

The Role of Innovation in Small and Medium-Sized Family Firms: A Literature Review

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ABSTRACT

This article builds on existing family business research conducted worldwide and embeds the research results in the Czech context to portray the Czech Republic as a critically important context for extending our knowledge on important family firms' topics. In this article, we present a systematic review and integration of 69 articles published in peer-reviewed journals by Elsevier, Emerald, Wiley and others from 2015 to 2021 in order to answer two research questions: what is the role of innovation in SME family firms and what drives the innovation in family firms? Specifically, the content of the article discusses the new definition of family firm in the Czech Republic; the relationship between innovation and family firm growth; and some contextual factors that might affect the innovations in the Czech SME family firms: ability and willingness paradox, socioemotional wealth, and familiness. The insights of this review are used to develop suggestions for future research in setting the value of family firm where innovation can play an essential role as one of the core value drivers.

Keywords: Innovation, family firm, small and medium-sized enterprises (SMEs), value driver, business innovation.

INTRODUCTION

It appears that the concept of family firms is of topical interest not only in the Czech Republic but worldwide. According to global research by the Family Firm Institute, family firms generate 70-90% of the world's GDP, provide employment to 60-80%, are more resilient to crises, are based on high responsibility for their surroundings, with investments in these firms remain in the regions and form the basis of their service (Family Firm Institute, 2018). Similar perspectives emanate within the European Union where family firms form the basis of different countries' economy and are the cornerstone of responsible business ownership and long-term business investment. In recent years, the interest of the European institutions in this type of business has grown (Botero et al., 2015; European Family Business Barometer, 2018). Most European family firms are Small and Medium-sized Enterprises (SMEs), but multinational corporations are not the exception. Nine out of ten businesses belong to the SME category and make up nearly 70 % of jobs (EP, 2015). Contributions made from business firms are considered important for growth in areas such as competitiveness and employment.

SMEs in the Czech Republic, for example, form a substantial part of the country's domestic economy. According to the Ministry of Industry and Trade, the share of SMEs in the total number of active business entities in the Czech Republic in 2017 was 99.8%. The number of innovative SMEs is also increasing in terms of expenditure and the use of subsidies (Ministry of Industry and Trade, 2018). A closer investigation reveals that approximately 87% of these private companies in the Czech Republic are family firms. This suggests that family firms play a much more important role in the country's economy than previously thought (European Family Business, 2018). Family firms are trying to balance the needs of family and business needs, prioritizing socio-economic wealth over a narrow focus on financial goals. These firms thus play a vital role in promoting work-life balance, are typical of higher employee care, low staff turnover, support for employee education and overall social responsibility in relation to the environment and region in which it operates.

Initiatives started recently in the Czech Republic to investigate in more depth the concept of the family firm and to address any associated problems. A project known as '*Family Firms: Value Drivers and Value Determination in the Process of Succession*' (No TL02000434) was launched in 2019 with the support from the Technology Agency of the Czech Republic. The project presents a systemic approach to determine the value of a specific type of business, based on the identification of critical value generators, considering the specificities of family firms. Its main objective is to create a 'virtual methodology' to determine the value of family SMEs. The definition of generators of the value of family firms – acceleration and innovation procedures as tools for managing their value – will be a starting point for the design and development of this methodology. Applying the concept and the tools and techniques associated with an innovation approach can facilitate this process.

This research investigates the importance innovation plays in family firms, for example, by strengthening the position of the company. This enables permanent improvements of customer satisfaction. It places particular emphasis on securing stakeholder requirements for successful development and value growth. To help fulfil the research main aim and to provide new insights on the role of innovation, this study addresses the following main research question: 'What is the role of innovation in SME family firms?'

The scientific aim of the paper is to gain knowledge and analyse the present status of how innovative activities can act as the catalyst to drive forward the value family firms provide (by reviewing both Czech and foreign literature. The objective of the article is to collective evidence that suggests that there is a correlation between how successful family firms are and the level of innovation they engage in. In addition, the paper is also important in terms of multidisciplinary approach of above-mentioned research project. The methods of corporate governance, social sciences, strategic and innovation management, finance and statistics will be linked together in order to identify core value drivers of SME family firms.

Section 2 provides a description of the research methodology. This is followed by an overview of research on family firm and innovation, with particular emphasis on the definition of the family firm in the Czech Republic. Then we compare and contrast the impact of innovation in family and non-family firms (see Table 2). There is enough theoretical evidence to state that innovation could be different in family and non-family firms, for example family firms' unique and distinctive behaviour, the exceptional bundle of resources and capabilities resulting from

interactions between the family (or individual members), and the business entity. Section 3 reviews the literature and presents a brief background and main characteristics of family firm behaviour. It is focused on description of the main idiosyncrasies of family firms such as 'family innovation dilemma', 'Socioemotional Wealth' or 'Willingness-ability paradox'. Finally, the last section summarizes the findings and gives a proposal for future research.

RESEARCH METHODOLOGY AND DATA

This section describes the research process of an evidence-based systematic literature review based on Tranfield et al. (2003) and Keupp et al. (2012):

- 1 Planning the review
- 2 Conducting the review (data collection and analysis)
- 3 Reporting and disseminating the review (data synthesis)

In this systematic review, the professional literature, and particularly foreign resources, provided a source of secondary data. Having outlined the rationale and proposed methods of this review, the stage is set to identify relevant studies explicit and reproducible selection criteria.

Planning the Review

This stage involves the definition of keywords of the research string to gather relevant literature dealing with subject under investigation. In the first instance, the search engine Google Scholar was used as it covers a broader range of academic sources. The literature research was conducted by using the following set of keywords: "family firm", "family business", "family ownership", and "small and medium-sized enterprises". We combined these key terms with following terms related to innovation and value management variables: "innovation", "innovation business", "change" "performance", "efficiency" and "value driver". The literature review is restricted to the period from the beginning of 2015 through the presence of 2021. Using these key terms in English Google Scholar delivered ca 63,400 results. This amount of results indicates that the subject matter under investigation is great of interest to the scholars. For the next search the following inclusion criteria were applied:

- Availability in Thomson Reuters Web of Science and/or Elsevier Scopus databases
- Articles in English
- Peer-reviewed articles
- Article containing one of the keywords in the title, abstract or keywords

Studies out of this scope were excluded from this review. Especially books, book chapters, and conference papers were excluded in the next phase of data collection process due to owing to variability in peer-review processes and restrictions in availability.

Data Collection

In second instance, the literature review was limited to articles from peer-reviewed journals that publish most of relevant and up-to-date research. The search was performed in the major respected scientific electronic databases such as Elsevier Scopus and Thomson Reuters Web of Science by using above-mentioned key terms. These databases were selected due to their advanced web search mechanisms, high volume of indexed publications and proven relevance. To be potentially included in the review, the title of the article had to contain a keyword or

combination from the same sets of keywords. Here again the same period of 2015 till 2021 was considered. In order to be more rigorous in our review, an additional search was conducted of three leading journals that almost exclusively address family business topics, using the same criteria as previously stated: *Family Business Review*, *Journal of Family Business Strategy* and *Journal of Family Business Management*. The relevance of the identified articles was ensured by reading all abstract and compared with related goals of the research project. Using content analysis, two researchers read abstracts of all identified papers, and independently classified them in the main research categories (innovation/change, family firm, performance/efficiency). We built a spreadsheet with the scoring system: 0.0 (no fit), 0.5 (partially), and 1.0 (fit). Note that this quality ranking was an internal metric for selecting papers to this study, not reflecting any comparison amongst studies or authors. Next, the individual evaluations were compared and synthesized, and in case of disagreement, the issue was discussed and resolved. In total 31 articles (30 by foreign and 1 Czech author) were chosen which seemed to be most relevant for the researched issue and future use in the upcoming research. Each author grasps the subject matter in a different way, so there is a great variety of views.

Data Analysis

After collecting an initial set of studies, all articles in the sample were analysed, data was extracted and documented independently by the authors and then the findings were compared and reconciled. When reviewing the findings, authors applied strict criteria to assess the quality of published papers. The criteria include: country of research, size and quality of research sample in terms of representation, the strength of the conclusions, and the link to objectives of our research project in the Czech Republic. For this purpose, a data extraction form was prepared to collect information on authors and quality criteria. Next, the individual assessments were compared and analysed, and in case of disagreement, the issue was discussed and resolved. Some papers were removed from the research sample. In addition, we did backward-tracking of all relevant references reported in articles. This led to the identification of additional papers and amounted to a total of 69 articles.

Data Synthesis

This part of the research is the primary value-added product of a review process, since it produces new knowledge based on thorough data collection and careful analysis. In our study a synthesis is used for design of future research in area of innovation as a value driver in family SMEs businesses. We used mind mapping method to map out the main themes, perspectives and dimensions of innovation in family firms.

EMPIRICAL FINDINGS AND DISCUSSION

This section provides an overview and discussion about main points of each research study under investigation from different countries. The main outputs of each study are presented in Appendix 1.

Our analysis of 69 journal publications on innovation in family firms shows that this topic has recently attracted the attention of respected scientific journals that focus on management and business, such as the *Journal of Family Business Strategy* (13 articles), the *Family Business Review* (8 articles), the *Entrepreneurship Theory and Practice* (6 articles), the *Journal of Small Business Management* (4 articles), the *Academy of Management Journal*, the *California*

Management Review, the Journal of Product Innovation Management, and the Strategic Management Journal (3 articles), the European Journal of Innovation Management, and the European Journal of Innovation Management (2 articles). 22 articles were published in various journal (see Table 1).

Table 1 Source journals of papers

Journal name	Number of papers	%	% Accumulated
Academy of Management Journal	3	4.35%	4.35%
California Management Review	3	4.35%	8.70%
Entrepreneurship Theory and Practice	6	8.70%	17.39%
European Journal of Innovation Management	2	2.90%	20.29%
Family Business Review	8	11.59%	31.88%
International Journal of Entrepreneurship and Innovation Management	2	2.90%	34.78%
Journal of Family Business Strategy	13	18.84%	53.62%
Journal of Product Innovation Management	3	4.35%	57.97%
Journal of Small Business Management	4	5.80%	63.77%
Strategic Management Journal	3	4.35%	68.12%
Journal with only 1 paper	22		100.00%

In addition, the findings from the systemic literature review and study the evolution of research in area of innovation in family firms from 2015 onwards, are presented to identify the latest trends. They are classified under their main topics. The primary definitions of what is meant by 'family firm' (Czech and international perspectives) are presented next.

Family Firm Definition in the Czech Republic

An overview of family firm international definitions from 1960 to 2017 was published by Diaz-Moriana et al. (2019). Among these definitions, typical features of family firm are identified as follows:

- 1 Majority participation in ownership by members of the same family or a small number of families (e.g. Leach, 2007)
- 2 Family involvement in the board of directors or top management (e.g. De Massis et al., 2012)
- 3 Existence of a family member successor (Gagné et al., 2011)
- 4 Presence of two or more family-related shareholders (Belenzon et al., 2016)
- 5 Percentage of decision-making rights (Leitterstorf & Rau, 2014)

Compared to nonfamily enterprises, family firms have unique characteristics (see Sections 3.3 to 3.5) and explaining differences in family firm behaviour and outcomes is a core objective of family firm research (Chrisman et al., 2005). The structural coupling of the family and firm yields a set of inimitable resources that potentially position the family firm for growth and survival (Frank et al., 2010).

In the Czech Republic, as in other post-communist CEE countries, the family firm has been interrupted and attention has been turned towards it in the last few years in connection with the ongoing first generational intra-family succession. Most of these companies were formed

after the revolution in the 1990s. In the 1980s, their founders learned from their own mistakes how to conduct business professionally. Companies grew organically as the owners, mostly spouses, grew professionally with them. Despite the apparent lack of business education, these entrepreneurs and their companies have now grown into strong local players or have in many cases built a strong international reputation.

Focusing on more recent developments in the Czech Republic, family firms have seen the highest sales growth since 2007. More than 80% of firms expect to grow their revenues in the future but they must prepare for the fundamental challenges of the years to come. For example, they will have to face pressure for frequent innovation or technological change. First-generation family firms are growing the fastest, with clearly set corporate values, vision and an elaborate strategy (PwC, 2018).

Irrespective the importance family firm for Czech economy (see Introduction), there was no clear definition of this kind of business until 2019. The definition of family firm was approved by the Government of the Czech Republic, thus making the Czech Republic one of the states where family companies are clearly defined. According to this definition, a business corporation or trade is considered a family firm (Ministry of Industry and Trade, 2019).

- 1 A family firm is a business corporation in which an absolute number of associates are composed of members of a single family and at least one member of that family is its statutory body or in which members of one family directly or indirectly perform a majority voting rights and at least one member of that family is a member of the statutory body of that commercial corporation.
- 2 A family firm is a business in which at least two members of one family participate in their work or property and at least one of the members of that family holds a trade or other similar authorisation or is entitled to business for another reason.
- 3 For the purposes of a family undertaking, jointly working spouses or partners or at least one of the spouses or partners and their relatives shall be considered as members of the Family Firm until the third degree of the person with the spouses or partners with the spouses or partners to the second degree, relatives in a straight line or siblings. If there is a person among them who is not fully arbitrary, they are represented by a legal representative when voting, if he is a minor, otherwise a guardian.

Innovation in Family versus Non-family Firms

Innovation is widely acknowledged as an important determinant of sustained performance (Kellermanns, et al., 2012b) and a key driver of economic growth for organizations and economies globally (Feranita et al., 2017; Migliori et al. 2020) and in the Czech Republic (e.g. Bockova & Zizlavsky, 2016; Breckova, 2017).

In recent years, innovation in family firms as a research field has become a topic of growing interest (e.g. Alayo et al., 2021; Duran et al., 2016; Filser et al., 2016; Saurabh et al., 2017). Innovation is recognised as one of the main strategic instruments for ensuring economic prosperity and the survival of the firm. The need for innovation seems to be even greater in family businesses, with the vision for continuity and transgenerational succession being one of their main characteristics. Despite increasing scholarly interest in the topic of innovation in family firms, our understanding is still incomplete and inconsistent. While some studies

provide empirical evidence for negative associations between firms and innovation, others find out positive effects (Table 2). The conflicting results might partly be due to the oversimplified measurement of family influence by merely considering potential family influence through ownership and control.

Table 2 Innovation in family firms

	Positive correlation	Negative correlation
Innovation in family firms	Alberti & Pizurno (2013) Duran et al. (2015) Garud et al. (2013) Hauck & Prügl (2015) Hsu & Chang (2011) König et al. (2013) Llach & Nordqvist (2010) Röd (2016) Muñoz-Bullón & Sanchez-Bueno (2011) Uhlander et al. (2013)	Block (2012) Chen & Hsu (2009) Chin et al. (2009) Czarnitzki & Kraft (2009) Kotlar et al. (2013) Munari et al. (2010)

Some authors hold strong views that the determinants and effects of innovation, differ in family and non-family firms (e.g. De Massis et al., 2015; Duran et al., 2016; Röd, 2016). Family firms are often described as resistant to change, conservative (Morck et al., 2000), averse to risk (Naldi et al., 2007) and traditional (Chrisman & Patel, 2012) rather than innovative and creative. These studies suggest that family firms appear to have a hesitant attitude toward opening their boundaries, e.g., toward external sources or collaborations (Classen et al., 2012), or unwillingness to accept outside partners, directors, or senior managers (Alayo et al., 2021). In contrast, some studies, such as Bergfeld and Weber (2011), stress the great importance that family firms attach to innovation in order to ensure long-term survival. It should come as no surprise, then, that other studies argue that family ownership and involvement are related to innovation (Zahra 2005). Recent findings suggest the family tradition can be a source of innovation (De Massis et al., 2016). Family firms introduce more incremental innovations rather than radical innovations (e.g., De Massis et al., 2015; Nieto et al., 2015). There is some debate as to whether family firms are particularly good at innovating based on their unique histories and resources (e.g., De Massis et al., 2016) and whether their long-term outlook stimulates them to engage in more radical innovations that ensure their long-term sustainability (e.g., Bergfeld & Weber, 2011). The heterogeneity of family forms may be one of the reasons why studies present contradictory or inconclusive results concerning the influence of the family on innovation (e.g., Calabro et al., 2019; Chrisman et al., 2015). Thus, the question becomes not simply whether family firms innovate more or less than do nonfamily firms, but how they approach the innovation process (Nieto et al., 2015). Currently, we have only a limited understanding of how the process of innovation works in family firms, and how family governance attributes influence this process. Few studies take a longitudinal perspective and uncover the innovation trajectory in family firms (e.g., Fletcher et al., 2016).

Ability and Willingness Paradox

A highly discussed topic in family firm research is the 'ability and willingness paradox,' which states that family firms tend to have a higher ability, yet lower willingness, to engage in innovation compared to non-family firms (Chrisman et al., 2015; De Massis et al., 2014). Ability

is defined as “the discretion of the family to direct, allocate, add to or dispose of a firm’s resources” (De Massis et al., 2014). Willingness is the “favourable disposition of the involved family to engage in distinctive behaviour” (De Massis et al., 2014), and drives the owner to lead the firm in a distinctive direction that reflects the family’s goals (Rondi et al., 2019).

Family firm’s higher ability to innovate is shaped by the combination of their long-term orientation, long-term leader tenures, tacit knowledge, strong family bonds, and social networks built up over generations (e.g., De Massis et al., 2016). Bennesen and Foss (2015) refer to these family-based advantages as family assets that can be transformed into liabilities, for example, when the family’s close networks hinder firms from being explorative. On the other hand, the family firm’s willingness to innovate is determined by the family owners’ goals, intentions, and motivations, such as risk-aversion or a reluctance to share control with non-family members and is heavily influenced by socioemotional factors (Chrisman et al., 2015). The reasons for their lower willingness to innovate include risk-aversion, reluctance to share control with non-family members, lack of requisite skills (Chrisman et al., 2015), and socio-emotional concerns (Röd, 2016). Consequently, resolving this paradox is critical to unlock their innovation potential (Rondi et al., 2019).

Socioemotional Wealth

Another main characteristic of family firm is socioemotional wealth (SEW). The core of socioemotional wealth is that decision-making in family firms is not only driven by economic aspects but also in particular by non-economic aspects that meet the family’s affective needs, such as the retention of a strong family reputation derived by the firm or the family members’ relationship to the firm (Chrisman et al., 2015). The SEW is the most commonly used framework to analyse the goals of family firms (Vasquez & Rocha, 2019).

The general SEW model, created as a general extension of the behavioural agency theory is based on the notion that firms make choices depending on the reference point of the firm’s dominant principals, whose usual emphasis is to preserve their affective endowment (Vasquez & Rocha, 2019). In fact, the socioemotional wealth perspective defies what previously was understood to be economically logical decisions, as choices will also be driven by the desire to preserve and increase affective endowments and not only financial wealth. Decisions increasing organisational efficiency that we interpret as rational behaviour may not necessarily translate into higher financial performance since the meaning of efficiency is determined by the goals pursued (Lee, 2006). Thus, SEW becomes a reference point that does not focus on financial logic (Zellweger et al., 2012) but functions with an economical logic of choice for the great benefit or satisfaction, given expected outcomes and risk scenarios.

It is important to underline the concept of SEW has both positive and negative impact. While some studies present aspects of SEW that are positive for the family and pro-social inclination (e.g., Cennamo et al., 2012), others show that SEW can also have a negative valence, thus resulting in undesirable and even harmful consequences for some family and nonfamily members (e.g., Kellermanns, et al., 2012a).

Familiness

Viewing family firms as social systems that combine two coupled systems (the family and the business) creates a unique bundle of resources, known as ‘familiness’. Since its introduction by

Habbershon and Williams (1999), the characteristics of familiness have been examined from a number of theoretical perspectives (e.g., Frank et al., 2010; Pearson et al., 2008), which have, along the way, provided valuable insights into the components of familiness that influence competitive advantage. The resource-based perspective, for example, is the original theoretical foundation used to highlight the bundle of resources present when family is involved in the business. This point of view, however, is limited when analysing specific social and behavioural elements (Hoopes et al., 2003). Focusing on the importance of these specific aspects, Pearson et al. (2008) take a social capital perspective of familiness that more clearly articulates the idiosyncratic socio-behavioural resources of the family firm. By noting the structural, relational, and cognitive dimensions of familiness and its effects on family exchange and associability, their approach offers an understanding of the specific factors that constitute familiness. The presence of social capital in the family firm has the potential to offer a unique competitive advantage over nonfamily firms due to the rich, embedded familial relationships absent in nonfamily firms.

While other concepts like the construct of SEW and familiness from a resource-based view are important in enhancing our understanding of family firms' innovation, they each concentrate on partial aspects of the family system's influence on the business: the family's goals or the family's resources, respectively. The present conceptualization of familiness offers a holistic view by capturing the different areas of the family's influence, taking the family system as a whole into account (Daspit et al., 2019).

CONCLUSION

This review article has provided a comprehensive overview of family firms and their idiosyncrasies linked to innovation. For this purpose, we reviewed 69 articles published in peer-reviewed journals from 2003 to 2021 combining a systematic approach for the selection of articles and a narrative review to analyse the literature. To answer the research question, the review process was conducted in two stages. First, an in-depth analysis of empirical findings for the various stages of the innovation process was conducted. Second, the articles were searched systematically for content that can enhance our understanding of how the family influences these stages. Our premise is that combination of multiple individual factors drives family firm innovation. As a result, the findings are reconciled in a conceptual framework that provides a holistic view of the innovation process by incorporating the family system as an influencing context variable. Building on the concept of familiness, the framework demonstrates how family factors affect the various stages of the family firm's innovation process. Whether the family serves as an advantage or disadvantage for a business's innovation behaviour depends on contextual factors.

Focusing on the Czech Republic we can state that family firms are a very popular phenomenon that forms the substantial part of the Czech economy. Unfortunately, they are not given enough attention by both researchers and government authorities. For example, the definition of family business has been included in the law just recently. Moreover, only very small number of publications from the Czech scholars have been found in selected scientific databases dealing with topics of family firms. Here the research gap has been identified.

Our analysis contributes to the literature on family firms and to general innovation management studies in several ways. It provides a comprehensive and topical overview of the

literature on innovation and family firms during the extended period from 2000 to 2021. This research can help to advance knowledge on the subject under investigation by systematising existing results to better support both family firm's managers and researchers in their understanding of the innovation and family firm landscape. In particular our study highlights the periodic opportunity that intra-family succession offers to modify family firms status quo and thus unlock their innovation potential (Hauck & Prügl, 2015; Rondi et al., 2019). Each generation of leadership brings new strategic ideas, so when family members from new generations join the firm, they may become the driving force for change and innovation.

This paper serves as a very first step in designing a systemic methodology for setting the value of a family firm where innovation can play a significant role as a core value driver. This study therefore opens questions for further research, such as 'How to unlock family firm's innovation potential during intra-family succession? What is the role of innovation in family firm's valuation process?'

It is important to recognize this literature-based research is not without limitations. First, the identification of publications is based on the string search, despite the extensive range of papers identified, other articles might not have been included. Also, several professional terms were seldom vaguely, so the systematisation relied on surrounding definitions as provided by the respective authors. Second, the results may be subjective rather than objective despite the proficiency of the researchers. Further study is required to generalise the results, potentially through action research or case research.

ACKNOWLEDGMENTS

This research has been carried out within the project 'Family firms: Value drivers and value determination in the process of succession', ID Number TL02000434 co-financed by the Technology Agency of the Czech Republic.

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Appendix 1 Selected Studies on Innovation in Family Firms (2015 – 2021)

Authors & Article	Year	Journal	Sample Description	Key Points of the Research
Alayo, M., Iturralde, T. & Maseda, A. Innovation and internationalization in family SMEs: analyzing the role of family involvement	2021	European Journal of Innovation Management	286, Spain	The results indicate that family SMEs' innovation activities are a stimulus for their internationalization process, and show the importance of family involvement in this relationship. Specifically, the findings suggest that family-specific characteristics such as the generation in charge of the business and the level of family involvement in the top management team shape the relationship between innovation and internationalization.
Belenzon, S., Pataconi, A., & Zarutskie, R. Married to the firm? A large-scale investigation of the social context of ownership	2016	Strategic Management Journal	Europe	A large sample of private firms across Europe was used. The authors found that family-owned firms have higher profit margins, returns on assets, and survival rates compared to single-owner or unrelated-owners' firms, but also invest and grow more slowly, hold greater reserves of cash, and rely less on external debt.
Bennedsen, M., & Foss, N. Family assets and liabilities in the innovation process	2015	California Management Review	Int. review	Innovation in family firms is often driven by family assets, valuable resources that are particularly prevalent in family firms. These family assets can over time atrophy and stifle rather than stimulate innovation performance. However, family firms can fight this process by institutionalizing innovation within the family and the firm by means of family and corporate governance and through incentivizing key individuals in the innovation process.
Botero, I.C., C. Cruz, A. De Massis & M. Nordqvist. Family Business Research in the European context	2015	European Journal of International Management	Europe	This article discusses some contextual factors that might affect the broadness, diversity, uniqueness and growth potential of family business research and stimulates further family business work in the European context and comparison with studies conducted in different geographies.
Breckova, P. SMEs' Innovation Approach in the Czech Republic	2017	Marketing and Management of Innovations	Czech Republic	The paper focuses on innovative activities of SMEs in the Czech Republic. The research concludes that SMEs are aware of the importance of innovation for business and competitiveness, but they approach innovation management and planning in a rather unsystematic way. Significant findings are also directed in the area of drivers (motives) for innovations, where customer preferences, availability of funding and competitors' actions prevailed.
Calabro, A., Vecchiarini, M., Gast, J., Campopiano, G., De Massis, A. & Kraus, S. Innovation in family firms: a systematic literature review and guidance for future research	2019	International Journal of Management Reviews	Int. review	Through a systematic review of 118 peer-reviewed journal articles published between 1961 and 2017, this article provides an integrative picture of the state of the art of the family firm innovation literature.
Carney, M., Zhao, J. & Zhu, L. Lean innovation: Family firm succession and patenting strategy in a dynamic institutional landscape	2019	Journal of Family Business Strategy	China	The paper is motivated by recent findings about family firm's ability to 'do more with less' in the innovation process, which we dub 'lean innovation'. Authors consider lean innovation patenting strategies in an emerging market context that is undergoing improvement in its intellectual property protection regime. Based on generational differences between founders and successors authors found that

				successors are significant adopters of lean innovation patenting strategies.
Cleary, P., Quinn, M. & Moreno, A. Socioemotional wealth in family firms: A longitudinal content analysis of corporate disclosures	2019	Journal of Family Business Strategy	2, UK	Family business literature has noted the nature and presence of socioemotional wealth (SEW) in family firms. Authors observe SEW by a five-dimension approach, collectively termed FIBER. They undertake a content analysis of corporate disclosures through the Chairman's Statement of two Irish family breweries over a period of about two decades. The findings reveal that the Chairman's Statement does include FIBER dimensions in both breweries and they do change over time.
Daspit, J.J., Long, R.G. & Pearson, A.W. How familiness affects innovation outcomes via absorptive capacity: A dynamic capability perspective of the family firm	2019	Journal of Family Business Strategy	Int. review	Authors use a dynamic capability perspective to propose that familiness affects absorptive capacity, a knowledge-specific dynamic capability, through which the firm's innovation outcomes are influenced. The conceptual model offered highlights the role of absorptive capacity in understanding how familiness affects innovation outcomes and elucidates the heterogeneity across family firms that results from nonfamily member involvement.
De Massis, A., Di Minin, A., & Frattini, F. Family-driven innovation: Resolving the paradox in family firms	2015	California Management Review	Int. review	This article presents an integrated, contingency perspective on family firm innovation called Family-Driven Innovation (FDI). The framework highlights the need for consistency between a family firm's strategic innovation decisions and its idiosyncrasies to achieve and sustain competitive advantage through innovation. This article also offers some directions for future research on FDI and serves as an introduction to this special section on family firms.
De Massis, A., Frattini, F., Kotlar, J., Messeni Petruzzelli, A., & Wright, M. Innovation through tradition: Lessons from innovative family businesses and directions for future research	2016	Academy of Management Perspectives	6, Italy	Authors conceptualize a new product innovation strategy called innovation through tradition and identify its underlying capabilities of interiorizing and reinterpreting past knowledge. Authors analyse and discuss the illustrative cases of six long-lasting family businesses (Aboca, Apremare, Beretta, Lavazza, Sangalli, and Vibram), exemplifying how firms that build long-lasting and intimate links with their traditions can be extremely innovative while remaining firmly anchored to the past.
De Massis, A., Frattini, F., Pizzurno, E., & Cassia, L. Product innovation in family vs. non-family firms: An exploratory analysis	2015	Journal of Small Business Management	10, Italy	By drawing upon the resource-based view of the firm as well as agency, stewardship, and behavioural theories and using empirical evidence gathered through a multiple case study, the paper studies how and why the anatomy of the product innovation process differs between family and nonfamily firms.
Dieleman, M. Reaping what you sow: The family firm innovation trajectory	2019	Journal of Family Business Strategy	Malaysia	Using a longitudinal case study, author investigates the influence of family governance attributes during different stages of innovation and suggest that family entrepreneurship facilitates the conversion of innovation inputs to outputs. Family governance attributes (control, monitoring and networking) support innovation activity during some phases, but impede it during others.
Duran, P., Kammerlander, N., van Essen, M., & Zellweger, T. Doing more with less: Innovation input and output in family firms	2016	Academy of Management Journal	Int.	Authors argue that family firms – owing to the family's high level of control over the firm, wealth concentration, and importance of nonfinancial goals—invest less in innovation but have an increased conversion rate of innovation input into output and, ultimately, a higher innovation output than nonfamily firms. Empirical evidence from a

				meta-analysis based on 108 primary studies from 42 countries supports research hypotheses.
Feranita, F., Kotlar, J. & De Massis A. Collaborative innovation in family firms: Past research, current debates and agenda for future research	2017	Journal of Family Business Strategy	Int. review	Authors systematically review and organize fragmented findings and arguments from prior research along three perspectives: strategic, transactional, and relational. In doing so, they provide a summary of the current state-of-the-art in this literature, point to the importance of collaborative innovation to resolve the innovation dilemma in family firms.
Filser, M., Brem, A., Gast, J., Kraus, S., & Calabrò, A. Innovation in family firms: Examining the inventory and mapping the path	2016	International Journal of Innovation Management	Int. review	By conducting a bibliometric analysis with a focus on innovation in family firms, authors identify five topical clusters that help to understand the foundations of recent findings (ownership and governance, structural settings, organizational culture and behaviour, resources, and innovation and strategy).
Fletcher, D., De Massis, A., & Nordqvist, M. Qualitative research practices and family business scholarship: A review and future research agenda	2016	Journal of Family Business Strategy	Int. review	Authors undertook an analysis of the most-cited articles using qualitative methods from an annotated bibliography of family business studies. They identified the strengths and weaknesses of extant qualitative studies in family business research and argue for the need to re-orientate calls in family business research towards the foundational questions (rather than methods) that underline qualitative inquiry.
Hauck, J., & Prügler, R. Innovation activities during intra-family leadership succession in family firms: An empirical study from a socioemotional wealth perspective	2015	Journal of Family Business Strategy	Austria (tourism industry)	Authors reason that the intra-family leadership succession phase has distinct characteristics that render it a peculiar time frame for innovation. They use quantitative data from a unique research setting in which family influence in terms of ownership and management, and thus the ability to innovate, as well as major contextual variables were held constant. The results show that SEW factors have both dark and bright sides in the context of innovation.
Hiebl, M. R. W. Family involvement and organizational ambidexterity in later-generation family businesses: A framework for further investigation	2015	Management Decision	Int.	The paper aims to discuss the issue that family firms research has not yet taken sufficient advantage of the potential of organizational ambidexterity to contribute to explaining the ability of later-generation family firms to survive. Seven propositions are developed which suggest that the level of family involvement in ownership and management affect the ability of later-generation family firms to reach high levels of organizational ambidexterity.
Holt, D. T., & Daspit, J. J. Diagnosing innovation readiness in family firms	2015	California Management Review	Int.	This article introduces the Readiness for Innovation in Family Firms (RIFF) framework, which provides a diagnostic assessment and identifies multiple factors associated with innovation readiness. By applying the RIFF framework, managers of family firms can focus on specific factors that prepare the firm to engage in the innovation adoption process, increasing success.
Chrisman, J. J., Chua, J. H., De Massis, A., Frattini, F., & Wright, M. The ability and willingness paradox in family firm innovation.	2015	Journal of Product Innovation Management	Int. review	Authors present a framework of how family involvement influences innovation management based on ability (discretion to act) and willingness (disposition to act), two drivers that distinguish family firms from nonfamily firms and lead to heterogeneity among family firms.
Kallmuenzer, A. & Peters, M.	2018	International Journal of	180, Austria (tourism)	This study compares the innovativeness of tourism/hospitality family firms (THFF) and its effect on financial performance to that in non-

Innovativeness and control mechanisms in tourism and hospitality family firms: A comparative study		Hospitality Management	m industry)	tourism/-hospitality industries (non-THFF). Drawing on family business literature, authors also analyse the applicability of control mechanisms to manage the effectiveness of innovativeness. Findings from a sample of 180 firms (82 THFF and 98 non-THFF) show that innovativeness in THFF is as relevant for performance as in non-THFF.
Kammerlander, N., & Ganter, M. Attention-based view of family firm adaptation to discontinuities: The role of non-financial goals	2015	Journal of Product Innovation Management	7, Germany (consumer goods)	Based on seven longitudinal case studies in the German consumer goods industry authors reveal how variance in the family CEOs' non-financial goals causes substantial heterogeneity in the family firms' adaptation behaviour regarding the type, speed, intensity, flexibility, and persistence of their adaptation.
Migliori, S. De Massis, A., Maturo, F. & Paolone F. How does family management affect innovation investment propensity? The key role of innovation impulses	2020	Journal of Business Research	1093, Italy	Authors investigate the relationship between family management and innovation investment propensity in family firms through analysing the effect of two innovation impulses: demand-pull and technology-push. The results show that both the demand-pull and technology-push innovation impulses moderate the relationship between family management and the firms' propensity to invest in innovation, reducing the negative effect exerted by family management on family firms' innovation investment propensity.
Nieto, M.J., Santamaria, L. & Fernandez, Z. Understanding the Innovation Behavior of Family Firms	2015	Journal of Small Business Management	Spain	This paper examines innovation behaviour in family firms, analysing their innovation efforts, sources, and results. Using a large sample of Spanish firms, the findings show that family firms perform fewer innovation efforts and are less inclined to turn to external sources of innovation, such as technological collaboration, than nonfamily firms.
Rau, S.B., Werner, A. & Schell, S. Psychological ownership as a driving factor of innovation in older family firms	2019	Journal of Family Business Strategy	942, Germany	While some family firms innovate less when growing older, others are very successful and innovative over multiple generations. Authors provide a new explanation for this phenomenon by showing that psychological ownership can influence the relationship between generation in ownership and innovation output. In line with the literature, we find that over the generations, innovation output decreases, being significantly lower in the third and later generation than in the founder generation.
Röd, I. Disentangling the family firm's innovation process: A systematic review	2016	Journal of Family Business Strategy	Int. review	Authors present systematic review article analyzed 78 peer-reviewed journal articles on innovation in family businesses. Subsequently, a conceptual framework is developed that provides a holistic view of the multi-staged innovation process by incorporating the family system as an influencing context variable. Building on the concept of familiness, the framework demonstrates how family factors, based in the family system, affect the various stages of the family firm's innovation process. Whether the family leads to an advantage or disadvantage for the innovation behavior of the business depends on contextual factors (e.g., performance hazards, kind of family involvement, and generational effects) and first and foremost on the familiness of the firm.
Rondi, E., De Massis, A. & Kotlar, J. Unlocking innovation potential: A typology of	2019	Journal of Family Business Strategy	Italy	Authors develop the construct of family business innovation posture, and identify a typology of four ideal types: Seasoner, Re-enactor, Digger, and Adventurer. The article examines the implications of

family business innovation postures and the critical role of the family system				this typology for family business innovation research by exploring the effects of intra-family succession, outlining important directions for future research aimed at advancing current understanding of the role of the family in family business innovation, and providing practical insights for family business owners, managers, and consultants.
Saurabh, A., Mahto, R.V., & Walsh, S.T. Innovation in small firms: Does family vs. non-family matter?	2017	Journal of Small Business Strategy	USA	In this study, authors explore antecedents of innovation in small firms. They build and test a theoretical model that links employee training, employee commitment, family employees, and emphasis on learning to innovation in small firms. Authors also argue that a small-firm owner's perception about his firm being a family firm or a non-family firm will influence the relationship between predictors and firm innovation.
Vasquez, P. & Rocha, H. On the goals of family firms: A review and integration	2019	Journal of Family Business Strategy	Int. review	In this article, authors present a review and integration of 76 articles published in peer-reviewed journals from 1992 to 2016 in order to answer two research questions: what are the goals of family firms and how are they integrated according to extant research? The findings are twofold: first, the goals of family firms are diverse and classified in dichotomous categories; second, the majority of studies integrate these goals based on a trade-off logic.
Veider, V., & Matzler, K. The ability and willingness of family-controlled firms to arrive at organizational ambidexterity	2016	Journal of Family Business Strategy		Building on a combinatory consideration of the ability and willingness framework in the context of organizational ambidexterity, authors argue that the ability of family-controlled firms to arrive at organizational ambidexterity is contingent on their willingness to face family-related disadvantages via activities that allow for the reduction of flaws arising out of family-related particularistic constituencies.