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Understanding the multiple facets of risk in family firms: A review of the literature and a framework for future research

Marco Mismetti [a], Andrea Sangermano [b], Barbara Del Bosco [c], Mara Bergamaschi [b,*]

[a] *House of Innovation, Stockholm School of Economics, PO Box 6501, SE-113 83, Stockholm, Sweden*
[b] *Department of Management, Università degli Studi di Bergamo, Via dei Caniana 2, 24127, Bergamo, Italy*
[c] *Department of Business and Law, University of Milano-Bicocca, Via Bicocca degli Arcimboldi, 8 - 20126, Milan, Italy*

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ABSTRACT

The literature on risk in family firms has grown rapidly in recent decades, and an analysis of its evolution and current state is therefore both timely and useful. Accordingly, we review 291 articles published between 1992 and 2022 and combine bibliometric and qualitative analyses to map and make sense of the field. In particular, we systematize the growing literature on risk in family firms by identifying its conceptual structure, theoretical roots, and thematic areas. In addition, we derive factors of heterogeneity – *perspective of analysis, aspects of risk, role of the family* – within risk in family firms' studies. In doing so, we take stock of the literature, shed light on the multiple facets of risk, develop an interpretative framework of current knowledge, and offer a guide to advance this flourishing research field.

1. Introduction

Family firms play a fundamental role in the global economy as they constitute the most ubiquitous form of business organization in any world economy (De Massis et al., 2018; La Porta et al., 1999). They employ approximately 60% of the global workforce (Arregle et al., 2021) and generate more than 70% of the global gross domestic product (Osunde, 2017). Therefore, the extensive research across different domains on these firms is not surprising (Rovelli et al., 2022; Siaba & Rivera, 2024). Family firms are characterized by the involvement of the family in their ownership, management, and governance (Chua et al., 1999). This role has increased scholars' attention to understanding the unique facets that distinguish them from non-family firms and that influence organizational and managerial processes (Arregle et al., 2007; Sirmon & Hitt, 2003). The preservation of control during generational transfers and the survival of the firm are primary objectives of the family. Thus, family firms tend to avoid investments with high uncertainty and to accept suboptimal performance to safeguard financial and emotional wealth to prevent the risk of losing family control over the firm (Gómez-Mejía et al., 2007; Kellermanns et al., 2008; Gómez-Mejía et al., 2011).

These arguments and insights have led to the widely held view that family firms have a higher degree of risk aversion compared to non-family firms (Naldi et al., 2007; Zellweger, 2007), tend to be more conservative to mitigate risks regarding business and family wealth (Gómez-Mejía et al., 2007), and tend to pursue financial and nonfinancial business goals (Chrisman et al., 2012). By contrast, others challenge this view and argue that family firms may, in many cases, assume higher, emotional, and more irrational risks than non-family firms (e.g., Muñoz-Bullón & Sanchez-Bueno, 2011) that is manifested in greater entrepreneurial behavior (e.g., Zahra et al., 2004), especially when facing threats to the typical objectives to family ownership (e.g., Gómez-Mejía et al., 2023; Hiebl, 2012; Fang et al., 2021). In addition, their long-term orientation and independence from financial markets (Gentry et al., 2016) may lead family firms to pursue innovative long-term strategies and to engage in greater entrepreneurial risk-taking (Astrachan, 2003; Huybrechts et al., 2013; Zahra, 2005). These strategies often involve significantly higher risks from more volatile cash flows compared to non-family firms (Sirmon & Hitt, 2003; Zellweger, 2007).

Amid these two contrasting views, the research on risk in family firms (RFF) has flourished over the past few decades (e.g., Zahra, 2018) but with mixed results (Gómez-Mejía et al., 2007; Stanley, 2010; Le Breton-Miller et al., 2011; Anderson et al., 2012). Researchers have

* Corresponding author.
E-mail addresses: marco.mismetti@hhs.se (M. Mismetti), andrea.sangermano@unibg.it (A. Sangermano), barbara.delbosco@unimib.it (B. Del Bosco), mara.bergamaschi@unibg.it (M. Bergamaschi).

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attempted to better understand whether family firms are more or less risk averse than non-family firms (e.g., Bassetti et al., 2015; Huybrechts et al., 2013). They have focused on the variables that characterize these types of firms and their divergent approaches to risk (e.g., Berrone et al., 2012; Chrisman & Patel, 2012). Other researchers have investigated heterogeneity among family firms and its impact on their risk by examining the effects of different family characteristics (Daspit et al., 2018). Some scholars have investigated the peculiarities of family firms regarding specific types of risk, such as the higher risk of expropriating minority shareholders (Attig et al., 2008) or the lower risk of bankruptcy (Gentry et al., 2016). Recent articles have shifted their attention to external risks that family firms may face due to unforeseen factors; they focus on the role of the family in shaping the business to respond to external risks (Brunelli et al., 2023; Hadjielias et al., 2022).

Academic scholars from various disciplines (e.g., management, entrepreneurship, finance, organization, and economics) have been taking considerable efforts to uncover the uniqueness of RFF by applying diverse analytical perspectives, theoretical lenses, and methodologies. For example, the entrepreneurship articles have frequently studied risk-taking as a dimension of entrepreneurial orientation (Lumpkin & Dess, 1996), finance studies have often focused on the risk of expropriation and the risk-return relation (e.g., Boubakri & Ghouma, 2010), while several management studies consider risk as the adoption of specific strategic choices that are characterized by high uncertainty (e.g., Fang et al., 2021). These different focuses and perspectives, along with mixed results, contribute to the fragmentation of the literature on RFF, making it challenging, but useful, to take stock and gain a clear, comprehensive overview of the current knowledge.

Most literature reviews, indeed, focus on narrow and specific aspects and provide analyzations of only a part of the debate and overlook other aspects of RFF. For example, Goel and Jones (2016) focus on individual risk behaviors, such as entrepreneurial exploration and exploitation in family firms; while Kempers et al. (2019) limit their focus to family firms' risk behaviors. Hernández-Linares and López-Fernández (2018) map the literature on entrepreneurial orientation, with risk-taking as one of the dimensions. However, the concept of risk is broader than often assumed (Hoskisson et al., 2017), including strategic choices with uncertain consequences at the individual (e.g., managerial satisfaction with firm performance), firm (e.g., corporate restructuring and diversification), and environmental (e.g., geopolitical risks, market reaction) levels. Although these reviews have useful insights on specific aspects of RFF research, they neglect to address the multidimensionality and complexity of RFF. Thus, they miss the opportunity to comprehensively understand the current state of the growing knowledge on RFF.

To fill this gap, we conducted a review of 291 articles on RFF published between 1992 and 2022. Through our review, we aim to systematize the RFF literature, point out the conceptual structure of RFF, the theoretical lenses adopted, and main thematic areas in the research. By identifying factors of heterogeneity within RFF studies, we shed light on the multiple facets of RFF, develop an interpretative framework of current knowledge, and offer a guide for future research.

2. Research method

This study is based on a combination of bibliometric and qualitative content analyses of a selected sample of articles covering the RFF literature.

2.1. Bibliometric analysis

We used a bibliometric analysis, specifically carried out through *Biblioshiny* (Aria & Cuccurullo, 2017), to gain a comprehensive overview of RFF. This type of analysis is commonly used by different disciplines and fields (Chabowski et al., 2013; Kumar et al., 2021), such as management (e.g., Podsakoff et al., 2008) and family business (e.g., Beliaeva et al., 2022), to reframe and order large volumes of scientific data (Ellegaard & Wallin, 2015). The use of rigorous quantitative analyses can help to reduce ambiguity and support the identification of a more objective and comprehensive understanding of the research (Donthu et al., 2021).

In this study, we conducted performance analysis and science mapping (Noyons et al., 1999). The performance analysis is based on consolidated indicators (Donthu et al., 2021), such as the global number of publications, which shows the scholars' productivity in RFF, global citations that are useful in identifying the most relevant journals, and citations per year that are valuable for detecting the most influential articles. Science mapping is based on co-citations and thematic maps, the analytical tools that are more consistent with the objective of our work (Noyons et al., 1999). Indeed, a co-citation analysis does not directly consider the articles' content, but focuses on their connection by estimating the frequency by which two articles are both cited in other articles. The more co-citations they receive, the more likely that they deal with similar issues (Hjørland, 2013), and are thus expected to be linked in a network (Donthu et al., 2021). Therefore, the aim of a co-citation analysis is to build and show the most relevant relations between articles (i.e., intellectual structure) that indicates what the theoretical pillars of RFF research are. In addition, the thematic map draws on the content of the articles by identifying the connections of pairs of adjacent words, that is, bigram keywords (Das, 2022), that most frequently appear together in the same article (co-occurrence analysis) (Donthu et al., 2021). These connections enable us to identify the clustered research themes in RFF (Beliaeva et al., 2022) and to position them in a matrix (Aria & Cuccurullo, 2017) according to their relevance and level of development (Callon et al., 1991).

Therefore, RFF bibliometric analysis allows us to obtain a comprehensive overview of RFF providing a solid base for analyzing its contents and developing an interpretative framework of the literature.

2.2. Qualitative content analysis

Drawing on the thematic map obtained through the bibliometric analysis, we perform a qualitative content analysis of the publications included in each identified thematic area (Beliaeva et al., 2022; Vallaster et al., 2019) that expands and complements the bibliometric analysis.

Qualitative content analysis permits to go in-depth into the multiple identified themes, delineating the principal distinguishing factors and patterns across articles that enables the development of promising lines of research for future scholarly investigation. The content analysis involves reading and analyzing the most impactful articles in each thematic area to identify its main theories, perspectives, and topics to delineate the principal factors behind the heterogeneity in the RFF research. This interpretative framework is useful for mapping the current literature and examining future opportunities to advance the RFF research.

2.3. Sample

Consistent with the research focus, we used the *Web of Science* (WOS) core collection database, which is commonly used in bibliometric studies (e.g., Zupic & Čater, 2015), to collect and analyze the articles of interest.

In order to identify articles related to RFF, we followed a meticulous process. We considered journals ranked between 2 and 4* in the current list of the Academic Journal Guide published by the Chartered Association of Business Schools (e.g., Matos et al., 2020, Bergamaschi et al., 2021). This consideration allows us to focus on "certified knowledge" to ensure greater reliability in the results (Cuccurullo et al., 2016; Rashman et al., 2009). Without imposing any initial time restrictions, in April 2022 we searched for articles that contained the words *family firm** or *business famil** or *family business** or *family enterprise** or *family influence** or *family owne** in the title, abstract, and keywords as well as using the word *risk**. This process produced 768 articles. Next, we read the title;

abstract; and, when necessary, the full text of each article to select only those related to RFF (Andreini et al., 2022; Thorpe et al., 2005). This protocol led to a final sample of 291 articles adhering to our review scope.

3. The results of bibliometric analysis

3.1. Overview of RFF literature and performance analysis

Table 1 presents the main data regarding our sample. The 291 articles prove to cover 125 journals. The first article was published in 1992. Only 36 had a single author, with the majority having two or three authors (average 2.75 coauthors per article). This evidence is an indication that the authors collaborate in pursuing research in this area. Furthermore, the RFF research is rather fragmented considering the ratio of authors to articles. In particular, given 291 published articles and 649 authors, the ratio is approximately 0.45 articles per author. Indeed, more than 86% of the authors published only one RFF-related article while only 12 authors exceeded 4 articles (see Table 2). These insights could be interpreted as a signal that RFF may not be the main focus of research for the vast majority of the authors in our sample as it lies at the intersection of diverse streams of research and different disciplines. Therefore, it is studied incidentally by scholars but does not constitute the core topic of interest in some cases. At the same time, Table 2 shows the scholars who have contributed the most to shaping the RFF debate and thereby can be considered as reference points for future inquiries.

Table 1
Descriptive analysis: Main information regarding data collection.

Description	Results
Timespan	1992–2022
Journals	125
Publications	291
Average years since publication	6.13
Average citations per publication	55.12
Articles	279
Reviews	12
Authors	649
Single-authored publications	36
Publications per author (ratio)	0.45
Coauthors per publication	2.75
Min and max publications per author	1 (561) – 11 (1)

Table 2
Performance analysis: Most prolific authors in RFF research.

Rank	Author	Number of papers	Total citations	Citation per paper
1	Gómez-Mejía L. R.	11	3971	361,00
2	De Massis A.	8	240	30,00
3	Calabrò A.	7	281	40,14
4	Chrisman J.J.	5	927	185,40
5	Hack A.	5	173	34,60
6	Fang H.Q.	5	126	25,20
7	Memili E.	5	89	17,80
8	Makri M.	4	1224	306,00
9	Nordqvist M.	4	638	159,50
10	Miller D.	4	421	105,25
11	Kotlar J.	4	130	32,50
12	Sánchez-Marín G.	4	71	17,75

The indicators for the publication and citation trends (see Fig. 1) show that scientific production was limited from 1992 until 2009 but reveal a conspicuous increase in recent years. Indeed, since 2010, the number of published RFF articles per year has increased with an annual growth rate of 7%. In the last 10 years, approximately 240 articles on RFF have been published and with more than 100 in the last three years. This exponential growth highlights the topic's relevance in academic literature. With regard to the trend in citations, a consistently decreasing path emerges when considering the mean citations accumulated by articles published in a given year up to the date of our data extraction. Indeed, articles published much earlier, on average, have more citations over time than those published more recently. Nevertheless, Fig. 1 highlights some peaks in the periods of 2001–2007, 2010, and 2012, corresponding to the years of publication of seminal articles (Gómez-Mejía et al., 2001, 2003, 2007, 2010; Anderson & Reeb, 2003a; Zahra, 2005; Arregle et al., 2007; Naldi et al., 2007; Chrisman & Patel, 2012), which in many cases embody the foundation for subsequent contributions in RFF research.

The analysis of the journals in which the articles were published shows that RFF research is dispersed over different outlets belonging to multiple disciplines, each with its own background settings and specific language (see Table 3), contributing to the fragmentation in the literature. The RFF research seems to gain interest not only in the management and entrepreneurship fields but also in other disciplines such as finance, organization, and economics. These results confirm the multidisciplinary and multifaceted nature of the articles on RFF. Only 3 of the

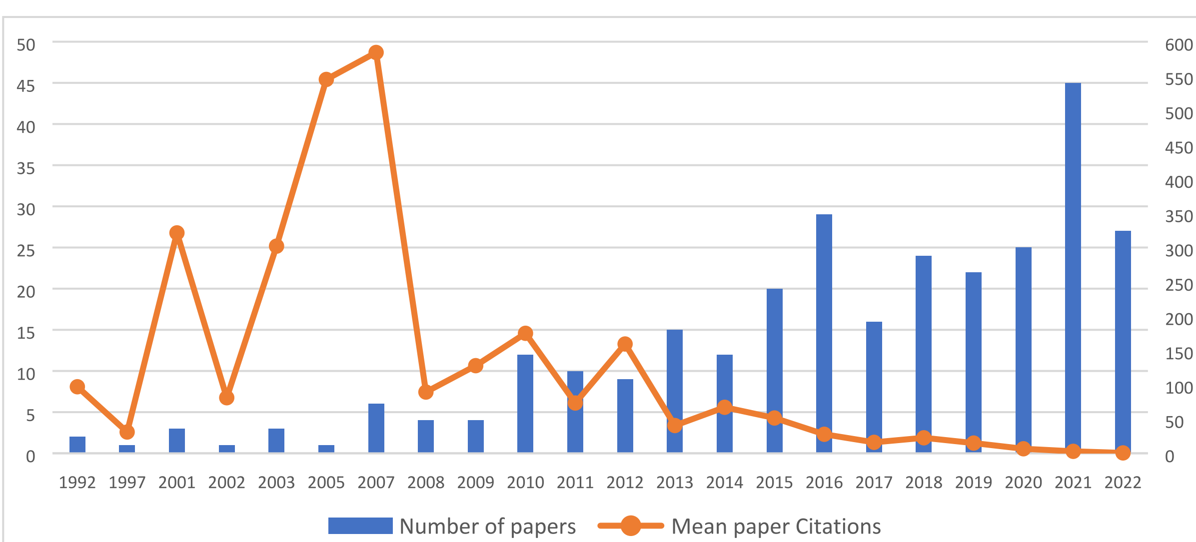

Fig. 1. Annual scientific production and citations per year.

Table 3
Performance analysis: Most relevant journals in RFF research.

Rank	Sources	Field in AJG list	Citations	Papers	Citations per paper
1	Family Business Review	ENT-SBM	2827	24	117.79
2	Academy of Management Journal	ETHICS-CSR-MAN	2094	5	418.8
3	Administrative Science Quarterly	ETHICS-CSR-MAN	1944	2	972
4	Journal of Management Studies	ETHICS-CSR-MAN	1628	6	271.33
5	Entrepreneurship Theory and Practice	ENT-SBM	633	12	52.75
6	Journal of Business Venturing	ENT-SBM	628	3	209.33
7	Journal of Banking & Finance	FINANCE	538	7	76.86
8	Entrepreneurship and Regional Development	ENT-SBM	474	4	118.5
9	Small Business Economics	ENT-SBM	398	9	44.22
10	Strategic Management Journal	STRAT	391	2	195.5
11	Journal of Corporate Finance	FINANCE	324	6	54
12	Journal of Product Innovation Management	INNOV	321	4	80.25
13	Journal of Small Business Management	ENT-SBM	315	9	35
14	Journal of Law & Economics	ECON	291	1	291
15	Journal of Business Research	ETHICS-CSR-MAN	235	10	23.5
16	Organization Science	ORG STUD	221	1	221
17	Academy of Management Review	ETHICS-CSR-MAN	176	1	176
18	International Business Review	IB&AREA	176	3	58.67
19	Journal of Family Business Strategy	ENT-SBM	144	11	13.09
20	Asia Pacific Journal of Management	IB&AREA	140	7	20

125 journals have a number of articles on RFF equal to or above 10, further supporting the perception of a very fragmented literature. The three are *Family Business Review* (24 articles), *Entrepreneurship Theory and Practice* (12 articles), and the *Journal of Business Research* (10 articles), which belongs to management or entrepreneurship disciplines. Nevertheless, specific outlets such as *Administrative Science Quarterly*, *Academy of Management Journal*, *Journal of Management Studies*, and *Organization Science* stand out for their impact, despite publishing fewer articles, supposedly in light of their leading position in the management and organization disciplines.

Accordingly, Table 4 shows that the most influential articles in our sample are those written by Gómez-Mejía et al. (2007), Chrisman and Patel (2012), and Arregle et al. (2007) who received the highest number of citations per year in the period of analysis (110.13; 60.09; and 53.19 citations, respectively). Respectively, they have been published in *Administrative Science Quarterly*, *Academy of Management Journal,* and *Journal of Management Studies*. To further comprehend their importance for RFF research, considering the 10 most cited articles published on RFF, these three articles alone account for 50% of their total citations.

Overall, the performance analysis shows a high level of dispersion in publication outlets, fragmentation in terms of individual authors' contributions, and dispersion among different disciplines. It is, therefore, possible to argue that authors have studied RFF from different perspectives to explore specific aspects related to the multifaceted nature of RFF.

Table 4
Performance analysis: Most relevant articles in RFF research.

Rank	Articles	Journal	Citations per year	Total citations
1	Gómez-Mejía et al. (2007)	Administrative Science Quarterly	110.13	1762
2	Chrisman & Patel (2012)	Academy of Management Journal	60.09	661
3	Arregle et al. (2007)	Journal of Management Studies	53.19	851
4	Gómez-Mejía et al. (2010)	Journal of Management Studies	47.85	622
5	Naldi et al. (2007)	Family Business Review	34.13	546
6	Zahra (2005)	Family Business Review	30.28	545
7	Gómez-Mejía et al. (2001)	Academy of Management Journal	28.86	635
8	Block (2012)	Journal of Business Venturing	25.10	285
9	Pukall & Calabrò (2014)	Family Business Review	22.44	202
10	Cruz et al. (2010)	Academy of Management Journal	22.08	287

3.2. *Co-citation analysis*

To understand the connection between articles and to identify with whom they relate, we conducted a co-citation analysis; Fig. 2 displays the results. The number of links indicates the connections between articles, and the size of the nodes shows the frequency of the co-citations (Beliaeva et al., 2022). The figure shows three different networks related to RFF.

Gómez-Mejía et al. (2007) have the highest number of co-citations, followed by Berrone et al. (2012), Schulze et al. (2001), Zahra (2005), Anderson and Reeb (2003a), Jensen and Meckling (1976), Villalonga and Amit (2006), La Porta et al. (1999), and Fama and Jensen (1983). These results represent the seminal articles and theoretical pillars of the three networks (see Fig. 2).

The blue network includes studies steeped in the debate that typically belongs to the field of finance (Anderson & Reeb, 2003a; Jensen & Meckling, 1976; Villalonga & Amit, 2006; La Porta et al., 1999; Fama & Jensen, 1983). In particular, La Porta et al. (1999) examine the effects of family control on decisional processes through their risk attitude and behavior. Andersen and Reeb (2004) examine the family's risk-related influence associated with governance composition, while Anderson and Reeb (2003a) and Villalonga and Amit (2006) examine capital structure and Anderson and Reeb (2003b) examine performance. Jensen and Meckling (1976) and Fama and Jensen (1983) represent another theoretical pillar of agency theory, while Morck and Yeung (2003) offer specific tailoring related to peculiar agency costs in the context of family firms.

The green network is developed around risky decisions through the key foundational concepts of family firms' entrepreneurial orientation (Lumpkin & Dess, 1996; Zahra, 2005) and the uniqueness of a family firm's behavior (Chua et al., 1999; Chrisman et al., 2012). These decisions include resource management (Sirmon & Hitt, 2003) and international expansion (Zahra, 2003). This conceptual background is embedded in research in the field of entrepreneurship. Schulze et al. (2001) and Zahra (2005) represent the articles with the highest number of co-citations in this network and can thus be considered seminal. In the green network, a resource-based perspective (Habbershon & Williams, 1999) is remarkably important and considers the peculiarities of family firms in terms of their dynamics (Schulze et al., 2001, 2003) that result in a different behavioral approach toward the agency model.

In the red network a different perspective emerges in exploring risk and risky decisions in family firms (Arregle et. al, 2007; Gómez-Mejía et al., 2007). In particular, following the seminal publication of Gómez-Mejía et al. (2007), Chrisman and Patel (2012) and Gómez-Mejía et al. (2010) study R&D investments and family firms' diversification, respectively, by applying the socioemotional wealth theoretical perspective (Gómez-Mejía et al., 2010; Berrone et al., 2012). Nevertheless, prospect theory (Kahneman & Tversky, 1979) and the behavioral model (Wiseman & Bromiley, 1996) are also adopted in articles belonging to this network, which are rooted in the management field.

3.3. Thematic map

The thematic map enables us to identify the clustered research themes in RFF (See Fig. 3) by their size as related to the number of occurrences of the bigram keyword and to position them in a matrix (Aria & Cuccurullo, 2017) according to their relevance (centrality) and level of development (density). In particular, centrality for a given thematic area measures the intensity of its links with other thematic areas, while density refers to the strength of the ties between themes belonging to the same thematic area (Callon et al., 1991). In other words, the centrality can be considered representative of the strategic position occupied by each thematic area compared to others, while the density can be interpreted as the degree of internal coherence inside the thematic area (Callon et al., 1991). Density and centrality are used to identify motor, basic, emerging, declining, and niche themes. Motor themes are characterized by high density and centrality and considered mainstream themes; basic themes are characterized by low density and high centrality and therefore are deemed important but less developed within a research stream; niche themes have high density but low centrality; emerging and declining themes are low in both density and relevance.

The thematic map shows seven thematic areas. Following their dimensions, the first one is related to "Risk in family firms vs. non-family firms", that represents basic themes and includes as main keywords *family firms, non-family firms*, and *SEW* (i.e., Socioemotional Wealth). The second one concerns "Risk and family ownership structures", and belongs to mainstream themes focusing on the relation between *family ownership, family control*, and *firm risk* (that represent the keyword outlined). Between the niche themes we find "The role of controlling families and risk", that is a thematic area that deals with the influence of *controlling families* on risk, *dividend payouts*, and *performance hazard*. Halfway between the basic and motor themes, Fig. 3 shows another thematic area: "CEO and TMT influence on risk" that comprises topics related to the *CEO, top management team (TMT)*, and *executive officers*. Similarly, halfway between motor themes and niche themes there is "Corporate risk" that mainly focuses on the *corporate risk* linked to *stock*

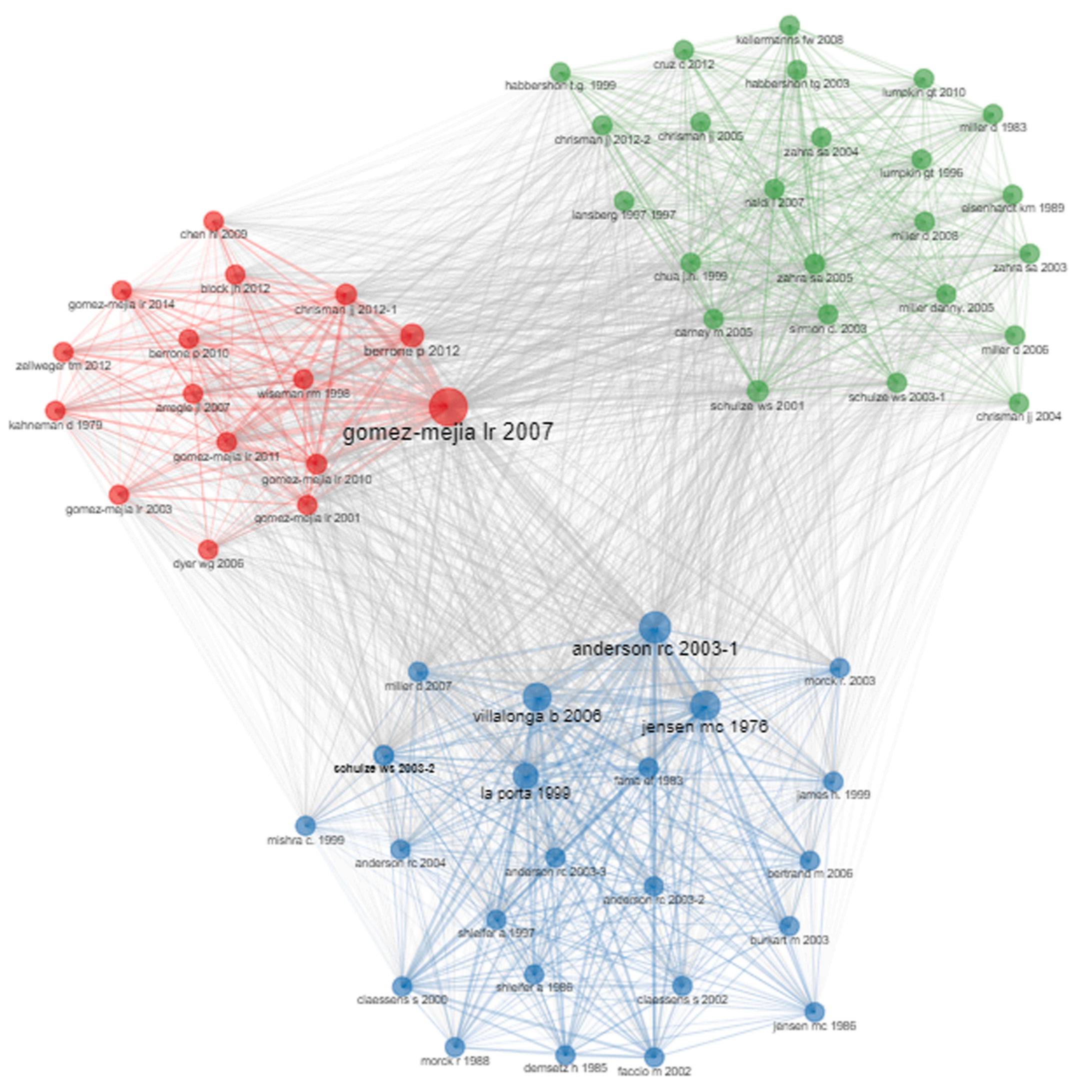

Fig. 2. Co-citation network.

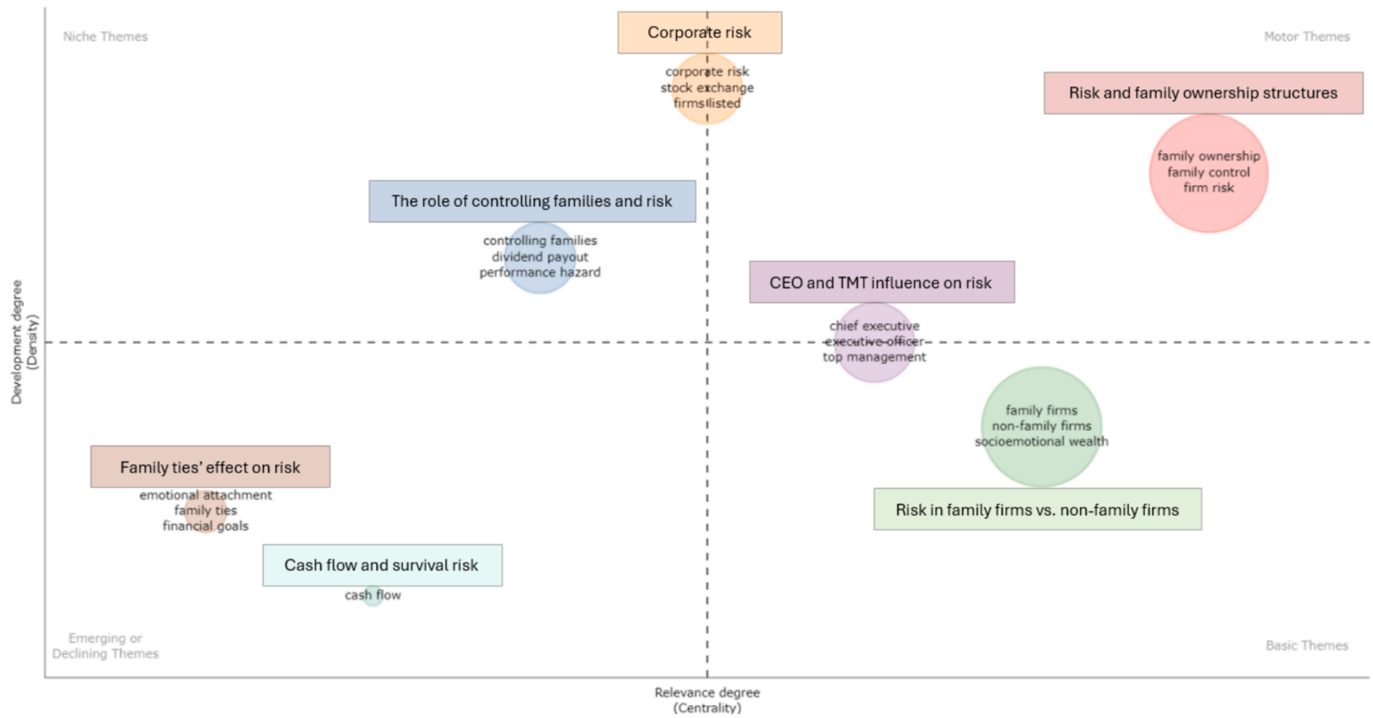

Fig. 3. Thematic map.

exchange and *firms listed.* Finally, *family ties, emotional attachment*, and *financial goals* on the one hand and *cash flow* on the other are the keywords related to the thematic areas of "Family ties' effect on risk" and "Cash flow and survival risk" with both emerging or declining themes.

Overall, these seven clustered thematic areas depict the development and evolution of the field since 1992. The two largest thematic areas (i. e., "Risk in family firms vs. non-family firms" and "Risk and family ownership structures") focus on identifying the risk distinctiveness between family and non-family firms, and they have pioneer articles as well as recent articles. By contrast, thematic areas focusing more on the heterogeneity in family firms and the influence of families on risk have more recent articles, while shifting the attention to specific aspects of family firms' risk.

4. Qualitative content analysis of RFF thematic areas

To gain a deeper understanding of the research tendencies in the RFF domain, we perform a qualitative content analysis of the most influential articles for each thematic area. Table 5 has summaries of the thematic areas that highlight their main themes, principal investigators, and theoretical perspectives.

4.1. First thematic area: Risk in family firms vs. Non-family firms

The first thematic area focuses on the risk peculiarities that characterize family firms and the differences with their non-family counterparts. As reported above, this issue is mainly investigated through the SEW lens, but the articles also have investigations of the behavioral agency model and the different perspective the family brings in relation to risk (e.g., Alessandri et al., 2018; Gómez-Mejía et al., 2007; Neckebrouck et al. 2018). For instance, Gómez-Mejía et al. (2007) explain a family firm paradox, namely its propensity and aversion to risk where it is willing to accept higher risk from reduced performance to avoid lower SEW. Simultaneously, they adopt a more cautious stance by refraining from making business decisions that might increase the unpredictability of performance (Gómez-Mejía et al., 2007).

This thematic area highlights the manifold behaviors associated with risk, from various types of investments to internationalization. For example, Chrisman and Patel (2012) compare a longitudinal sample of US family and non-family firms to understand why the behavior of the former differs from the latter. Their study highlights that sources of SEW influence the behavior of family firms toward risk in terms of investments, combining the behavioral agency and myopic loss aversion. Alessandri et al. (2018) empirically demonstrate differences in the internationalizations of family and non-family firms from the mixed gamble perspective. They show that the risk perception of losing SEW influences family owners and managers to consider unique aspects before internationalizing. Thus, they deal with the risks of internationalization from different perspectives than other managers and owners.

Arregle et al. (2007) develop and extend the social capital theory by examining the heterogeneity of firms based on their characteristics and the risks associated with the development of organizational social capital. These authors discuss the risks and disadvantages linked to the strong social capital of the family and the high interplay between it and the business that affects the development of organizational social capital. More recently, Neckebrouck et al. (2018) take a stewardship perspective to investigate the financial behaviors of family firms. These authors argue that the higher risk tolerance of family firms indicates they are better financial stewards than other types of organizations.

4.2. Second thematic group: Risk and family ownership structures

A central theme of articles in this area is the adoption of specific strategies that affect the risk of firms (such as R&D investments or internationalization). Their analyses mainly use agency and family business perspectives. The aim of these articles is to understand whether the ownership and control of families affect these strategies, given their attitudes toward risk and the desire to protect their own interests. For example, Miller et al. (2010) study how the external growth strategies of firms are influenced by the ownership being concentrated in the hands of a family. The authors find that family ownership negatively affects the number and value of acquisitions, while being positively associated with the propensity to diversify acquisitions. Thus, the concentration of the family's investments in the firm creates an incentive to reduce risk by

Table 5
Thematic summary.

Thematic areas	Themes	Principal investigators	Main theories/ perspective
1. Risk in family firms vs. non-family firms	• Interplay (and trade-off) between risk of losing SEW and business risk • Firm behavior and risky decisions (e.g., internationalization, R&D investments)	• Alessandri et al., 2018; Gómez-Mejía et al., 2007; Lohe & Calabrò, 2017 • Chrisman & Patel, 2012; Fang et al., 2021; Gómez-Mejía et al., 2010	• Behavioral theory of the firm • Agency theory • SEW perspective • Social capital theory • Long-term perspective • Household perspective • Systems theory
2. Risk and family ownership structures	• Family ownership and decisions affecting risk (e.g., R&D, acquisitions, diversification, capital structure) • Family ownership, risk of expropriation and cost of capital • Firm risk and executive compensation	• Block, 2012; Chen & Hsu, 2009; Miller et al., 2010; Anderson et al., 2012 • Anderson & Reeb, 2003a; Margaritis & Psillaki, 2010; Attig et al., 2008 • Gómez-Mejía et al., 2003	• Behavioral theory of the firm • Agency theory • Investment theory • SEW perspective • Resource-based view • Institutional theory
3. The role of controlling families and risk	• Presence/role of a controlling family and firm risk-taking behavior (and risk level) • Controlling family and financial management decisions	• Poletti-Hughes & Williams, 2019; Mahto & Khanin, 2015 • Keasey et al., 2015; Huang et al., 2012	• Agency theory • Stewardship theory • Upper echelons theory • Prospect theory • SEW perspective
4. CEO and TMT influence on risk	• CEO characteristics and influence on risk • TMT composition and governance mechanisms • CEO-TMT relation and business risk	• Gómez-Mejía et al., 2019; Kraiczy et al., 2015 • Gómez-Mejía et al., 2018; Calabrò et al., 2021 • Cruz et al., 2010	• Behavioral agency theory • SEW perspective • Social cognitive theory • Transaction cost theory
5. Corporate risk	• Risk disclosure • Risk borne by investors	• Saggar & Singh, 2017; Haj-Salem et al., 2020 • Bodnaruk et al., 2017	• Agency theory • Signaling theory • Stakeholder theory • Contract theory
6. Family ties' effect on risk	• The influence of family firm members' ties on risk-taking behaviors • Business risk and employment risk	• Muñoz-Bullón et al., 2020 • Gómez-Mejía et al., 2001	• Agency theory • Stewardship theory • Familiness perspective
7. Cash flow and survival risk	• Risk and survival determinants	• Nunes et al., 2014	• Survival-based theory

diversifying the firm itself. However, Anderson and Reeb (2003a) provide contrasting evidence when studying the overall level of corporate diversification, finding that family firms experience less diversification than non-family firms.

In line with the hypothesized risk aversion of family firms, Anderson et al. (2012) find that they prefer less risky investments, given they devote less capital to long-term investments than non-family firms, focusing long term-investments more on physical assets than on R&D projects relative to other firms. R&D investments, given the high uncertainty of their returns and related risks, are studied in various articles related to this theme, since family ownership potentially affects their choices in different ways in view of the role of different traits of family firms. Muñoz-Bullón and Sanchez-Bueno (2011) highlight that these traits, such as risk aversion, agency conflicts, resource endowment, and long-term perspective, are in part beneficial and in part detrimental to R&D investments. However, the empirical evidence has shown the dominance of the negative effect that leads to lower R&D intensity in listed family firms compared to non-family firms. Similarly, Block (2012) adopts an agency theory approach to elaborate on the limited ability of monitoring managers and the more conservative approach of family firms to explain the negative association between their ownership of listed firms and R&D intensity. Starting from the assumption that board independence may reduce agency problems, Chen and Hsu (2009) test the role that corporate governance has in moderating the relation between family ownership and R&D investments. They find that the separation of the CEO and chair and the percentage of independent directors may mitigate the observed negative relation. The *meta*-analysis of Carney et al. (2015) on private firms provides further evidence of the more conservative approach adopted by family firms. The evidence shows that they have a lower tendency to implement international diversification strategies and investments in R&D, but they also observe that such risk-averse choices do not have a detrimental effect on firm performance.

Other articles have investigations on the relation between family ownership and another kind of decision that may affect firm risk, that is, those on capital structure (e.g., Margaritis & Psillaki, 2010, Anderson & Reeb, 2003a); they show mixed results. For instance, Carney et al. (2015) and Anderson and Reeb (2003a) find that leverage is not significantly affected by family ownership, while Margaritis and Psillaki (2010) obtain different results in accordance with the firm's industry.

Another theme identified in this area concerns articles that adopt a different perspective that focuses on the risk of expropriation perceived by investors in the presence of family ownership, and the subsequent effect on the cost of capital of family firms. For example, Boubakri and Ghouma (2010) highlight that family ownership tends to lead to a higher cost of debt (and a lower rating). Similarly, Attig et al. (2008) find that if the second largest shareholder is the state, then that may contribute to the reduction in the cost of equity by decreasing the risk of expropriation of minority interests by the controlling owner; instead, when the second largest shareholder is another family firm, the cost of capital increases, indicating that the perceived risk of expropriation increases.

Finally, another theme investigated in this area is how risk affects executive compensation in family-controlled listed firms. Gómez-Mejía et al. (2003) find that CEOs who are family members receive lower compensation than CEOs who are not family members but are less exposed to personal risk, since they receive a higher compensation premium for systematic risk (a part of risk that cannot be controlled by the firm).

4.3. Third thematic area: The role of controlling families and risk

The articles in this thematic area are mainly focused on whether and how the presence or the role of the controlling family influences the firm's risk-taking behavior and, thus, the level of risk. Some authors study the direct relation between the presence or role of a controlling family and risk-taking (e.g., Lee et al., 2018; Poletti-Hughes & Williams, 2019), others investigate different drivers of risk-taking and how the role of a controlling family may influence these. For example, Díez-Esteban et al. (2017) find that the U-shaped relation between returns and risk-taking is less steep in firms controlled by families. This finding indicates that their approach to risk is less influenced by performance expectations, so they react more conservatively to changes in corporate results. However, Mahto and Khanin (2015) find that satisfaction with past financial performance has a negative influence on the risk-taking of family firms.

A trait characterizing several articles in this thematic area is an approach in line with the finance literature, and in various cases the journals specializing in financial studies. This approach is reflected in the perspectives and variables used to study risk. In order to operationalize risk, they frequently measure the volatility of firm performance, such as the standard deviation in the return on assets (Díez-Esteban et al., 2017), the standard deviation in daily stock returns (Lee et al., 2018), or the sales variation coefficient (Dick et al., 2021). Moreover, some articles highlight the multifaceted dimension of risk by distinguishing between different risk types or components that may be differently affected by the role of the controlling family. Poletti-Hughes and Williams (2019) and Poletti-Huges and Briano-Turrent (2019) distinguish between performance hazard risk "which represents the likelihood of failure, survival hazards or below-target performance actions that firms take with the family aim of preserving SEW (Gómez-Mejía et al., 2007)" (Poletti-Hughes & Briano-Turrent, 2019, p. 81), and venturing risk, "which represents the value increasing strategies that board of directors follow towards increasing shareholder's wealth (Boubaker et al., 2016)" (Poletti-Hughes & Briano-Turrent, 2019, p. 81). Poletti-Hughes and Williams (2019) find that family ownership is associated with higher performance hazard and higher venturing risk. Poletti-Huges and Briano-Turrent (2019), studying board gender diversity, observe that in family firms, performance hazard risk increases when the proportion of non-independent female directors increases. This increase means that female directors linked to the controlling family tend to affect the component of risk related to the pursuit of SEW objectives, which may imply the assumption of risk in order to avoid SEW losses (such as the use of high-cost debt to avoid control dilution). This result also highlights the relevance of the heterogeneity among family firms in the RFF research.

Another related theme investigated in this area concerns the role of the controlling family in some of the decisions concerning financial management, such as capital structure (Keasey et al., 2015) and dividend payouts (Huang et al., 2012). For example, Keasey et al. (2015) investigate the use of debt in listed firms, finding that the main shareholder's stake positively affects leverage, and this relation is stronger in young family firms. Owners with a large controlling stake are characterized by the aversion to the dilution of control and thus tend to prefer debt and increased leverage to issuing equity. The stronger relation observed in young family firms suggests that an attachment to the business and the relevance of non-economic goals are particularly intense in family firms in the initial stages of their life cycles. A high share of equity may indeed provide the power and legitimacy to achieve non-economic goals (Chrisman et al., 2012) and to reduce the risk of losing control. Studying listed family firms, Huang et al. (2012) highlight a nonmonotonic relation between the share held by the controlling family and dividend payout that suggests this choice is influenced by the risks the family bears and perceives as more relevant (risk of losing control when their share of cash flow rights is relatively low and excessive firm-specific risk when the share is very high).

4.4. Fourth thematic area: CEO and top management team (TMT) influence on risk

The fourth thematic area examines risk at the individual and team level. One theme concerns the analysis of risk at the individual level, wherein studies explore CEO characteristics, their tendencies toward risk, and key influential factors (Martino et al., 2020). CEOs have responsibilities to the business, and in family firms, to the family, rendering the dynamics more complex. Being in charge of strategic decisions in family firms, the analysis of CEO's risk attitudes and behaviors is a primary concern in this group, with particular emphasis on theories of team behavior and the behavioral agency perspective (Gómez-Mejía et al., 2019). This perspective considers the ownership structure as the principal and the CEO as the agent. For instance, Gómez-Mejía et al. (2019) compare family and non-family CEOs' strategic risk-taking in response to an option-based plan to align incentives. The authors find that family ownership is more likely than non-family ownership to mitigate a CEO's risk aversion in response to current wealth. In this context, family ownership also attenuates the positive relation between CEOs' prospective wealth and risk-taking. In addition, family control has a greater attenuating effect on the relation between the CEO's prospective wealth and excessive strategic risk-taking when the CEO is a family member (Gómez-Mejía et al., 2019). In examining a CEO's propensity for risk, a research subtheme shows the effect of the organizational context of the family firm (García-Sánchez et al., 2020). Findings show that CEOs' propensity for risk-taking has a positive effect on the innovativeness of new product portfolios that weakens when the level of ownership of family members in the TMT is high, but increases in family firms in earlier generational stages (Kraiczy et al., 2015).

Another theme comprises articles on the disentangling of the implications of bearing risk based on TMT composition. As per the CEO, the TMT assesses the strategic decisions and must ponder which risk needs to be taken or addressed. These mechanisms, underpinned by the structure, governance dynamics, and business context, can lead to implications for the entire organization and different business levels (Memili et al., 2011). The non-family dominance of the TMT in family firms has a positive and significant effect on the amount of risk that employees will bear (Gomez-Mejia et al., 2018). Other firm and contextual factors influence the amount of risk bearing. For example, firm size enhances non-family managers' tendency to transfer risk to employees. Moreover, positive sales trends can drive TMTs in which non-family members prevail to using incentive pay schemes that transfer risk to employees more frequently than TMTs dominated by family members, while when the sales trend is declining, a loss of distinction emerges between family and non-family dominated TMTs (Gomez-Mejia et al., 2018).

Further, some articles assess the CEO-TMT relation with regard to business risk. For instance, Cruz et al. (2010) investigate 122 Spanish family firms and find that greater external business risk causes the CEO to perceive the TMT as less benevolent. Thus, as the risk increases, the CEO's suspicion of opportunism among TMT members grows, but this relation weakens when the CEO and TMT members are part of the same family (Cruz et al., 2010).

4.5. Fifth thematic area: Corporate risk

Articles in this thematic area focus mainly on listed firms. They apply agency, signaling, and stakeholder theories to analyze issues that are relevant from the perspective of investors who bear risks associated with their investments in family firms; these investors are thus interested in adequately assessing their level of risk.

Through the qualitative content analysis of corporate documents, researchers in the first group of articles investigate the disclosure of information concerning risk by firms. Their aim is to identify the drivers of risk disclosure (Alshirah et al., 2020, 2022; Saggar & Singh, 2017) or its effect on firm value (Haj-Salem et al., 2020). In so doing, they consider the potential role of family ownership in influencing the studied relations. For example, analyzing Indian listed firms, Saggar and Singh (2017) find that ownership concentrated in the hands of the largest shareholder does not significantly affect risk disclosure, but the identity of that shareholder affects the disclosure of risk information. In particular, family ownership appears to favor disclosure (compared to other types of controlling shareholders). Alshirah et al. (2022) also identify a positive effect of family ownership that mitigates the negative relation between the firm's political connections and level of risk disclosure. Similarly, studying Jordanian listed firms, Alshirah et al. (2020) find that family ownership moderates the relation between some internal corporate governance mechanisms and corporate risk disclosure. Specifically, they find a positive interaction between board size and family ownership that indicates the firms with large boards and a higher level of family ownership are more committed to monitoring managers to protect the family's reputation and goodwill. On the other hand, the same study highlights that family ownership negatively moderates the relation between CEO duality and the level of risk disclosure that exacerbates the lack of transparency on corporate risk that tends to be observed when the CEO also serves as chair of the board of directors.

The authors of other articles investigate different types of risk borne by investors, such as the stock price's crash risk that is associated with the disclosure of negative news previously withheld by managers (Wu et al., 2020) and the risk of expropriation (Bodnaruk et al., 2017). In particular, Bodnaruk et al. (2017) highlight the presence of a trade-off associated with family ownership, implying the risk of expropriating minority shareholders while at the same time protecting against the risk of government expropriation. The authors also show that, on average, foreign institutional investors who are sensitive to the risk of expropriation are less likely to invest in family firms, and that these firms have a lower value. However, these effects disappear in countries in which the quality of governance reduces the ability of majority shareholders to expropriate minorities and when the value of political connections is high (since, in this last case, family ownership may be useful).

4.6. Sixth thematic area: Family ties' effect on risk

In this area, authors investigate how the ties among family members and the affective components of family and non-family members toward the family business affect risk. This small group is composed of highly cited articles (Gómez-Mejía et al., 2001) as well as recent publications (Muñoz-Bullón et al., 2020) that use agency and familiness perspectives. The first theme considers the effects of family members' close ties on risky decisions in different contexts. For example, Muñoz-Bullón et al. (2020) address risk tolerance in R&D-oriented nascent entrepreneurs in new venture teams. They examine those with close family ties who have to deal with the ambiguity of the risk of losing members' emotional attachment and benefiting from the growth of their new venture. Thus, family-based nascent entrepreneurs and new ventures should carefully consider both the benefits and risks related to venture growth and family dynamics. The second theme concerns the different approaches to business and employment risks between family owners and their executives when they have family ties and close interpersonal relations compared to when they do not. The social relations between the family members who are owners and executives may be marked by emotional and personal attachment to the point that the former has biased beliefs about the latter (Holmes, 1991). Concurrently, the executive may feel emotionally attached to the family business and be more risk averse. Considering firm risk and CEO tenure, Gómez-Mejía et al. (2001) find that firm risk reduces the tenure of non-family CEOs, whereby non-family executives in family firms face a greater employment risk from firm risk than in agency contracts between family members (Gómez-Mejía et al., 2001). Thus, family ties and emotional attachment among owners and relevant actors in family firms play a significant strategic role.

4.7. Seventh thematic area: Cash flow and survival risk

A small thematic area emerging from our analysis indicates differences in factors influencing survival in family and non-family firms. Specifically, while risk is neither beneficial nor detrimental to the survival of non-family firms, negative determinants of family firms' survival include risk, debt, and interest payments, while positive factors include cash flow and labor productivity (Nunes et al., 2014).

5. Theoretical grounding

The bibliometric and qualitative analyses conducted in our study have enabled the identification of the primary theoretical perspectives used in the literature on the topic of RFF. Our review highlights a prevalent use of managerial theories to address risk that are typical of behavioral articles. In this regard, across the thematic areas within the RFF domain, two principal theoretical approaches consistently emerge: agency theory (e.g., Gómez-Mejía et al., 2001; Naldi et al., 2007) and the behavioral agency model (e.g., Kotlar et al., 2014). These approaches are frequently complemented by distinct family business perspectives, as in SEW (e.g., Gomez-Mejia et al., 2018; Poletti-Hughes & Briano-Turrent, 2019; Sciascia et al., 2015), that are combined with broader economic and managerial theories, such as the resource-based theory (e.g., Tsai et al., 2009) and stewardship theory (e.g., Neckebrouck et al., 2018). However, our analysis shows that certain thematic areas use specific theories tailored to their focus. For instance, research on risk and family ownership tends to draw more on investment theory (e.g., Anderson et al., 2012), while corporate risk articles lean toward financial and economic theories, such as contract theory (Wu et al., 2020). Articles centered on CEOs and TMTs draw on individual and collective theories, such as the social cognitive theory of team behavior (Calabrò et al., 2021). Finally, articles on the entrepreneurial nature of family firms have explored specific perspectives at the intersection of family entrepreneurship and organizational interests, incorporating transaction cost economics (Lee et al., 2003), long-term orientations (e.g., Lumpkin et al., 2010), and household perspectives (e.g., Alsos et al., 2014).

Thus, our review underscores a general tendency among scholars focusing on risk in family firms to rely on theories typical of management and entrepreneurship, irrespective of contextual variations or units of analysis. Nevertheless, within each specific thematic area of study, the application of distinct approaches based on levels, units of analysis, and study objectives exhibits heterogeneity in findings and vocabulary. Overall, this heterogeneity points to an overlapping yet fragmented research landscape, as suggested by the co-citation networks and qualitative analysis, that emphasizes the significance of our study in reconciling these diverse approaches and presenting opportunities for advancing theoretical and practical knowledge in the future of the field.

6. Discussion

In this study, we combine bibliometric and qualitative analyses to investigate the literature on risk in family firms by providing a comprehensive understanding of its multifaceted nature. As highlighted by our analysis, the debate on this topic is not concentrated in a few outlets but involves a very large number of journals of different disciplines. The qualitative content analysis also highlights how the literature on RFF is characterized by high heterogeneity in terms of perspectives, vocabularies, and operationalization choices. Even concerning the theoretical basis, our review has shown that even if there are some perspectives that are common to several articles, such as the agency theory and the behavioral agency model, there is a large and varied set of theories that complement them or are used as main theoretical lenses. This fragmentation is a consequence of the nature of RFF. Indeed, "family business is an integrative topic that is studied in several disciplines from various angles" (Skorodziyevskiy et al., 2023, p. 4). As risk is a critical feature of firms, it to can be analyzed from different perspectives. Having conducted a literature review based on extensive criteria of selection (instead of focusing on a specific facet of risk) allows us to provide a picture of the entire debate on RFF.

On the basis of our analyses, we have identified the main factors that contribute to the heterogeneity and fragmentation in this literature. Analyzing these factors of heterogeneity, we contribute to the understanding of the multifaceted nature of articles on RFF. Moreover, this analysis provides guidance for the design of future studies to partially overcome this fragmentation.

The three main factors of heterogeneity identified in these articles are the following: (1) the *perspective of analysis*, (2) how risk is considered (*aspects of risk*), and (3) how the *role of the family* is analyzed. These factors, which are interrelated, are synthesized in the framework outlined in Fig. 4 and discussed in detail below.

(1) As concerns the *perspective of analysis*, we observe that authors have studied the RFF from an internal perspective that mainly focuses on the family and the firm's point of view, or from the perspective of external actors (and, in particular, investors). This latter less frequent perspective can be found in some articles included in the thematic areas of "Corporate risk" and "Risk and family ownership structures". These articles concern risks suffered by investors as a consequence of their investment in the firm, such as the risk of expropriation (Bodnaruk et al., 2017; Wu et al., 2020) and the implications for the firm's cost of capital (Attig et al., 2008; Boubakri & Ghouma, 2010), as well as risk disclosure (Alshirah et al., 2020, 2022; Saggar & Singh, 2017).

Moreover, these two perspectives are complementary as the object of analysis is partially different. Indeed, the level of risk borne by investors and the risk of expropriation of the minority shareholders are influenced by the risk-taking strategies the firms choose as well as by other decisions not necessarily related to the attitude toward risk but that may be taken in order to preserve SEW and the interests of the controlling family.

(2) Regarding how risk is considered, we may distinguish three main *aspects of risk* that have been investigated in the articles: attitude toward risk, risk-taking behavior, and organizational risk. Attitude toward risk corresponds to preferences in terms of risk aversion or risk propensity, and it is usually operationalized through a questionnaire (e.g., Xiao et al., 2001), frequently measuring the risk-taking dimension of entrepreneurial orientation (e.g., Casillas et al., 2010). Other researchers investigate the topic by studying risk-taking behavior, that is, strategic choices and investments characterized by high levels of uncertainty, such as R&D investments, internationalization, and acquisitions (e.g., Anderson et al., 2012). In other cases, authors directly consider the level of organizational risk that corresponds to the uncertainty in the firm's income stream and is usually measured with indicators of the volatility in its performance, such as the standard deviation of the return on assets or the sales variation coefficient (e.g., Díez-Esteban et al., 2017; Dick et al., 2021).

These three aspects of risk are strictly interrelated since the attitude toward the risk of decision-makers affects their behavior (Sitkin & Pablo, 1992) and the subsequent level of organizational risk (Hoskisson et al., 2017). However, in the analyzed literature, these aspects are frequently analyzed separately and, in several cases, causal relations between the different aspects of risk are implicitly assumed or the authors do not explicitly specify whether they are studying attitude or behavior toward risk (which are rarely both operationalized in the same article; an exception is Xiao et al., 2001). These differences contribute to the complexity and fragmentation in the literature on RFF.

(3) Another factor for heterogeneity is how the *role of the family* is considered. First, our analyses indicate the presence of a set of articles in which the authors investigate the differences between family and non-family firms, and another group of articles in which they focus on family firms aimed at understanding how their heterogeneity affects the various aspects of risk. Moreover, according to the analysis, the role of the family has been analyzed in terms of the role in the ownership, the characteristics of the CEO and the TMT, and, more rarely, the family presence on the board (Jimenez et al., 2019). As a consequence, even risk has been investigated at the individual, group, and organizational levels. Overall, these articles showcase the multifaceted nature of RFF; however, very frequently, an article focuses on a single level of analysis.

Each of the factors of heterogeneity offer suggestions for future research and opportunities for studies aimed at better understanding the multifaceted nature of RFF.

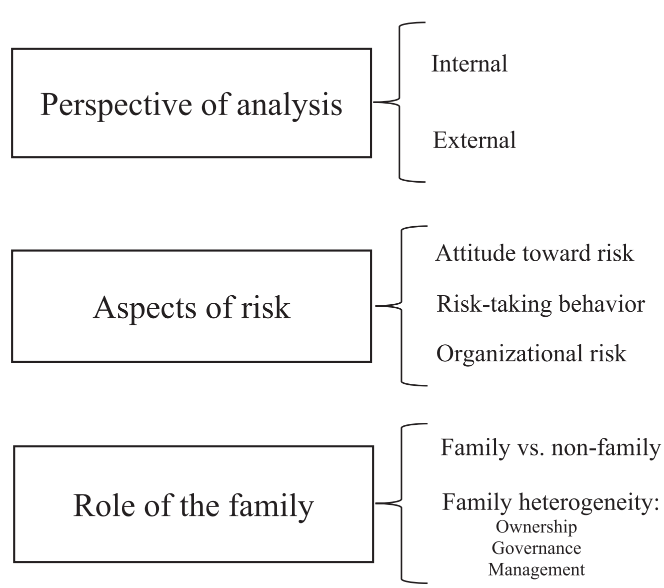

Fig. 4. A framework of the risk in family firms' literature.

7. Future research directions

Starting from the three factors of heterogeneity highlighted in our framework, we shed light on promising future research avenues illustrated in Fig. 5 and described below. These future research avenues should not be seen as unrelated, but as complementary.

7.1. Future research adopting a multilevel RFF approach

Our analysis shows that the past research has mainly examined RFF at the internal level, such as individual (entrepreneur/CEO/owner), group (TMT/family), or organizational (firm). Thus far, articles have mainly considered RFF as monolithic and have independently investigated it at a single level. However, risk has different connotations, and its influence can spread and transfer from one level to another (Glaser et al., 2016). Future research would benefit from viewing RFF through a multilevel lens (Kozlowski & Klein, 2000) through which the individual's propensity to take entrepreneurial risk may relate to group risk-taking that ultimately affects firm risk. Future articles could unpack the processes of specific types of risk at different levels (Van de Ven & Poole, 1995) in the context of family firms.

External factors and actors also interact with RFF, yet the number of articles is relatively limited on this point. A promising avenue is to adopt an external perspective of various family firms' stakeholders (Cennamo et al., 2012; Kotlar et al., 2014; Mangiò et al., 2023). On one hand, family members not involved in the firm, as next generation members or

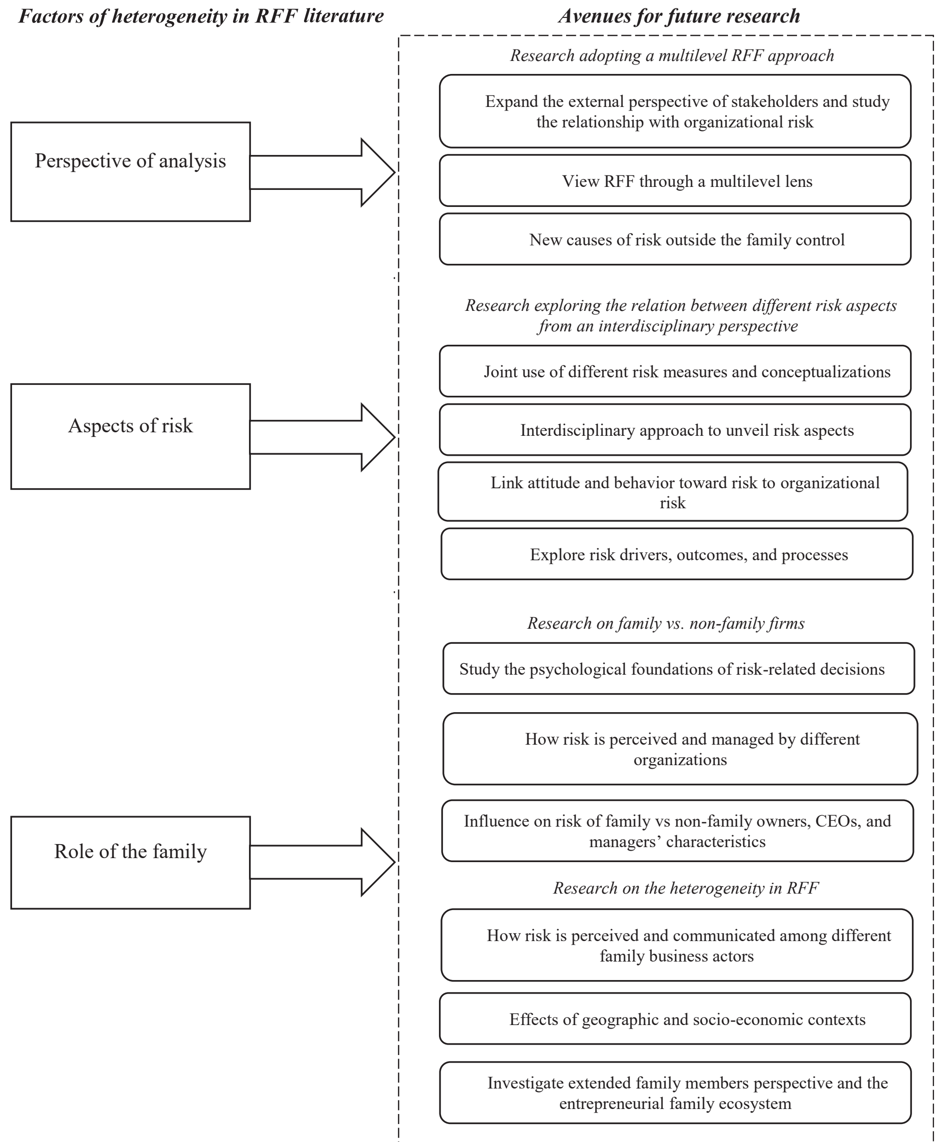

Fig. 5. Future research avenues on risk in family firms.

extended family members, may reciprocally influence aspects of risk and affect the owning family behavior. On the other hand, investors and external partners may perceive and influence risk differently, pointing toward contrasting interests. Investigating risk through such lenses and combining internal and external views of risk with novel theoretical perspectives would be worth exploring.

Further, factors outside the control of the family and the firm should also be explored, especially today when firms are affected by digitalization, global pandemics, economic crises, wars, natural disasters, and unstable geopolitical situations (e.g., Hadjielias et al., 2022; Salvato et al., 2020). How family firms perceive, manage, and respond to such critical risks would have important theoretical and practical implications.

7.2. Future research exploring the relation between different risk aspects from an interdisciplinary perspective

Our review has shown that RFF is approached in different ways, also in accordance with the role and conceptualization of risk in the article. In particular, at the firm level, some researchers investigate the attitude toward risk, (e.g., Casillas et al., 2010), some investigate risk by studying strategic decisions and investments characterized by high levels of uncertainty, such as R&D or internationalization (e.g., Carney et al., 2015), while others directly measure the level of organizational risk (e.g., Díez-Esteban et al., 2017; Dick et al., 2021). The different approaches and measures used to operationalize risk are in part related to the disciplinary areas, since articles on management, entrepreneurship, finance, organization and economics may adopt different perspectives when studying risk. An interdisciplinary approach may offer opportunities for future research (Zahra & Newey, 2009). In this perspective, it would be promising to include in the same study operationalizations of the attitude toward risk and of risk-oriented behaviors in order to better understand whether some managerial choices, such as the adoption of some risky strategic decisions (e.g., R&D investments or internationalization) are, in fact, a consequence of a different approach to risk. Similarly, it would be interesting to combine these with measures of the level of risk usually used in the finance literature (such as volatility). Researchers would benefit from understanding whether the different orientations of key actors in family firms toward risk and specific risky strategic decisions correspond to an objective difference in the level of organizational risk.

7.3. Future research on family vs. non-family firms

Our review on RFF shows that SEW, the agency theory, and the behavioral agency model are the most common perspectives in explaining why and how family firms differ from non-family firms in terms of business risk and risk aversion (Gómez-Mejía et al., 2007). However, less attention has been devoted to judgments and assessments of perceived risk (Klos et al., 2005) that may vary according to organization types and, especially, with the actors involved. Indeed, unpacking the preferences, assessments, propensities, and perceptions of risk (March & Shapira, 1987; Renn, 1998; Sitkin & Pablo, 1992) in family and non-family firms through the combination of different theories could provide a more comprehensive view and clarify under which conditions family and non-family firms differ. The field would benefit from investigating the psychological foundations (Humphrey et al., 2021; Picone et al., 2021), for example, the emotions, personality traits, heuristics, and cognitive processes, and behavioral responses in family and non-family firms. This investigation would enable an understanding of the various facets and processes of risk, including how it is perceived, assessed, communicated, and managed among different organizations and actors (Kasperson et al., 1988; Slovic et al., 2013). Exploring different approaches to risk among family and non-family owners, CEOs, and managers could provide valuable insights. Researchers could further advance the field by investigating how leaders' personalities in family and non-family firms influence their strategic decision-making regarding aspects such as innovation, sustainability, and internationalization (Kelleci et al., 2019; Kraiczy et al., 2015; Rovelli et al., 2023). In this regard, we would highly recommend longitudinal quantitative and qualitative articles to understand the processes, degrees of and changes in firm risk, risk perception, and risk management practices over time.

7.4. Future research on the heterogeneity in RFF

Our review highlights that another area to be further developed concerns the relation between specific peculiarities of family firms and their risk. While we provide evidence that many articles focus on the effect of family ownership on risk, future scholars have the opportunity to deeply engage in understanding the heterogeneity in RFF from additional perspectives. For instance, RFF could be studied in different geographic and socioeconomic contexts to understand whether family firms' attitudes toward risk vary in different contexts and how they differently affect risk-taking behaviors. Likewise, it is worth investigating how the family and management dimensions affect the firm dimension in relation to risk. The family and firm dimensions are known to have permeable boundaries (Berrone et al., 2010) and, as such, interactively affect each other (Mismetti et al., 2023). Future research could investigate the influence of the family on the firm in response to strategic changes and decisions, along with the typical interpersonal and social relations (Bettinelli et al., 2022) among the actors in family firms before, during, and after engaging in risk-taking. Investigations into how governance and managerial composition relate to RFF (Daspit et al., 2018), rather than the mere ownership structure, could move the research forward. In addition to this progress, scholarship would benefit from an investigation of how risk interrelates with family firms and, if so, how risk differs from one business activity to another within the same family. For instance, an investigation of which risks are shared or transferred from one firm to others through different activities and patrimonial assets as family offices, family foundations, family holdings, and multiple firms within the same family-related organizational ecosystem (De Massis et al., 2021). Researchers are also encouraged to use a variety of methodological approaches. For instance, qualitative, experimental, and mixed methods could be appropriate to obtain empirical evidence on whether, why, and how family firms make risky decisions (e.g., Lude & Prügl, 2019).

8. Conclusions

Analyzing a sample of 291 articles, we provide a comprehensive overview of the RFF literature and discuss its developments. Our study shows that the RFF research is flourishing and expanding in many directions as a field of interest for scholars in different domains. Nevertheless, the fragmented yet interconnected structure of the field, systematized in our framework, highlights the need to conduct studies on heterogeneous aspects of family firms and the comparison with their non-family counterparts with a combination of different and novel perspectives that speak to each other. Furthermore, we advocate for a multilevel approach and more integrated interdisciplinary collaboration to investigate RFF to expand the field.

Nevertheless, our study has some limitations. First, although the use of bibliometric techniques significantly reduces subjectivity and allows us to cover a broad corpus of articles, we acknowledge that a qualitative analysis is subjective by nature. However, we iteratively discussed and cross-checked the analysis to overcome this limitation. Second, our analysis could be extended with different keywords associated with RFF and other sample selection criteria. Finally, we used the WOS database. Despite being among the most common and renowned databases for literature reviews, the use of other databases could affect the findings. We also acknowledge that we excluded articles published in languages other than English. Therefore, future research could expand our study by covering other databases, languages, and journals. We hope that the findings, framework, and future research directions we highlighted will advance research in the area of risk and family firms.

CRediT authorship contribution statement

Marco Mismetti: Writing – review & editing, Writing – original draft, Project administration, Methodology, Investigation, Formal analysis, Conceptualization. **Andrea Sangermano:** Writing – original draft, Visualization, Validation, Software, Methodology, Investigation, Formal analysis, Data curation, Conceptualization. **Barbara Del Bosco:** Writing – review & editing, Writing – original draft, Methodology, Investigation, Formal analysis, Conceptualization. **Mara Bergamaschi:** Writing – review & editing, Writing – original draft, Validation, Supervision, Methodology, Investigation, Conceptualization.

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Marco Mismetti is Assistant Professor at the House of Innovation at Stockholm School of Economics (SSE). He was Post-doc at the Centre for Family Business Management at Free University of Bolzano and Visiting Scholar at Babson College. His research interest focuses on interpersonal relations and family firms' processes, with particular attention on family dynamics and conflict. His research has been awarded by international institutions and has been recently published in leading academic journals as *Entrepreneurship Theory and Practice, Journal of Business Research* and *Long Range Planning*.

Andrea Sangermano has obtained a Ph.D. in Business and Law from the University of Bergamo. During the Ph.D. program he had a visiting period at the University of Copenhagen and the University of Hasselt. His primary research interests pertain to corporate governance, with a particular focus on Board of Directors, and risky strategic decisions. His research projects are mainly grounded in the family firm context adopting quantitative methods. He has also acquired specific experience in bibliometric literature reviews. Moreover, he is guest lecturer in management and accounting. Furthermore, he is qualified as Chartered accountant and Statutory auditor in Italy. Finally, he serves as Director in family e non-family firms on regular basis.

Barbara Del Bosco is Associate Professor of Management at the University of Milano-Bicocca. She received her Ph.D. in Business Administration from the University of Pavia, she was Assistant Professor at the University of Bergamo and carried out research and teaching at Bocconi University. Her research concentrates mainly on corporate social responsibility, corporate governance, entrepreneurship, and growth strategies. She published, among others, in *Entrepreneurship Theory and Practice*, *Journal of World Business*, *International Business Review*, *Management International Review*, and *Journal of Family Business Strategy*.

Mara Bergamaschi is Full Professor of Management at the University of Bergamo, Italy. She previously worked at the Bocconi University, Milano. Her research interests include behavioral and strategic aspects in professional service firms and family businesses as well as marketing and branding in business and consumer markets. Her research work has been published in various outlets, including *Journal of Business Research*, *Family Business Review*, *Journal of Service Theory and Practice*, *International Journal of Business and Management*, *Industrial Marketing Management* and *Journal of Business Ethics*.