



REVIEW PAPER

Organizational resilience of family firms a literature review

Thomas Moser^{*}

USC Business School, University of the Sunshine Coast, Queensland, Australia

Keywords

Family firm Organizational resilience Systematic literature review Bibliometric analysis

Received: 13 October 2020 Accepted: 25 November 2020 Published: 15 February 2021

Abstract

Family firms are an important pillar of the global economy not only in terms of GDP but also in terms of the number of employees they engage. This study contributes to research on organizational resilience in family firms through exploratory data analysis and identifies the underlying theories and concepts. A systematic literature review is conducted based on the Scopus, and Web of Science databases on organizational resilience in family business research publications. The subsequent bibliometric and scientometric analysis identifies the main theories and concepts used within family firm organizational resilience research their relevance to academia. One of the main findings based on 70 identified documents is that the social capital concept has been the most regarded one over the past 10 years and has continued to gain prominence in organizational resilience research over the past five years. Family firm resilience research is dominated by authors such as Danes, Sharon M., USA, Stafford, Kathryn, USA, Haynes, Georg W., USA, and Brewton, Katherine E., USA, each with more than 100 citations and an average of 26.8 citations per publication. As a country, the USA contributes the most to organizational resilience research on family firms with 21.1% of publications, and as a continent, Europe contributes the most with 45.1%. However, most publications of about 55% are published by a single author or with a co-author. A key finding of the study is that the identified theories and concepts partly influence each other. A conceptualization of an integrative theory could be a promising and fruitful way forward.

© 2021 The Author(s). Published by TAF Publishing.

INTRODUCTION

The recent global pandemic caused by Coronavirus has forced many Family firms (FF) to find diverse responses to maintain the vitlity of their business (Rivo-López, Villanueva-Villar, Michinel-Álvarez, & Reyes-Santías, 2021; Kitdumrongthum & Thechatakerng, 2018). However, business crises are caused by global pandemics and the omnipresent VUCA world and should be taken seriously (Wenzel, Stanske, & Lieberman, 2020). The resulting strategic responses offer interesting and important fields in the research on family firms as they represent an important pillar of the global economy (De Massis, Audretsch, Uhlaner, & Kammerlander, 2018; Eddleston, Jaskiewicz, & Wright, 2020; Eddleston, Sarathy, & Banalieva, 2019; Gagné et al., 2019). As employers and economic growth engines (Araya-Castillo, Hernandez-Perlines, Moraga, & Ariza-Montes, 2021; Bjuggren, Johansson, & Sjögren, 2011), they are dominating among small, medium, and large businesses (Dos Santos, Contreras, Moreno, & Felicio, 2020) About 70% to 90% of the world's GDP is generated by family firms; they create most of the wealth and jobs and are thus responsible for a large part of the prosperity of most countries (Araya-Castillo et al., 2021) in the 1980s, academic interest in family firms increased significantly (Pieper, 2010). Scholars study the characteristics of family firms based on a wide variety of theories and concepts, as there is a lack of one generally accepted theory on family firms (Alonso, Kok, & O'Shea, 2019). There is also no such definition of organizational resilience (OR) (Baggio, Brown, & Hellebrandt, 2015; Linnenluecke, 2017). Hillmann and Guenther (2021) define OR as follows: OR is the ability of an organization to maintain functions and recover fast from adversity by mobilizing and accessing the resources needed. An organization's resilient behaviour, resources, and capabilities en-

^{*}corresponding author: Thomas Moser †email: tm@thomas-moser.eu

able and determine OR. The result of an organization's response to adversity is growth and learning" (Hillmann & Guenther, 2021; Rijal, 2016) "For while founding our perspectives on established literature is a good practice, we also need to broaden our perspectives to seek out new ways of 'seeing' and theorizing" (Payne, 2018). The aim is to contribute to the discussion on the relevance of the different theories and concepts by identifying and analysing the publications based on the respective concepts and theories used and their influence on family firm research.

In this paper, we structure it as follows. First, we explain the research methodology by setting out our criteria for literature selection to analyse available data. Thereafter, I present and discuss the major findings of the SLR. Finally, I offer future research opportunities to advance the understanding of family firms based on a critical analysis of existing research.

METHODOLOGY

A systematic literature review (SLR) of contributions to OR of Family Firms is conducted in this paper. The SLR approach is considered a reliable tool, especially for generating and assessing new knowledge, and is known to minimize various assessment biases (Ali & Usman, 2018; Palmarini, Erkoyuncu, Roy, & Torabmostaedi, 2018). The SLR guidelines proposed by (Denyer & Tranfield, 2009) include the following four steps:

Step 1: Identification of the research object(s)

TABLE 1. Criteria for the database search

- Step 2: Setting of the research object
- Step 3: Data collection based on criteria
- Step 4: Validation of the research results

The procedural approach provides the best transparency

and traceability (Hökkä, Kaakinen, & Pölkki, 2014; Töpfer, 2012).

Identification of the Research Targets

This article aims to present the current state of research in the field of OR of family firms and to set a schedule for further research. Based on the context-interventionmechanism-outcome (CIMO) logic (Denyer & Tranfield, 2009), the following review questions are formulated:

1) Which articles on OR in family business research have been published?

2) How do the identified articles differ in the theories and concepts used?

The Setting of the Research Object (Conceptual Boundaries)

To identify the relevant publications, it is necessary to define the search criteria, the database, the search term, and the publication period (Woschank, Rauch, & Zsifkovits, 2020). The basis of the search is the Scopus database in combination with the Web of Science 'Core Collection' database (WoS). Supplementing the search with other databases, such as the EconBIZ or EBSCO, does not provide any further insights.

For the search of all publications within family firm research dealing with OR, the following search term has been selected based on the keywords "family firm," "family business," "family enterprise," and "family business". It includes the Scopus categories "Business, Management and Accounting," "Economics, Econometrics and Finance," "Social Sciences," or the WoS categories "Business," "Business, Finance," "Economics," and "Management" in English and German.

| Keywords | Categories | Language | Timeframe | Paper Type |
|-----------------------|--------------------------------------|----------|-----------|------------|
| Family business | Scopus: Business, Management; | English | no limit | no limit |
| Family firm | Accounting; Economics, Econometrics; | German | | |
| Family-owned firm | Finance; Social Sciences | | | |
| Family-owned business | | | | |
| Resilience | WoS: Business; Business, Finance; | | | |
| Resiliency | Economics; Management | | | |

Scopus – search string: TITLE-ABS-KEY (("family business*" OR "family firm?" OR "families business*" OR "families firm?" OR "family-owned firm?" OR "family-owned business*") and ("sustainab*" OR "resilience*" OR "longevity" OR "survival" OR "resistiv*" OR "durable" OR "durability")) and (LIMIT-TO (LANGUAGE, "English") OR LIMIT-TO (LAN- GUAGE, "German")) and (LIMIT-TO (SUBJAREA, "BUSI") OR LIMIT-TO (SUBJAREA, "ECON") OR LIMIT-TO (SUBJAREA, "SOCI"))

WoS – search string: ((TI=(("family business*" OR "family firm?" OR "families business*" OR "families firm?" OR "family-owned firm?" OR "family-owned business*") AND



("resilience" OR "resiliency")) OR AB=(("family business*" OR "family firm?" OR "families business*" OR "families firm?" OR "family-owned firm?" OR "family-owned business*") AND ("resilience" OR "resiliency")) OR AK=(("family business*" OR "family firm?" OR "families business*" OR "families firm?" OR "family-owned firm?" OR "familyowned business*") AND ("resilience" OR "resiliency"))) AND SU=("Business" OR "Business, Finance" OR "Economics" OR "Management")) AND LANGUAGE:(English OR German).

DATA COLLECTION BASED ON CRITERIA

Data Collection Based on Criteria The search in the Scopus database and the WoS database using the search criteria see TABLE 8 —resulted in 61 hits in the Scopus database and 47 hits in the WoS database. For further analysis, the hits were exported as "complete dataset" and the "Citation Overview" (Scopus) and as "Full Record and Cited References" and the "Citation Report" (WOS), respectively.

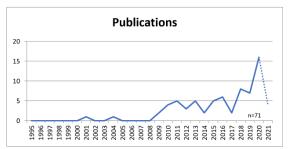


FIGURE 1. Publications and citations per year of research on OR of FF - Range: 1974 to 2021

A more detailed analysis of the period 2011–2020 shows that the publications follow a linear growth of Pub (Year) = 0.87 (Year) +1.13 with a coefficient of determination of R² = 41.6%, and the citations follow a linear growth Cit (Year) = 23.5 (Year) – 45.9 with a coefficient of determination of R^2 = 82,7% – cf.Figure 2. The year 2021 was not considered because the data were collected in June 2021, hence incomplete.

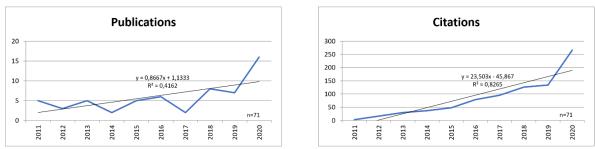


FIGURE 2. Publications and citations per year of research on OR of FF - Range: 2011 to 2020



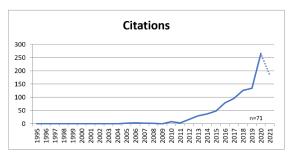
A content analysis 108 papers were performed; and title, abstract, and author keywords were searched, and keywords were highlighted. This review identified 37 duplicates to be excluded from further analysis. The remaining 70 hits contain the keywords mentioned above and are used accordingly for further analysis.

REVIEW FINDINGS

In this section, the results of the SLR are analyzed descriptively. The full texts of the title, author keywords, and abstract of the identified papers are discussed later in the content analysis section.

DESCRIPTIVE ANALYSIS

An analysis of the identified publications on family firms' OR shows that the publications have started in the 2000s and have experienced a significant increase in their numbers per year since 2009. Corresponding to the publications, but with a time lag of about five years, the number of citations increases significantly as well – see Figure 1.



An analysis of the publications by country of origin shows that scientists from the USA make the most productive contribution to OR research in the context of family businesses with 21.1% (15 publications) of the publications, followed by Italy with 15.5% (11 publications) and Australia with 7.0% (five publications) of the publications. The evaluation is done with the software OS viewer – see Figure 3. All publications from 1995 to 2021 were used as a complete dataset,

including the cited references from Scopus a WOS, and analyzed bibliographically. The strength of the connecting lines represents the cooperation of the respective countries and is based on the number of joint publications. The evaluation of the publications is based on the provenance of the named authors,, which leads to the fact that they may be named more than once due to the respective number of co-authors.

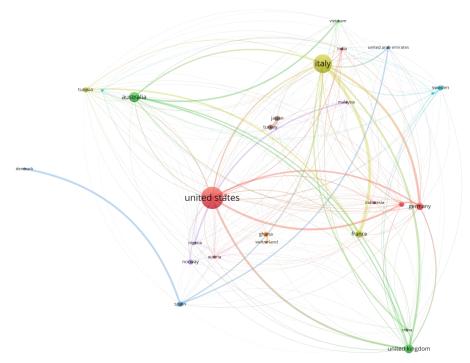


FIGURE 3. Documents published by Countries of Research on OR of FF (Source: Data from Scopus (2021) and WoS (2021), produced with VOSviewer)

Grouping the various countries into continents reveal that Europe is the most productive continent with 45.1% of the publications, followed by North America with 23.9% and Asia with 14.1%. However, an analysis of citations per publication shows that the publications of North American authors have a significantly greater impact on the scientific community, with 52.2 citations per document, compared to 23.7 citations per document of European publications.

| Continent | Documents | | Citations | Cit./Doc | | | | | |
|---------------|-----------|-------|-----------|----------|--|--|--|--|--|
| Europe | 32 | 45.1% | 759 | 23.7 | | | | | |
| North America | 17 | 23.9% | 887 | 52.2 | | | | | |
| Asia | 10 | 14.1% | 43 | 4.3 | | | | | |
| Oceania | 6 | 8.5% | 44 | 7.3 | | | | | |
| Africa | 5 | 7.0% | 13 | 2.6 | | | | | |
| South America | 1 | 1.4% | 0 | 0 | | | | | |

TABLE 2. Documents Published by Regions of Research on OR of FF

Clustering the identified 70 documents by their types depicts that 69% of the publications are articles, followed by

15% books and 7% conference papers – cf. Figure 4.



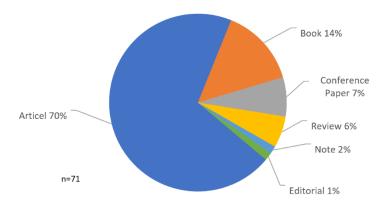


FIGURE 4. Classification by Document Type

In the following, the 70 identified documents are examined bibliographically to assess the respective authors and their productivity. The bibliographic analysis shows that the most productive authors in the field of family business research related to OR are Danes, Sharon M. (USA) in first place with 8 publications, Haynes, Georg W. (USA) in second place with five publications, and Stafford, Kathryn (USA) in third place with four publications. In the case of authors having identical publications, they were ranked in 2nd order descending based on citations.

TABLE 3. Most productive authors of Research on OR of FF

| Rank | Name | Publications |
|------|---------------|--------------|
| 1 | Danes, S.M. | 8 |
| 2 | Haynes, G.W | 5 |
| 3 | Stafford, K | 4 |
| 4 | Brewton, K.E | 3 |
| 5 | Minichilli, A | 3 |
| 6 | De Massis, A | 3 |
| 7 | Amore, M.D | 2 |
| 8 | Colpan, A.M | 2 |
| 9 | Hikino T | 2 |
| 10 | Hanson, S.K | 2 |

Considering the influence of individual authors, with at least two publications, on research in the field of OR of family firms instead of their productivity, all authors of Table 3 can be found here as well. However, ranks 2 and 3 have changed places. Considering all authors, Jaskiewicz,

Peter (Canda), Combs, James G. (USA) and Rau, Sabine B. (Canada) with one publication from 2015 (253 Citations) and Pal Rudrajeet (Sweden), TorstenssonHåkan (Sweden), and Mattila, Heikki (Sweden) with one publication from 2014 (125 Citations) have achieved more Citations.



| Rank | Name | Citations |
|------|----------------|-----------|
| 1 | Danes, S.M. | 170 |
| 2 | Stafford, K. | 128 |
| 3 | Haynes, G.W. | 122 |
| 4 | Brewton, K.E. | 116 |
| 5 | Minichilli, A. | 81 |
| 6 | De Massis, A. | 26 |
| 7 | Amore, M.D. | 14 |
| 8 | Colpan, A.M. | 13 |
| 9 | Hikino T. | 13 |
| 10 | Hanson, S.K. | 12 |

TABLE 4. Most Influencing Authors* of Research on OR of FF

*with Minimum two Publications

Figure 5 shows the productivity of each author and their interconnection. The size of the circles represents the number of publications and the thickness the strength of the connection between them.

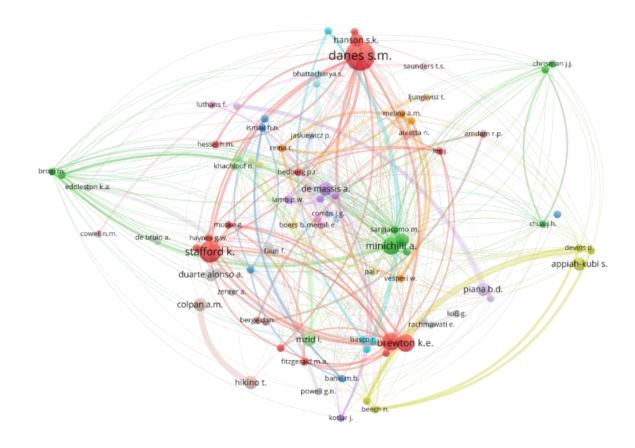


FIGURE 5. Productivity by Authors of Research on OR of FF (Source: Data from Scopus (2021), produced with VOSviewer)

It turns out that Danes, S.M. (USA) is highly respected in the field of research on OR of family firms and the scientific community in general. ve,Danes has 91 publications and 3,056 citations, which put him in second place among the authors identified here, just behind De Massis, A. with 123 publications 5,011 citations – cf. TABLE 5.



| Rank | Name | Documents | Citations | Cit./Doc | H-Index | Total Documents | Citations |
|------|---------------|-----------|-----------|----------|---------|------------------------|-----------|
| 1 | Danes,S.M. | 8 | 170 | 21.3 | 29 | 91 | 3,056 |
| 2 | Stafford,K. | 4 | 128 | 32.0 | 20 | 50 | 1,633 |
| 3 | Haynes,G.W. | 5 | 122 | 24.4 | 21 | 46 | 1,376 |
| 4 | Brewton,K.E. | 3 | 116 | 38.7 | 6 | 7 | 163 |
| 5 | Minichilli,A. | 3 | 81 | 27.0 | 22 | 47 | 1,797 |
| 6 | De Massis,A. | 3 | 26 | 8.7 | 39 | 123 | 5,011 |
| 7 | Amore, M.D. | 2 | 14 | 7.0 | 12 | 25 | 730 |
| 8 | Colpan,A.M. | 2 | 13 | 6.5 | 11 | 24 | 350 |
| 9 | Hikino T. | 2 | 13 | 6.5 | 8 | 17 | 457 |
| 10 | Hanson,S.K. | 2 | 12 | 6.0 | 7 | 12 | 159 |

TABLE 5. Most Influential Authors of Research on OR of FF

146 author146 authors published the 70 publications either as sole author or a co-author. Figure 6 illustrates the influence of the authors as the size of the circle and the respective connection among the authors. Only 15 of the 146 authors were found to be connected to each other.

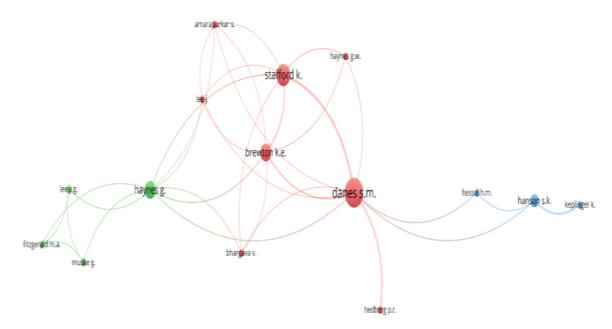


FIGURE 6. Influence and Connection by Authors of Research on OR of FF

Finally, an analysis of the 70 documents in terms of sources shows that they appeared in 64 different sources (14 books and 47 journals). Limiting the sources to at least two publications reduces the sources to five journals in which these five sourcthese five sources published 22.8% (13) of the documents published 22.8% (13) of the documents with an average of 15.5 citations per document. TABLE 6 shows the five journals with the highest number of publications, which are exclusively journals, in the field of family business research.

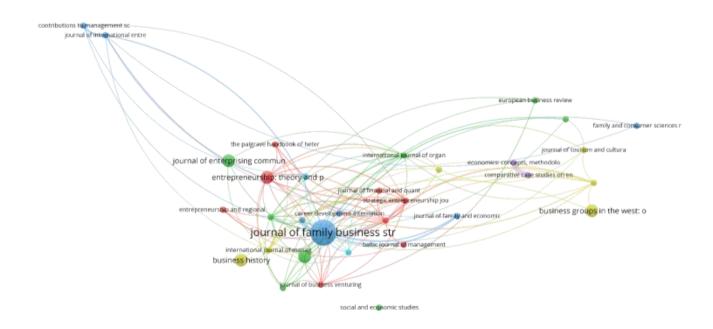


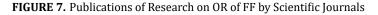
| Rank | Name | Documents | Citations | H-Index | Country | SJR1 |
|------|----------------------------|-----------|-----------|---------|---------|------|
| 1 | Journal of Family Business | 4 | 79 | 16 | England | Q1 |
| | Strategy | | | | | |
| 2 | Business History | 3 | 11 | 35 | England | Q1 |
| 3 | Entrepreneurship Theory | 2 | 100 | 155 | USA | Q1 |
| | and Practice | | | | | |
| 4 | Journal of Enterprising | 2 | 11 | 26 | England | Q1 |
| | Communities | | | | | |
| 5 | Journal of Family Business | 2 | 1 | 16 | England | Q1 |
| | Management | | | | | |

TABLE 6. Most Influential Journals of Research on OR of FF

Figure 7 depicts the productivity of the individual journals and their interconnection. The size of the circles represents

the number of publications, and the thickness represents the strength of the link between them





Content Analysis To answer the 2nd review question – How do OR research articles differ from family firms in terms of the theories and concepts used? – the hits were searched for the terms "Theory," "Model," "Perspective," "View," "Capital," and "Concept" in the fields Title, Abstract, and Author Keywords – see TABLE **??**. Classifying this result, 15 different theories and concepts could be identified, analyzed in greater detail

| Research on OR of | FF |
|-------------------|------|
| Keywords | Hits |
| Theory | 21 |
| Model | 9 |
| Perspective | 8 |
| View | 7 |
| Capital | 9 |
| Concept | 0 |

TABLE 7. Identification of Theories and Concepts used in

50

Theories or concepts as a classification criterion can be assigned to 54 documents that explicitly mention the particular theory or concept in the title, author keywords, or ab-

| Rank | Theory / Concept | Documents | |
|------|--|-----------|-----|
| 1 | Social Capital | 13 | 24% |
| 2 | Sustainable Family Business Theory(SFBT) | 7 | 13% |
| 3 | Familiness | 4 | 7% |
| 4 | Socioemotional Wealth (SEW) | 3 | 5% |
| 5 | F-PEC Scale of Family Influence | 2 | 4% |

TABLE 8. Moste Prominent Theories or Concepts Used in Research on OR of FF

To Social Capital theory is analysed as a representative example to go into more detail. The exemplary results are then presented in tabular form for the five most frequently mentioned theories and concepts. Research on family firms started in the 1980s (Pieper, 2010). However, research on

OR began in the 2000s and experienced an increase around 2009 see Figure 1. With the introduction of the Social Capital theory in the 1990s by Putnam Robert and Fukuyama, Francis (Wall, Ferrazzi, & Schryer, 1998), research on OR of family firms using this theory began in 2010 see Figure 8.

stract. The most frequently mentioned is "Social Capital"

with 24% (13 hits), followed



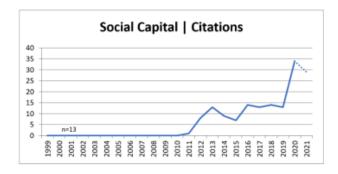
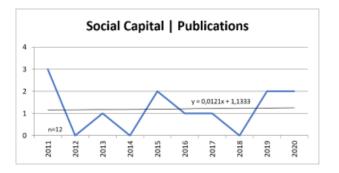


FIGURE 8. Publications and Citations in Research on OR of FF and Social Capital from 2000 to 2021

More detailed analysis of the past 10 years (2011 to 2020) shows that publications using the Social Capital theory follow a linear growth of Pub (Year) = 0.01(Year) + 2.2, and citations follow a linear growth of Cit (Year) = 2.16 (Year)

+0.73 with a coefficient of determination of R^2 = 58%. The year 2021 was not included because the data were collected in June 2021 and therefore, they were incomplete–cf. Figure 9.





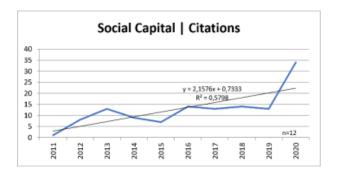


FIGURE 9. Publications and Citations of Research on OR of FF and Social Capital from 2011 to 2020

Further reduction of the given period from 10 to 5 years (2016 to 2020) shows that publications in the context of Social Capital theory follow as well a linear growth of Pub (Year) = 0.3 (Year) +0.3 with a coefficient of determination of $R^2 = 32\%$ and citations follow a linear growth of Cit (Year) = 4(Year) + 5.6 with a coefficient of determination of R^2 = 47.5% – cf. Figure 10.

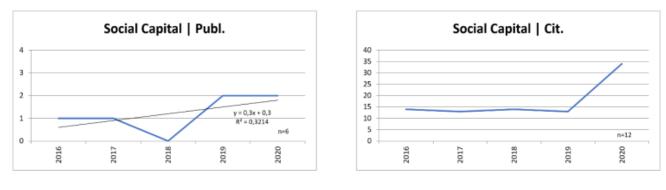


FIGURE 10. Publications and Citations of Research on OR of FF and Social Capital from 2016 to 2020

Comparing the two time periods suggests that research interest in the Social Capital theory has increased as both the slope of the regression lines of publications and citations have increased – cf. TABLE 9.

| Research on OR of FF and Social Capital | | | | | | | | | |
|---|----------|----------------|-------|----------------|--|--|--|--|--|
| Time Frame | Publicat | ions | Citat | tions | | | | | |
| | t | R ² | t | R ² | | | | | |
| 2011 to 2020 | 0.01 | - | 2.16 | 58% | | | | | |
| 2016 to 2020 | 0.3 | 32% | 4 | 47.5% | | | | | |
| Change | + 2,375% | | + 85% | | | | | | |

TABLE 9. Linear Regression of Publications and Citations of

Following the same procedure as in the previous analysis, the results for the other theories and concepts are as follows, as shown in TABLE 10.



| Rank | Theory/Concept | Publications | | Change | Citations | | | | Change | | |
|------|-----------------------|--------------|-------------------------|--------|------------------|-------------|------|------------------|--------|------------------|------|
| | | 2011 | 2011 - 2020 2016 - 2020 | | | 2011 - 2020 | | 2016 - 2020 | | - | |
| | | t | R ² % | t | R ² % | | t | R ² % | t | R ² % | - |
| 1 | Social Capital | 0.01 | - | 0.3 | - | 2,375% | 2.2 | 58.0 | 4.0 | 47.4 | 85% |
| 2 | SFBT | 0.07 | - | -0.2 | - | -400% | 1.7 | 44.6 | 5.7 | 81.5 | 213% |
| 3 | Familiness | 0.08 | 37.0 | 0.2 | 33.3 | 136% | 0.04 | - | 0.1 | - | 136% |
| 4 | Socioemotional wealth | 0.05 | - | -0.1 | - | -306% | 2.4 | 79.5 | 4.7 | 94.1 | 94% |
| 5 | F-PEC Scale | 0.1 | 48.5 | 0.3 | 75.0 | 209% | 0.22 | 28.6 | 0.6 | 30.0 | 168% |

TABLE 10. Most Prominent Theories or Concepts Used in Research on OR of FF

One can see that there is a consistent increase in citation activity across theories and concepts. However, the changes in publication rates are not consistent. Sustainable Family Business Theory, Socioemotional Wealth approach shas lost interest among researchers and Social Capital, Families and the F-PEC Scale of Family Influence have gained attention over the past five years – cf. TABLE 11.

TABLE 11. Theories of Concepts in the Greatest Rate of Increase in Research on OR of FF

| Rank | Theory/Concept | Publicatio | | ation | ations Change | | Citations | | | | Change |
|------|----------------|------------|----------------------|-------|------------------|-------------|-----------|------------------|-----|------------------|--------|
| | | 2011 | 1 - 2020 2016 - 2020 | | | 2011 - 2020 | | 2016 - 2020 | | - | |
| | | t | R ² % | t | R ² % | | t | R ² % | t | R ² % | - |
| 1 | Social Capital | 0.01 | - | 0.3 | - | 2,375% | 2.2 | 58.0 | 4.0 | 47.4 | 85% |
| 2 | F-PEC Scale | 0.1 | 48.5 | 0.3 | 75.0 | 209% | 0.22 | 28.6 | 0.6 | 30.0 | 168% |
| 3 | Familiness | 0.08 | 37.0 | 0.2 | 33.3 | 136% | 0.04 | - | 0.1 | - | 136% |

The Social Capital theory, F-PEC Scale of Family Influence, and the Families theory can be assumed to receive even more attention in the future. However, the dominance of the Social Capital theory cannot be neglected. The definition of OR refers to adversity Hillmann and Guenther (2021). These adversities can act on the company from outside (exogenous) or within the company or the entrepreneurial family (endogenous). Exogenous events are, for example, natural disasters, global pandemics, or environmental

TABLE 12. Adversities Used in Research on OR of FF

changes. In contrast, endogenous events are, for example, management succession or generational transfer. Unfortunately, only in 46 publications is it possible to identify the types of adversity. In the remaining 24 publications, either no adversities are mentioned literature reviews or concept papers. An analysis of the identified publications the type of adversity used as a basis indicates that a majority of the publications used exogenous events as a basis for their investigations – cf. TABLE 12.

| - | Rank | Theory/Concept | |
|---|------|----------------|--|
| | | | |

| Rank | Theory/Concept | Type of Adversity | | | |
|------|---|-------------------|------------|-------|-----------|
| | | Exogenous | Endogenous | Both | Not known |
| 1 | Social Capital | 5 | 2 | 1 | 4 |
| 2 | Sustainable Family Business Theory (SFBT) | 4 | 1 | 0 | 2 |
| 3 | Familiness | 1 | 1 | 0 | 2 |
| 4 | Socioemotional Wealth (SEW) | 2 | 1 | 0 | 0 |
| 5 | F-PEC Scale of Family Influence | 0 | 0 | 0 | 2 |
| | All identified documents | 30(43%) | 14(20%) | 2(3%) | 24(34%) |

DISCUSSIONS AND IMPLICATION

In the last 10 years, several theories have emerged in family business research. The most significant theory, both in terms of the number of publications and number of citations, in family business research over the past 10 years is the social capital theory, and it accounts for 24% (13 documents) of the 55 documents identified with an explicit mention of a theory or concept. Other important theories and concepts include Stafford's Sustainable Family Business Theory, Habbershon, Williams' Familiness Theory, Gomez-



2021

Mejia's Socioemotional Wealth Theory, Astrachan, Klein, and Smymois' F-PEC Scale of Family Influence Research on OR is based on exogenous adversity in 43% of the documents analyzed, and only 20% of the documents address endogenous adversity. Future research should include endogenous adversities to get a more comprehensive picture of OR in family businesses.

Examining the change in publication and citation rates for the past 10 years and five years, a further increase in the importance of the Social Capital Theory can be seen. Focusing on 2011–2020, 1.2 publications per year were found on average with explicit reference to social capital. In 2016–2020, especially in 2019 and 2020, the number of publications increased to two per year. An increase in the publication rate regarding the Families Theory and the F-PEC Scale of Family Influence can be observed. The publication rate has increased by more than 130%, which suggests that this approach has found resonance among scientists and that more publications based on this theory can be expected in the future. These results indicate the increasing importance of family business research and provide an implication for understanding the individual theories and their interconnection.

When analyzing the authors, it can be seen that over 55% of the publications have either been authored alone or with a co-author. Out of the 146 authors, 11% have already published more than 26% of the papers. The most influential author in family business research is Danes, Sharon M., the USA from the University of Minnesota Twin Cities with eight publications and 170 citations. Danes has 91 publications with 3,056 citations and an H-index of 29. The majority of publications are made by authors from the USA with 21.1%, followed by Italy (15.1%) and Australia with 7.0%. An aggregation of the countries to continents shows that the most

productive continent is Europe, with 45.1% of the publications.

Another finding is that 22.8% of the field OR of family business research publications are found in five journals with an average citation rate of 15.5 per document. The most influential journal is the Journal of Family Business Strategy, with four publications and 79 citations. The journal is published in England and is ranked Q1 by Scimago with an H-index of 16.

CONCLUSION, LIMITATION AND FUTURE RESEARCH

This paper is based on a systematic literature search in the field of OR of family firms, which was subsequently analyzed by bibliometric and scientometric methods (Araya-Castillo et al., 2021). The analysis is limited to the data provided by Scopus and WoS databases. The title, author keywords, and abstract were used to determine the relevant publications and the theories and concepts used, but a review of the full text was not performed.

This limitation may lead to a bias in the results (Gover & Duxbury, 2018; Mandal & Dubey, 2021). A further study should be extended accordingly to include full papers. Another limitation is the focus on explicitly mentioning the theory or concepts in the title, author keywords, or abstract used for analysis. Implicitly used theory and concepts were accordingly not identified and should also be considered in a further study (Burnard, Bhamra, & Tsinopoulos, 2018).

The theories used in research on OR of family firms indicate a partial overlap and dependency (Chrisman, Chua, & Steier, 2011). Families is partly considered an input for socioemotional wealth (Barros, Hernangómez, Martin-Cruz, 2017). ntegration of the individual theories into an integrative concept could be a fruitful and promising path (Calabrò, Frank, Minichilli, & Suess-Reyes, 2021; Xiao & Cao, 2017)

REFERENCES

- Ali, N. B., & Usman, M. (2018). Reliability of search in systematic reviews: Towards a quality assessment framework for the automated-search strategy. *Information and Software Technology*, 99, 133-147. doi:https://doi.org/10.1016/ j.infsof.2018.02.002
- Alonso, A. D., Kok, S., & O'Shea, M. (2019). The family business, adversity and change: A dynamic capabilities and knowledgebased approach. *Journal of General Management*, 44(2), 96-109. doi:https://doi.org/10.1177/0306307018810585
- Araya-Castillo, L., Hernandez-Perlines, F., Moraga, H., & Ariza-Montes, A. (2021). Scientometric analysis of research on socioemotional wealth. *Sustainability*, 13(7), 3742. doi:https://doi.org/10.3390/su13073742
- Baggio, J. A., Brown, K., & Hellebrandt, D. (2015). Boundary object or bridging concept? a citation network analysis of resilience. *Ecology and Society*, 20(2), 1-11. doi:https://doi.org/10.5751/ES-07484-200202
- Bjuggren, C. M., Johansson, D., & Sjögren, H. (2011). A note on employment and gross domestic product in swedish familyowned businesses: A descriptive analysis. *Family Business Review*, 24(4), 362-371.
- Burnard, K., Bhamra, R., & Tsinopoulos, C. (2018). Building organizational resilience: four configurations. *IEEE transactions on engineering management*, 65(3), 351-362. doi:https://doi.org/10.1109/TEM.2018.2796181



- Calabrò, A., Frank, H., Minichilli, A., & Suess-Reyes, J. (2021). Business families in times of crises: The backbone of family firm resilience and continuity. *Journal of Family Business Strategy*, *12*(2), 1-8. doi:https://doi.org/10.1016/j.jfbs.2021 .100442
- Chrisman, J. J., Chua, J. H., & Steier, L. P. (2011). Resilience of family firms: An introduction. *Entrepreneurship theory and practice*, *35*(6), 1107-1119. doi:https://doi.org/10.1111/j.1540-6520.2011.00493.x
- De Massis, A., Audretsch, D., Uhlaner, L., & Kammerlander, N. (2018). Innovation with limited resources: Management lessons from the g erman m ittelstand. In (Vol. 35, p. 125-146). Wiley Online Library. doi:https://doi.org/10.1111/jpim.12373
- Denyer, D., & Tranfield, D. (2009). Producing a systematic review. In D. A. Buchanan & A. Bryman (Eds.), *The sage handbook* of organizational research methods (p. 671–689). New York , NY: Sage Publications Ltd.
- Dos Santos, M. A., Contreras, O. L., Moreno, F. C., & Felicio, J. A. (2020). Should a family firm communicate their family identity and country of origin? a cross-cultural study from Chile and Spain (just accepted). *International Journal of Emerging Markets*. doi:https://doi.org/10.1108/IJOEM-01-2020-0027
- Eddleston, K. A., Jaskiewicz, P., & Wright, M. (2020). Family firms and internationalization in the asia-pacific: The need for multi-level perspectives. *Asia Pacific Journal of Management*, *37*(2), 345-361. doi:https://doi.org/10.1007/s10490 -018-9608-6
- Eddleston, K. A., Sarathy, R., & Banalieva, E. R. (2019). When a high-quality niche strategy is not enough to spur familyfirm internationalization: The role of external and internal contexts. *Journal of International Business Studies*, *50*(5), 783-808. doi:https://doi.org/10.1057/s41267-018-0199-8
- Gagné, M., Tian, A. W., Soo, C., Zhang, B., Ho, K. S. B., & Hosszu, K. (2019). Different motivations for knowledge sharing and hiding: The role of motivating work design. *Journal of Organizational Behavior*, 40(7), 783-799. doi:https://doi.org/ 10.1002/job.2364
- Gover, L., & Duxbury, L. (2018). Making sense of organizational change: Is hindsight really 20/20? *Journal of Organizational Behavior*, *39*(1), 39-51. doi:https://doi.org/10.1002/job.2208
- Hillmann, J., & Guenther, E. (2021). Organizational resilience: a valuable construct for management research? *International Journal of Management Reviews*, *23*(1), 7-44. doi:https://doi.org/10.1111/ijmr.12239
- Hökkä, M., Kaakinen, P., & Pölkki, T. (2014). A systematic review: non-pharmacological interventions in treating pain in patients with advanced cancer. *Journal of advanced nursing*, 70(9), 1954-1969. doi:https://doi.org/10.1111/ jan.12424
- Kitdumrongthum, N., & Thechatakerng, P. (2018). Product innovation's determinants of chinese family business in chiangmai and consumer socioeconomics. *International Journal of Business and Economic Affairs,*, 3(3), 141-146. doi:doi:10.24088/ijbea-2018-33005.
- Linnenluecke, M. K. (2017). Resilience in business and management research: A review of influential publications and a research agenda. *International Journal of Management Reviews*, *19*(1), 4-30. doi:https://doi.org/10.1111/ijmr.12076
- Mandal, S., & Dubey, R. K. (2021). Effect of inter-organizational systems appropriation in agility and resilience development: an empirical investigation. *Benchmarking: An International Journal*, 28(9), 2656-2681. doi:https://doi.org/10.1108/ BIJ-10-2020-0542
- Palmarini, R., Erkoyuncu, J. A., Roy, R., & Torabmostaedi, H. (2018). A systematic review of augmented reality applications in maintenance. *Robotics and Computer-Integrated Manufacturing*, *49*, 215-228. doi:https://doi.org/10.1016/j.rcim .2017.06.002
- Payne, G. T. (2018). Reflections on family business research: Considering domains and theory. *Family Business Review*, *31*(2), 167-175. doi:https://doi.org/10.1177/0894486518776550
- Pieper, T. M. (2010). Non solus: Toward a psychology of family business. *Journal of Family Business Strategy*, *1*(1), 26-39. doi:https://doi.org/10.1016/j.jfbs.2010.02.003
- Rijal, s., Sapna. (2016). The influence of transformational leadership and organizational culture on learning organization: A comparative analysis of the IT sector, Thailand, *Journal of Administrative and Business Studies*, *2*(3), 121-129. doi: https://doi.org/10.20474/jabs-2.3.3
- Rivo-López, E., Villanueva-Villar, M., Michinel-Álvarez, M., & Reyes-Santías, F. (2021). Corporate social responsibility and family business in the time of covid-19: changing strategy? *Sustainability*, 13(4), 1-13. doi:https://doi.org/10.3390/



su13042041

- Töpfer, A. (2012). *Erfolgreich forschen: Ein leitfaden für bachelor-, master-studierende und doktoranden*. Berlin, Heidelberg: Springer-Verlag. doi:https://doi.org/10.1007/978-3-642-34169-4
- Wall, E., Ferrazzi, G., & Schryer, F. (1998). Getting the goods on social capital 1. *Rural sociology*, *63*(2), 300-322. doi:https://doi.org/10.1111/j.1549-0831.1998.tb00676.x
- Wenzel, M., Stanske, S., & Lieberman, M. B. (2020). Strategic responses to crisis. *Strategic Management Journal*, *41*(2), 7-18. doi:https://doi.org/10.1002/smj.3161
- Woschank, M., Rauch, E., & Zsifkovits, H. (2020). A review of further directions for artificial intelligence, machine learning, and deep learning in smart logistics. *Sustainability*, *12*(9), 1-23. doi:https://doi.org/10.3390/su12093760
- Xiao, L., & Cao, H. (2017). Organizational resilience: The theoretical model and research implication. In *Itm web of conferences.* doi:https://doi.org/10.1051/itmconf/20171204021

