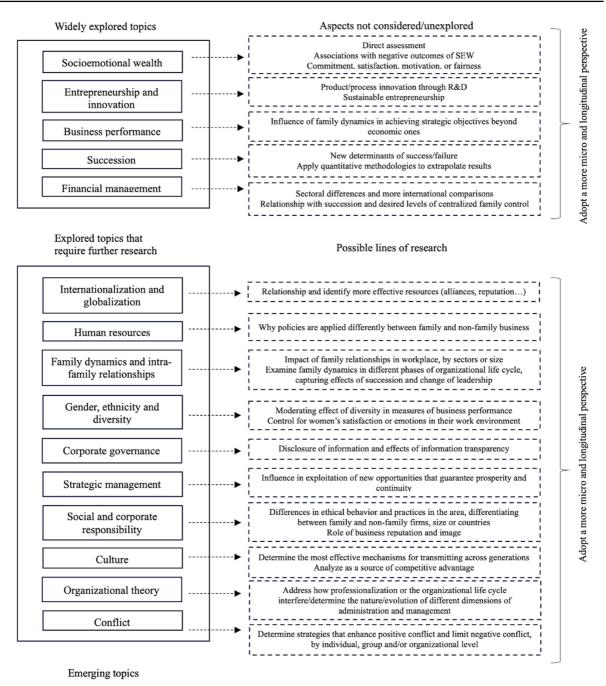




Fig. 6 Summary of possibilities for future directions in family business research. Source: authors' own elaboration

"Internationalization and globalization" could offer a line of research in the possible relationship it may have with identifying more effective means and resources, such as strategic alliances or reputation, both of which are scarcely dealt with at present. The topic focused on "human resources" could direct future research to ask whether certain policies are applied differently between family and non-family businesses and to analyze whether this is associated with different stages of business growth through longitudinal studies.

Other topics could also be exploited. In terms of "family dynamics and intra-family relationships," it remains to be explored how these family relationships impact the workplace of family businesses that are different across the sectors, or in size. Likewise, it would be of great value to be able to develop a longitudinal analysis that examines family dynamics in the different phases of the organizational life cycle that is thus able to capture the effects that succession and a change of leadership may cause. "Gender, ethnicity, and diversity" has been developing as a theme in recent years. However, there are still several concerns to address, such as the moderating effect that such diversity may have on different measures of business performance or controlling for more micro values or variables, such as women's satisfaction or emotions in their work environment. With regard to "corporate governance," a potential line of study arising from a gap in the existing literature to date would be to analyze the disclosure of information by family firms. In this sense, in order to improve firm performance and value, companies involved in the capital market should take into account the effects of information transparency.

Within "strategic management," it would be interesting to delve further into how strategic planning influences the exploitation of new opportunities that guarantee the prosperity and continuity of the business. In relation to "social and corporate responsibility," future work could explore the differences in ethical behavior and practices in this area, differentiating between family and non-family companies, or between large and small family businesses, as well as those from different countries. The influence of family control on these practices could also be measured, differentiating by those family businesses that have gone public and those that have not. In addition, the role of aspects such as business reputation and image could also be further explored.

For its part, the topic of "culture" could continue to expand in various directions. It would be interesting for the future to look for the most effective mechanisms for transmitting culture across generations through longitudinal analysis. Alternatively, one could examine the extent to which the culture of a successful company may be difficult to replicate, thus offering a source of competitive advantage of the business with respect to others. Future work within the field of "organizational theory" may attempt to address how professionalization or the organizational life cycle interfere with and determine the nature and evolution of the different dimensions of administration and management. Within "training, teaching, and knowledge transmission," it is necessary to make further progress in identifying research projects and academic programs or courses that are related to the current challenges faced by family businesses.

Finally, works focusing on "conflict" could attempt to approximate or determine strategies that enhance positive conflict and limit the negative types (which are the focus of most studies) by synthesizing analysis at the individual, group, and organizational levels. Likewise, further progress in the digital transformation of family businesses or the additional development of evaluation measures for the intellectual or human capital of the business could also constitute future lines of research, as these topics are seldom addressed in the current literature.

5.2 Limitations of this study

It should be noted that the present study has a number of limitations. First, although this work is based on a large number of papers from various databases in an effort to represent the evolution and current state of research on family businesses, it should be noted that our data may not include all the articles related to this field within the period analyzed.

A second limitation relates to the subjectivity of the authors when choosing the data and interpreting them. The same can be said of the classification of the new topics that have emerged, which may be different from the classifications used by other researchers. Data selection and interpretation, as well as the classification of emerging topics, may introduce some degree of bias. Finally, the third limitation concerns the fact that we can only present the current and possible future trends: we cannot predict with certainty what the most relevant topic related to family business research will be in the future.

To conclude, this paper has sought to continue the study initiated by Benavides-Velasco et al. (2011) and Xi et al. (2015) and to provide an updated overview of the literature in the field of family business research. The period of analysis covers the decade from 2012 to 2022, and with the large number of publications that have emerged in that period, an attempt has been made to provide an overview of the state of the discipline and how it has evolved over time since the first review by Benavides-Velasco et al. (2011). This work has allowed us to identify gaps that require greater depth on popular topics that have already been explored, as well as potential areas of future study on topics whose research has been scarce to date. Additionally, this work enables researchers and academics dedicated to this field to easily identify gaps and to continue advancing this discipline.

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Data Availability The datasets generated during and/or analysed during the current study are not publicly available due to all citation data was managed in a online software, but are available from the corresponding author on reasonable request.

Declarations

Competing interests The authors declare no competing interests.

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