

## Article

# Scientometric Analysis of Socioemotional Wealth, Innovation, and Family Businesses: Dynamics of Their Interrelationship

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**Abstract:** This study presents a scientometric analysis of the interrelationship between socioemotional wealth, innovation, and family businesses, based on 298 articles published between 1975 and 2022. Grounded in the theory of socioemotional wealth, it investigates how emotional and social resources within family businesses influence innovation and, consequently, business success. The methodology includes statistical and graphical analysis to identify publication trends, collaboration networks, and key themes. Results reveal a significant increase in recent academic production, highlighting the growing relevance of these concepts. Four thematic clusters are identified, emphasizing the importance of socioemotional wealth and innovation in the management of family businesses, providing a solid foundation for future research and business practices.

**Keywords:** socioemotional wealth; innovation; family business; scientometrics

## 1. Introduction

This study aims to explore the intricate interrelationships among socioemotional wealth, innovation, and family businesses, employing scientometrics as a powerful analytical tool. Socioemotional wealth, involving the accumulation of social and emotional resources within the family firm, not only fosters family cohesion and commitment to the business [1] but also plays a pivotal role in decision-making and business adaptability [2].

Family businesses, characterized by their unique blend of familial and business dynamics, offer an ideal context for investigating the interplay between socioemotional wealth and innovation. Innovation, recognized as the driving force behind growth and adaptability in an ever-evolving business landscape, emerges as a critical determinant of the long-term success of family enterprises [3].

By examining how socioemotional wealth influences innovation capacity in family firms, this research seeks to deepen our understanding of the mechanisms that either facilitate or impede business success in this distinctive and challenging setting.

This investigation addresses a significant knowledge gap by examining the intersection of socioemotional wealth, innovation, and family businesses from a scientific perspective. Despite the growing scholarly attention to these topics, gaps remain in our comprehension of how these factors interact and impact long-term business performance. Therefore, this study aims to identify and analyze publication trends, relevant studies, and collaborations in this field over time, enabling us to delineate the current state of research and identify avenues for future inquiry and business practices.

To achieve this objective, a comprehensive analysis of articles published on socioemotional wealth, family businesses, and innovation from 1975 to 2022 will be conducted, utilizing statistical analysis and graphical tools. Initially, publication trends over time will be examined to elucidate the evolution of academic contributions. Subsequently, seminal studies that have significantly influenced the literature on socioemotional wealth will be identified and analyzed. Additionally, the geographic and institutional affiliations of



**Citation:** Flen Rossi, F.; Rojas-Vallejos, J. Scientometric Analysis of Socioemotional Wealth, Innovation, and Family Businesses: Dynamics of Their Interrelationship. *Sustainability* **2024**, *16*, 4405. <https://doi.org/10.3390/su16114405>

Received: 16 April 2024

Revised: 17 May 2024

Accepted: 21 May 2024

Published: 23 May 2024



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leading researchers will be investigated, providing insights into the global distribution of expertise in this domain.

Furthermore, this study will explore collaboration patterns among prominent authors, shedding light on cooperation networks that shape research on the examined concepts. Moreover, scientific journals serving as primary channels for disseminating knowledge in this domain will be scrutinized. The identification and exploration of predominant research topics will contribute to a comprehensive understanding of the current state of the literature on this triangular dynamic.

The identification and exploration of predominant research topics, such as the paradox of innovation in family firms and the role of the next generation, contribute to a comprehensive understanding of the current state of the literature on this triangular dynamic. By examining how family businesses balance the preservation of SEW with the need for innovation, this study aligns with different perspectives that argue that this balance is key to maintaining a competitive advantage.

Finally, the importance of understanding socioemotional wealth, family businesses, and innovation is underscored, emphasizing their critical role not only in academia but also in driving the operational and socio-economic progress of family enterprises. This assertion aligns with the perspectives of Pizzurno and Alberti (2013), Kosmidou (2018), and Hernández et al. (2020) [4–6], who advocate for the improvement of business and family well-being.

The organizational structure of the article is meticulously outlined, beginning with an exposition of the theoretical framework in Section 2, followed by the methodology in Section 3. The presentation of results is articulated in Section 4, followed by the discussion in Section 5, and ultimately, conclusions are drawn in Section 6.

## 2. Literature Review

This section provides a comprehensive review of the existing literature on socioemotional wealth, innovation, and family businesses. The aim is to integrate various perspectives into a coherent framework, highlighting key themes and theoretical contributions.

### 2.1. Family Businesses and Their Foundation in Socioemotional Wealth

Family businesses are fundamentally supported by socioemotional wealth (SEW), a concept that provides a unique perspective on their decision-making processes, emphasizing non-economic objectives [7,8]. SEW is defined as the set of non-financial aspects of the firm that satisfy the emotional needs of the family, such as identity, family influence, and the perpetuation of the family dynasty [7]. This model illustrates how the interplay between family and business creates intangible components that influence decisions beyond economic logic, aiming to capture the affective endowment/utility of family business owners [1,9].

Berrone, Cruz, and Gomez-Mejia (2012) expand on SEW by presenting it as a critical paradigm in family business research. They propose the FIBER model, which divides SEW into five dimensions: family control and influence, family members' identification with the business, social relationships, emotional attachment, and the renewal of family bonds through dynastic succession [10]. This framework underscores how these dimensions shape the unique strategic decisions in family businesses.

Strategic decision-making in family firms often diverges from that of non-family firms due to the emphasis on SEW. Research by Zellweger and Chau (2012) highlights that control over strategic decisions, whether direct or indirect, is crucial for maintaining SEW, reflecting the diverse roles of family members in the business. This control ensures that family values and long-term objectives are prioritized over immediate financial gains [1,11–13].

The close relationship between family members and the business drives a cautious approach to strategy formulation. Dyer and Whetten (2006) note that this connection influences the family's image, actions, decisions, and the quality of products or services.

This strategic conservatism can protect the family's reputation and ensure the business's sustainability [14].

SEW also manifests through kinship ties that generate collective benefits, such as close networks. Rajesh and Singh (2008) emphasize that these relationships extend beyond the family to include external stakeholders like vendors, suppliers, and customers. These external connections facilitate the adoption of new technologies and responsiveness to environmental changes, ensuring that the family business remains competitive and adaptable [15].

Emotions play a crucial role in family businesses. Berrone et al. (2010) and Ashforth and Humphrey (1995) highlight the importance of affective content in decision-making processes. The emotional investment of family members can drive decisions that prioritize long-term benefits and the well-being of the family, sometimes at the expense of short-term financial performance [16,17].

Dynastic succession is a significant aspect of SEW in family businesses. Bang et al. (2023) discuss how the transfer of the business from one generation to the next strengthens family ties and facilitates knowledge exchange. However, this process also presents challenges, as the transfer of resources can impact the creation of new business forms, entry into new industries, or the establishment of new enterprises. Ensuring a smooth transition is crucial for maintaining the family's legacy and SEW [18–21].

## 2.2. Innovation: Engine of Transformation

Innovation is a crucial driver for the sustainability and growth of family businesses. It acts as an engine of transformation, enabling these enterprises to adapt to changing market conditions and technological advancements. Research has consistently shown that innovation is influenced by the unique dynamics of family businesses, particularly their socioemotional wealth (SEW) [22–27].

Family businesses often balance their innovation strategies with the preservation of SEW. This balance can either foster or hinder innovative activities depending on how the family values align with the perceived risks and benefits of innovation. For instance, family firms with a strong orientation toward preserving SEW may be more cautious in adopting radical innovations that could jeopardize their socioemotional objectives [9,28]. Conversely, when innovation aligns with the family's long-term vision and SEW, it can lead to significant competitive advantages.

Studies by Chrisman et al. (2015) highlight the paradox of innovation in family businesses. While these firms possess unique resources and capabilities that can drive innovation, such as deep industry knowledge and long-term orientation, their risk aversion and desire to maintain control can limit their innovative potential. This paradox is particularly evident in the decision-making processes where family involvement is high [28,29].

The role of the next generation in fostering innovation is also a critical factor. Younger family members often bring new perspectives and a greater willingness to embrace change, which can drive innovative efforts. Research by Duran et al. (2015) suggests that the involvement of the next generation can be a catalyst for innovation, especially when they are given the autonomy to implement new ideas and technologies [22,30–32].

Moreover, external networks and relationships play a significant role in the innovation process. Family businesses that actively engage with external stakeholders, such as suppliers, customers, and research institutions, can enhance their innovative capabilities by accessing new knowledge and resources [15]. These external collaborations can provide the necessary support for overcoming internal resistance to change and fostering a culture of innovation [33].

In summary, innovation in family businesses is a complex interplay between preserving socioemotional wealth and leveraging unique family resources. While SEW theory underscores the importance of balancing non-economic objectives with innovative efforts, the Resource-Based View (RBV) highlights how unique capabilities and external networks can drive innovation. While challenges exist, the potential for innovation remains signifi-

cant, particularly when driven by the next generation and supported by external networks. Understanding this dynamic is essential for fostering sustainable innovation in family enterprises [34–41].

### 3. Methodology

#### 3.1. Methodological Framework

This research is structured based on a scientometric analysis, addressing scientific production at the intersection of socioemotional wealth, family businesses, and innovation. This approach is grounded in principles described by Meneghini and Packer (2010) [42]. It focuses on researchers' scientific activity, evaluates its impact, and explores relationships among articles collected from the Web of Science (WoS), a recognized source for scientific information retrieval.

In line with fundamental bibliometric laws, expectations of exponential scientific growth and critical mass are examined [43]. This analysis provides insights into geographical, organizational, and authorial concentration possibilities, as well as scientific application domains.

This study explores structural aspects within the scientific community by identifying associations through collaboration in publications (co-authorship), standard references (bibliographic coupling), and common keywords (co-words). These methods reveal the level of cooperation among countries, organizations, and/or authors, as well as the relationship between authors or scientific groups and institutions.

#### 3.2. Database and Query Formulation

For a more targeted search, a vector based on keywords, logical conjunction connectors, and proximity restrictions in indexed articles between 1975 and 2022 is employed, focusing on 'socioemotional wealth', 'family firm' (or "family business", "family control", "family ownership", "family succession", "family social ties", "family identity") and 'innovation.' This set of criteria will be applied to identify relevant articles in the search for certified knowledge, leading to the analysis of 298 articles. Below is the formulation of the query:

((((ALL=("socioemotional wealth")) AND ALL=("family firms" or "family business" or "family control" or "family ownership" or "family succession" or "family social ties" or "family identity")) AND ALL=("innovation")) AND DT=(Article)) AND PY=(1975–2022).

#### 3.3. Software Utilization

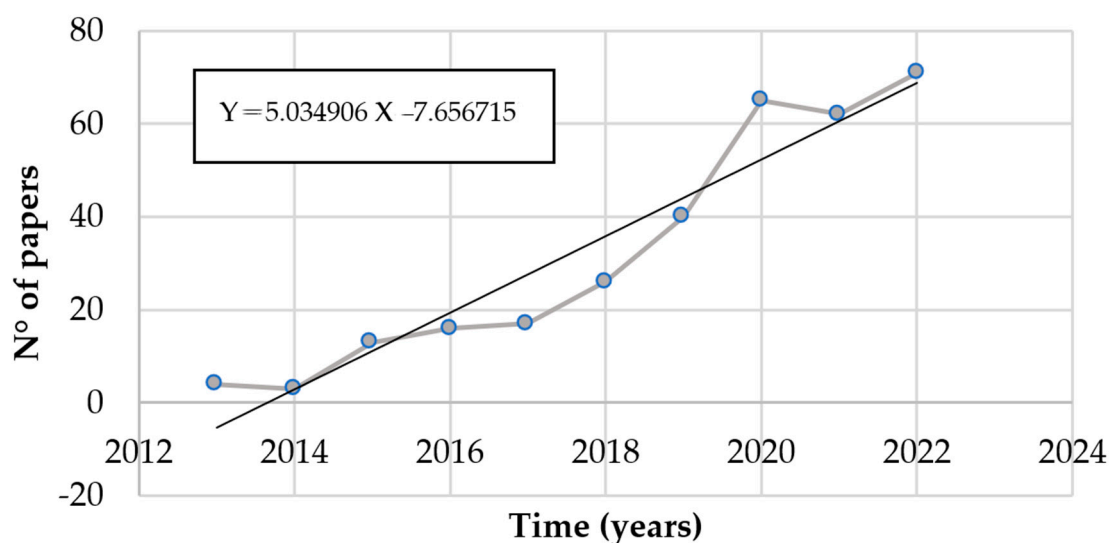
This approach is grounded in graph theory and executed using VOSviewer software version 1.6.19, offering a dynamic visual representation of the relationships and connections among the selected concepts [44].

The integration of these methodologies strengthens the scientometric analysis, enabling a more comprehensive understanding of the dynamics in scientific production within the study area and the identification of patterns, trends, and key actors at the intersection of socioemotional wealth, family firms, and innovation.

## 4. Results

#### 4.1. Articles and Citations

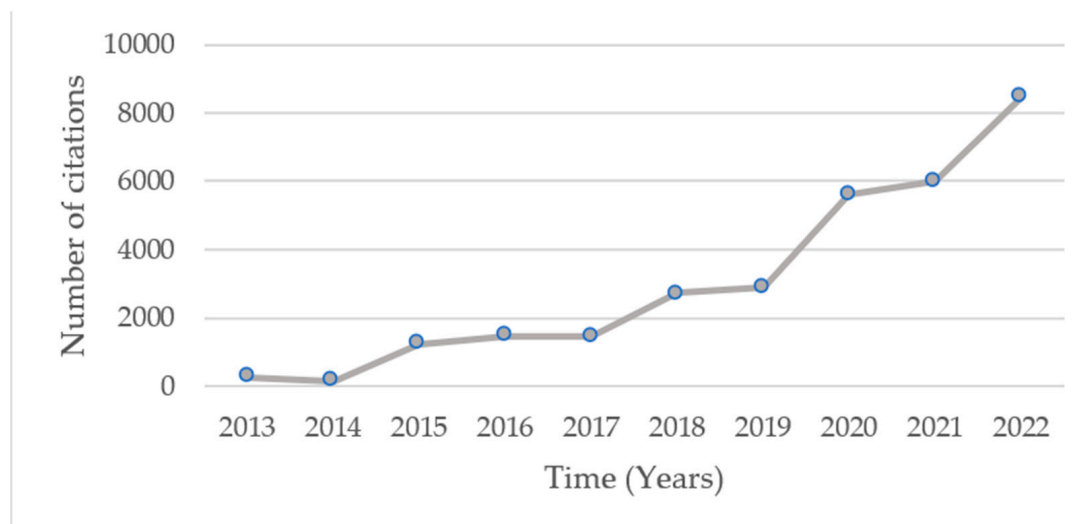
The analysis of the number of articles published per year in the field of socioemotional wealth, family firms, and innovation reveals an upward trend in research over time (see Figure 1). At first glance, we can observe a progressive growth from 2013 to 2022, with notable increases in 2018, 2019, and 2020. This pattern suggests a continuous and growing interest in the intersection of these topics. The peak of publications in 2020 and 2021 indicates a particularly active phase in research, possibly reflecting relevant events or trends during those periods.



**Figure 1.** Number of articles published per year. Source: Own elaboration.

Regarding linear growth, it was determined  $ART(YEAR) = 5.034906(YEAR) - 7.656715$ , with  $R^2 = 0.9184$ , indicating a significant positive relationship between the year and annual production, signifying sustained growth in the study area. The model explains approximately 91.84% of the variability in annual production over time. This supports identifying critical mass and highlights the most impactful contributions in the studied area.

The number of citations reported in the literature is also rising, reflecting a temporal evolution that mirrors the dynamism of research in this field. In Figure 2, a steady increase in academic production can be observed, with a significant uptick from 2018 onwards.



**Figure 2.** Number of citations per year. Source: Own elaboration.

In total, there have been 30,273 citations on this topic. In Table 1, we can see that a limited group of only two articles has achieved exceptional prominence by accumulating over 200 citations each, representing a relatively small percentage of the total articles. Additionally, 26 articles have garnered at least 150 citations (8.7%), 115 articles have surpassed 100 citations (38.5%), and 145 articles have reached at least 50 citations (51.6%). Finally, ten articles (3.3%) have accumulated fewer than 50 citations. These data reflect a varied distribution in the impact and recognition of articles in scientific research.

**Table 1.** General Structure of Citations on Socioemotional Wealth, Family Business, and Innovation in WoS.

Number of Citations	Number of Articles	% of Articles
≥200 citations	2	0.6%
≥150 citations	26	8.7%
≥100 citations	115	38.5%
≥50 citations	145	51.6%
<50 citations	10	3.3%
Total	298	100%

Source: Own elaboration.

This increase could be linked to a greater recognition of the importance of socioemotional wealth in the scientific literature. The concentration of publications in 2020 and 2021 indicates particularly active research activity, possibly influenced by contextual factors such as the focus on resilience and business adaptation in times of crisis, where socioemotional wealth plays a crucial role in decision-making in family businesses. Socioemotional wealth, defined as the set of non-financial aspects that satisfy the family's affective needs, such as identity, family influence, and the perpetuation of the family dynasty, has been shown to be fundamental for innovation in family businesses [7–10]. During the COVID-19 pandemic, the importance of maintaining family bonds and emotional cohesion became even more evident, acting as a catalyst for innovation and rapid adaptation in times of uncertainty [6]. Furthermore, recent studies suggest that family businesses that prioritize socioemotional wealth tend to be more resilient and better prepared to face crises, which could explain the increase in scientific production on this topic [27].

#### 4.2. Authors

Table 2 presents the top 10 most influential authors ranked by their contribution to this field. To measure the impact of their publications, the order of authors was established based on the number of articles and citations in the subject under study.

**Table 2.** Most Influential and Productive Authors on Socioemotional Wealth, Family Firms, and Innovation.

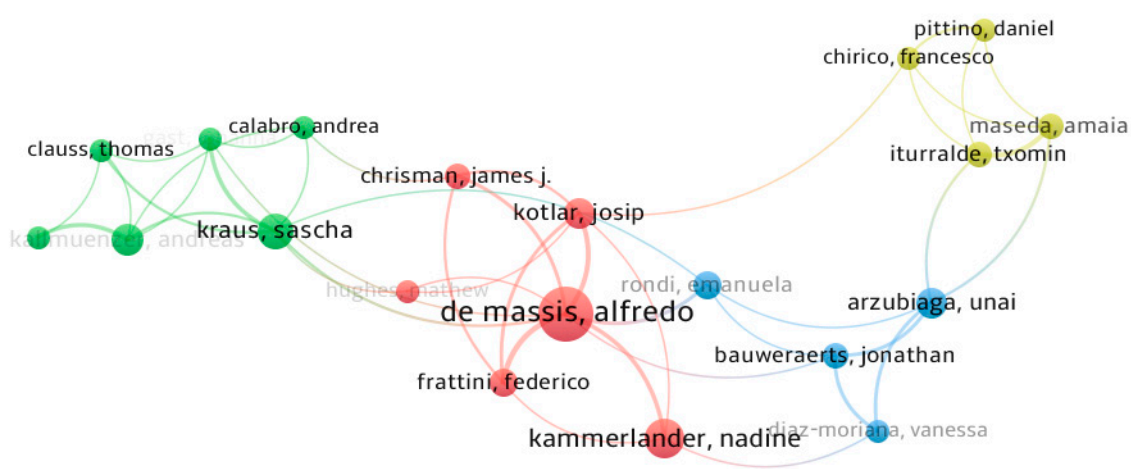
R	Authors Name	TP-SW-INN	TC-SW-INN	%TP-SW-INN/TP	H	TP	TC
1	De Massis, Alfredo	25	1571	20%	54	128	4071
2	Kammerlander, Nadine	12	906	21%	25	58	1620
3	Kraus, Sascha	10	543	3%	61	291	8441
4	Kallmuenzer, Andreas	8	222	17%	18	46	801
5	Arzubiaga, Unai	7	105	33%	10	21	384
6	Kotlar, Josip	7	278	17%	27	41	1884
7	Frattini, Federico	6	833	7%	34	88	3527
8	Martinez-Ferrero, Jennifer	6	206	8%	33	77	2175
9	Rondi, Emanuela	6	92	33%	11	18	493
10	Bauweraerts, Jonathan	5	50	26%	7	19	145

Abbreviations: R: author's ranking; TP-SW-INN: author's total papers on socioemotional wealth-Innovation; TC-SW-INN: total citations of the author in papers on socioemotional wealth; %TP-SW-INN/TP: percentage of author's total papers on socioemotional wealth only; H: author's H-index; TP: author's total number of papers; TC: total number of citations per author. Source: Own elaboration.

The number of articles published determines the contribution to knowledge generation about the search vector. These are not always the most influential authors, but they are essential in their scientific productivity. Therefore, to identify the most productive authors in terms of research on socioemotional wealth, the following are indicated: the number of articles on the topic, the total citations, the average number of citations per published article, the percentage of the total articles published on the topic, the author's h-index, the total publications of the author on WoS platform, and the total citations of the author calculated in their publications.

We analyzed the data and found that Alfredo De Massis ranks first as the most influential author. He has contributed 25 articles exploring the intersection of socioemotional wealth, innovation, and family firms, accumulating an impressive H-index of 54 and 1571 citations. In the second place, Nadine Kammerlander shows significant commitment with 12 articles, an H-index of 25, and 906 citations, notable for her scientific output and involvement in collaboration networks. Despite having only 3% of his publications in the area, Sascha Kraus has accrued 543 citations and an H-index of 61, one of the highest in the table. Authors like Arzubiaga and Rondi also demonstrate exceptional dedication, with over 30% of their publications focused on this specific field.

Moreover, the author's collaboration map in Figure 3 displays eight scientific collaboration networks. One criterion for creating the map was the presence of at least four authorships. These networks include the ten most prolific authors in research on socioemotional wealth, indicating high collaboration among authors.



**Figure 3.** Author Collaboration Map in Research on Socioemotional Wealth, Family Business, and Innovation. Source: Own elaboration.

The red cluster is composed of authors with significant connections among themselves, with De Massis standing out as the most productive author in terms of the number of articles. Additionally, it can be observed that the authors within this cluster are of considerable size, indicating high scientific production. The centrality of the nodes suggests that these authors are central in the network and can be considered leaders in socioemotional wealth. The green cluster, which has the same nodes and connections as the red cluster, stands out for having authors with high centrality. Although there may be fewer publications, the influence of these authors is significant. This could indicate specialization in a specific aspect of socioemotional wealth. Finally, the blue cluster shows a more dispersed network with authors less connected to each other and authors with more moderate production. This could be due to less explored thematic areas or minimal collaborations, as they interact with the yellow cluster that does not include the most relevant authors in this field of literature.

#### 4.3. Journals

The 12 most influential journals in the literature on socioemotional wealth, family firms, and innovation were selected (ranked by the total number of articles published on the topic). As shown in Table 3, the top five influential journals are as follows: (1) Journal of Family Business Strategy; (2) Family Business Review; (3) Journal of Business Research; (4) Journal of Family Business Management; (5) Journal of Product Innovation Management.

**Table 3.** Most influential journals on socioemotional wealth/family firms/innovation.

R	Journal	TP SW-INN	TCSW-INN	TLS	298%	H(*)	TP(*)	TC(*)	FI
1	Journal of Family Business Strategy	19	519	109	6.4%	61	317	4234	7.2
2	Family Business Review	16	900	175	5.4%	120	551	7600	8.8
3	Journal of Business Research	15	233	94	5%	236	7916	118,345	11.3
4	Journal of Family Business Management	13	178	51	4.3%	24	306	1371	2.7
5	Journal Of Product Innovation Management	13	1138	205	4.3%	162	1269	17,338	5.6
6	Business Strategy and The Environment	11	361	32	3.6%	131	1829	32,271	13.4
7	Sustainability	11	54	53	3.6%	136	59,685	420,660	3.9
8	Entrepreneurship Theory and Practice	9	714	119	3%	185	1072	20,414	10.5
9	International Entrepreneurship and Management Journal	7	73	36	2.3%	71	778	8872	5.6
10	Small Business Economics	7	311	71	2.3%	157	2044	23,592	6.4
11	Asia Pacific Journal of Management	6	156	13	2%	89	985	9739	5.4
12	European Journal of Innovation Management	6	21	34	2%	74	890	6265	5.1

Abbreviations: R: Ranking; TC-SW-INN: total number of citations with socioemotional wealth/innovation only; TP-SW-INN: total number of papers with only socioemotional wealth/innovation; TLS: Total link strength; TP(\*): total number of papers in the journal (1975–2022); TC(\*): Total number of citations in the journal (1975–2022; H(\*): H-index of the journal; FI: Impact factor of journal on 2022. Source: Own elaboration.

Firstly, the “Journal of Family Business Strategy” stands out with a Total Link Strength (TLS) of 109 and 6.4% of the total articles. These indicators suggest a dynamic and expanding research environment, offering opportunities for exploring new perspectives and thematic areas. Additionally, the “Journal of Business Research” presents a balance between papers (15) and citations (233), indicating opportunities for growth and expansion of knowledge in its research area.

Regarding distinctive features, “Business Strategy and the Environment” stands out with an H-index (H) of 131, reflecting its solid presence and recognition in the scientific community. Despite its fewer articles, the journal stands out for the quality and relevance of its contributions. On the other hand, “Sustainability” excels in its social impact, evidenced by its high number of citations (54) and an impressive TLS of 53, suggesting a strong connection with the sustainability theme and significant relevance in scientific literature.

To assess the quality of the journals, their impact factor was considered. This information was extracted from the WoS platform in the Journal Citation Report (JCR). In 2019, the average impact factor of the 12 journals was 7.15. However, the top 5 journals in the literature had an impact factor of 10.08.

The 298 articles studied were published in 31 WoS categories for the main categories analyzed. Within the analysis, there is a clear emphasis on business and management areas, with 63% of the total records. The “Business” category dominates the scene, closely followed by “Management” with 60% (See Table 4).

**Table 4.** Web of Science Categories Associated with Scientific Production.

WOS Categories	Records	% of 298	% Accumulated
Business	188	63%	63%
Management	180	60%	123%
Economics	25	8%	131%
Environmental Studies	25	8%	140%
Environmental Sciences	18	6%	146%
Business Finance	16	5%	151%
Engineering Industrial	16	5%	156%

Source: Own elaboration.

The predominant affiliation organizations in the 298 articles, affiliations with 27 organizations, were identified. In contrast, in this study, those with at least eight articles were considered, as detailed in Table 5. The Free University of Bozen-Bolzano in Italy stands out as the leading institution, contributing 26 records and 873 citations, indicating a strong presence in scientific research. Lancaster University in England closely follows with 24 records and 1177 citations, establishing itself as a significant entity in production and academic recognition. The Otto Beisheim School of Management in Germany, with 16 records and 1087 citations, shows impressive performance, emphasizing the importance of European institutions in this field.

**Table 5.** Organizations Associated with Scientific Production, Based on Author Affiliation.

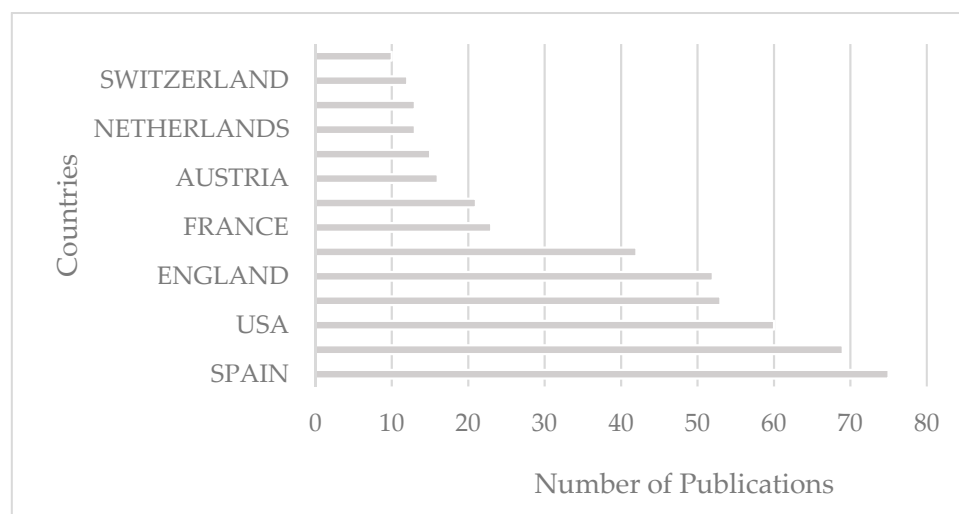
N°	Organizations	Country	Record	Citation
1	Free University of Bozen-Bolzano	Italy	26	873
2	Lancaster University	England	24	1177
3	Otto Beisheim School of Management	Germany	16	1087
4	Universidad de Zhejiang	China	13	531
5	Mississippi state university	EEUU	12	629
6	University of Innsbruck	Austria	11	335
7	Jönköping International Business School	Sweden	9	194
8	Universidad de Bergamo	Italy	9	944
9	Politecnico di Milano	Italy	8	878

Source: Own elaboration.

Outside of Europe, Zhejiang University in China ranks fourth with 13 records and 531 citations, demonstrating the growing influence of Chinese institutions in scientific production. Meanwhile, Mississippi State University in the United States, with 12 records and 629 citations, highlights the participation of American institutions in this field.

Nevertheless, it is worth noting that despite the widespread distribution of affiliated institutions, the analysis reveals a low geographical concentration. Scientists are linked to organizations from 52 countries (See Figure 4). Only when considering the five countries with the highest contribution, do we observe a significant concentration, representing between 16% and 24% of the total (see Table 6).

According to Table 7, considering the number of citations and the average number of citations per year, the most relevant article in the literature is the one written by Duran et al. (2016) [31], followed by De Massis et al. (2017), each with over 200 citations. Both articles represent widely utilized approaches by scholars to investigate the association between Socioemotional Wealth, Family Firms, and Innovation. Hence, the impact of this literature on this triangular dynamic has occurred relatively recently, approximately within the last eight years.



**Figure 4.** Total Number of Publications by Country. Source: Own elaboration.

**Table 6.** Countries Associated with Scientific Production, According to Author Affiliation.

N°	Countries/Regions	Record Count	% of 317
1	Spain	75	23.7%
2	Italy	69	21.8%
3	USA	60	19%
4	Peoples R China	53	17%
5	England	52	16%

Source: Own elaboration.

**Table 7.** Articles with Highest Citations.

N°	Authors	Article Title	Publication Year	Source Title	Cited Reference Count
1	Duran, P; Kammerlander, N; van Essen, M; Zellweger, T	Doing more with less: innovation input and output in family firms	2016	Academy Of Management Journal	250
2	De Massis, A; Frattini, F; Lichtenthaler, U	Households as a Site of Entrepreneurial Activity	2017	Foundations And Trends In Entrepreneurship	236
3	Kraus, S; Clauss, T; Breier, M; Gast, J; Zardini, A; Tiberius, V	Are family female directors catalysts of innovation in family small and medium enterprises?	2022	Strategic Entrepreneurship Journal	191
4	Gomez-Mejia, LR; Campbell, JT; Martin, G; Hoskisson, RE; Makri, M; Sirmon, DG	Digital Transformation Through Exploratory and Exploitative Internet of Things Innovations: The Impact of Family Management and Technological Diversification	2021	Journal Of Product Innovation Management	187
5	Chrisman, JJ; Chua, JH; De Massis, A; Frattini, F; Wright, M	Responding to Digital Transformation by External Corporate Venturing: An Enterprising Family Identity and Communication Patterns Perspective	2021	Journal Of Management Studies	185
6	De Massis, A; Audretsch, D; Uhlaner, L; Kammerlander, N	Radical innovation in (multi)family owned firms	2022	Journal Of Business Venturing	184
7	Block, J; Miller, D; Jaskiewicz, P; Spiegel, F	Social capital and innovation in family firms: The moderating roles of family control and generational involvement	2019	Scandinavian Journal Of Management	180

Table 7. Cont.

N°	Authors	Article Title	Publication Year	Source Title	Cited Reference Count
8	Classen, N; Carree, M; Van Gils, A; Peters, B	Strategic agility and international joint ventures: The willingness-ability paradox of family firms	2021	Journal Of International Management	173
9	Kraiczy, ND; Hack, A; Kellermanns, FW	Transgenerational innovation capability in family firms	2021	International Journal Of Entrepreneurial Behavior & Research	171
10	Carnes, CM; Ireland, RD	Research and innovation and the role of competition in family owned and managed firms	2023	International Journal Of Entrepreneurial Behavior & Research	169
11	Kotlar, J; Fang, HQ; De Massis, A; Frattini, F	Exploratory and exploitative innovation in family businesses: the moderating role of the family firm image and family involvement in top management	2019	Review Of Managerial Science	165
12	Hauck, J; Prugl, R	The family factor: How collaborative dialogue between owner managers and the owner family shapes firm-level outcomes	2023	Journal Of Small Business Management	165
13	Sciascia, S; Nordqvist, M; Mazzola, P; Massis, A	Family Involvement in Management and Product Innovation: The Mediating Role of R&D Strategies	2019	Sustainability	163
14	Ardito, L; Petruzzelli, AM; Pascucci, F; Peruffo, E	Effects of ownership structure and corporate and family governance on dynamic capabilities in family firms	2020	International Entrepreneurship And Management Journal	160
15	Wilson, N; Wright, M; Scholes, L	Impact of informal institutions on the prevalence, strategy, and performance of family firms: A meta-analysis	2022	Journal Of International Business Studies	158
16	Filser, M; De Massis, A; Gast, J; Kraus, S; Niemand, T	Social impact through family firms' interorganizational relationships within a community and a cooperative: An embedded view of stewardship	2022	Journal Of Business Research	157
17	Doluc, H; Wagner, M; Block, J	The impact of strategic focus on relational capital: A comparative study of family and non-family firms	2020	Journal Of Business Research	157
18	Rodriguez-Ariza, L; Cuadrado-Ballesteros, B; Martinez-Ferrero, J; Garcia-Sanchez, IM	Do Employees boost opportunities to compete abroad? A longitudinal study of family and non-family firms	2022	European Management Journal	156
19	Liu, MZ; Shi, YL; Wilson, C; Wu, ZY	Political ideologies and the internationalization of family-controlled firms	2017	Journal Of World Business	155
20	Kano, L; Verbeke, A	Corporate social responsibility in family firms: A contingency approach	2019	Journal Of Cleaner Production	155
21	Werner, A; Schroder, C; Chlosta, S	The geography of the continuum of entrepreneurship activities-a first glance based on German data	2022	Journal of technology transfer	155
22	Bammens, Y; Notelaers, G; Van Gils, A	Strings attached: Socioemotional wealth mixed gambles in the cash management choices of family firms	2022	Journal of family business strategy	154
23	Dieguez-Soto, J; Manzaneque, M; Rojo-Ramirez, AA	Are family firms really reluctant to innovate? Evidence from IPOs	2022	European journal of innovation management	154

Table 7. Cont.

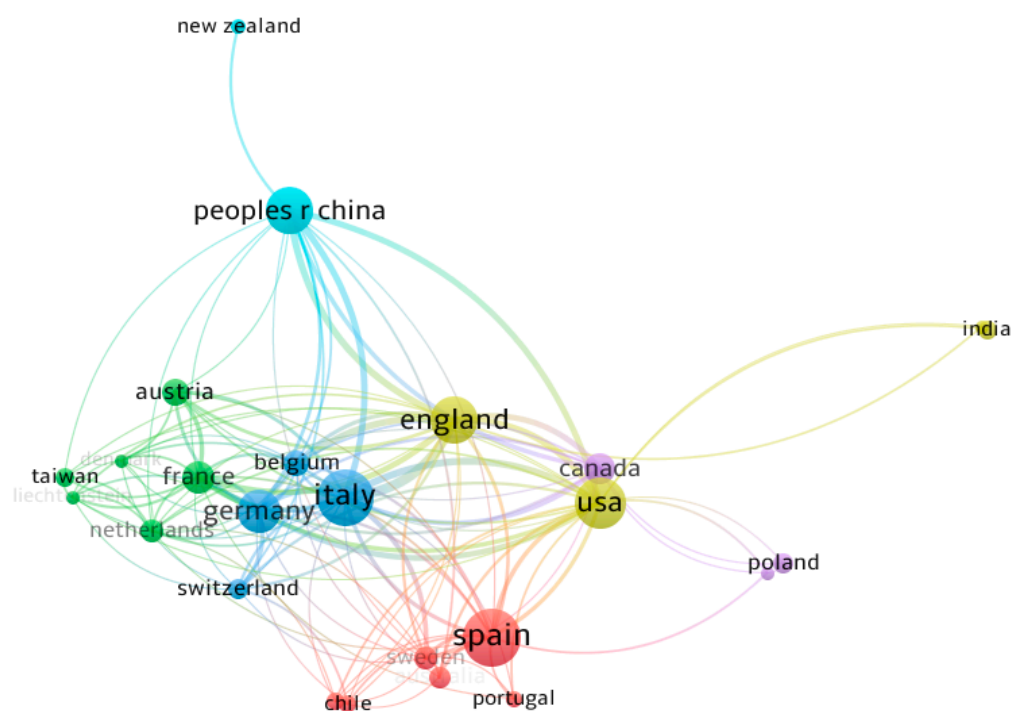
N°	Authors	Article Title	Publication Year	Source Title	Cited Reference Count
24	Diaz-Moriana, V; Clinton, E; Kammerlander, N; Lumpkin, GT; Craig, JB	Innovation activities during intra-family leadership succession in family firms: An empirical study from a socioemotional wealth perspective	2015	Journal of family business strategy	153
25	Soluk, J; Kammerlander, N	Innovation with Limited Resources: Management Lessons from the German Mittelstand	2018	Journal of product innovation management	152
26	Debellis, F; De Massis, A; Petruzzelli, AM; Frattini, F; Del Giudice, M	Going greener, performing better? The case of private family firms	2022	Research in international business and finance	152
27	Revilla, AJ; Perez-Luno, A; Nieto, MJ	The Effect of Family Involvement on Innovation Outcomes: The Moderating Role of Board Social Capital	2020	Journal of product innovation management	151
28	Sahasranamam, S; Arya, B; Sud, M	Socioemotional wealth, entrepreneurial orientation and international performance of family firms	2020	Economic research-ekonomska istrazivanja	151
29	Kallmuenzer, A; Peters, M	Family Management and Firm Performance in Family SMEs: The Mediating Roles of Management Control Systems and Technological Innovation	2019	Sustainability	150
30	Li, ZH; Daspit, JJ	Ambidexterity in family firms: The interplay between family influences within and beyond the executive suite	2022	Long range planning	150

Source: Own elaboration.

The H-Index (The Hirsch or H-Index is calculated by considering the number of articles (n) and the accumulated citations [45]. In this case, with 30 articles each having at least 155 citations, the H-Index would be 30, as there are at least 30 articles meeting the condition of having at least 30 citations each) provides a measure of a researcher's productivity and impact, but it does not reflect the intrinsic quality of citations. In this context, having 30 articles with at least 155 citations each suggests a significant contribution and relevant impact on scientific literature (See Table 7).

The co-authorship graph among countries shows how 25 countries are grouped into 6 clusters. This analysis provides a comprehensive view of scientific collaboration worldwide, highlighting connection patterns between countries and underscoring the importance of critical actors in different clusters.

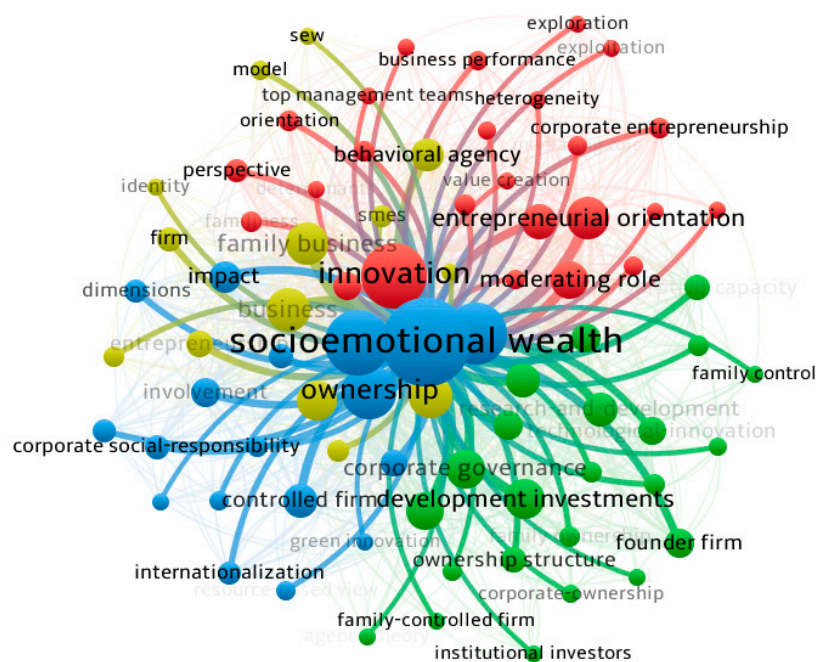
As depicted in Figure 5, it reveals a complex global network. The red cluster, centered on Spain, highlights Iberian collaboration and interregional connections. The blue cluster, led by Italy and Germany, stands out for its extensive collaboration network. France leads the green cluster, while China assumes a central role in the cyan one. The yellow cluster, headed by England and the United States, evidences a strong collaboration between these countries. The purple one, led by Canada, highlights the influence of this country.



**Figure 5.** Co-authorship Map among Countries. Source: Own elaboration.

#### 4.4. Keywords

Of the 1252 keywords (KWP) assigned by WoS to the articles, 80 appear more than eight times and are used concurrently. This co-occurrence suggests specific thematic relationships and patterns among the keywords, indicating common areas of focus, emerging trends, or conceptual connections within the studied research domain. This situation comprises four key clusters (See Figure 6).



**Figure 6.** Co-occurrence Map of Keywords Usage. Source: Own elaboration.

Firstly, it is worth noting the centrality of the keyword “Socioemotional Wealth”, which acts as a central node, indicating its importance in the literature and its strong connection with concepts related to family business management and innovation. We see

strategic connections. The presence of keywords such as “Corporate Social Responsibility”, “Ownership”, and “Internationalization” in the same blue cluster suggests strategic connections between socioemotional wealth and aspects such as corporate social responsibility, ownership, and internationalization. The red cluster highlights the connection between “Innovation” and “Entrepreneurship”, emphasizing the importance of innovation in business and its relationship with entrepreneurship. The yellow cluster highlights the relationship between “Governance”, “Investment Development”, and “Business Identity”, establishing that governance and innovation development are fundamental topics in family businesses and their identity. Lastly, the green cluster emphasizes terms such as “Agency”, “Agency Costs”, and “Performance”, indicating that both concepts are related areas in research. The number of connections reflecting the interconnections between these concepts is shown in Table 8, where they are grouped at the cluster level, recognizing the various emphases in which the articles have been studied.

**Table 8.** Clusters of co-occurrence in keyword usage.

Cluster	Items	Keywords (KWP)
1	25	Background, behavior, performance, capability, corporate entrepreneurship, determinants, dynamic capabilities, business orientation, exploration, familiarity, generational involvement, growth, heterogeneity, innovation, market orientation, mediating role, moderating role, orientation, perspective, risk-taking, strategic management, top management team, upper echelons, value creation.
2	23	Absorptive capacity, agency, agency costs, agency theory, competitive advantage, corporate governance, corporate ownership, investment in development, family control, family management, family ownership, family-controlled firm, financial performance, firm performance, founder firm, institutional investors, ownership structure, production innovation, research and development, management, technological innovation, top management team.
3	18	Business, controlled firms, corporate social responsibility, dimensions, empirical evidence, environmental, family businesses, green innovation, impact, internalization, involvement, knowledge, ownership, performance, resource-based view, socioemotional wealth, sustainability.
4	13	Behavioral agency, business, entrepreneurship, family firm, family involvement, firms, governance, identity, management, model, socioemotional wealth, succession, systems.

Source: Own elaboration.

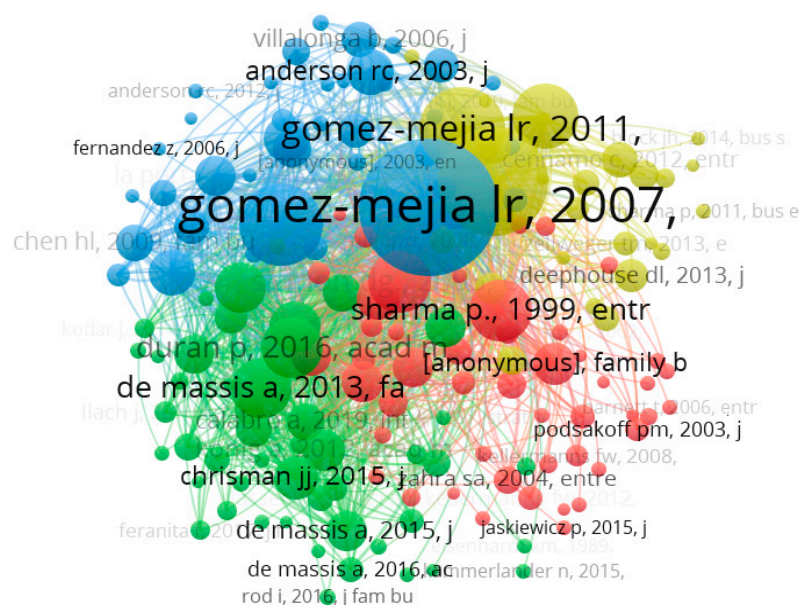
Furthermore, four significant clusters were identified (Table 9), indicating at least four thematic areas or groups of interconnected concepts in the scientific literature of the field. Among the prominent nodes, “Gomez Mejía (2007)” stood out as an influential author, suggesting that their contributions are fundamental to understanding the topic and that their presence is notable in the co-cited literature, being the father of the concept of “Socioemotional Wealth” (See Figure 7).

The network consists of 160 items, representing a substantial amount of scientific documents, and is densely interconnected with 12,202 links. This density of connections suggests strong thematic coherence and a robust and complex network. The total link strength, with a value of 88,227, indicates the overall strength of connections in the network, emphasizing the coherence and interconnectedness in the field of study.

**Table 9.** Clusters of Co-cited References for Highly Cited Scientific Production.

Cluster	Items	Articles ( <i>Only First Author Is Referenced</i> )
1	48	Arregle (2007), Arzubia (2018), Astrachan (2002), Barnett (2006), Barney (1991), Beck (2011), Cabrera-Suarez (2001), Chirico (2008 & 2011), Chrisman (2005), Chua (2012), Cruz (2012 & 2010), Dyer Wg (2006), Eddleston (2007), Fornell (1981), Gersick (1997), Habbershon (2003), Hair (2010), Habrick (1984), Jaskiewicz (2015), Kellermanns (2004, 2008 & 2012), Klein (2005), Kraiczy (2014 & 2015), Lumpkin (1996), March (1991), Miller (2013), Minichelli (2010), Naldi (2007), Pearson (2008), podsakoff (1986 & 2003), Zahra (2004, 2005 & 2007) Zellweger (2012).
2	47	Block (2013), Calabro (2019), Carnes (2013), Carney (2005), Chin (2009), Chrisman (2012, 2015 & 2015), Classen (2012 & 2014), Cohen (1990), Craig (2006), De Massis (2013, 2014, 2015, 2015, 2016, 2018 & 2016), Duran (2016), Eisenhardt (1989), Feranita (2017), Filsan (2018), Gudmundson (2003), Hauck (2015), Kammerlander (2015), Konig (2013 & 2014), Li Zh (2016), Llach (2010), Matzler (2015), Miller (2015), Nieto (2015), Patel (2011), Rod (2016), Rondi (2019), Scienscia (2015), Sirmon (2008), Teece (1997), Zellweger (2007).
3	39	Anderson (2003 & 2012), Bertrand (2006), Block (2012), Chen (2009), Chrisman (2004 & 2012), Davis (1997), Faccio (2002), Fernandez (2006), Gedajlovic (2012), Gomez-Mejía (2001, 2003, 2007, 2010 & 2014), Jensen (1979), Porta (1999), Le Breton-Miller (2011), Lubatkin (2005 & 2011), Miller (2006, 2007, 2011 & 2013), Munari (2010), Munoz-Bullon (2011), Patel Pc (2014), Schmid (2014), Schulze (2001 & 2003), Verbeke (2012), Villalonga (2006), Wiseman (1998), Zahra (2003).
4	26	Berrone (2010 & 2012), Block (2010 & 2014), Cennamo (2012), Chau (2015), Craig (2006), Cruz (2012 & 2014), Debicki (2016), Deephouse (2013), Dywr (2006), Gomez-Mejía (2011 & 2018), Kellermanns (2012), Kotlar (2018), Le Breton-Miller (2006 & 2016), Lumpkin (2010), Miller (2008 & 2014), Naldi (2013), Sharma (2011), Zellweger (2012, 2013 & 2010).

Source: Own elaboration.

**Figure 7.** Co-citation Map by References. Source: Own elaboration.

## 5. Discussion

The scientometric results reveal a significant increase in academic interest in socioemotional wealth, family businesses, and innovation over time, with peaks in 2018, 2019,

and 2020 suggesting greater dynamism possibly linked to specific events or trends in the business environment. Despite the increasing number of publications and citations, there is not yet a robust and dynamic integration between SEW, family businesses, and innovation.

SEW, defined as the set of non-financial aspects satisfying the family's affective needs, such as identity, family influence, and perpetuation of the family dynasty, has been shown to be fundamental for sustainability in family businesses [4–6]. However, its impact on innovation appears complex and less dynamic than anticipated. During the COVID-19 pandemic, the importance of maintaining family bonds and emotional cohesion became even more evident, acting as a catalyst for resilience and rapid adaptation in times of uncertainty [46–49], but this catalyst effect does not necessarily translate into a consistent driver of innovation.

The analysis of the number of articles published per year shows an upward trend, especially from 2013 to 2022, with notable increases in 2018, 2019, and 2020, indicating a growing interest in these topics. The significant increase in citations from 2018 onwards reflects greater recognition in scientific literature. Yet, the relationship between SEW and innovation within family businesses remains complex. While SEW can act as a catalyst for resilience during crises, it does not consistently drive innovation.

The top 10 influential authors, such as Alfredo De Massis, have significantly contributed to understanding SEW and family businesses, but the emphasis on preserving SEW can lead to risk-averse behavior, potentially inhibiting innovative activities [30]. The collaboration map among authors shows strong scientific networks but highlights that the integration of SEW, family businesses, and innovation remains fragmented.

Influential journals reveal that key themes like corporate social responsibility, governance, and entrepreneurship are prominent. However, the integration of SEW and innovation is less dynamic. The presence of keywords like “corporate social responsibility”, “ownership”, and “internationalization” alongside SEW indicates strategic connections, but the link to innovation is less direct and often context-dependent. The co-occurrence map of keywords shows clusters around SEW, innovation, and family businesses, but these clusters are not as interconnected as expected for a truly dynamic integration.

Emerging directions for future research include exploring the reasons behind peaks in research activity and investigating regional differences in scientific production to offer insights into cultural or contextual variations in the intersection of SEW, family businesses, and innovation. Identifying new collaboration networks and understanding their evolution could reveal emerging trends. Considering the relationship between scientific production and social impact could deepen understanding of how research addresses relevant issues in society and the business world. These findings expand current knowledge about SEW, family businesses, and innovation and provide a foundation for future research in this dynamic field.

While there is a growing body of literature recognizing the importance of SEW and its role in family businesses, the integration of SEW with innovation remains less dynamic. The tension between preserving family values and embracing innovative risks needs further exploration to understand how family businesses can balance these aspects effectively.

Future research should focus on developing frameworks that reconcile the protective nature of SEW with the forward-looking demands of innovation to ensure the sustainable growth of family businesses. Consider other dimensions of innovation that may be influenced by SEW. For instance, the digital transformation (DT) of family firms has emerged as a critical area where SEW plays a pivotal role. Recent studies have shown that entrepreneurial orientation (EO) significantly enhances the impact of DT on family firm performance, with SEW acting as a strategic asset that positively moderates this relationship [50]. This indicates that SEW can foster an environment conducive to technological adoption and innovative business practices. Furthermore, the role of SEW in fostering corporate social responsibility (CSR) initiatives highlights another dimension of innovation. Family businesses that prioritize SEW often engage in CSR activities that not only enhance their reputation but also lead to innovative solutions to social and environmental

challenges. Additionally, the influence of SEW on governance structures within family firms can lead to innovative management practices that balance traditional family values with modern business strategies. These various dimensions underscore the multifaceted nature of innovation in family businesses, influenced by SEW in ways that extend beyond direct product or process innovation.

## 6. Conclusions

In conclusion, the results revealed a growing trend in research in this field over time, with continuous and significant interest from 2013 to 2022, as indicated by both the increase in published articles and the number of citations received. Specific authors stand out in the literature, with Alfredo De Massis leading the ranking in scientific production and citations, closely followed by other prominent researchers such as Nadine Kammerlander and Sascha Kraus [51]. Additionally, the analysis of scientific collaboration revealed a complex global network, with prominent collaborations between countries such as Spain, Italy, Germany, France, China, England, and the United States.

Analyzing keywords and thematic clusters offers a deeper understanding of common focus areas and conceptual relationships within the studied field. Recurring themes such as corporate social responsibility, governance, and entrepreneurship are identified, highlighting the complexity and multidimensionality of the topics addressed in the literature. These findings underscore the importance and significant impact of research in this field and the diversity and richness of international scientific collaboration.

However, it is essential to acknowledge the methodological limitations of this study, such as the selection of specific databases and the search criteria used, which may have influenced the results obtained. Additionally, it is important to note that the integration and interaction between socioemotional wealth, family firms, and innovation are less dynamic compared to other themes.

Exploring specific areas at the intersection of socioemotional wealth, family firms, and innovation is recommended, using other scientometric analysis methods for a more comprehensive understanding. Additionally, investigating the connection between socioemotional wealth and emerging topics, such as corporate social responsibility, internationalization, and governance, is suggested, as well as delving into the contributions of influential authors like Alfredo De Massis to broaden the understanding of the field. The importance of encompassing other regions and exploring the reasons behind the significant increase in activities in recent years is also highlighted to provide a deeper understanding of the factors driving research on these topics at specific times.

This study contributes to the advancement of knowledge in this area, offering important theoretical and practical implications for researchers, professionals, and policymakers interested in these topics. It underscores the significance of research efforts in this field and highlights the complexity of socioemotional wealth, family firms, and innovation triangular dynamics while also pointing out the relatively lower dynamism and interaction among these three compared to other themes.

**Author Contributions:** All of the authors contributed to conceptualization, formal analysis, investigation, methodology and writing and editing the original draft. All authors have read and agreed to the published version of the manuscript.

**Funding:** The research received no external funding.

**Institutional Review Board Statement:** Informed consent was obtained from the respondent of the survey.

**Informed Consent Statement:** Not applicable.

**Data Availability Statement:** The data will be made available on request from the corresponding author.

**Conflicts of Interest:** The authors declare no conflict of interest.

## References

1. Cabrera-Suárez, M.K.; García-Almeida, D.J.; De Saá-Pérez, P. A dynamic network model of the successor's knowledge construction from the resource-and knowledge-based view of the family firm. *Fam. Bus. Rev.* **2018**, *31*, 178–197. [\[CrossRef\]](#)
2. Newbert, S.; Craig, J.B. Moving beyond socioemotional wealth: Toward a normative theory of decision making in family business. *Fam. Bus. Rev.* **2017**, *30*, 339–346. [\[CrossRef\]](#)
3. Akram, M.U.; Ghosh, K.; Sharma, D. A systematic review of innovation in family firms and future research agenda. *Int. J. Emerg. Mark.* **2022**, *17*, 1759–1792. [\[CrossRef\]](#)
4. Pizzurno, E.; Alberti, F. Technology, innovation, and performance in family firms. *Int. J. Entrep. Innov. Manag.* **2013**, *17*, 142–161. [\[CrossRef\]](#)
5. Kosmidou, V. A Socioemotional Wealth Perspective on Innovativeness and Performance of Family. Doctoral Dissertation, University of Louisville, Louisville, Kentucky, 2018. [\[CrossRef\]](#)
6. Hernández, F.; Ariza, A.; Luis, A. Socioemotional wealth, entrepreneurial orientation, and international performance of family firms. *Econ. Res.-Ekonom. Istraživanja* **2020**, *33*, 3125–3145. [\[CrossRef\]](#)
7. Gómez-Mejía, L.R.; Haynes, K.T.; Núñez-Nickel, M.; Jacobson, K.J.L.; Moyano-Fuentes, J. Socioemotional wealth and business risks in family-controlled firms: Evidence from Spanish olive oil mills. *Adm. Sci. Q.* **2007**, *52*, 106–137. [\[CrossRef\]](#)
8. Chrisman, J.; Patel, P. Variations in R&D investment in family and non-family firms: Behavioral agency and myopic loss aversion perspectives. *Acad. Manag. J.* **2012**, *55*, 976–997. [\[CrossRef\]](#)
9. Romano, C.; Tanewski, G.; Smyrnios, K. Capital structure decision making: A model for family Business. *J. Bus. Ventur.* **2001**, *16*, 285–310. [\[CrossRef\]](#)
10. Berrone, P.; Cruz, C.; Gomez-Mejia, L.R. Socioemotional Wealth in Family Firms: Theoretical Dimensions Assessment Approaches, and Agenda for Future Research. *Fam. Bus. Rev.* **2012**, *25*, 258–279. [\[CrossRef\]](#)
11. Arreola, F.; Aguilar, R.; Rodríguez, C. Socioemotional dimensions and decision-making in the family business: A configuration of decision-makers profiles. *CIENCIA Ergo-Sum [S.L.]* **2022**, *27*, 2395–8782. [\[CrossRef\]](#)
12. Zellweger, K.; Chau, C. Family influence on family firm: Socioemotional goals, stewardship and familiness. *Rev. Empresa Fam.* **2012**, *2*, 93–96.
13. Chau, J.; Chrisman, J.; Sharma, P. Defining the Family Business by Behavior. *Entrep. Theory Pract.* **1999**, *23*, 19–39. [\[CrossRef\]](#)
14. Dyer, W.G.; Whetten, D.A. Family Firms and Social Responsibility: Preliminary Evidence from the S&P 500. *Entrep. Theory Pract.* **2006**, *30*, 785–802. [\[CrossRef\]](#)
15. Rajesh, K.; Singh, S.K. Strategy development by SMEs for competitiveness: A review. *Benchmarking Int. J.* **2008**, *15*, 525–547. [\[CrossRef\]](#)
16. Berrone, P.; Cruz, C.; Gomez-Mejia, L.R.; Larraza-Kintana, M. Socioemotional Wealth and Corporate Responses to Institutional Pressures: Do Family-Controlled Firms Pollute Less? *Adm. Sci. Q.* **2010**, *55*, 82–113. [\[CrossRef\]](#)
17. Ashforth, B.E.; Humphrey, R.H. Emotion in the Workplace: A Reappraisal. *Hum. Relat.* **1995**, *48*, 97–125. [\[CrossRef\]](#)
18. Rivolta, M. Worth the wait? Delay in CEO succession after unplanned CEO departures. *J. Corp. Financ.* **2018**, *49*, 225–251. [\[CrossRef\]](#)
19. Peay, T.; Dyer, W. Power orientation of entrepreneurs and succession planning. *J. Small Bus. Manag.* **1989**, *27*, 47–52.
20. Glover, J. Gender, power and succession in family farm business. *Int. J. Gend. Entrep.* **2014**, *6*, 276–295. [\[CrossRef\]](#)
21. Bang, N.P.; Calabrò, A.; Valentino, A. Strategic transitions: Unraveling the impact of socioemotional wealth and generational cohorts on succession planning in family SMEs. *Int. J. Entrep. Behav. Res.* **2023**, *30*, 23–51. [\[CrossRef\]](#)
22. Robayo, P. Innovation as a process and its management in the organization: An application for the Colombian graphic sector. *Suma Neg.* **2016**, *7*, 125–140. [\[CrossRef\]](#)
23. Hauck, J.; Prügl, R. Innovation activities during intra-family leadership succession in family firms: An empirical study from a socioemotional wealth perspective. *J. Fam. Bus. Strategy* **2015**, *6*, 104–118. [\[CrossRef\]](#)
24. Fitz-Koch, S.; Nordqvist, M. The reciprocal relationship of innovation capabilities and socioemotional wealth in a family firm. *J. Small Bus. Manag.* **2017**, *55*, 547–570. [\[CrossRef\]](#)
25. Stasa, M.; Machek, O. Family firms' innovation: The indirect effects of socioemotional wealth and the role of social capital. *J. High. Technol. Manag. Res.* **2023**, *34*, 100454. [\[CrossRef\]](#)
26. Li, Z.; Daspit, J. Understanding family firm innovation heterogeneity: A typology of family governance and socioemotional wealth intentions. *J. Fam. Bus. Manag.* **2016**, *6*, 103–121. [\[CrossRef\]](#)
27. Kosmidou, V.; Ahuja, M.K. A Configurational Approach to Family Firm Innovation. *Fam. Bus. Rev.* **2019**, *32*, 154–173. [\[CrossRef\]](#)
28. Pu, T. The Role of SEW and TMT Behaviours in Family Business Innovation: Evidence from China. Ph.D. Thesis, University of Wolverhampton, Wolverhampton, UK, 2023. Available online: <http://hdl.handle.net/2436/625244> (accessed on 3 October 2023).
29. Chrisman, J.J.; Chua, J.H.; De Massis, A.; Frattini, F.; Wright, M. The ability and willingness paradox in family firm innovation. *J. Prod. Innov. Manag.* **2015**, *32*, 310–318. [\[CrossRef\]](#)
30. De Massis, A.; Frattini, F.; Pizzurno, E.; Cassia, L. Product innovation in family versus nonfamily firms: An exploratory analysis. *J. Small Bus. Manag.* **2015**, *53*, 1–36. [\[CrossRef\]](#)
31. Duran, P.N.; Kammerlander, V.E.; Zellweger, T. Doing More with Less: Innovation Input and Output in Family Firms. *Acad. Manag.* **2015**, *59*, 1224–1264. [\[CrossRef\]](#)

32. Marques, I.C.P.; Leitao, J.; Ferreira, J.; Cavalcanti, A. The socioemotional wealth of leaders in family firm succession and corporate governance processes: A systematic literature review. *Int. J. Entrep. Behav. Res.* **2023**, *29*, 268–295. [\[CrossRef\]](#)
33. Lumpkin, G.T.; Brigham, K.H. Long-Term Orientation and Intertemporal Choice in Family Firms. *Entrep. Theory Pract.* **2011**, *35*, 1149–1169. [\[CrossRef\]](#)
34. Kellermanns, F.W.; Eddleston, K.A.; Sarathy, R.; Murphy, F. Innovativeness in family firms: A family influence perspective. *Small Bus. Econ.* **2012**, *38*, 85–101. [\[CrossRef\]](#)
35. De Massis, A.; Frattini, F.; Kotlar, J.; Petruzzelli, A.M.; Wright, M. Innovation through tradition: Lessons from innovative family businesses and directions for future research. *Acad. Manag. Perspect.* **2016**, *30*, 93–116. [\[CrossRef\]](#)
36. Tidd, J. Innovation management in context: Environment, organization and performance. *Int. J. Manag. Rev.* **2001**, *3*, 169–183. [\[CrossRef\]](#)
37. King, N.; Anderson, N. *Managing Innovation and Change a Critical Guide for Organization*; Thomson: London, UK, 2002.
38. Pittino, D.; Visintin, F. Innovation and strategic types of family SME—A test and extension of Miles and Snow’s configurational model. *J. Enterpr. Cult.* **2009**, *17*, 257–295. [\[CrossRef\]](#)
39. Dougherty, D.; Hardy, C. Sustained product innovation in large, mature organizations: Overcoming innovation-to-organization problems. *Acad. Manag. J.* **1996**, *39*, 1120–1154. [\[CrossRef\]](#)
40. Damanpour, F. The adoption of technological, administrative, and ancillary innovations: Impact of organisational factor. *J. Manag.* **1987**, *13*, 675–688. [\[CrossRef\]](#)
41. Bergfeld, M.; Weber, F. Dynasties of innovation: Highly performing German family firms and the owners’ role for innovation. *Int. J. Innov. Manag.* **2011**, *13*, 80–94. [\[CrossRef\]](#)
42. Meneghini, R.; Packer, A.L. The extent of multidisciplinary authorship of articles on scientometrics and bibliometrics in Brazil. *Interiencia* **2010**, *35*, 510–514.
43. Garfield, E. Citation Indexes for Science: A New Dimension in Documentation through Association of Ideas. *Science* **1995**, *122*, 108–111. [\[CrossRef\]](#)
44. Van Eck, J.N.; Waltman, L. Vosviewer: A Computer Program for Bibliometric Mapping. *Scientometrics* **2010**, *84*, 523–538. [\[CrossRef\]](#) [\[PubMed\]](#)
45. Hirsch, J.E. An index to quantify an individual’s scientific research output. *Phys. Sci.* **2005**, *102*, 16569–16572. [\[CrossRef\]](#) [\[PubMed\]](#)
46. García-Contreras, R.V.-C.-G. Organizational selection: Resilience and performance of SMEs in the era of COVID-19. *Manag. Stud.* **2021**, *37*, 73–84. [\[CrossRef\]](#)
47. Rudyanto, A. Socioemotional wealth of family firms during the COVID-19 pandemic: The role of slack resources. *J. Fam. Bus. Manag.* **2023**, *13*, 1320–1342. [\[CrossRef\]](#)
48. Agustiono, A. How COVID-19 affect socioemotional wealth dimensions? *Proceeding Int. Conf. Fam. Bus. Entrep.* **2021**, *1*. [\[CrossRef\]](#)
49. Heuer, S.; Szabó, L. Shifting Socioemotional Wealth Prioritization during a Crisis: A Content Analysis of Ctatements to Chareholders of Camily Cusinesses. 2021. Available online: <https://www.diva-portal.org/smash/record.jsf?pid=diva2:1560353&dswid=203> (accessed on 3 October 2023).
50. Lasio, V.; Gómez, J.M.; Rosso, J.; Sánchez, A. Entrepreneurial orientation and socioemotional wealth as enablers of the impact of digital transformation in family firms. *J. Fam. Bus. Manag.* **2024**; ahead of print. [\[CrossRef\]](#)
51. Bauweraerts, J.; Rondi, E.; Rovelli, P.; De Massis, A.; Sciascia, S. Are family female directors catalysts of innovation in family small and medium enterprise s? *Strateg. Entrep. J.* **2022**, *16*, 314–354. [\[CrossRef\]](#)

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