Entrepreneurial Orientation and the Family Firm: Mapping the Field and Tracing a Path for Future Research

Remedios Hernández-Linares¹ and María Concepción López-Fernández²

Abstract
Despite several calls for the further study of entrepreneurial orientation in family firms, we still have a fragmented understanding of this topic, whose full potential has yet to be reached. To shed new light on this issue, this article first maps the family business field by carrying out a systematic review and content analysis of the 78 articles identified at the confluence of entrepreneurial orientation and family firms. Our study describes and critically assesses previous research as well as the conclusions reached. Second, this article identifies the main research gaps and provides a path for future investigations.

Keywords
entrepreneurial orientation, family firm, firm-level entrepreneurship, future research, literature review

Introduction
Entrepreneurial orientation (EO), which emerged (Covin & Slevin, 1989; Miller, 1983) as a powerful construct to explain the way companies face the challenging and volatile current environment, has become one of the more relevant constructs in the study of corporate entrepreneurship (Covin, Green, & Slevin, 2006; Wales, 2016; Wales, Gupta, & Mousa, 2013). Known as “the strategy making processes that provide organizations with a basis for entrepreneurial decisions and actions” (Rauch, Wiklund, Lumpkin, & Frese, 2009, p. 762), EO and its dimensions can vary in different organizational contexts (Lumpkin & Dess, 1996). Given their uniqueness, family firms offer a singular context for researching EO (Nordqvist & Melin, 2010) and analyzing how some environmental (e.g., institutional logics such as religion or family) and organizational characteristics (e.g., strategic conditions and personal traits of the CEO) relate to EO or its outcomes (Miller, 2011). However, beyond the fact that family firms represent a context for our improved understanding of the EO construct in the general EO literature, the presence of the family as the dominant coalition of the firm (Chrisman, Chua, Pearson, & Barnett, 2012) also leads to the need to analyze how some specific features or constructs of family firms (e.g., familiness, concern for socioemotional wealth [SEW] preservation, intrafamily succession, or the need to reach family-oriented goals) affect EO and its outcomes. Despite this interest, EO research in the family business field did not begin until the mid-2000s (Zahra, Hayton, & Salvato, 2004), and it has attracted increasing scholarly attention in recent years (López-Fernández, Serrano-Bedia, & Pérez-Pérez, 2016; Nordqvist & Melin, 2010), leading to a rich, complex, and somewhat fragmented body of research. Given that each study typically examines only one or a small subset of antecedents and consequences, this diverse and complex literature requires a researcher to make sense of the disparate investigations (Sarasvathy, 1999).

Hence, a systematic review of the literature at the confluence of EO and family firms is needed to take stock of what we currently know as well as help family

¹University of Extremadura, Mérida (Badajoz), Spain
²University of Cantabria, Santander (Cantabria), Spain

Corresponding Author:
María Concepción López-Fernández, University of Cantabria, Facultad de Ciencias Económicas y Empresariales, Avenida de los Castros, 54, 39005 Santander (Cantabria), Spain.
Email: concepcion.lopez@unican.es
firm scholars trace a path for future research. For instance, despite the positive effect of EO on business performance (Rauch et al., 2009), EO and some of its dimensions seem to be less prominent in family firms than in other firm types (e.g., Garcés-Galdeano, Larraza-Kintana, García-Ólaverri, & Makri, 2016; Short, Payne, Brigham, Lumpkin, & Broberg, 2009), and a literature review may provide insight into whether this observation can be confirmed, why this occurs, and what effects it has: Do family firms have more prevalent or specific antecedents to EO? Do family firms choose not to foster EO as much as other firms because of their focus toward family-oriented goals? How does a family firm’s heterogeneity affect its EO? Hopefully, a comprehensive review may help identify what we know and what we should know about the EO within family firms. Additionally, literature reviews often highlight strengths and weaknesses within disciplines, provide examples of best practices to guide scholars in producing high-quality research, ratify the validity of findings, and deliver scientific evidence underpinning scholars’ advice to practitioners (Finnegan, Runyan, González-Padron, & Hyun, 2016).

Therefore, to increase the effective progress within the field, we have conducted a comprehensive and systematic review of the literature with a two-fold research objective: (1) to map the field by identifying not only the main conclusions derived from the different types of studies but also the methodologies, theoretical frameworks, and metrics used and (2) to trace a path for future research based on the research gaps identified.

By covering these two objectives, we make at least two contributions to the existing EO and family firm literature. First, we conduct the first cross-journal and cross-discipline methodological assessment of EO within the family business field. We critically examine the literature, providing scholars with the opportunity to reflect and delivering a holistic guide that may be useful for practitioners and academics alike. Second, building on our review and systematization of the prior literature, we identify several research gaps and present some opportunities for future research.

**An Approach to EO Research**

Although rooted in the theory propounded by Mintzberg (1973) on strategic decision making, it is generally accepted that the concept of EO was originally proposed by Miller (1983), who defined an entrepreneurial firm as “one that engages in product-market innovation, undertakes somewhat risky ventures and is first to come up with ‘proactive’ innovations, beating competitors to the punch” (p. 771). As such, Miller conceives of EO as a construct composed of three dimensions: (1) innovativeness, defined as the “exhibition of experimentation, exploration, and creative acts”; (2) risk-taking or “willingness to commit resources to projects, ideas, or processes whose outcomes are uncertain and for which the cost of failure would be high”; and (3) proactiveness, referred to as “engaging in forward-looking actions targeted at the exploitation of opportunity in anticipation of future circumstances, as would be typical of firms that lead and/or pre-empt the actions of others” (Covin & Wales, 2012, p. 694). Lumpkin and Dess (1996) provide an alternative vision of EO that extends the number of dimensions, adding (4) competitive aggressiveness, defined as “the intensity of a firm’s efforts to outperform industry rivals, characterized by a combative posture and a forceful response to competitor’s actions”; and (5) autonomy, defined as “independent action by an individual or team aimed at bringing forth a business concept or vision and carrying it through to completion” (Lumpkin & Dess, 2001, p. 431). The Miller (1983) approach considers that for EO to be present, its three dimensions must positively covary, while the Lumpkin and Dess (1996) approach establishes that the five dimensions do not need a positive covariance for EO to exist, though the Miller gestalt approach is the predominant approach in the EO literature (Rauch et al., 2009).

The positive effect of EO on firm performance has been confirmed by recent meta-analyses (Rauch et al., 2009; Rosenbusch, Rauch, & Bausch, 2013); this field has been extensively reviewed (Wales, 2016; Wales et al., 2013; Wales, Monsen, & McKelvie, 2011; Wiklund & Shepherd, 2011), but none of the reviews published have focused on the family firm, even though the literature has found that EO is “a useful framework for investigating entrepreneurship in family businesses” (Lumpkin, Brigham, & Moss, 2010, p. 243).

**Method**

We have identified articles in our study following a systematic review process including two sequential steps. First, and consistent with recent management reviews (Agostini & Nosella, 2017), we used two comprehensive citation databases: Web of Science (WoS) and Scopus. The WoS focuses on scholarly journals and is
characterized by its objective journal selection standards and its widespread diffusion within the academic community (Perri & Peruffo, 2016), while Scopus is relatively new but rapidly expanding, and it claims to be the largest abstract and citation database (Kellens, Terpstra, & De Maeyer, 2013). We have limited our search to articles or reviews published in journals, as only publications in peer-reviewed journals can be considered validated knowledge and are thus likely to have the largest impact on scholarly discourse (Podsakoff, Mackenzie, Bachrach, & Podsakoff, 2005). In other words, nonjournal media, such as books, book chapters, and other non-refereed publications, have not been included because of the lack of validated review processes and their limited impact on the state of the art (McWilliams, Siegel, & Van Fleet, 2005). We use the entire WoS and Scopus databases to avoid any potential bias and/or omission caused by considering only a set of relevant journals (López-Fernández et al., 2016). Although the selected time limit was the maximum allowed to prevent distortion of the results (including papers in press in 2018), the first article found was published in 2004 by Zahra and colleagues. We have modeled the keyword selection on two systematic review articles on EO (Rauch et al., 2009; Wales et al., 2013). The criteria used for the searches in the WoS and Scopus are shown in Table 1.

In a second step, to detect any misclassifications, we performed an additional manual search in all the journals where at least one article had been identified in the first step as well as in the rest of the journals that have published the most papers on family firms according to the review by Benavides-Velasco, Quintana-García, and Guzmán-Parra (2013): Administrative Science Quarterly, Business History, Journal of Financial Economics, Journal of Management Studies, and Organizational Dynamics. This manual search yielded six more articles.

In an effort to be as current and inclusive as possible, we performed a second wave of searches on April 4, 2018, for articles published since January 2017. The searches identified 127 papers, of which 18 were included in the review before finalizing the article. The second wave of searches supposes that 23% of the articles identified had been published in the time period following the first wave.

To summarize, our raw search identified 78 peer-reviewed articles published in 40 journals (Table 2), which is higher than the number of publications included in recent review articles in the family business field (e.g., De Massis, Frattini, & Lichtenthaler, 2013; Feliu & Botero, 2016).

EO and Family Firms: Mapping the Field

To map EO in the family business field, we analyze the articles gathered in terms of their content, exploring five main themes: (1) methodological and sampling diversity, (2) theoretical diversity, (3) conceptualization and measurement of the family firm and EO, (4) consideration of the EO construct within the research models, and (5) contingent factors influencing EO in this type of firm.

Methodological and Sampling Diversity

Similar to EO in general (Miller, 2011), our sample is mainly composed of quantitative studies (53); while 12 articles are qualitative, one work employs both quantitative and qualitative methodologies (Hernández-Perlines, Moreno-García, & Yañez-Araque, 2016), and the remaining 12 articles are of a conceptual nature. The 12 conceptual papers can be divided into three groups. The first includes three introductory articles to special issues exploring entrepreneurship in family firms (e.g., Nordqvist & Melin, 2010) and a commentary on three articles on EO in a special issue (Dess, Pinkham, & Yang, 2011). The second group includes six articles proposing models that would need to be tested for a better
understanding of the EO phenomenon within family firms. Specifically, three works propose a relationship between EO and family firm internationalization (Huang, Lo, Liu, & Tung, 2014; Liu, 2014; Tung, Lo, Chung, & Huang, 2014), one develops a model of transgenerational entrepreneurship (Irava & Moores, 2010), another proposes the existence of a relationship between long-term orientation and EO (Lumpkin et al., 2010), and the last one proposes sundry governance distinctions that may explain why family firms will be more or less entrepreneurial (Le Breton-Miller, Miller, & Bares, 2015). The third group comprises two works that present a more theoretical kind of literature review on succession in family firms from an entrepreneurial process perspective (Nordqvist, Wennberg, Bau, & Hellerstedt, 2013) and a reflection on the resources that may inform how entrepreneurially oriented a successful family business is (Miller, Steier, & Le Breton-Miller, 2016).

Among the 13 works that employ qualitative methodologies (53 use only quantitative methodologies and one uses mixed methodologies), we find only 4 that use longitudinal data on large listed firms collected from secondary sources. Block (2012) uses R&D intensity as a proxy for EO given its correlation with the three traditional dimensions, while the remaining (Boling, Pieper, & Covin, 2016; Miller & Le Breton-Miller, 2011; Zachary, Payne, Moore, & Sexton, 2017) use a composite index of EO. The 50 remaining studies use primary data sources collected through surveys, except for García-Galdeano et al. (2016), who use in-depth personal interviews. All the investigations based on survey data use only one informant, except Kellermanns and Eddleston (2006) and Fu and Si (2018). Less methodological diversity is used in this group than among the qualitative works given that 57.41% of the quantitative papers use regression analysis, 38.89% structural equation models, and only two papers use other methodologies: Cox proportional hazards model (Revilla, Pérez-Luño, & Nieto, 2016) and random coefficient modelling (Zachary et al., 2017).

Most of the empirical works have researched firms in only one country, and the most studied countries are Spain (24.24%) and the United States (16.67%), followed by Austria (7.58%), Switzerland (6.06%), and Turkey (4.55% each). Five works (7.58%) study firms from more than one country (Charupongsopon &

Table 1. Process of Systematic Search.

| Keywords                                                                 | 1st Step                     | 2nd Step                     |
|-------------------------------------------------------------------------|------------------------------|------------------------------|
| “Famil*” and following keywords:                                        | Web of Science searches      | Journals                     |
| “entrepreneurial orientation”*a                                      | Searches in: Topic           | Journals with at least one    |
| “entrepreneurial proclivity”*b                                        | Research area: All           | article identified in WoS/    |
| “entrepreneurial posture”*b                                            | Language: “English”          | Scopus                       |
| “entrepreneurial disposition”*b                                       | Document type: “Article” OR  | Journals most productive in   |
| “firm level entrepreneur”*b                                            | “Article or review”          | family business              |
| “corporate entrepreneur”*b                                            | Years: All                   | (Benavides-Velasco, Quintana-Garcia, & Guzmán-Parra, 2013): Administrative Science Quarterly, Business History, Journal of Financial Economics, Journal of Management Studies, and Organizational Dynamics |
| “entrepreneurial behavior”*c                                          |                             | **Administrative Science**    |
| “strategic orientation”*c                                             |                             | Quarterly, **Business**       |
| “strategic posture”*c                                                  |                             | **History**, **Journal of**   |
|                                                                         |                             | **Financial Economics**,      |
|                                                                         |                             | **Journal of Management**     |
|                                                                         |                             | **Studies**, and **Organizational Dynamics** |

*Rauch, Wiklund, Lumpkin, and Frese (2009) and Wales, Gupta, and Mousa (2013). **Wales et al. (2013). ***Rauch et al. (2009).
Table 2. Breakdown of Identified Articles by Source Journal.

| Journal                                                      | Articles |
|--------------------------------------------------------------|----------|
| Entrepreneurship Theory and Practice                         | 8        |
| Journal of Family Business Strategy                          | 7        |
| Family Business Review                                        | 6        |
| Journal of Business Research                                  | 5        |
| Small Business Economics                                      | 5        |
| International Journal of Entrepreneurship & Small Business    | 4        |
| Entrepreneurship & Regional Development                      | 3        |
| Journal of Small Business Management                          | 3        |
| The Anthropologist                                            | 2        |
| International Entrepreneurship and Management Journal         | 2        |
| International Journal of Entrepreneurial Venturing           | 2        |
| International Journal of Entrepreneurship and Innovation Management | 2        |
| Journal of Business Venturing                                 | 2        |
| Academy of Strategic Management Journal                       | 1        |
| African Journal of Business Management                        | 1        |
| British Journal of Management                                 | 1        |
| Chinese Management Studies                                    | 1        |
| Cogent Business & Management                                  | 1        |
| Creativity and Innovation Management                          | 1        |
| Current Issues in Tourism                                     | 1        |
| Encontros Científicos-Tourism & Management Studies            | 1        |
| European Journal of Economics, Finance and Administrative Sciences | 1        |
| European Journal of International Management                  | 1        |
| European Management Journal                                  | 1        |
| European Research Studies Journal                             | 1        |
| Frontiers in Psychology                                       | 1        |
| International Journal of Applied Business and Economic Research | 1        |
| International Journal of Business and Globalisation           | 1        |
| International Journal of Economic Research                    | 1        |
| International Journal of Healthcare Management                | 1        |
| International Journal of Management & Enterprise Development  | 1        |
| International Small Business Journal                          | 1        |
| Journal of Enterprising Culture                               | 1        |
| Management Decision                                           | 1        |
| Psychology & Marketing                                        | 1        |
| Review of Managerial Science                                  | 1        |
| Revista de Cercetare si Interventie Sociala                  | 1        |
| Strategic Entrepreneurship Journal                            | 1        |
| Sustainability                                                | 1        |
| Tourism Recreation Research                                    | 1        |
| Total                                                        | 78       |

Puriwat, 2017; Chirico & Nordqvist, 2010; Covin et al., 2016; Tripopsakul, & Asavanant, 2017; Zellweger, Nason, & Nordqvist, 2012), but these papers do not compare results from different countries.

Theoretical Diversity

In this section, we follow Sutton and Staw (1995), who argue that theory is a narrative about why acts, events, structure, and thoughts occur, and it emphasizes the nature of causal relationships, identifying both what comes first and the timing of such events. Following this idea, we find that 32.05% of the articles reviewed do not formally claim to apply any theory to support their arguments and investigations. Among the remaining articles, we unsurprisingly find that the two most widely used theories are the resource-based view (RBV; Barney, 1991) and agency theory (Jensen & Meckling, 1976), which are the theoretical frameworks that have dominated the family firm field (Chrisman, Kellermanns, Chan, & Liano, 2010). Stewardship theory (Davis, Schoorman, & Donaldson, 1997), often considered contrary to agency theory, is the third most used. Other theories commonly adopted are upper echelons theory (Hambrick & Mason, 1984), SEW (Gomez-Mejia, Haynes, Núñez-Nickel, Jacobson, & Moyano-Fuentes, 2007) and related theories (behavioral and behavioral agency), social identity theory (Ashforth & Mael, 1989), and contingency theory (Woodward, 1958). Notably, 26.92% of the articles identified used more than one theory (Table 3), and although SEW is the only homegrown theory of the family business field (Berrone, Cruz, & Gómez-Mejía, 2012), it has been used alone only once (Garcés-Galdeano et al., 2016) and five times in combination with other theories (e.g., Casillas, Moreno, & Barbero, 2011; Schepers, Voordekkers, Steijvers, & Laveren, 2014). While these theories have made substantial contributions to research on the overlap between EO and family businesses, due to space limitations, we will comment only briefly on the three most relevant theories and their results when used in isolation.

RBV (Barney, 1991) and its variants, dynamic capabilities (Teece, Pisano, & Shuen, 1997) and knowledge-based view (Leonard-Barton, 1992), address how firms use resources and capabilities to build and sustain a competitive advantage. Specifically, RBV explains different family firms’ behaviors and results based on their unique resources and capabilities, with familiness prevailing (Habbershon & Williams, 1999) as well as the
Table 3. Articles Examining EO and the Family Firm.

| Author/s (year) | Main theory | Method | Criteria for FB definition | Dimensions of EO considered | Sample description | Sample description | Main finding/conclusion |
|-----------------|-------------|--------|-----------------------------|-----------------------------|-------------------|-------------------|------------------------|
| Zahra, Hayton, and Salvato (2004) | RBV | E/Qn | Ownership, management, continuity | I, RT, P | 536 U.S. manufacturing firms (218 FBs) | The associations between the dimensions of OC and EO are stronger in FBs than in non-FBs, except in the case of external orientation. Hence, FBs may use the OC for achieving a competitive advantage by promoting EO. |
| Kellermanns and Eddleston (2006) | NA | E/Qn | Ownership, employ | I, RT, P | 74 U.S. private FBs | Willingness to change and perceive technological opportunities are positively associated to EO. Strategic planning enhances EO in first generation FBs, but it does not have a positive effect on multigenerational FBs. |
| Naldi, Nordqvist, Sjöberg, and Wiklund (2007) | AT | E/Qn | Ownership, management, self-perception | I, RT, P | 696 Swedish private SMEs (265 FBs) | In FBs, RT is positively associated to innovation and P but negatively associated to performance. FBs take significantly less risk than non FBs. |
| Kellermanns, Eddleston, Barnett, and Pearson (2008) | ST, TAT | E/Qn | NA | I, RT, P | 232 U.S. private FBs | In FBs: (1) EO is strongly related to EG; (2) there is no significant relationship between CEO age and EO or EG, (3) the organizational tenure of the CEO is negatively associated to EG; and (4) the generational involvement–EG link is mediated by EO. |
| Escribá-Esteve, Sánchez- Peinado, and Sanchez-Peinado (2009) | AT, RBV, UET | E/Qn | Ownership, management | I, RT, CA | 295 Spanish private SMEs from mature industries (50% FBs) | A firm’s strategic orientation (including EO dimensions) plays a mediating role in explaining how TMT characteristics determine SMEs’ performance. An increased presence of family members in the TMT can constrain the adoption of proactive strategic orientation, and thus limit the potential SMEs’ performance. |
| Short, Payne, Brigham, Lumpkin, and Broberg (2009) | AT | E/Ql | Ownership, management, continuity, governance | I, RT, P, CA, A | 426 U.S. public firms (146 FBs) | The language used by FBs in the letters from CEOs to shareholders tend to indicate less RT, P, and A than that used by non-FBs. |
| Casillas and Moreno (2010) | AT, RBV | E/Qn | Ownership, management, governance | I, RT, P, CA, A | 449 Spanish private FB-SMEs | I and P influence on company’s growth. Family involvement positively moderates the I–growth link, while negatively moderates the RT–firm growth link. |
| Casillas, Moreno, and Barbero (2010) | RBV | E/Qn | Ownership, self-perception | I, RT, P | 317 Spanish private FBs | I and marginally P positively influence firm growth. P–growth link is positively moderated by generational involvement and environmental dynamism while RT–growth link is moderated by environmental hostility. |

(continued)
| Author/s (year)               | Main theory | Method | Criteria for FB definition | Dimensions of EO considered | Sample description                  | Main finding/conclusion                                                                                                                                                                                                 |
|------------------------------|-------------|--------|-----------------------------|-----------------------------|-------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Chirico and Nordqvist (2010) | DC, RBV     | E/QI   | Ownership, management, continuity | I, RT, P                    | 4 private (2 Italian and 2 Swiss) FBs | Family inertia prevents the creation of dynamic capabilities and entrepreneurial performance. Family inertia depends of the FB culture. Specifically, paternalism influences family inertia positively, while EO influences it in a negative sense.                        |
| Irava and Moores (2010)      | DC, RBV     | C      | NA                          | I, RT, P                    | —                                   | Authors develop a model of transgenerational entrepreneurship that includes connections between familiness and EO, and between EO and the achievement of non-financial goals.                                      |
| Kickul, Liao, Gundry, and  | RBV         | E/Qn   | Self-perception             | I, RT, P                    | 555 Russian private SMEs (56% FBs) | There are no significant differences between FBs and non-FBs with regard to performance expectations about resources, opportunity identification or EO. Long-term orientation will be positively associated with I, P, and A but negatively associated with RT and CA. Long- and short-term implications of EO on FBs performance are also discussed. |
| Iakovleva (2010)             | AT, ST      | C      | NA                          | I, RT, P, CA, A             | —                                   | There is an explicit shift from an almost ad hoc type of entrepreneurship to one that takes more into account the benefit to future generations. This change in mind-set, framed at the interface of stewardship and EO perspectives, encapsulates family enterprising.                        |
| Lumpkin, Brigham, and Moss   | ST          | E/QI   | NA                          | I, RT, P, CA, A             | 1 third-generation Australian private FB | Authors offer a conceptual framework with 3 elements (actors or entrepreneurial families, activities or entrepreneurial actions, and attitudes or EO) and discuss unexplored themes in each. Environmental dynamism positively affects EO and moderates the next generation’s involvement–EO link. Environmental hostility positively moderates the relationships between next generation involvement and nonfamily involvement in management and RT, but it negatively moderates the relationship between nonfamily involvement in management and P. |
| Morris and Craig (2010)      | NA          | C/ISI  | NA                          | —                           | —                                   | The dimensions of institutionalization influence the EO dimensions. The A dimension of institutionalization positively affects RT, P, and I. Transparency positively affects RT and P. Professionalism and consistency positively affect P. Formalization negatively affects RT and P but has a positive influence on I. |

(continued)
Table 3. (continued)

| Author/s (year)                         | Main theory | Method | Criteria for FB definition | Dimensions of EO considered | Sample description | Main finding/conclusion |
|----------------------------------------|-------------|--------|----------------------------|-----------------------------|--------------------|-------------------------|
| Chirico, Sirmon, Sciascia, and Mazzola (2011) | RBV         | E/Qn   | Ownership, management      | I, RT, P                    | 199 private Swiss FBs | Generational involvement negatively moderates the EO–performance link, except when participative strategy is high. |
| Dess, Pinkham, and Yang (2011)          | NA          | C      | NA                         | —                           | —                  | Authors summarize the articles in the special issue and propose some directions for future research, one of which is the relevance of exploring the FB context in EO research. |
| Miller and Le Breton-Miller (2011)      | IdT, SIT    | E/Qn   | Ownership, management, governance | I, RT, P                    | 898 U.S. listed companies | The owner-CEO identities influence EO, and in turn firm performance. Specifically, lone founder firms exhibit higher levels of EO and outperform other firms. Postfounder FBs identity as family nurturers, limits their EO and performance. FBs' founders exhibit blended identities and their firms demonstrate intermediate levels of EO and performance. |
| Moog, Mirabella, and Schlepphorst (2011) | NA          | E/Ql   | Ownership, management      | I, RT, P, CA, A             | 6 German family SMEs | Personal orientations of owners, predecessors and successors affect the strategy and orientations of FBs. |
| Weismeier-Sammer (2011)                 | NA          | E/Qn   | Self-perception            | I, RT, P                    | 413 Austrian private FBs in the food and beverage industry | This replication of Kellermanns and Eddleston’s (2006) study confirms the positive effect of willingness to change and perceived technological opportunities on EO, but it finds a positive direct effect of strategic planning instead of the moderator link found in the original study. |
| Yildirim and Saygin (2011)              | NA          | E/Qn   | NA                         | I, RT, P                    | 94 manufacturing family SMEs from Turkey | There is a strong and positive correlation between owners' transformational leadership level and SMEs' EO. |
| Block (2012)                            | AT          | E/Qn   | Ownership, management, continuity, governance | I, RT, P                    | 154 public U.S. firms in research-intensive industries (47 FBs) | Family ownership is negatively associated with the level of R&D intensity, this being used as a proxy of the three traditional dimensions of EO. Ownership by lone founders has a positive effect not only on R&D intensity but also on the level of R&D productivity. Competitive environment and EO correlate differently, depending on the generation in charge, such correlations being generally stronger in second-generation FBs. Nonfamily managers on the TMT make a positive difference for EO only in the third-generation-and-beyond FBs. The significance of nonfamily investors' on EO is particularly strong in third-generation- and-beyond firms. |
| Cruz and Nordqvist (2012)               | NA          | E/Qn   | Ownership, self-perception  | I, RT, P                    | 882 Spanish private FBs | |

(continued)
| Author/s (year) | Main theory | Method | Criteria for FB definition | Dimensions of EO considered | Sample description | Main finding/conclusion |
|----------------|-------------|--------|----------------------------|----------------------------|--------------------|------------------------|
| Eddleston, Kellermanns, and Zellweger (2012) | ST E/Qn | Ownership, self-perception, employ | I, RT, P | 179 private FBs from Switzerland | Comprehensive strategic decision making and long-term orientation contribute to EO. The family-to-firm unity positively moderates the relationships between long-term orientation/participative governance and EO, and negatively the human capital–EO link. |
| Uhlaner, Kellermanns, Eddleston, and Hoy (2012) | NA C/ISI | Ownership | — | — | Authors clarify some key terms (entrepreneurship, FB and entrepreneurial family), summarize articles in the special issue, establish a framework, and propose some lines for further research. |
| Zahra (2012) | BT E/Qn | Ownership | I, RT, P | 741 U.S. companies | Family ownership is positively associated with the breadth and speed of learning but negatively with the depth of learning. Organizational learning, especially its breadth and depth, positively influences the pace of EO within FBs. |
| Zellweger, Nason, and Nordqvist (2012) | TE E/Qn | Ownership, continuity | I, RT, P, A | 118 FBs, located around the world | Empirically exploring the family EO construct, and shifting from firm to family level of analysis, a deeper understanding of FBs’ ability to create value across generations is gained. |
| Zellweger and Sieger (2012) | NA E/QI | Ownership, management, self-definition, continuity | I, RT, P, CA, A | 3 Swiss FBs | Long-lived FBs are successful over time, even with moderated or low levels of EO. Authors offer a refined view of the EO dimensions, by proposing to split A or RT in different types. They also find that lower levels of I or CA are incompatible with long-term success and identify the negative influence of nonoperating family members on P. |
| Nordqvist, Wennberg, Bau', and Hellerstedt (2013) | NA C/Literature review | Ownership | — | — | Systematic review of articles on succession in FBs. Succession is understood as an entrepreneurial process where both the entry of new owners and the exit of old owners are associated with the pursuit of new business opportunities. |
| Sciascia, Mazzola, and Chirico (2013) | UET E/Qn | Ownership | I, RT, P | 199 Swiss FBs | Family generations must accept each other’s knowledge to improve EO within FBs. However, the involvement of family generations should be limited to two. |
| Vecchiariini and Mussolino (2013) | NA E/QI | Ownership, management | I, RT, P | 3 family-owned/managed private hospitals from Italy | Both family involvement and the formalization and professionalization in second- or subsequent-generation firms can moderate the relationships between I/RT/P and firm growth. |

(continued)
| Author/s (year)          | Main theory | Method | Criteria for FB definition | Dimensions of EO considered | Sample description                                           | Main finding/conclusion                                                                 |
|-------------------------|-------------|--------|----------------------------|------------------------------|-------------------------------------------------------------|------------------------------------------------------------------------------------------|
| Zainol (2013)           | NA          | E/Qn   | Ownership, management, self-perception | I, RT, P                     | Malay private micro and SME-FBs (number of firms NA)        | The relationships between personality traits/cultural background/government-aided programs and FBs' performance are not mediated by EO. However, EO is directly associated to performance. |
| Chien (2014)            | RBV         | E/Qn   | Management                 | I, RT, P                     | 99 couple-owned convenience store franchise in Taiwan       | Franchisor resources, spousal resources, and EO are directly associated to franchisee performance. Franchisor resources also have an indirect effect on performance through EO. |
| Craig, Pohjola, Kraus, and Jensen (2014) | NA          | E/Qn   | Ownership, self-perception | RT, P                        | 532 Finnish firms (224 FBs)                                | RT does not affect innovation output in FBs, whereas it does in non-FBs. Proactive FBs influence their innovation output more positively than proactive non-FBs do. |
| Huang, Lo, Liu, and Tung (2014) | AT, RBV, ST | C      | Ownership, management      | —                            | —                                                           | Generational involvement in firm affects time perception and goals of the incumbent generation, triggering the transfer of knowledge and values to the new generation without losing competitiveness and emotional orientation toward the company. |
| Liu (2014)              | NA          | C      | NA                         | I, RT, P, CA, A              | —                                                           | EO is related to firm performance and internationalization, and generational involvement moderates the EO–internationalization link. |
| Madison, Runyan, and Swinney (2014) | NA          | E/Qn   | Self-perception            | I, RT, P                     | 377 U. S. private small firms (279 FBs)                    | EO has a greater impact on the non-FBs performance, whereas small business orientation drives FBs performance. EO has no significant effect on FBs performance. Rather, increased performance is found in FBs that adopt a small business strategic orientation. |
| Malpica Romero, Ramirez Solis, and Baños Monroy (2014) | CT, RBV     | E/Ql   | NA                         | I, RT, P                     | 1 Mexican petrochemical FB                                 | Authors propose that EO moderates the learning orientation–market orientation link. |
| Sabah, Carsrud, and Kocak (2014) | CuT         | E/Ql   | Ownership, management, governance, employ | I, RT, P                     | 6 Turkish FBs                                               | Islam is conducive to entrepreneurial intensity within Turkish FBs context. Nationalistic FBs show lower frequency and degree of entrepreneurial intensity. Cultural openness shows mixed effects. |
| Schepers, Voordecker, Steijvers, and Laveren (2014) | CT, SEW, SIT | E/Qn   | Ownership, management, self-perception | I, RT, P                     | 232 Belgian private FBs                                     | The positive effect of EO on performance decreases as the concern for SEW preservation increases. |
| Tung, Lo, Chung, and Huang (2014) | EIT, InT, ST, UET | C      | NA                         | I, RT, P, CA, A              | —                                                           | Generational involvement affects EO, which in turn positively affects internationalization and firm survival. |

(continued)
| Author/s (year) | Main theory | Method | Criteria for FB definition | Dimensions of EO considered | Sample description | Main finding/conclusion |
|-----------------|-------------|--------|---------------------------|----------------------------|-------------------|------------------------|
| Akhtar, Ismail, Hussain, and Umair-ur-Rehman (2015) | NA | E/Qn | Ownership, management | I, RT, P, CA, A | 150 manufacturing Pakistani firms (57.3% being FBs) | P and A are the most significant dimensions in the firm success. The influence of EO dimensions is reduced when family is taken as a moderator. Cultural setting inhibits certain aspects of entrepreneurial activity. |
| Le Breton-Miller, Miller, and Bares (2015) | AT, BAT, RBV | C | NA | I, RT, P | — | Authors propose various governance distinctions that can reconcile the ambiguous findings of empirical studies. They also suggest when FBs will be most and least entrepreneurial. |
| Peters and Kallmuenzer (2015) | ET | E/Ql | Ownership, management | I, RT, P, CA, A | 17 hospitality FBs from Tyrol, Austria | FBs show low RT, and due to their embeddedness in the destinations, present a lower CA. However, their orientation toward A leads it to short-term cooperation activities. |
| Barroso Martinez, Sanguino Galván, and Bañegil Palacios | KBV | E/Qn | NA | I, RT, P | 93 Spanish FBs | Knowledge transfer has a positive and significant effect on EO, and hence on firm performance. Family influence strengthens the relationship between knowledge transfer and performance, as well as between knowledge transfer and EO. |
| Boling, Pieper, and Covin (2016) | UET | E/Qn | Ownership, governance | I, RT, P | 210 U.S. public firms (85 FBs) | There exists an inverse U-shaped relationship between CEO tenure and EO, but in FBs the shape of the inverse U is less pronounced and the level of EO peaks considerably later in the CEO’s tenure when compared with non-FBs. |
| Campbell and Park (2016) | RBV | E/Qn | Self-perception | I, RT, P | 449 U.S. firms (227 FBs) | EO, firm capital, and corporate social responsibility are positively associated to performance of FBs and non-FBs. |
| Covin, Eggers, Kraus, Cheng, and Chang (2016) | NA | E/Ql | Ownership, continuity, governance | I, RT, P | 1,671 firms from Central Europe (1,310 FBs) | Different configurations of radical innovators among FBs and non-FBs are identified. FBs engage in risky radical innovation when customer responsiveness is combined with proactiveness or when proactiveness is combined with networking. |
| Davidkov and Yordanova (2016) | RBV, UET | E/Qn | Ownership, management | I, RT, P | 190 Bulgarian SMEs (83 FBs) | The presence of foreign owners and EO mediates the negative effect of FBs status on the odds of internationalization. Owner-manager’s tenure and education level, access to finance, and learning orientation do not account for differences between FBs and non-FBs. |
Table 3. (continued)

| Author/s (year) | Main theory | Method | Criteria for FB definition | Dimensions of EO considered | Sample description | Main finding/conclusion |
|-----------------|-------------|--------|----------------------------|-----------------------------|--------------------|-------------------------|
| Garcés-Galdeano, Larraza-Kintana, García-Olaverri, and Makri (2016) | SEW | E/Qn | Ownership | I, RT, P | 322 public and private medium size Spanish manufacturing firms (178 FBs) | While FBs are less entrepreneurially oriented than non-FBs, this gap closes with increasing technological intensity of the sector. However, there is no evidence that a change in EO of FBs results from a drop in firm performance. |
| Hernández-Perlines, Moreno-García, and Yañez-Araque (2016) | NA | E/Qn and Qn | NA | I, RT, P | 174 Spanish FBs | International EO largely explains international performance in FBs, I being the more relevant dimension. This relationship is mediated by the competitive strategy of the firm, especially by the differentiation by marketing, by innovation, and by service. |
| Madanoglu, Altinay, and Wang (2016) | AT | E/Qn | Self-perception | I, RT | 145 FB-SMEs from United Kingdom | Family involvement has no direct influence on I and RT. However, decentralization is an important antecedent of both of them. Given that family involvement has a negative effect on decentralization, the total effect of family involvement on I and RT is negative. |
| Miller, Steier, and Le Breton-Miller (2016) | NA | C | NA | I, RT, P | — | Many FBs are successful and enduring and enjoy advantages for many reasons. In the case of EO, long-term orientation compensates their lower levels of I and RT. |
| Revilla, Pérez-Luño, and Nieto (2016) | BT | E/Qn | Ownership, management | I, RT, P | 369 Spanish technological firms (178 FBs) | Family involvement in management reduces the risk of business failure, but this effect decreases as EO increases. |
| Stenholm, Puikkinen, and Heinonen (2016) | DisT | E/Qn | Ownership, self-perception | I, RT, P | 532 Finnish firms (224 FBs) | FBs benefit from I, which is both directly and indirectly associated with firm growth via entrepreneurial activity. This association does not exist in non-FBs. RT does not influence FB’s growth even if it does in non-FBs. |
| Bauweraerts and Colot (2017) | AT, RBV, ST | E/Qn | Ownership, self-perception | I, RT, P | 208 Belgian private FBs | There exists an inverted U-shaped relationship between family involvement in board and EO. Board monitoring task limits the negative effects of high family involvement in board on EO, whereas the board service task does not have any significant effect. |
| Bettinelli, Sciascia, Randerson, and Fayolle (2017) | NA | C/ISI | NA | I, RT, P, CA, A | — | Systematic literature review of influential articles published in established peer-reviewed journals about entrepreneurship in FB. |

(continued)
| Author/s (year) | Main theory | Method | Criteria for FB definition | Dimensions of EO considered | Sample description | Main finding/conclusion |
|----------------|-------------|--------|----------------------------|-----------------------------|--------------------|-------------------------|
| Calabrò, Campopiano, Basco, and Pukall (2017) | RDT | E/Qn | Ownership, self-perception | — | 113 German private and public FBs | A high involvement of non–family members in governance has a positive impact on FBs’ pace of internationalization, this relationship being mediated by the international EO of the firm. |
| Charupongsopon and Puriwat (2017) | RBV | E/Qn | NA | I, RT, P, CA, A | 1,008 FBs from 28 countries | Both EO and FBs’ resources and capabilities link positively to their performance. |
| Cherchem (2017) | CVF | E/Qn | Ownership | I, RT, P | 106 French family SMEs | There is no single cultural path for developing and maintaining long-term EO within FBs. While the clan culture fosters EO when only one generation is involved, the hierarchical culture fosters EO when multiple generations are simultaneously involved. |
| Hernández-Perlines and Ibarra Cisneros (2017) | NA | E/Qn | NA | I, RT, P | 140 Mexican FBs | EO positively moderates the association between corporate social responsibility and performance of FBs. |
| Hernández-Perlines, Moreno-García, and Yáñez-Araque (2017) | DC | E/Qn | NA | I, RT, P | 218 Spanish FBs | In FBs, absorptive capacity positively mediates the relationship between EO and performance. This total mediation effect suppresses the direct effect of EO on performance. |
| Hernández-Perlines and Rung-Hoch (2017) | NA | E/Qn | NA | I, RT, P | 174 Spanish FBs | In the FBs’ context, EO positively moderates the effect of corporate social responsibility on performance. |
| Kallmuenzer and Peters (2017) | SIT | E/Ql | Ownership, management | I, RT, P, CA, A | 25 Austrian private FBs | All dimensions of EO are important for FBs, except CA, which contradicts the social embeddedness of FBs. For FBs, nonfinancial performance goals are more relevant. |
| Kallmuenzer, Strobl, and Peters (2017) | AT, SEW | E/Qn | Ownership, management | I, RT, P, CA, A | 180 FBs from Western Austria | P and A are particularly relevant to performance. Agency problems avoiding control mechanisms moderate the effect of I and A on performance, while family-related goals negatively moderate the RT–performance link. |
| Lee and Chu (2017) | AT, ST | E/Qn | Ownership and management or governance | I, RT, P | 223 public Taiwanese firms | The positive association between EO and sustaining performance of firms is particularly strong when family ownership is combined with active family management and control. In passive family governance, the EO–performance relationship becomes insignificant. |
| Pimentel, Couto, and Scholten (2017) | NA | E/Qn | Ownership, management | I, RT, P | 155 Portuguese small firms (82 FBs) | EO, as well as I and RT, are lower in FB. Family participation is negatively associated with EO and its three dimensions. |
| Sobirin and Rosid (2017) | OLC | E/Ql | Ownership, management | I, RT, P, CA, A | 1 Indonesian rice-milling FB | Small and medium FBs implement EO and strategic entrepreneurship along the life cycle with different degrees. |

(continued)
## Table 3. (continued)

| Author/s (year)                          | Main theory | Method | Criteria for FB definition | Dimensions of EO considered | Sample description                                                                 | Main finding/conclusion                                                                 |
|----------------------------------------|-------------|--------|----------------------------|-----------------------------|-----------------------------------------------------------------------------------|----------------------------------------------------------------------------------------|
| Tripopsakul and Asavanant (2017)       | RBV         | E/Qn   | NA                         | I, RT, P, CA, A             | 783 FBs from 18 Asian and European countries                                      | In the FBs, both EO and firm resources positively affect their performance.           |
| Zachary, Payne, Moore, and Sexton (2017)| OC, RBV, SEW| E/Qn   | Management, governance     | I, RT, P                    | 136 public FBs from United States                                                | In FBs, EO changes before, during, and after an environmental jolt (a major unforeseen and discontinuous environmental change). |
| Arzubiaga, Iturralde, Maseda, and Kotlar (2018) | RBV, SEW    | E/Qn   | Ownership, management      | I, RT, P                    | 230 nonlisted Spanish family SMEs                                                 | EO and performance are stronger in firms with lower levels of family involvement and higher levels of gender diversity on the board. Moreover, the board’s high strategic involvement may strengthen the positive impact of gender diversity on the EO–performance link and change the moderating influence of family involvement effect on the same link from negative to positive. |
| Arzubiaga, Kotlar, De Massis, Maseda, and Iturralde (2018) | RDT, ST     | E/Qn   | Ownership, management      | I, RT, P                    | 230 nonlisted Spanish family SMEs                                                 | The positive EO–innovation link is negatively moderated by family involvement on the board and the intensity of board activity while is positively moderated by the board’s strategic involvement in service and control tasks and in the provision of knowledge and skills. |
| Fu and Si (2018)                        | AT, RBV     | E/Qn   | Ownership, management      | I, RT, P                    | 683 Chinese FBs                                                                  | The family ownership–EO link is stronger in FBs that have second-generation returnees and for returnees who stay abroad longer. |
| Hernández-Perlines and Xu (2018)       | NA          | E/Qn   | NA                         | I, RT, P                    | 218 Spanish FBs                                                                  | In the FBs context, the effect of the international EO on the international performance improves with the mediation of the absorptive capacity and the moderation of the environment. I and P are relevant variables to explain performance, while RT is not. In addition, the P–performance effect is negatively affected by micro firm size. |
| Kallmuenzer and Peters (2018)           | NA          | E/Qn   | Ownership, management      | I, RT, P                    | 198 rural tourism FBs from Western Austria                                       | The relationship between PO and EO is mediated by knowledge sharing. Family generation in control and family involvement in the TMT significantly moderate the PO–knowledge sharing link. |
| Pittino, Barroso Martínez, Chirico, and Sanguino Galván (2018) | ST          | E/Qn   | NA                         | I, RT, P                    | 93 Spanish FBs                                                                  |                                                                                      |

**Note.** A = autonomy; AT = agency theory; BAT = behavioral agency theory; BT = behavioral theory; C = conceptual; CA = competitive aggressiveness; CT = contingency theory; CuT = cultural theory; DC = dynamic capability view; DisT = discovery theory; E = empirical; EG = employment growth; EO = entrepreneurial orientation; ET = embeddedness theory; EIT = eclectic internationalization theory; FB = family business; I = innovativeness; IdT = identity theory; InT = international theory; ISI = introductory article to special issue; IT = institutional theory; KBV = knowledge based-view; NA = FF and EO review, not explicit or atheoretical; OC = organizational culture; OLC = organizational life cycle; PO = psychological ownership; Q1 = qualitative analysis; Qn = quantitative analysis; P = proactiveness; RBV = resource based-view; RDT = resource dependence theory; RT = risk-taking; SEW = socioemotional wealth view; SIT = social identity theory; SME = small and medium-sized enterprise; ST = stewardship theory; TAT = time allocation theory; TE = transgenerational entrepreneurship; TMT = top management team; UET = upper echelon theory.

\^EO is deconstructed in its dimensions. \^EO is considered both as a combined construct and as deconstructed in its dimensions. \^Different approach to EO, such as International EO or Family EO.
resources identified by Sirmon and Hitt (2003) as distinctive of family firms (human capital, social capital, patient financial capital, survivability capital, and governance structures). Zahra et al. (2004) pioneered the application of this theory to the study of EO antecedents in family firms, providing the first evidence that family firms are more sensitive to the influence that organizational culture has on their EO than are nonfamily firms. However, Kickul, Liao, Gundry, and Iakovleva (2010) do not find any differences related to the effect of different resources on the EO of family and non-family firms.

RBV has also been applied to the study of EO outcomes, whereby realizing the benefits from entrepreneurship in family firms seems to be a complicated matter affected by the tuning of EO, firm resources, generational involvement, and participative strategy (Campbell & Park, 2016; Casillas, Moreno, & Barbero, 2010; Chirico, Sirmon, Sciascia, & Mazzola, 2011).

Agency theory focuses on the potential conflict between the principal, usually the company’s owner, and the agent, generally a nonowner manager, given the assumption that the agent will behave opportunistically (Jensen & Meckling, 1976). Lower owner-management agency costs are expected in family firms, although, conversely, owner-owner agency costs may rise. Similarly, as Chrisman et al. (2010) posit, family social capital heightens the potential agency advantage of family firms but may be lessened to the extent that owner-related agency difficulties lead to excessive risk aversion or managerial entrenched (Gomez-Mejia, Nuñez-Nickel, & Gutierrez, 2001). This theory has been used in isolation to explain why family ownership is found to be negatively associated with EO (Block, 2012) or why decentralization negatively mediates the relationship between family employment and EO (Madanoglu, Altinay, & Wang, 2016). Agency theory has also been used to explain the negative effect of risk-taking on family firm performance (Naldi, Nordqvist, Sjöberg, & Wiklund, 2007).

It is generally accepted that family firms pursue both economic and noneconomic goals (Chrisman et al., 2012; Gomez-Mejia et al., 2007; Kotlar & De Massis, 2013). This background supports stewardship theory, which “is based on a steward whose behavior is ordered such that pro-organizational, collectivistic behaviors have higher utility than individualistic, self-serving behaviors” (Davis et al., 1997, p. 24). When this theory is used in isolation, some stewardship determinants (comprehensive strategic decision making, long-term orientation, or continuity of the business across generations) may become the antecedents that model EO within family firms (e.g., Eddleston, Kellermanns, & Zellweger, 2012).

**Conceptualization and Measurement of Family Firm and EO**

A clear definition of concepts is required to build a solid theoretical framework (Pérez, Basco, García-Tenorio, Giménez, & Sánchez, 2007), to understand and compare previous empirical evidence (Uhlaner, Kellermanns, Eddleston, & Hoy, 2012), and to transform the research findings into tangible and applicable practices for practitioners (De Massis, Sharma, Chua, & Chrisman, 2012). Therefore, we briefly analyze how EO and family firms have been conceptualized and operationalized by the articles reviewed. Of these works, 30.77% do not provide an explicit definition of the family business concept or operationalize it in any way, which also occurs in the general family firm literature (Hernández-Linares, Sarkar, & Cobo, 2018; Hernández-Linares, Sarkar, & López-Fernández, 2017). Among these works, however, there are 10 quantitative papers that identify family firms by their affiliation to family firm associations and centers (e.g., Hernández-Perlines et al., 2016; Kellermanns, Eddleston, Barnett, & Pearson, 2008) or projects such as the Successful Transgenerational Entrepreneurship Practices (Charupongsonpon & Puriwat, 2017; Triopsakul & Asavanant, 2017). Among the 54 works that explicitly define family firms, a first group of 12 articles defines the family firm based on only one criterion, namely, “self-perception” (5 articles), “ownership” (6), and “management” (1), while a second group embraces 42 investigations using more than one definitional criterion, with “ownership” being used in all cases except in Zachary et al. (2017; see Table 3). Within this last group, Lee and Chu (2017) employ two alternative methods of identifying family firms.

Furthermore, the dimensions and measures of EO used by the works reviewed reflect the almost complete dominance of the Miller gestalt approach (1983) and, to a lesser extent, the Lumpkin and Dess (1996) five-dimension approach (Table 3), which is similar to what occurs in the general literature (Rauch et al., 2009). Finally, six works pursue two alternative developments of the original EO concept: the “international EO” (e.g., Calabro, Campopiano, Basco, & Pukall, 2017) and a novel approach based on the interaction
between family and firm called “family EO” (e.g., Zellweger et al., 2012).

**Consideration of the EO Construct Within the Research Models**

In this section, we complement the mostly descriptive information gathered in the previous sections with a content analysis of the papers identified, which allows us to map the main conclusions obtained by the previous research. Note that some articles conduct different analyses and may be included in more than one group. To facilitate follow-up, quantitative studies are presented in Table 4.

First, we have identified a group of seven papers that explore whether the intensity of EO or its dimensions is different in family firms. While Lee and Chu (2017) do not identify significant differences, the remaining papers report a lower level of EO among family firms (Garcés-Galdeano et al., 2016; Pimentel, Couto, & Scholten, 2017). This result is confirmed when the different EO dimensions are individually examined, which mostly point to the existence of lower levels of risk-taking, innovativeness, and competitive aggressiveness among family businesses, while mixed results are reported for proactiveness and autonomy. In the case of proactiveness, Pimentel et al. (2017) do not find differences between family and nonfamily firms, but other authors report lower levels of proactiveness in family firms (e.g., Short et al., 2009). With regard to the autonomy dimension, Short et al. (2009) find a lower level of autonomy in family firms, while other scholars (e.g., Zellweger & Sieger, 2012) report higher levels. The works included in this first group also provide some explanation for these lower levels of EO. Thus, Zellweger and Sieger (2012) find that family businesses face a higher level of ownership risk because of the concentration of the family’s financial resources in the company, but they report lower levels of performance hazard risk or control risk. In the case of competitive aggressiveness, the main reasons seem to be the family firm’s roots in its community and its concern for maintaining a good reputation (e.g., Peters & Kallmuenzer, 2015).

A second group of 29 articles (23 of which are quantitative) explores the different antecedents of EO. Most of these works research how family character or family involvement (in management, ownership, governance, or work) directly influence EO. Family involvement has also been identified as of paramount importance by both conceptual papers (Huang et al., 2014; Le Breton-Miller et al., 2015) and reviews (Nordqvist et al., 2013). Although most studies report no direct influence of family involvement on EO (e.g., Kellermanns & Eddleston, 2006), when more complex empirical approaches are used, the results are different. Thus, papers using longitudinal data find a negative relationship (Block, 2012; Miller & Le Breton-Miller, 2011), while papers researching nonlinear links find an inverted U–shaped relationship between family involvement in governance (Bauweraerts & Colot, 2017) or management (Sciascia, Mazzola, & Chirico, 2013) and EO, with EO declining beyond moderate levels of family involvement. Finally, the relationship between family involvement and different dimensions of EO is mediated by decentralization, which may be due to the family firms’ conservative and cautious attitude (Madanoglu et al., 2016).

The third group of investigations consists of 26 studies exploring the consequences of EO (21 of which are quantitative), mainly in firm performance or growth, as a commonly used proxy for performance in EO research (Gupta & Wales, 2017). Despite the lower level of EO in family firms (e.g., Garcés-Galdeano et al., 2016), the results of the works researching the EO–performance link show that when EO is measured as an aggregated construct, and the sample includes solely family firms, a positive effect of EO on performance is reported (e.g., Scheipers et al., 2014). However, when this same measurement approach is used to compare family and nonfamily firms, the results are inconsistent. Thus, some scholars find that the EO–performance link does not differ between these two types of firms (Campbell & Park, 2016) or differs only for lone-founder firms (Miller & Le Breton-Miller, 2011). Others contend that EO influences only nonfamily business performance (Madison, Runyan, & Swinney, 2014) or, conversely, that EO influences only family business performance (Lee & Chu, 2017). On the other hand, when EO is deconstructed into its dimensions, the effect of risk-taking, the most researched dimension, on family firm performance is negative (Naldi et al., 2007) or not significant (e.g., Stenholm, Pukkinen, & Heinonen, 2016). Proactiveness and innovativeness have mostly positive effects on family firm performance (e.g., Casillas et al., 2010). Finally, the impact of competitive aggressiveness and autonomy on performance has been scarcely researched. Thus, the relationship between competitive aggressiveness and family firm performance is not found to be significant (Akhtar, Ismail, Hussain, & Umar-ur-Rehman, 2015; Casillas & Moreno, 2010; Kallmuenzer,
| Author/s (year)                                                                 | IV                                      | MeV                                           | MoV                                           |
|-------------------------------------------------------------------------------|-----------------------------------------|-----------------------------------------------|-----------------------------------------------|
| Block (2012)                                                                  | Family involvement in ownership & management |                                               |                                               |
| Çavus and Demir (2011)*                                                       | Institutionalization                     |                                               |                                               |
| Miller and Le Breton-Miller (2011)                                            | Family involvement in ownership, management & governance |                                               |                                               |
| Pimentel, Couto, and Scholten (2017)**                                        | Family involvement in management & governance |                                               |                                               |
| Sciascia, Mazzola, and Chirico (2013)                                         | Family involvement in management         |                                               |                                               |
| Yildirim and Saygin (2011)                                                    | Transformational leadership              |                                               |                                               |
| Zachary, Payne, Moore, and Sexton (2017)                                      | Time & industry                          |                                               |                                               |
| Zahra, Hayton, and Salvato (2004)                                             | Organizational culture                   |                                               |                                               |
| Boling, Pieper, and Covin (2016)                                              | CEO tenure                               | Family business                               | Family involvement in management & ownership |
| Barroso Martínez, Sanguino Galván, and Báñegíl Palacios (2016a, 2016b)       | Knowledge transfer                       |                                               |                                               |
| Bauweraerts and Colot (2017)                                                  | Family involvement in governance         | Board monitoring & board service              |                                               |
| Casillas, Moreno, and Barbero (2011)*                                         | Non-family involvement in management & generational variables | Environmental dynamism & hostility           |                                               |
| Cherchem (2017)                                                               | Clan culture, & hierarchical culture     |                                               |                                               |
| Cruz and Nordqvist (2012)                                                     | External & internal factors              |                                               |                                               |
| Eddleston, Kellermanns, and Zellweger (2012)                                   | Comprehensive strategic decision making, participative governance, long-term orientation, & employee human capital |                                               |                                               |
| Fu and Si (2018)                                                              | Family ownership                         | Second generation returnees & overseas duration |                                               |
| Garcés-Galdeano, Larraza-Kintana, García-Olaverri, and Makri (2016)           | Family business                          | Technological intensity & firm performance    |                                               |
| Kellermanns and Eddleston (2006)                                              | Willingness to change, family involvement in management, & perceived technological opportunities |                                               |                                               |
| Weismeier-Sammer (2011)                                                       | Breadth, depth and speed of organizational learning, family involvement in ownership | Strategic planning                           |                                               |
| Zahra (2012)                                                                  |                                               | Family cohesion                               |                                               |
| Madanoglu, Altinay, and Wang (2016)*                                          | Family involvement in work               | Decentralization                              | Family generation in control, family involvement in the top management team |
| Pittino, Barroso Martínez, Chirico, and Sanguino Galván (2018)                | Psychological ownership                  |                                               |                                               |

(continued)
Table 4. (continued)

**EO as independent variable**

| Authors (year) | DV | MeV | MoV |
|----------------|----|-----|-----|
| Charupsongsopon and Puriwat (2017) | Performance | | |
| Tripopsakul and Asavanant (2017) | Performance | | |
| Miller and Le Breton-Miller (2011) | Performance | | |
| Naldi, Nordqvist, Sjöberg, and Wiklund (2007)* | Performance | | |
| Campbell and Park (2016) | Performance | | |
| Madison, Runyan, and Swinney (2014) | Performance | | |
| Barroso Martínez, Sanguino Galván, and Bañegil Palacios (2016a, 2016b) | Performance | | |
| Chirico, Sirmon, Sciascia, and Mazzola (2011) | Performance | | |
| Arzubiaga, Kotlar, De Massis, Maseda, and Iturralde (2018a) | Performance | | |
| Kallmuenzer and Peters (2018)* | Performance | | |
| Kallmuenzer, Strobl, and Peters (2017)* | Performance | | |
| Lee and Chu (2017) | Performance | | |
| Schepers, Voordeckers, Steijvers, and Laveren (2014) | Performance | | SEW |
| Hernández-Perlines, Moreno-García, and Yañez-Araque (2017) | Performance | Absorptive capacity | |
| Casillas and Moreno (2010)* | Firm growth | | |
| Casillas, Moreno, and Barbero (2010)* | Firm growth | | |
| Stenholm, Puukinen, and Heinonen (2016)* | Firm growth | Entrepreneurial activity | |
| Akhtar, Ismail, Hussain, and Umair-ur-Rehman (2015)** | Entrepreneurial success | | |
| Arzubiaga, Kotlar, De Massis, Maseda, and Iturralde (2018) | Ambidextrous innovation | | |
| Craig, Pohjola, Kraus, and Jensen (2014)* | Innovation output | | |

(continued)
### Table 4. (continued)

#### EO as mediating variable

| Author/s (year) | IV | DV | MoV |
|----------------|----|----|-----|
| Chien (2014)   | Franchisor, & spousal resources | Performance | |
| Escríbá-Esteve, Sanchez-Peinado and Sanchez-Peinado (2009) | TMT characteristics | Performance | |
| Kickul, Liao, Gundry, and Iakovleva (2010) | Firm resources, & opportunity recognition | Performance | |
| Miller and Le Breton-Miller (2011) | Family involvement in ownership, management & governance | Performance | |
| Zainol (2013) | Personality traits, cultural background, & government aided programme | Performance | |
| Davidkov and Yordanova (2016) | Family business | Internationalization | |
| Kellermanns, Eddleston, Barnett, and Pearson (2008) | CEO characteristics & family involvement in work | Employment growth | |

#### EO as moderating variable

| Author/s (year) | IV | DV | MeV |
|----------------|----|----|-----|
| Hernández-Perlines and Ibarra (2017) | Corporate social responsibility | Performance | |
| Hernández-Perlines and Rung-Hoch (2017) | Corporate social responsibility | Performance | |
| Revilla, Pérez-Luño, and Nieto (2016) | Family involvement in management | Risk of firm failure | |

#### Other approaches

| Author/s (year) | IV | DV | MeV | MoV |
|----------------|----|----|-----|-----|
| Hernández-Perlines, Moreno-Garcia, and Yañez-Araque (2016) | International EO | International performance | Competitive strategy | |
| Hernández-Perlines and Xu (2018) | International EO | International performance | Absorptive capacity | |
| Calabrò, Campopiano, Basco, and Pukall (2017) | External influences or openness of governance structure | Pace of internationalization, & international performance | International EO | |
| Zellweger, Nason, and Nordqvist (2012) | Authors employ exploratory factor analysis for building a Family EO scale | | | |

*EO is deconstructed in its dimensions; **EO is considered both as a combined construct and deconstructed in its dimensions.

IV=Independent variables, DV=Dependent variables, MeV= Mediating variables, MoV= Moderating variables.

Note: Please, note Barroso et al.’s (2016ab) studies have considered the EO both as an IV and a DV; and Miller and Le Breton-Miller’s (2011) work has considered the EO as an IV, a DV and a MeV.
Strobl, & Peters, 2017). In the case of autonomy, Casillas and Moreno (2010) do not identify a significant impact on family firm growth. However, both Akhtar et al. (2015) and Kallmuenzer et al. (2017) identify a positive effect of autonomy on performance, which is actually the most relevant EO dimension according to Nordqvist, Habbershon, and Melin’s (2008) proposal that autonomy is more important for family firms than other dimensions such as risk-taking. Works in this group that consider mediator variables find that absorptive capacity mediates the EO–performance link (Hernández-Perlines, Moreno-García, & Yáñez-Araque, 2017), while Stenholm et al. (2016) find that entrepreneurial activity mediates only the innovativeness–growth link.

The fourth group of investigations includes 11 works considering EO a moderator or mediator variable (10 of which are quantitative). Specifically, seven works used EO as a mediating variable, reflecting the researchers’ belief that EO renders it possible to unravel the causal chain between two related variables (Wales et al., 2013); in our case, this was mainly between different general and family variables and performance or a proxy thereof. These works show, for instance, that EO mediates the relationship between family involvement in work and employment growth (Kellermanns et al., 2008) or the relationships between type of ownership and performance (Miller & Le Breton-Miller, 2011). Moreover, four works analyze the moderating effect of EO, finding, for instance, that EO mitigates the positive effect that family involvement in management has on the risk of business failure (Revilla et al., 2016).

Finally, the last group identified comprises six papers employing different approaches (four of which are quantitative). The first group explores international EO showing that international EO largely explains international performance in family firms (e.g., Hernández-Perlines et al., 2016) and mediates the relationship between the involvement of non–family members in governance and the internationalization of family firms (Calabrò et al., 2017). The second group includes three papers that explore “family EO,” which try to distill the interactions of the different objectives and dynamics of the company and of the family (e.g., Zellweger et al., 2012) and their effects on EO.

**Contingent Factors Influencing EO in Family Firms**

Of the 29 studies investigating EO antecedents, 14 (13 of which are quantitative) include different moderating variables related to firm management/governance, family character or involvement, and environment. The diversity of antecedents and moderators explored makes it difficult to reach any conclusions even when the independent variable is family involvement, which is the only variable researched more than once (see Table 4). Consequently, we can only report that the positive moderator effect of strategic planning on the family involvement–EO link found by Kellermanns and Eddleston (2006) is not confirmed by Weismeier-Sammer (2011). This difficulty in reaching conclusions allows us to posit that moderator effects deserve further research.

Among the 26 studies investigating the consequences of EO, 19 (15 of which are quantitative) include different moderating variables. Family involvement is the most frequently used, and the results suggest that it strengthens the EO–success (Akhtar et al., 2015) and EO–ambidextrous innovation (Arzubiaga, Kotlar, De Massis, Maseda, & Iturralde, 2018) relationships. However, the moderator effect of family involvement on the EO–performance link is negative, unless some compensating mechanism, such as participative strategy (Chirico et al., 2011), strategic involvement of the board directors (Arzubiaga, Iturralde, Maseda, & Kotlar, 2018), or family governance (Lee & Chu, 2017), is used. Finally, the two papers that use SEW as a moderator report, on one hand, that the positive effect of EO on performance decreases as the concern for SEW preservation increases (Schepers et al., 2014) and, on the other, a negative moderator effect of family goals, which were measured through a selection of items from the FIBER scale (Berrone et al., 2012), on the risk-taking-performance link (Kallmuenzer et al., 2017).

**Tracing a Path for Future Research**

The framework used to organize the findings from the prior research has also allowed us to identify certain shortcomings that raise opportunities for future research, which we explore in this section to cover our second research objective. To do so, we apply the framework depicted in Figure 1, which integrates those antecedents, consequences, and moderating factors that may open promising lines for future research together with the theories underpinning them. In selecting the future research suggestions (FRSs) proposed in this work, we focus on those that, taking advantage of the differential characteristics of family firms, can help expand not only our knowledge of the role of EO in family firms but also our understanding of EO in general.
Figure 1. EO and the family business: Future research suggestions.

Note. EO = entrepreneurial orientation.
Antecedents

One of the main questions addressed in EO in family firms research is whether family firms are as equally entrepreneurially oriented as nonfamily firms (e.g., Pimentel et al., 2017; Short et al., 2009), and if not, why different levels of EO exist (e.g., Bauweraerts & Colot, 2017; Zahra et al., 2004). The systematic analysis performed in the previous section reveals that family involvement (in ownership, management, governance, or work) in the firm and family business status are the two variables most frequently used to explore the uniqueness of the antecedents of EO in family firms, mainly using RBV (e.g., Zahra et al., 2004) and agency theory (e.g., Naldi et al., 2007), either individually or in combination with other theories (e.g., Bauweraerts & Colot, 2017). The results from previous research using longitudinal data sets (Block, 2012; Boling et al., 2016; Miller & Le Breton-Miller, 2011) and models exploring nonlinear effects (Bauweraerts & Colot, 2017; Sciascia et al., 2013) are consistent with the lower level of EO reported in family firms (e.g., Pimentel et al., 2017; Short et al., 2009).

However, family involvement, despite being easily measurable, is only the minimum necessary condition for considering a company a family firm (Pearson, Carr, & Shaw, 2008) and does not capture the essence of being a family firm (Chrisman, Chua, & Sharma, 2005). Given that the involvement approach offers a limited and, to some extent, inaccurate explanation (Zellweger, Eddleston, & Kellermanns, 2010) of how and why family participation in the company affects its EO, it would be necessary to employ other approaches to reach a broader understanding of that influence.

The essence approach identifies the intention of generational succession as the main trigger that transforms the potential influence associated with family involvement in the company into an effective influence oriented toward the preservation of the firm (Chrisman et al., 2005; Zellweger et al., 2010). Indeed, succession is one of the most studied concepts in family business research (Yu, Lumpkin, Sorenson, & Brigham, 2012) and the most challenging change that any family firm must face and try to overcome. However, our review shows that, with one exception (Nordqvist et al., 2013), succession has been largely neglected by the literature on EO and family firms, even though succession may be understood as an entrepreneurial process in which both the entry of new owners and the exit of old owners are associated with the pursuit of new business opportunities (Nordqvist et al., 2013). Similarly, Zellweger and Sieger (2012) explain that generational changes facilitate the adaptation of a firm’s EO profile over time, highlighting the dynamic nature of EO, which has not yet been fully addressed. From a different point of view, family development theory (Hill & Duvall, 1948), which posits that families go through distinct stages of development, thus describing the processes of change in families, could be a framework fit for researching the possible consequences of different types of succession (i.e., planned vs. unexpected or transgenerational succession versus succession out of the family) on EO within a firm. This may be researched with data from the Successful Transgenerational Entrepreneurship Practices project, which has been scarcely used (Charupongsopon & Puriwat, 2017; Tripopsakul & Asavanant, 2017) despite the interesting data it collects. Therefore, we propose the following FRS:

**FRS 1:** How does succession influence EO in family firms?

The succession process may help us to enlarge our knowledge of the many ways in which family participation in the company influences a firm’s EO, but other frameworks also deserve further exploration, including two specific concepts that appeared in the field’s literature: familiness (Habbershon & Williams, 1999) and SEW (Gomez-Mejia et al., 2007). Both concepts have been scarcely researched by the EO and family firm literature according to our review, but both deserve to be fully addressed because they can help capture how both the uniqueness of family firms and their heterogeneity affect the EO within family firms (Casillas et al., 2011; García-Galdeano et al., 2016; Irava & Moores, 2010; Schepers et al., 2014).

Familiness, which was first defined under the RBV theoretical framework as the specific set of “resources that are distinctive to a firm because of family involvement” (Habbershon & Williams, 1999, p. 1), can have either positive or negative consequences for family firms (Habbershon, Williams, & MacMillan, 2003), referred to as its paradoxical nature (Irava & Moores, 2010). In the only attempt that, so far, has been made to explore the familiness–EO link, Irava and Moores (2010), drawing on RBV (Barney, 1991), theoretically argued that familiness is associated with the potential to maintain EO across generations. Specifically, these authors propose that distinctive familiness resources in multigenerational family firms are positively associated with EO. Theoretical debates and difficulties in
measurement have hindered the empirical exploration of familiness (Frank, Kessler, Rusch, Suess-Reyes, & Weismeier-Sammer, 2017; Zellweger et al., 2010), preventing empirical testing of Irava and Moores’s (2010) propositions. However, there has recently been a theoretical convergence regarding the need to integrate the elements of the involvement approach, the essence approach, and organizational identity theory (Albert & Whetten, 1985) to offer a complete perspective of familiness (Frank et al., 2017; Zellweger et al., 2010). In addition, using the umbrella of new systems theory (Luhmann, 1995), and based on the idea that familiness is “the outcome of the interplay” of these three approaches (Weismeier-Sammer, Frank, & von Schlippe, 2013, p. 185), Frank et al. (2017) recently developed the multidimensional Family Influence Familiness Scale (FIFS). The FIFS includes three dimensions emanating from the components of the involvement approach (ownership, management, and control; proficiency level of active family members; and sharing information among active family members), two dimensions from the essence approach (transgenerational orientation and family—employee bond), and one dimension from the identity approach (family business identity). Thus, the development of the FIFS opens the door to further empirical research to explore how the paradoxical nature of familiness affects EO. Moreover, to date, only the first dimension of the FIFS scale (ownership, management and control) has been researched to some extent as an antecedent of EO (e.g., Block, 2012; Miller & Le Breton-Miller, 2011; Sciascia et al., 2013; Zahra, 2012), showing a path for further research to determine whether all the dimensions of the FIFS influence EO to the same degree. Therefore, we propose the following FRS:

FRS 2: How does a family firm’s familiness influence its EO?

Rooted in the principles of behavioral agency theory (Wiseman & Gomez-Mejia, 1998), SEW proposes that because of the ties between family and firm, family firms are often willing to sacrifice their financial well-being to prevent the loss of their SEW (Gomez-Mejia et al., 2007, 2011), which suggests that the concern for preserving SEW in family firms influences management practices and strategic decisions (e.g., Cruz, Larraza-Kintana, Garcés-Galdeano, & Berrone, 2014). Such concern may therefore explain the lower levels of EO within family firms (e.g., Garcés-Galdeano et al., 2016) since it may lead family firm owners, for example, to seek to preserve control over their companies, avoid risk, maintain the status quo (Carney, Van Essen, Gedajlovic, & Heugens, 2015; Gomez-Mejia, Cruz, Berrone, & De Castro, 2011; Gomez-Mejia et al., 2007), or be less innovative (Gomez-Mejia et al., 2011) and therefore less entrepreneurial. However, the SEW lens also suggest that given the interest in protecting the family reputation and providing career opportunities for offspring, family firms are especially willing to invest in corporate entrepreneurship and innovation to guarantee the company’s survival and the likelihood of passing a healthy firm on to next generation (e.g., Miller & Le Breton-Miller, 2005a). Moreover, fine-grained research also explains that when profitability goals are below aspirational levels managers are more likely to initiate more risky strategies, such as those related to R&D investment (Chrisman & Patel, 2012), which is closely related to EO (Block, 2012).

To be able to disentangle the complexity derived from the existence of both a bright and a dark side of SEW (Kellermanns et al., 2012; Miller & Le Breton-Miller, 2014) and its influence on EO within family firms, the multidimensional nature of SEW must be explored. The FIBER scale (Berrone et al., 2012), which includes five dimensions (family control and influence, family members’ identification with the firm, binding social ties, emotional attachment, and renewal of family bonds to the firm through dynastic succession), offers the primary tool needed to overcome this challenge. Although previous entrepreneurship literature has already suggested that some of the SEW dimensions are linked with the entrepreneurial process (Berrone et al., 2012), only the first dimension of FIBER, which is very close to the first dimension of the FIFS, has been extensively researched as an antecedent of EO (e.g., Block, 2012; Miller & Le Breton-Miller, 2011; Sciascia et al., 2013; Zahra, 2012). Regarding the remaining SEW dimensions, only family members’ identification with the firm has received limited attention (e.g., Eddleston et al., 2012). The remaining dimensions of FIBER remain to be explored, despite the growing recognition of their relevance in family firm strategy and decision making (Bee & Neubaum, 2014; Chirico & Salvato, 2016; Shepherd, 2016) and, therefore, in EO (Nordqvist et al., 2013). Overall, it would be interesting to examine the direction and strength of the influence that the concern for SEW preservation has on EO. Hence, we encourage scholars to address the following FRS:
**FRS 3:** How does the concern for maintaining SEW influence the level of EO in family firms?

From a behavioral perspective (Cyert & March, 1963), the family can be considered the dominant coalition in family firms, and therefore, the values of the founding family will be embedded in the family firm culture, structure, and control (Miller & Le Breton-Miller, 2005b). Through the lens of upper echelons theory (Hambrick & Mason, 1984), managers make decisions using conceptual and cognitive frameworks adapted to their experiences, beliefs, and values about what is proven to be reliable and acceptable. Applied to a family firm context, this theory may lead us to understand family firm culture as a reflection of the foundations of the family’s culture and beliefs, which in turn will be influenced by the family’s national/religious background (Miller, 2011; Wales, 2016). This background is also related to the different concepts of “family” (Dyer, 2003). For example, kinship in many African countries goes beyond the nuclear family to include a wider network of relatives (Khayesi, George, & Antonakis, 2014). Moreover, in those countries more influenced by Confucianism, loyalty is fully focused on the family and its leaders, so some families also include their nonfamily employees as a way of repaying them for their loyalty to the firm (Liu, 2014). These differences explain why Miller (2011) suggests, according to the principles of the institutional logics perspective (Thornton & Ocasio, 2008), that a family’s nationality, religion, and/or values may boost or buffer EO within a family firm. However, such a suggestion has not been sufficiently researched thus far, as most of the studies on EO and family firms have been conducted in European countries (mainly Spain) and the United States. Sabah, Carsrud, and Kocak’s (2014) qualitative work is an exception, as it shows us that the religious tendencies of Islam have a positive effect on entrepreneurial intensity, while its nationalist tendencies have a negative effect, and its cultural openness has mixed results. The lack of investigations involving different religious backgrounds (i.e., Islamic countries), political contexts (i.e., former socialist countries), or economic areas (i.e., the four Asian Tigers and Latin America) prevents researchers for making international comparisons and emphasizes the need for further research into how these variables affect the EO within family firms. Therefore, in line with Holmes, Miller, Hitt, and Salmador (2013), we propose integrating institutional theory (Powell & DiMaggio, 1991) and cultural dimensions theory (Hofstede, 1991) to assess how country, cultural, or religious dimensions affect institutions (both formal and informal) and the family concept and, in turn, how these both affect the EO within a family firm. Therefore, it would be expedient to address the following FRS:

**FRS 4:** How do the family’s nationality, religion, and culture affect the EO within a family firm?

Now that we have made several suggestions related to the antecedents of EO that require further research, we will focus on those suggestions related to EO outcomes.

**Outcomes**

The study of the EO–performance link has thus far dominated the general EO literature (Wales, 2016) with organizational performance being measured through a variety of indicators, mostly of a hybrid self-reported nature (Gupta & Wales, 2017). Similarly, our work reveals that apart from performance and growth, only two other outcome variables have been researched: entrepreneurial success (Akhtar et al., 2015) and innovation (Arzubiaga, Kotlar, et al., 2018; Craig, Pohjola, Kraus, & Jensen, 2014). Both are examples of outcomes that need careful definition to avoid a tautology involving a dependent variable included in the EO construct (Wales, 2016), as discussed at length by Wales, Wiklund, and McKelvie (2015). However, the interplay of family and business leads to a unique and complex context for goal setting in family firms (Kotlar & De Massis, 2013), where family-oriented goals play a relevant role whose link with EO has not yet been studied.

While nonfamily firms have to focus on different economic and non-economic goals to satisfy their stakeholders, the presence of the family as the dominant coalition in family firms leads to the powerful emergence of family-oriented goals (both economic and, especially, noneconomic goals; Chrisman et al., 2012; Kotlar & De Massis, 2013). Among family-oriented goals, the literature includes upholding family culture, cohesion and well-being, the company’s survival, keeping control of the company in the hands of the family, the organization’s good reputation, or securing the jobs and lifestyle of the members of the family (Block & Wagner, 2014; Gomez-Mejia et al., 2007; Revilla et al., 2016; Zellweger, Nason, Nordqvist, & Brush, 2013). However, according our review, the existence of a
possible association between EO and family-oriented goals has been scarcely researched. First, Irava and Moores (2010) propose that “the pursuit of an EO can simultaneously assist family firms in achieving their non-financial objectives” (p. 235), including their family-oriented goals. Similarly, Revilla et al. (2016) find empirical evidence that EO moderates the negative relationship between family involvement in management and risk of firm failure. Finally, Kallmuenzer et al. (2017) only find evidence that family goals negatively moderate the risk-taking–performance link. Therefore, there is room to broaden our limited knowledge of how the EO relates to noneconomic and family-oriented goals by including other dependent variables aside from financial performance in empirical models. This approach would contribute not only to our better understanding of the complex phenomenon of EO within family firms but also to the general EO literature. For instance, in their 25-year review of EO research, Gupta and Wales (2017) report that only two studies have examined the effect of EO on firm survival, even though survival is a particularly relevant performance criterion for some firms, such as start-ups (Wiklund & Shepherd, 2011). Moreover, many family-oriented goals are noneconomically oriented, which makes family firms a privileged context in which to explore how EO contributes to this type of goal. Therefore, we propose the following FRS:

**FRS 5:** How does EO determine the achievement of family-oriented goals?

**Moderators**

The systematic analysis performed in the previous section reveals that a broad range of variables may moderate relationships among antecedents and EO as well as between EO and outcomes. To date, family involvement (in ownership and management) and family firm status have been the most employed moderators in researching such relationships. However, other specific variables or constructs of family firms can also exert a moderating effect. For instance, studies in the literature indicate that family cohesion (Zahra, 2012), *SEW* (Schepers et al., 2014), family goals (Kallmuenzer et al., 2017), and family-to-firm unity (Eddleston et al., 2012) affect some of those relationships. This knowledge leads us to propose that the specific aspects suggested in this review as specific antecedents of EO within family firms (e.g., succession, familiness, and *SEW*) can also serve as moderators of the relationships between general antecedents and EO and between EO and outcomes. Additionally, other family-related issues, such as family structure and dynamics, can exert a moderating influence on these relationships.

Family is a dynamic institution that evolves over time as members come and go as a consequence of marriages, divorces, births, and so on (Nordqvist & Melin, 2010), leading to changes of their goals, orientation and power distribution (Kotlar & De Massis, 2013; Nordqvist & Melin, 2010). Given that family is the dominant coalition in family firms (Chrisman et al., 2012; Kotlar & De Massis, 2013), it would therefore be expedient to discover whether factors linked to family embeddedness and the dynamic nature of family moderate the antecedents–EO and EO–outcomes links. However, both the effect of family structure and its evolutionary nature have been disregarded by the literature on EO within family businesses so far, except by Zahra (2012), who analyzes how family cohesion positively moderates the association between family ownership and EO. To address this research gap, we call on scholars to adopt arguments from *agency theory* (Jensen & Meckling, 1976), *behavioral agency theory* (Wiseman & Gomez-Mejia, 1998), and *embeddedness theory* (Granovetter, 1985) to research whether divorce or other types of family conflicts and changes moderate, for instance, the relationship between a family business’ resources and capabilities and its EO or between EO and family-oriented goals. Similarly, *resource dependence* theory (Pfeffer & Salancik, 2003) may also help in analyzing how changes or imbalances in the power structure within the family system affect the relationships between antecedents and EO or between EO and different types of outcomes and more generally to answer the following FRS:

**FRS 6:** How do the family’s structure and its evolution over time moderate the antecedents–EO and EO–outcomes links within family firms?

Our systematic literature review has also revealed that the lower level of EO or its dimensions in family firms does not prevent family firms from surviving and succeeding (Miller et al., 2016). Some explanations have been hitherto provided, suggesting that family firms have some compensating mechanisms so that their lower level of EO or some of its dimensions (Garcés-Galdeano et al., 2016; Pimentel et al., 2017; Short et al., 2009) does not harm their ability to survive because of their long-term orientation and patient capital (Lumpkin
et al., 2010; Miller et al., 2016). The idea that family firms possess a long-term orientation is a prevalent assumption in the family firm literature (Brigham, Lumpkin, Payne, & Zachary, 2014; Lumpkin et al., 2010; Miller & Le Breton-Miller, 2005a; Zahra et al., 2004). Long-term orientation is defined as the “tendency to prioritize the long-range implications and impact of decisions and actions that come to fruition after an extended time period” (Lumpkin et al., 2010, p. 241), and it is especially promoted in most family firms because of the presence of multiple family generations in the firm and the relevance of family-oriented (mainly noneconomic) goals, among other features (Lumpkin et al., 2010). The concern for the long-term preservation of the company helps explain the performance advantages of family firms in different ways. First, such an orientation facilitates goal alignment as well as balance among owners, managers, and the remaining stakeholders (Hoffmann, Wulf, & Stubner, 2014). Additionally, the long-term orientation works as a dominant logic guiding decision making toward the achievement of the goals of the family (Lumpkin & Brigham, 2011). The effect of a long-term orientation may also lead family firms to have a more conservative and less risky approach to strategic decision making, focusing on long-term survival (Gentry, Dibrell, & Kim, 2016).

While long-term orientation has been analyzed as an antecedent of EO, with both a theoretical (Lumpkin et al., 2010) and an empirical approach (Eddleston et al., 2012), we propose that it can also moderate the EO–outcomes link; therefore, a fine-grained exploration of how a long-term orientation affects the EO–performance link is needed. Such an analysis will be crucial to confirming whether the evidence pointing to a specific way in which family firms are entrepreneurially oriented (e.g., Garcés-Galdeano et al., 2016; Pimentel et al., 2017; Short et al., 2016; Zellweger & Sieger, 2012) may be equally successful (Campbell & Park, 2016; Miller & Le Breton-Miller, 2011; Miller et al., 2016) when applied to explain other particularities of family businesses, as suggested by the strategic equifinality idea (Carney et al., 2015). In performing this empirical exploration, the recent validation of a multidimensional construct of long-term orientation (Brigham et al., 2014) can be very helpful. Thus, we call on researchers to explore the following FRS:

**FRS 7:** How does a long-term orientation moderate the EO–outcomes link in family businesses?

Our literature review shows that both the characteristics of family business’ top management team (TMT) or directors, such as their age or experience (Escribá-Esteve, Sánchez-Peinado, & Sánchez-Peinado, 2009), and the CEO’s characteristics, such as his/her tenure (Boling et al., 2016), may also be associated with the EO of a family firm. However, multiple personal traits remain unresearched, and only one work included in this literature review studied the moderating effect of female involvement in governance on the EO–performance link with significant and positive results (Arzubiaga, Iturralde, et al., 2018). This result is in line with other research that shows that there are differences between male and female executives regarding their entrepreneurial intentions and behaviors (Yang & Wang, 2014) and their method of managing resources (Bird & Brush, 2002). Considering that “family businesses are among the few areas where there are real opportunities for women to reach the highest positions in business” (Salganicoff, 1990, p. 128) and that *upper echelon theory* (Hambrick & Mason, 1984) states that strategic choices are determined and shaped by the values and cognitive bases of the dominant players in the organization, we propose using this theory to investigate whether the CEO’s gender or the gender diversity of the TMT and boardroom moderates the relationship between EO and family firm economic or family-oriented goals. *Upper echelon theory* (Hambrick & Mason, 1984), together with the *SEW* approach (Gomez-Mejia et al., 2007), may also be used to investigate whether family firm CEOs’ emotional attachment to the firm has some moderating effect on the EO–outcomes link. From a family point of view, other sources of heterogeneity in the TMT or the boardroom, such as generational involvement or the involvement of in-laws, also provide avenues for future research. Therefore, we propose a final FRS:

**FRS 8:** How do the personal traits of the CEO, TMT, and/or directors moderate the EO–outcomes link?

To conclude this section, in addition to these FRSs, and in line with the general literature on EO (Miller, 2011), we would like to add that qualitative methodologies are required to complement and further our fragmented understanding of the numerous and complex contextual factors that could affect EO within family firms or its consequences. Additionally, the empirical
research on EO and family firms has mostly tended to use cross-sectional studies, as is the case for EO in general (Wales, 2016); hence, the question of causality within EO relationships remains largely open. Finally, taking advantage of the fact that family business scholars have been pioneers in the use of objective measures of EO (e.g., Miller & Le Breton-Miller, 2011), we invite scholars to continue exploring this trend. Additionally, although we justify some of the above FRSs based on a single theory, we encourage scholars to adopt multiple theoretical approaches that complement each other by identifying and respecting underlying assumptions to build solid cumulative knowledge (Zahra, 2007). This would give us a broader theoretical platform and a clearer, more pluralistic view of family entrepreneurship (Randerson, Bettinelli, Fayolle, & Anderson, 2015).

Conclusions, Limitations, and Practical Implications

Using a well-defined methodology, this study reviews and synthesizes the current theoretical and empirical knowledge on EO and family firms to exploit the specific knowledge these two research areas bring to our understanding of the unique setting of family businesses. We also provide a possible agenda guiding future research, including eight suggestions and different perspectives for addressing each of them.

However, this work is not without its limitations. First, the use of additional databases or search engines might have yielded additional or different results. Second, given that we limited our search to articles and reviews in peer-reviewed journals, which tend to receive and accept only articles reporting significant results (Begg & Berlin, 1988), and although this is admittedly common in review studies (e.g., Wales et al., 2013), we recognize that our work may present a degree of “publication bias.”

Despite these limitations, two important contributions and practical implications emerge from this study. First, at a time when there is increased interest in EO in family firms, identifying, systematizing, and comprehensively reviewing existing knowledge on the topic is a first step toward helping policy makers develop effective, supporting initiatives for EO, considering the idiosyncratic characteristics of family businesses, which are a ubiquitous form of business organization. Insights into the influence that the idiosyncratic characteristics of family businesses have on their EO can help practitioners when assisting entrepreneurial families concerned about firm performance, growth, continuity, or family-oriented goals. In addition, our review offers scholars a comprehensive map of current research, which can help them position their own contributions.

Second, despite the numerous and diverse contributions published since the pioneering article by Zahra et al. (2004), our work contributes to the family firm literature by setting a future research agenda that highlights the fact that the family firm is not simply a context for expanding our understanding of EO. In fact, there are several unique characteristics or constructs of the family business that should be studied to increase our understanding of how the uniqueness of family firms and their heterogeneity affect EO within such firms. We trust the research agenda proposed here contributes to the generation of more interest in a phenomenon that intersects with family, business, and EO. In short, our article provides initial insights into a very complex topic, and we therefore strongly encourage others to continue this line of inquiry.

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ORCID iD

MC López-Fernández https://orcid.org/0000-0002-6204-9825

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**Author Biographies**

**Remedios Hernández-Linares** is an associate professor in the Department of Financial Economic and Accounting at Universidad de Extremadura (Spain). She received her PhD from Universidad de Cantabria. Her primary research interests include family businesses, business strategy, entrepreneurship, and higher education learning. Her work has appeared in *Scientometrics*, *Computer Applications in Engineering Education*, and the recent book titled *The Routledge Companion to Family Business*.

**María Concepción López-Fernández**, PhD, is an associate professor of Strategy and holds the Santander Chair in Family Business at University of Cantabria (Spain). Her main research interests include entrepreneurship, family business, innovation, flexibility, and tourism. Her articles have been published, among others, in *Journal of Small Business Management*, *International Journal of Production Research*, *R&D Management*, *Journal of Manufacturing Systems*, *Cornell Hospitality Quarterly*, and *Tourism Management*. 