

# DAUGHTERS' CAREERS IN FAMILY BUSINESS: MOTIVATION TYPES AND FAMILY-SPECIFIC BARRIERS

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## Abstract

The underrepresentation of women in high-level management positions in family firms has been traditionally imputed to gender barriers, which might be specific or non-specific to family firms. Leveraging the complementarity between qualitative and quantitative data and applying Qualitative Comparative Analysis (QCA), we find that family-specific barriers are intertwined with three types of motivation, i.e., extrinsic, intrinsic, and ethical, to predict the presence of daughters in high positions in family businesses. Three clusters have been accordingly identified, namely “no barriers”, “challengers”, and “rational”, offering alternative configurations of anthropological motivations and perceived family-specific barriers leading daughters to high positions.

**KEY WORDS:** careers in family business, succession, gender, motivation, barriers, ethics

## Introduction

Roles and leadership responsibilities of women in family business has been an increasingly debated topic among academics (e.g., Campopiano et al., 2017) and practitioners (e.g., <http://www.womeninfamilybusiness.org/>). The debate in different circles converges towards the notion that women play an important role in family businesses (Worstal, 2015; Chadwick & Dawson, 2018), which is not reflected in the top management team of family firms, as we look, for instance, at gender quotas (Casillas Bueno, 2016; Englisch et al., 2015; Steinbrecher et al., 2016).

Women's underrepresentation has been traditionally explained by highlighting that male successors are preferred over female successors due to *primogeniture* (Ahrens, Landman & Woywode, 2015; Dumas, 1989; Hollander & Bukowitz, 1990), *daughter-invisibility* (Cole, 1997; Karataş-Özkan, Erdoğan, & Nicolopoulou, 2011) and women's *role incongruity* between a leader role, family role and gender role (Eagly, 2003; Ely, Ibarra & Kolb 2011; Hytti, Alsos, Heinonen, & Ljunggren, 2017). This research stream has advanced our understanding of gender barriers specific to family firms, which has contributed to mainstream managerial barriers, summarized

under the label “glass ceiling” (e.g., Joshi, Neely, Emrich, Griffiths & George, 2015; Songini & Gnan, 2009). However, several authors have expressed significant concerns about whether the incidence of discriminant practices can still explain the huge gap between female and male presence in high positions, e.g., top management team and board of directors, in family firms (e.g. Pascual Garcia, 2012). While there has been a change of perspectives, and academics are increasingly focused on the pathways to achieving leadership (Gupta & Levenburg, 2013; Martinez Jimenez, 2009), this stream of literature still presents several gaps and overlooks the rich body of previous findings related to perceived barriers.

Despite the fact that it has been generally demonstrated that (1) career outcomes are linked with motivation (i.e. Quigley and Tymon, 2006; Ryan and Deci, 2000); (2) perception of barriers may depend on gender, with women perceiving them as being higher (Luzzo, 1996); and (3) gender is linked to the motivation, own self-perception, and psychological maturity, jointly affecting career aspirations (e.g. Bandura, 1997; Cardoso and Moreira, 2009; Luzzo, 1995; Luzzo and McWhirter, 2001), the relationship between motivation of daughters, barriers and career outcomes within the family business has not been studied yet.

This article intends to close this gap by jointly looking at daughters’ motivation and perception of barriers. In particular, we argue that the family business context not only generates *specific* gender barriers, but might also reinforce some *specific* forms of career motivation. Further, building on the configurational approach and evidence from a sample of 66 daughters, we suggest that motivations and barriers systematically cluster due to different forces, and that certain configurations of motivations and barriers are related to daughters occupying a high position.

Contributions are three-fold. First, we contribute to the family business literature, suggesting that career outcomes of daughters in family business seem to be explained by how the perception of barriers and motivations are combined. Second, three types of motivation, namely, extrinsic, intrinsic, and ethical, jointly coexist, affecting career outcomes of daughters. Finally, we contribute to the career literature in mainstream management, considering the importance of barriers and motivations that are specific to family business.

The article is structured as follows. We start revising the link between motivation, challenges, and career outcomes of daughters. We present theoretical lenses and stages of empirical investigation. We conclude with presentation of findings and main contributions.

### **What furthers and what draws back daughters’ careers in family business**

Jimenez (2009), Gupta and Levenburg (2013) and Campopiano et al. (2017) provide notable literature reviews of a general topic: “women in family business”. They agree that first contributions in this field centred predominately on obstacles and barriers to leadership, while

further research embraced a different viewpoint and the focus changed to the rise of women's careers and leadership. Nevertheless, many factors related to women's careers in family business remain obscure and the topic of barriers has not been actualized for several decades. Therefore, the following sections will respectively focus on motivations and barriers.

### **The Role of Motivation in Shaping Career Scenarios for Daughters in Family Business**

The anthropological theory (Perez López, 1991) is the theoretical base for conception of motivation adopted in this study. Anthropological theory is an organization theory that integrates anthropological conception underlying the ethics of Aristotle and Thomas Aquinas to build a base of decision-making in the organization (Argandoña, 2008). The theory's basic assumption is that there are three types of motivation that underlie human decision-making and consequently, human action. While the conception of extrinsic and intrinsic motivation generally coincides with that of other motivational theories (i.e. self-determination theory, Deci and Ryan, 1985), ethical motivation is a rather different one, conceptually close to: (1) prosocial motivation (Grant, 2008); (2) integrated regulation within the self-determination theory (Deci & Ryan, 2002); (3) pro-stakeholder motivation (Bastons, Mas & Rey, 2017). According to the anthropological theory of motivation, ethics does not consist of a set of rules that must be met, but rather of a process of development of a moral quality of a decision-maker, which takes place when she acts in the best interest of others (Argandoña, 2008, p. 439).

While family business scholars tend to not label different types of motivation explicitly, many examples implicitly demonstrate that psychological processes are related to career outcomes and, in some cases, are responsible for gender imparity in high-level management positions in family business. Depending on how different types of motivation combine with other factors, the following *career scenarios* for daughters can be outlined.

First, several scenarios are based on the intrinsic-extrinsic motivational divide. Thus, on the one hand, because of the desire of the incumbent generation to leave the business to the next generation and see it growing and developing (García-Álvarez, López-Sintas & Saldaña Gonzalvo, 2002; Jaskiewicz, Combs, & Rau, 2015), daughters who are intrinsically motivated enjoy working with family (Cole, 1997; Constantinidis & Nelson, 2009; Jaffe, 1990), are professionally proactive (Dumas, 1998; Dumas, Dupuis, Richer & St.-Cyr, 1995), and have a better chance of being recognized and promoted than daughters with reactive vision, who see family business only in utilitarian terms (Dumas 1998; Dumas et al. 1995), and without any intention of contributing to its growth (Overbeke, Bilimoria & Perelli, 2013). This is consistent with the career literature, according to which similar individual characteristics are related with both objective and subjective career outcomes (Bell & Staw, 1989; Boudreau, Boswell & Judge,

2001; Bretz & Judge, 1994; Day & Allen, 2004; Judge, Cable, Boudreau, & Bretz, 1994; Quigley & Tymon, 2006; Seibert, Crant, & Kraimer, 1999; Seibert, Kraimer, & Crant, 2001; Wayne, Lden, Kraimer, & Graf, 1999).

On the other hand, due to asymmetric altruism, the next generation in general, and daughters specifically, might manipulate their parents, who want to keep the business within the family, to obtain a position or role for which they do not have enough skills or knowledge, enjoying extrinsic outcomes: a higher salary or other privileges (Schulze, Lubatkin, Dino & Buchholtz, 2001). Further, this adverse selection problem might lead intrinsically-driven and proactive daughters with marketable skills to leave the company (Van den Berghe & Carchon, 2003), in cases where parents do not promote on merit-based grounds (Ahrens et al., 2015).

Additionally, the long socialization process provides children within a family business with motives to enter the family firm, which are not limited to extrinsic and intrinsic motivation. Several attempts have been made to explain and label this form of motivation, such as “helping family” (Murphy and Lambrechts, 2015, p. 33) or “emotional ownership” (Björnberg & Nicholson, 2012, p. 374). In a similar vein, Daspit, Holt, Christman, and Long (2010) suggested that being proud of the family business, feeling loyalty, and agreeing on business goals, plans, and policies increases the commitment of the next generation and the desire of the senior generation to keep the business in the family. Khanin, Turel, and Mahto (2012) found that family-business embeddedness increases family employees’ job satisfaction; and, Peters, Raich, Märk, and Pichler (2012) suggested that successors’ perceptions of the business as being the home where they have grown up is an important reason for running a family business.

Daughters might be specifically drawn to the business by a desire to help the family, continue the family tradition, or give back to the family (Dumas, 1998; Salganicoff, 1990; Song, 1995; Vera & Dean, 2005); and may have this motivation slightly more than sons would (Akhmedova, Cavallotti, & Marimon, 2015). Daughters are also reported to have “family pride” in the product or service, or relations with employees (Barach & Ganitsky, 1995; Brockhaus, 2004; Dumas et al., 1995; Sharma & Irwing, 2005), suggesting that their non-economic motivation might transcend from the immediate family circle. Daughters who are unselfishly motivated may come to play a more indispensable role in the family firm by balancing the interests of the business, employees, clients, and partners, and thus developing professional skills and contacts. Additionally, their motivation to work in the family business might be stronger than for other career opportunities. Thus, such daughters might have all desirable successor attributes (Sharma, 2004) representing leaders who are oriented towards growth (Ward, 1997). Having a leadership style of the “steward” who tends to watch over a family business might create a better chance for a smooth succession (Kubicek & Machek, 2018). However, the link between this motivation and career outcomes has not yet been empirically studied.

## **The Role of Barriers in Shaping Career Scenarios for Daughters in Family Business**

The interplay between barriers and motivation has long been studied within cognitive theories of motivation. Thus, expectation of success, viability of options, opportunity costs, and self-beliefs all come into play when a decision is being made (Bandura, 1997). The expectation that their career might be hindered due to primogeniture, invisibility or role incongruity in the family business might lead women to sometimes “exclude themselves” from being potential successors (Gherardi & Perrotta, 2016; Overbeke et al., 2013) or justify gender inequality (Gherardi & Perrotti, 2016). In case of daughters in family business, barriers to leadership vary according to the actors involved. The following three types of interactions are the most common for family business: (a) daughter–non-family employees and external stakeholders; (b) daughter–incumbents; (c) daughter–other siblings. The result of each type of interaction would depend on the number of factors that might increase or lower the barriers.

First, the interaction with non-family employees, clients, and partners might entail for the next generation the need to prove their legitimacy as a manager or as a successor. Although both genders might face this situation (Dalpiaz, Tracey, & Phillips, 2014), for daughters it might be even a more challenging issue because non-family employees and clients might be ignoring them (Cole, 1997) and because they have a need to establish their own identities (Barnes, 1988; Deng, 2015; Hytti et al., 2017; Welter, Haag & Achtenhagen, 2017; Mussolino, Cicellin, Iacono, Consiglio & Martinez, 2019). Socialization naturally equips the next generation with tacit knowledge, specific skills, and a contacts network. The considerable advantages in terms of training and learning (Dumas, 1998) might be helpful for daughters to establish their managerial legitimacy in their interactions with non-family employees, partners, and clients, if daughters are able to overcome their invisibility (Salganicoff, 1990). However, daughters might not always benefit from socialization. As revealed by Overbeke and colleagues (2013), sons might enter the family business earlier in life and receive better preparation than daughters. Additionally, daughters might not be encouraged and supported in the same way as sons (Iannarelli, 1992; Rosenblatt, De Mik, Anderson, & Johnson, 1985). Thus, daughters who do not show a proactive approach to the business, might lose the many benefits of having a family business background.

Second, the interaction with incumbents is even a more complex issue. Several studies investigate father–daughter, father–son, mother–daughter, and mother–son dyads (Dumas, 1990; Halkias et al., 2010; Harveston, Davis, & Lynden, 1997), finding that father–daughter succession is marked by “complementarity” and is potentially beneficial for various stakeholders (Haberman & Danes, 2007; Wang, 2010), though not always, as a father’s favouritism of male employees (Glover, 2014) or maintaining a father’s networks (Deng, 2015) might present a daughter with additional challenges. Further, the succession from mother to daughter might be potentially difficult (Vera

& Dean, 2005). However, according to Hisrich and Fülöp (1997), women are twice as likely as men to envision their daughters taking over the business. However, irrespective of the incumbent's gender, daughters might not be considered as viable successors (Vera & Dean, 2005), especially if they do not make any explicit requests to do so (Haberman & Danes, 2007). Indeed, a strong willingness to undertake leadership and a growth orientation (Mathew, 2016), as well as confidence in their business skills (Overbeke et al., 2013) may increase a daughter's likelihood of being selected as successor.

Finally, daughter–other siblings collaboration might be problematic, especially for the third generation and higher (Ward, 2016). Indeed, daughters from families with few males are more likely to become successors (Ahrens et al., 2015; Curimbaba, 2002; Haberman & Danes, 2007). In general, the existence of multiple successors might further complicate the dynamics of succession, in the extreme case leading to significant emotional and economic losses (Cater & Kidwell, 2014; Cater, Kidwell, & Camp, 2016; Jayantilal, Jorge, & Palacios, 2016). However, this does not mean that a daughter from a family with several males might not become a successor if she has better successor attributes than her brothers, and if her parents promote based on merits.

### **Method**

On the one hand, consistent with literature on daughters, there are at least three types of motives related to daughter involvement into the family firm, and at the first glance, it might be difficult to predict the net effect on daughters' careers from the combination of these motives, specifically taking into account that the direct effects have been understudied to date. Further complexity in predicting daughter career outcomes is added when considering motivations of other actors: incumbents, non-family stakeholders, and other siblings.

On the other hand, consistent with empirical findings on motivation, many forces may cause motivation to cluster systematically (Pieper, 2010), but these processes have been studied and some of them might be predicted. Thus, intrinsic motivation might be crowded-in and crowded-out by extrinsic motivation, depending on how the rewards are perceived (Frey & Jegen, 2001; Frey, 2012) due to inadequate or adequate management systems (Chrisman, Chua, Kellermans & Chang, 2007). Further, according to Grant (2008) intrinsic motivation might be further increased with prosocial motivation, resulting in an increase in persistence, performance, and productivity. The viability of other options, opportunity costs, and self-beliefs (Bandura, 1997) might have an effect on career aspirations.

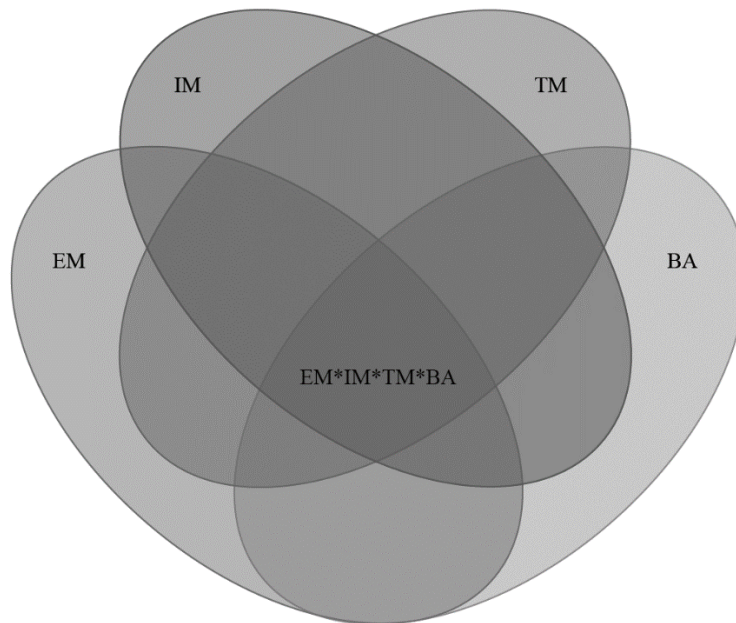
Consequently, quite a few career scenarios can be outlined with respect to daughters' motivations and perception of barriers. The fact that the same motivation might or might not lead to a high position, and that barriers vary depending on other actors involved, might downplay the role of these factors at a first glance. However, in many cases, the strength of daughter motivation and

her willingness to contribute a good level of professional skills, might significantly change her career outcomes. Thus, assuming that there is a finite number of scenarios, knowing them and their antecedents would be useful for both academics and practitioners.

This is consistent with the configurational theory (Fiss, Marx, & Cambré, 2013), which assumes that just a fraction of the theoretically conceivable configurations is viable because attributes of configurations (in this case three types of motivation and barriers) are, in fact, interdependent and often can change only discretely or intermittently (Meyer, Tsui, & Hinings, 1993; Kan, Adegbite, Omari & Abdellatif, 2016).

As Fiss et al. (2013) notice, the concept of configuration became a central feature of organization theory during the 1970s and 1980s (e.g., Child, 1972; Miles, Snow, Meyer & Coleman Jr, 1978; Mintzberg, 1983), and later in the 1990s and early 2000s (e.g., Child, 2002; Doty, Glick, & Huber, 1993; Ketchen, Thomas, & Snow, 1993). The development of the configurational approach appears to have stalled due to absence of methodological support. QCA is an analytical approach that offers advantages when there is a need to take a holistic view of a complex phenomenon. QCA uses Boolean algebra and set theory logic to find logical conclusions that a dataset can support. QCA is different from cluster analysis: while both assume the existence of configurations, the latter has severe deficiencies in its ability to disentangle the complex causal processes (Fiss, 2007). QCA is also different from fuzzy-set regressions, which do not support the configurational approach (Fiss et al., 2013). The “interaction logic” is different in QCA compared to Multiple Regression Analysis (MRA) or Structural Equation Modelling (SEM). QCA studies causal complexity by assuming that cases represent some mix of causes and conditions (not “independent variables”) that correspond to the outcome (not “dependent variable”). This method has been successfully implemented by several studies in the area of family business research (Garcia-Castro & Casasola, 2011; Garcia-Castro & Aguilera, 2014; Kraus et al., 2016). Based on the literature review, the proposed model can be seen in Figure 1. As is recommended by Schneider and Grofman (2006), a Venn diagram was used to create a visual representation of theoretical propositions.

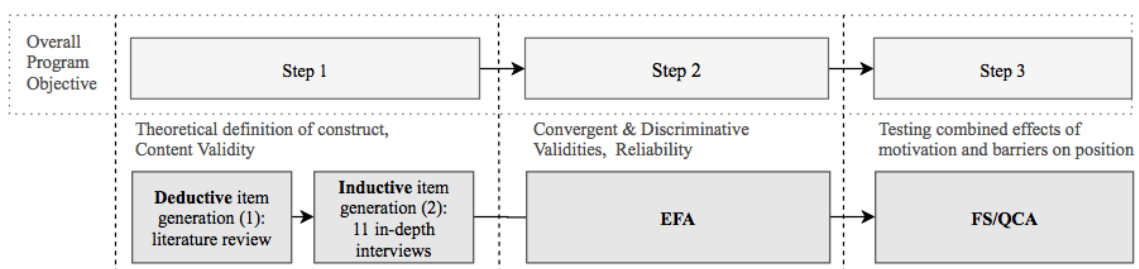
**Figure 1. Integrative model for assessing combined effects of motivation**



*EM – Extrinsic motivation, IM – Intrinsic motivation, TM – Ethical motivation, BA – Barriers, “\*” logical AND*

The challenge of the current research was the fact that there is no ready-validated tool with which to measure the three types of motivations and barriers. To be able to proceed, the validation of measurement tools was needed. Before being able to test the final model presented above, we needed to go through several preparatory stages.

**Figure 2. Research stages**



A pragmatist approach to research (Cherryholmes, 1992; Murphy & Rorty, 1990; Teddlie & Tashakkori, 2003) has been adopted as the epistemological base of the multiphase design of this research (Creswell & Plano Clark, 2011). A sequential design of qualitative, quantitative, and mixed methods to data analysis, where studies have equal weight (Creswell & Plano Clark, 2003; Creswell & Plano Clark, 2011), and where results of the first method help to develop or inform the second stage (Greene, Caracelli, & Graham, 1989) in order to advance one programmatic research objective (Creswell & Plano Clark, 2011).



## **Step 1**

Well-established methodologies to development measurement tools in social sciences suggest following specific steps: specification of domain of the construct, generation of items, and validation of scale through assessing reliability, discriminant validity, and unidimensionality (Churchill, 1979, DeVellis, 2016, Rossiter, 2011). In the first study, two complementary qualitative data analysis approaches: deductive and inductive, were used to generate items.

### **Specification of domain of construct**

All definitions of motivation were taken from the anthropological theory (Perez López, 1991), because this theory combines the three types of motivation and takes into account the interactions among agents. Within this theory, extrinsic motivation represents external rewards that can be economic (salary or a bonus) or non-economic (prestige or social recognition); intrinsic motivation is understood as all types of inherent satisfactions that accompany realization of work. Thus, this motivation covers a broad field of human needs (enjoyment, achievement, learning, autonomy). Finally, ethical motivation towards different stakeholders (ethical motivation) is defined as motivation that initiates and sustains an activity that is done, anticipating the reaction of another person, who is related to the company directly or indirectly. This motivation includes a wide area of motives, such as a desire to help family, improve the business (e.g. improve the situation of employees or help colleagues), or make a social contribution (e.g. improve the situation of final customers).

### **Generation of items: Deductive and inductive approach**

First, following prescriptions of deductive item generation approach (Hinkin, 1995, 1998), an exhaustive literature review about daughters in family business was performed with the goal of capturing the different facets of extrinsic, intrinsic, and ethical motivation, as well as barriers to leadership (Appendices D & E).

Second, inductive conceptualization techniques were used to increase the content validity of the measurements (Hinkin, 1995).

A purposefully formed sample consisting of eleven daughters in family business was used in order to refine, reduce, and transform the items. The sample was heterogeneous and included three types of women: (1) daughters in family business who took over the whole family company from their fathers and who are actually in charge of the whole business; (2) daughters in family business who are in charge of a department (with the succession already in place or not); and (3) daughters in family business who left the family business (see Appendix C for descriptive statistics). The

interviews lasted between one hour and two hours and were transcribed and analysed in NVivo™. We contrasted the themes that appeared in the literature review with themes that appeared during the interviews. Special attention was paid towards specific expressions. For instance, the original item “help employees” was transformed into “mentor employees”, as this was a specific issue that the majority of interviewees mentioned. While it was possible to reduce the number of items measuring motivation from 36 to 21, because we had enough material on motivation that was consistent, the number of items measuring barriers remained the same. Only daughters who left their family business explained the barriers that they faced. Because we wanted to explore this topic further, we decided not to reduce the initial number of items. In order to validate the measurement tools, exploratory factor analysis (EFA) was implemented. Obtained constructs were adapted for QCA and the analysis was performed.

## **Step 2**

Validation of dimensions proposed theoretically and assessing reliability and validity was performed in the second study.

### **Data collection**

Non-probability sampling—a convenience sample from the SABI (Sistema de Análisis de Balances Ibéricos)—was used. We followed prior literature to impose certain restrictions to reach a set that would serve the goals of the study and allow generalizing the results (Arosa, Iturralde & Maseda, 2010; Cabrera-Suárez, Déniz-Déniz & Martín-Santana, 2014; Diéguez-Soto, López-Delgado & Rojo-Ramírez, 2015; Vandemaele and Vancauteran, 2015). For the purposes of this research, the family firm in this study needed to be (or have been) managed and owned by at least two generations of family (Astrachan & Shanker, 2003; Kellermanns, Eddleston, Sarathy & Murphy, 2012). The database was searched by “region” (i.e. Catalonia and Madrid), as these regions had the major number of family businesses and the academic institution of reference was well-known in these regions; “year of creation” (before 1965), because we wanted to ensure at least two generations with both being socialized with the business; and “gender” (directors, shareholder, female). Thus, the preliminary number of companies obtained from the database was 2,172 (1,142 companies from Catalonia and 1,030 from Madrid). We did not determine any specific economic activity in order to have industry-heterogeneous sample. The pre-selected sample was further screened several times in order to delete those that were in the process of liquidation, as well as the outliers in terms of size (turnover more than 100 million or less than 200 thousand). Additionally, we conducted an exhaustive review of the shareholding structures (percentage of common stock) and composition (name and surnames of shareholders), and examined the composition of the board of directors of each of the selected companies in the

database (Garcia-Castro & Casasola, 2011). Finally, 397 daughters in family business were approached by phone and were asked to respond the survey. During the telephone conversation, the aim of the study was explained, so those who agreed to participate also identified themselves as being in a family business (Astrachan, Klein, & Smyrniotis, 2002; Westhead & Cowling, 1998; Westhead, Cowling & Howorth, 2001) and agreed with the fact that at least two generations work in family business (Astrachan & Shanker, 2003; Kellermanns et al., 2012). The survey collected information about the number of generations, family members, and employees, position of the daughter, and her level of education and work experience. It was obligatory to name the company. After two months, a total of 66 responses were collected. For companies, the mean for turnover was 11 Million Euros; 57 for the number of employees; 4.4 for ROA, and 1944 for the year of foundation. Descriptive statistics can be found in Appendices A and B.

### **Validation of scales**

In order to validate the measurement tools, exploratory factor analysis (EFA) was implemented in SPSS. Data for motivation and for barriers were computed separately. The sample size was obviously a limitation when conducting EFA. However, for motivation, the item to response ratio was 1:3.14, which was a little bit smaller than recommended 1:4 (Rummel, 1988). For barriers, the item to response ratio was 1:5.5, which can be considered a good score even by a stricter criterion (ratio 1:5) recommended by Hair and colleagues (2017).

A principal components analysis with varimax rotation was performed in SPSS. Both the Kaiser Meyer Olkin (KMO) index (0.760) and Bartlett's test ( $\chi^2$  1272.422; d.f. 210; Sig. 0.000) indicated that factor analysis was appropriate for these data (Hair et al, 2017). Five factors appeared as a result of analysis but only three explained more than 10% of variation; for this reason EFA was forced to three factors. Jointly, the three factors explained major variation in the sample's motivation, accounting for 69.5%. Factors were labelled "intrinsic motivation", "ethical motivation", and "extrinsic motivation" (Table 1), as the items scored in a factor in a way as it was predicted.

**Table 1. Exploratory factor analysis of motivations for joining the family business.**

Item code	Item	Factors		
		IM	TM	EM
MI3	Do interesting tasks	<b>.915</b>		
MI1	Do challenging tasks	<b>.904</b>		
MI4	Align career interests	<b>.884</b>		
MI6	Develop professionally	<b>.877</b>		
MI11	Do the work that I enjoy	<b>.820</b>		
MI8	Enjoy the working atmosphere	.681	.384	
MI2	Be independent at work	.427		
MT5	Help family		<b>.896</b>	
MT6	Work for family		<b>.866</b>	
MT9	Provide benefit to others		<b>.827</b>	
MT1	Mentor employees		<b>.792</b>	
MT7	Continue family tradition		.777	
MT8	Influence the future of bus.	.324	.770	
MT2	Improve business		.481	
ME9	Enter without barriers	-.339		<b>.841</b>
ME10	Have competitive income			<b>.841</b>
ME1	Have a reasonable workload			<b>.817</b>
ME8	Be promoted faster	-.324		.772
ME11	Standard of living	.306		.745
ME3	Have flexible schedule			.741
ME5	Be respected			.736
% of variation		36.436	19.298	13.710
Cronbach's alpha		0.957	0.912	0.816

*EM – Extrinsic motivation, IM – Intrinsic motivation, TM – Ethical motivation*

*Note:* Retained items are marked in bold

For samples between 60 and 70, Hair and colleagues (2017) recommends retaining items with factor loadings over 0.70 to achieve statistically significant results. We used even stricter criteria. All items that loaded less than 0.80 (i.e. had poor convergent validity) or loaded simultaneously on two or three components more than 0.35 (i.e. had poor discriminant validity) were deleted.

Several distinguished authors in the field of scale development (e.g. Comrey, 1988 & DeVellis, 2016) do not include confirmatory factor analysis (CFA) as a necessary step in scale development. However, other authors (e.g. Gerbing & Anderson, 1988) argue that CFA is a necessary step to check unidimensionality, which cannot be otherwise tested by means of coefficient alpha test or EFA. The second-order CFA was conducted in EQS 6.1, using a maximum likelihood estimation method. To assess the fit of the model, goodness of fit indices were used. The comparative fit index (CFI; Bentler, 1990) was 0.9, indicating an acceptable fit. The root mean square error of approximation (RMSEA; Steiger, 1990) was 0.15 (90% confidence interval 0.09; 0.16 (Cheung & Rensvold, 2002)). Cronbach's alpha was 0.79 and reliability index RHO was 0.927, indicating a good result. Sattora-Bentler  $\chi^2$  was 123.2 with 50 degrees of freedom (with normalized Chi-square  $\chi^2$ /d.f. 2.41 less than 5 indicating a good fit, see Hair et al., 2017; Marsh & Hocevar, 1985)

and p-value 0.00005, below 0.05 threshold (Wheaton, Muthen, Alwin & Summers, 1977). Low p-value and RMSEA 0.14 more than 0.9 can be explained by the small sample size (Hu & Bentler, 1998). All factors proved significant and loaded as follows: t-value of extrinsic motivation was – 2.89, intrinsic motivation 3.66 and ethical motivation 2.68.

Principal components analysis with varimax rotation was also performed for barriers. Both the KMO index (0.857) and Bartlett’s test of sphericity (X<sup>2</sup> 482.923; d.f. 66; Sig. 0.000) indicated good data fit. The analysis showed that two factors explain 60% of the variation, and basically the first factor had the most power. The same criteria were used to retain items. Factors were labelled “barriers specific to family business” and “conciliation” (Table 2).

**Table 2. Exploratory factor analysis of motivations in order to join the family business.**

Item code	Item	Factors	
		FB	C
V24	Role incongruity	<b>.869</b>	
V23	Invisibility	<b>.851</b>	
V32	Lack of family support	<b>.794</b>	.346
V25	“Old boys’ network”	.722	
V22	Primogeniture	.703	
V29	Male dominated hierarchy	.642	.309
V26	Lack of education	.599	.354
V33	Priority other		<b>.821</b>
V28	Work–family misbalance		<b>.732</b>
V30	Low professional self-esteem	.488	.671
V31	Lack of leadership qualities	.506	.614
V27	Lack of role models	.386	.490
% of variation		50.724	10.462
Cronbach’s alpha		0.911	-

*FB – Barriers specific to family business, C – Conciliation*

*Note: Retained items are marked in bold*

Factor “conciliation” was rejected because: (1) it is not recommended to keep factors with less than three items (e.g. Brown, 2014, p. 38), and (2) because the first factor had five times more explanative power.

### Step 3

The final step of research consisted in testing the theoretical model presented in Figure 1. QCA was conducted using the fs/QCA programme.

#### Adaptation of data for QCA

The data collected in study 2 was further used in study 3. Since QCA is based on the concept of set membership, the original measures needed to be adapted (or calibrated) to indicate the degree

to which different cases belong to a set (Ragin, 2007). The determination of breakpoints allows calibration of all original values into membership values. The selection of threshold values depends on both theory and researcher knowledge of the cases under analysis (Fiss, 2007; Ragin, 2000). For the three types of motivation and barriers, calibration was done by the “direct method” (Ragin, 2007), through the use of three anchor points, taking into account means and standard deviations. Calibration of outcome (position) was done based on the degree of control in the company, using four anchor points. Tables 3 and 4 summarize calibration decisions.

**Table 3: Calibration of conditions**

Condition	Descriptive statistics		Membership threshold values		
	Mean	St. Dev.	Full non-membership (0.05)	Cross-over point (0.5)	Full membership (0.95)
EM	2.9	0.9	2.0	3.0	4.0
IM	4.0	0.9	2.0	3.0	4.0
TM	3.9	0.8	2.0	3.0	4.0
Barriers	2.3	1.2	1.5	2.5	3.5

*EM – Extrinsic motivation. IM – intrinsic motivation, TM – ethical motivation*

**Table 4: Calibration of outcome**

Outcome	Membership threshold values			
	False (0)	More false than true (0.33)	More true than false (0.67)	True (1.0)
Position	Internship/ temporary work	Professional	In charge of the department	In charge of the company

*Testing combined effects of motivation and barriers on position*

Data analysis in QCA starts by defining property space, which is then converted to a “truth table” (Appendix F) by cross-case comparison of memberships between causal sets (motivation and barriers) and outcome set (position) (Ordanini, Parasuraman & Rubera, 2014). Consistency was used to evaluate configurations of conditions that can be sufficient to achieve a high position. Consistency is calculated by dividing the number of members of both causal and outcome sets by the total number of members of the set. A “few” inconsistent cases are allowed because of random error (Fiss, 2007). Thus, Ragin (2008) recommends a minimum threshold of 0.8 for consistency.

When deciding on the threshold for the consistency cut-off, the PRI consistency index should also be taken into account. PRI consistency is low when a condition or configuration is considered as sufficient for the outcome and its absence (Schwellnus, 2013). Schneider and Wagemann (2012) set the value of 0.65 as high and 0.35 as low. Thus, the last two rows were excluded because they had very low PRI consistency. Once all sufficient configurations were identified, the following

mathematical reduction was used: if in one configuration A is present and in another it is absent, then A can be dropped.

Before proceeding with analysis of sufficient conditions, the analysis of necessary conditions should be undertaken. Conventionally, a condition or a combination of conditions is called “necessary” or “almost necessary” if the consistency score exceeds the threshold of 0.9 (Schneider, Schulze-Bentrop & Paunescu, 2010). Only condition “ethical motivation” exceeds the 0.9 threshold (Appendix G). In practice, this means that ethical motivation alone is not sufficient to cause outcome, but it is an indispensable part of causal conditions.

For sufficiency analysis, fs/QCA provides three types of solutions: complex, parsimonious, and intermediate. Ragin (2008) suggests superiority of intermediate solutions that use only “easy” logical remainders when simplifying the solution. While the intermediate solution is presented in Table 5, the study distinguishes between core and peripheral causal conditions (Fiss, 2011). In each of the solutions, ethical motivation represents a core condition, the one that has a strong causal relationship with the outcome (i.e., appearing in both parsimonious and intermediate solutions). Other causal conditions are peripheral and have a weaker causal relationship with the outcome (i.e., appearing only in the intermediate solution). While the role of ethical motivation on career of daughter has been understudied to date, this finding provides relatively clear evidence of a strong positive connection.

**Table 5. Analysis of sufficient conditions: intermediate solution**

Configuration	Solution		
	1	2	3
Extrinsic motivation			●
Intrinsic motivation		●	
Ethical motivation	●	●	●
Barriers	⊗		
Consistency	0.91	0.87	0.92
Raw coverage	0.69	0.85	0.43
Unique coverage	0.02	0.14	0.02
Overall solution consistency	0.86		
Overall solution coverage	0.90		

*Note:* (⊗) - Absence of condition, (●) - presence of condition and blank spaces indicate, “don’t care”. Large circles indicate core conditions; small ones indicate peripheral conditions.

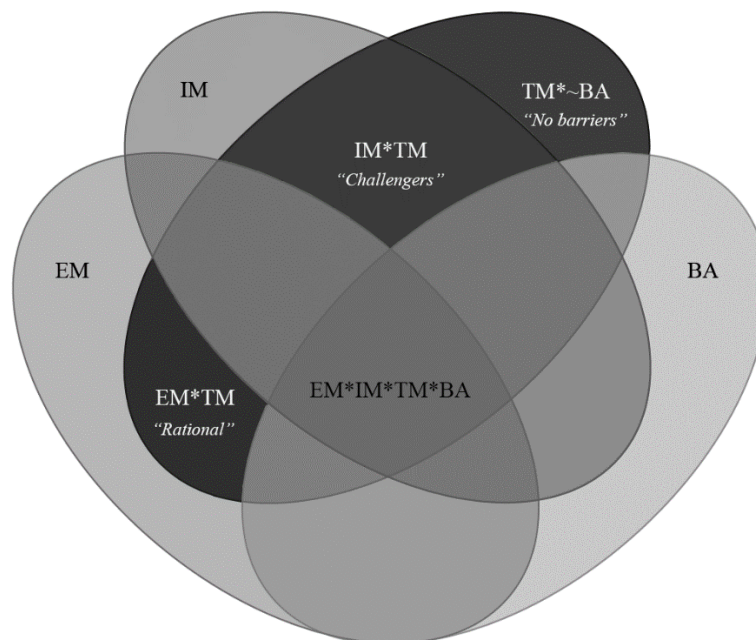
The quality of the final solution was assessed by coverage and consistency. Coverage determines the empirical relevance of the solution (Schneider & Wagemann, 2012). The higher the coverage, the more common the solution is and the more outcomes are explained by it. The model had good

fit solution, coverage 0.90, which is higher than recommended value of 0.45 (Ragin, 2008). Consistency shows whether the outcome can be produced regularly by the solution (Schneider & Wagemann, 2012). Consistency was 0.86, which is higher than the recommended value of 0.74 (Ragin, 2008). In the analysis of individual attributes in the final solution it is important to note the role of ethical motivation that is presented in each pathway of the solution. The absence of barriers is required in one pathway, but it is irrelevant in other two.

### Discussion and Implications

In the solution obtained, seven sufficient configurations were reduced to three equifinal pathways, as shown in Figure 3. Since findings in QCA are “case” and not “variable” based (Ragin, 2000), each solution reflects both: (1) a combination of variables related to the outcome; and, (2) the group of subjects associated with that combination. In other words, the results of QCA analysis allow for elaborating an informed typology (Fiss, 2011), where each configuration describes a segment of daughters in family business that is different in their motivation and perception of barriers. The following clusters present the characteristics of women who hold high positions in their family firms.

**Figure 3. Graphical representation of results**



*EM* – Extrinsic motivation. *IM* – Intrinsic motivation, *TM* – Ethical motivation, *BA* – Barriers, “\*” logical AND, “~” logical negation

**No barriers.** The first pathway unites all configurations with absence of perceived barriers and presence of ethical motivation. This pathway can be labelled “no barriers” and is intuitively



straightforward to understand. The lesser the barriers, the better career growth and the higher the position daughters hold. This is consistent with cognitive theories of motivation (Bandura, 1997). However, the feasibility of a career in the family business does not automatically make it a desirable career option. Apart from “not having barriers”, a daughter in a family business should also feel a strong inclination to work with the family and for the family, which resonates with various studies (Björnberg & Nicholson, 2012; Daspit et al., 2010; Dumas, 1998; Murphy & Lambrechts, 2015; Peters et al., 2012; Salganicoff, 1990; Song, 1995; Vera & Dean, 2005).

This leads us to suggest that a fraction of daughters who join the family business are taking an ethical stand and are driven by the intention to act in the best interest of the business, family, customers, suppliers, and society. When their efforts become “visible” and recognized by both family and non-family members, daughters feel encouraged and strongly motivated, whereas when the opposite happens, they become frustrated to the point of leaving the business (Sharma & Irving, 2005). Therefore, the absence of barriers needs to be complemented by the fulfilment of psychological needs and the internalization of external demands (Deci, Eghrari, Patrick, & Leone, 1994).

**Challengers.** The second pathway suggests the presence of ethical motivation and intrinsic motivation as sufficient. This pathway achieves the highest level of unique coverage (0.15, number of cases = 20), meaning that intrinsic motivation and ethical motivation cluster together as a pathway to high position more frequently than the other two pathways. This suggests that the motive of helping might be strengthened by intrinsic motivation, resulting in an increase of persistence, performance, and productivity (Grant, 2008) that is reflected in the high position (Seibert et al., 2001). Daughters in family business who are intrinsically motivated would be professionally more proactive (Dumas 1998, Dumas et al., 1995). The development of relevant work skills is strengthened by a strong inclination to work with the family and for the family (Björnberg & Nicholson, 2012; Murphy & Lambrechts, 2015; Salganicoff, 1990). Thus, these daughters have all desirable successor attributes (Sharma, 2004).

Comparing “challengers” and “no barrier” daughters leads us to suggest that a fraction of daughters join the company because it naturally fits their career interests and because they are inclined to work for the family and with the family. This configuration is strong, because, in contrast to the previous one, daughters are motivated not only to become a good leader for the family business, but also a good professional. In fact, intrinsic motivation would make the job enjoyable to daughters, thus experiencing satisfaction from autonomy (Gagné & Deci, 2005). These daughters might be seen as tough (Schröder, Schmitt-Rodermund & Arnaud, 2011), sometimes adopting masculine styles of leadership. Consistent with previous research, if noticed, this attitude might help daughters to obtain higher support of family (Dumas, 1998; Mathew, 2016).

Apart from the two conditions that are present in this pathway, it is relevant to highlight that barriers specific to family firm represent a condition that is neither present nor absent. This pathway was labelled “challengers” because the absence of barriers for this type is not a decisive factor, assuming that these daughters, although motivated both intrinsically and ethically, also faced barriers. Consistently with Schröder and colleagues (2011), we suggest that daughters in family business who opt to stay in the family business are more persistent and tough. As mentioned, daughters from larger companies with greater number of family members, especially male siblings, might face higher barriers specific to the family firm (Ahrens et al., 2015; Curimbaba, 2002; Haberman & Danes, 2007). Further, when family businesses open the door to traditionally masculine sectors (Dumas, 1998), daughters might face an additional need to prove their professional skills in front of non-family employees and clients in these industries (Deng, 2015; Glover, 2014), which could be even more difficult without family support (Cole, 1997).

**Rational.** The third pathway suggests that ethical motivation and extrinsic motivation are sufficient conditions to hold a high position in the family business. Although it should be noted that unique coverage of this pathway was very low (0.017), it is relevant to discuss the complex relation between extrinsic motivation, barriers, and position. Previous research found that daughter career scenarios based on extrinsic motivation are not related to high position, as daughters are not promoted (Dumas, 1998), and sometimes even do not want to be promoted Curimbaba (2002). Current analysis suggests that daughters might be drawn to the business by a desire to help the family and to improve the business, as well as by good compensation, flexibility, and ease of entry, and in this case, they can achieve a high position. This type is labelled “rational”, as daughters in this group balance the interests of the company, employees, clients, and partners, as well as their personal interests.

### **Theoretical Implications**

The discussion suggests that there is an important role of ethical motivation—motivation to act ethically towards different stakeholders of the company. This finding deserves further attention. In general, ethical issues in family business, and their introduction into organizational theories remain a part of the family business research agenda (Caldwell, Hayes, Bernal & Karri, 2008; Chrisman et al., 2007; Kellermanns & Hoy, 2016). This is surprising, given that the long-term survival of family businesses is based on the ability of family members to contribute to a trustful and involvement-oriented working environment by controlling the moral quality of their intentions and actions, not falling into agentic behaviour towards other family or non-family members (Neubaum, Thomas, Dibrell, & Craig, 2017). This might be key to understand why ethical motivation appears as a part of each configuration.

Thus, it is a remarkable finding that ethical motivations are of paramount importance to engage women in leading positions in their family business. According to previous research, it was not clear whether daughters' motivation to help family (Salganicoff, 1990; Song, 1995; Dumas, 1998; Vera & Dean, 2005) also spills-off to other firm stakeholders. This question is important in light of the socio-emotional wealth (SEW) perspective, which states that family members often have non-financial goals in addition, or even in contradiction, to financial goals (Berrone, Cruz, & Gomez-Mejia, 2012), and that benefits of increased SEW may or may not spill over to other stakeholders of the company (Zellweger, Kellermans, Chrisman, & Chua, 2012; Miller & Le Breton-Miller, 2014, Newbert & Craig, 2017). It was also unclear whether the motivation to help family promotes or draws a daughter to a career. In this study, the motivation to help family and to work with the family also spills-off to employees and is an indispensable condition of achieving a higher position.

Additionally, findings suggest that depending on how different types of motivation are configured, the perceived absence of barriers to leadership may be a relevant or irrelevant factor. The perceived absence of barriers in the first pathway seems to be a motivational equivalent to intrinsic motivation in the second pathway and to extrinsic motivation in the third pathway. This suggests that a perceived absence of barriers is motivational enough to strengthen implementation of career choices through cognitive appraisal processes (Lent, Brown & Hackett, 1994, 2000). However, some daughters in family business ("challengers") attain a high-level management position even with some degree of barriers, suggesting that there are specific archetypes of daughters in family business who are strong enough to overcome some degree of family resistance.

### **Practical Implications**

Given that daughters in family business represent a valuable human resource for family companies, these results can be used by family companies' representatives, incumbents, and alike, who are interested in attracting and retaining the next generation of talent in the company. Practitioners and consultants might find useful the current typology of daughters in family business for analysing specific cases and to provide leadership recommendations and coaching for daughters in family business.

For parents who are interested in continuation of their business, it would be beneficial to develop and reinforce the ethical motivation of daughters, through socialization, demonstrating their leadership integrity and ability to exercise a good level of moral quality of their intentions, inducing them to identify with the organization and educating them to improve their motives. The recommendation to parents would also consist in being reciprocal with good intentions of

daughters, showing that their own values spills-off to the business. In the end, a strong family identity is an important strength of family business (Berrone et al., 2012).

Apart from that, parents should express their support to daughters, but not by trying to overprotect them, but rather, by gradually sharing responsibility and giving professional opportunities to take different roles. By doing so, they would potentiate the intrinsic link of daughters with the business and avoid the feeling of role incongruity perceived by daughter. This might be especially useful for parents of “challengers”, who might want to avoid losing their human capital not because of barriers, but because of decreased interest.

Finally, parents who want to support their daughters might find it useful to educate them about the potential dangers of assuming that altruism and ethical behaviour is always mutual. Thus, it might be beneficial for daughters (and parents) to be aware that brothers might act as agents when they decide to compete (sibling rivalry).

### **Conclusions, Limitations, and Future Research**

This study has presented three types of daughters, labelled as “no barriers”, “challengers”, and “rational”, consistently with the properties of each type, contributing to previous studies that offered taxonomies of daughters in family business (Curimbaba, 2002; Dumas, 1998; Otten-Pappas, 2013). Specifically, this research expands the findings of Otten-Pappas (2013), additionally looking at internal characteristics of daughters in family business who occupy high-level position (successors). The study results outline specific ways of how the perception of barriers combines with different types of motivation and contributes to career literature in both mainstream and family business areas.

Nevertheless, this research is not free from limitations, which open the way to future research directions. One aspect that has been neglected in this study regards the relationship between the typology of female leaders and their contribution to financial and non-financial outcomes of the firm. For instance, although women might reach a top position in their family firms, future research might consider their managerial discretion, thus offering novel insights to management theories that might be extended considering women’s involvement in family businesses, rather than other type of organizations (Chadwick & Dawson, 2018).

Moreover, the study of different types of female leaders can challenge existing theories in management by considering also their contribution to decision-making. Indeed, scholars might consider how social structures and social relationships with other family and non-family members in the firm (Zellweger et al., 2019), which could relate to power interactions in the family business, affect the way female leaders contribute to make strategies (Danes & Olson, 2003). Besides their contribution, another area for future inquiry regards the investigation of pathways

to becoming one type of leader rather than another. Scholars interested in understanding the drivers and processes guiding women into the leadership of their family business may adopt socialization theory and identity construction and routes to self-positioning in the family firm, which could support this research area (Hytti et al., 2017; Welter et al., 2017; Mussolino et al., 2019).

Several methodological limitations should be acknowledged. First, the sample used to conduct quantitative and mixed-method analysis (study 2 and 3) had two major issues: size and representativeness. First, the sample consisted of 66 daughters, which is critically small for performing second-order CFA using structural equation methods. Second, a convenience, non-representative sample was used, limited by the authors' ability to encourage participation. Compared to a representative sample of Spanish family businesses, the current sample consisted of older and larger companies. While, according to the evidence from Casillas Bueno and colleagues (2016), in Spain, the size of the company does not affect the probability that it would be led by a woman, the age of the company might negatively affect the chances of a women to take it over. In the study, we do not account for the effects of size and of the age of the company. While some previous research related to gender has sometimes opted to analyse a specific sector, our sample was heterogeneous in terms of economic activity. Thus, the results are more generalizable, but might be missing the effects of sector on careers of daughters.

Second, related to the scale development procedures, there are several limitations. At the step of scale development, we did not test nomological validity, testing against conceptually related concepts (e.g. motivation and commitment), we also did not test the scale in relation to other scales of motivation. Further, we used the same sample for both study 2 and 3. Optimally, future studies could use two separate samples.

Third, there are several limitations related to the QCA: complementarity with quantitative data, sensitivity to conditions, logical remainders, and sensitivity to measures (Schneider & Wagemann, 2010). Among these, specifically important is that only interrelated conditions such as motivation and barriers were studied in this research, but we did not control for other possible effects related to human capital of daughters among other possible factors. This limitation is related to the method: in QCA, additional control variables may actually harm the results (Schulze-Bentrop, 2013, pp. 50-51).

Finally, the results should be taken in a strict manner: the term barriers are limited to the perceived absence of invisibility, role incongruity, and family support. The role of lack of conciliation barrier might be explored by future studies.

## References

- Ahrens, J. P., Landmann, A., & Woywode, M. (2015). Gender preferences in the CEO successions of family firms: Family characteristics and human capital of the successor. *Journal of Family Business Strategy*, 6(2), 86-103.
- Akhmedova, A., Cavallotti, R., & Marimon, F. (2015). What makes a woman to choose to work in a family company instead of a looking for a position in the work market or creating her own company?: A literature review. *European Accounting and Management Review*, 2(1), 85-106.
- Argandoña, A. (2008). Integrating ethics into action theory and organizational theory. *Journal of Business Ethics*, 78(3), 435-446.
- Arosa, B., Iturralde, T., & Maseda, A. (2010). Ownership structure and firm performance in non-listed firms: Evidence from Spain. *Journal of Family Business Strategy*, 1(2), 88-96.
- Astrachan, J. H., & Shanker, M. C. (2003). Family businesses' contribution to the US economy: A closer look. *Family Business Review*, 16(3), 211-219.
- Astrachan, J. H., Klein, S. B., & Smyrnios, K. X. (2002). The F-PEC scale of family influence: A proposal for solving the family business definition problem1. *Family Business Review*, 15(1), 45-58.
- Bandura, A. (1997). Editorial. *American Journal of Health Promotion*, 12(1), 8-10.
- Barach, J. A., & Ganitsky, J. B. (1995). Successful succession in family business. *Family Business Review*, 8(2), 131-155.
- Barnes, L. B. (1988). Incongruent hierarchies: Daughters and younger sons as company CEOs. *Family Business Review*, 1(1), 9-21.
- Bastons, M., Mas, M., & Rey, C. (2017). Pro-stakeholders motivation: Uncovering a new source of motivation for business companies. *Journal of Management & Organization*, 23(5), 621-632.
- Bell, N. E., & Staw, B. M. (1989). People as sculptors versus sculpture: The roles of personality and personal control in organizations. *Handbook of Career Theory*, (232-251) Cambridge University Press, NY
- Bentler, P. M. (1990). Comparative fit indexes in structural models. *Psychological Bulletin*, 107(2), 238-246.
- Berrone, P., Cruz, C., & Gomez-Mejia, L. R. (2012). Socioemotional wealth in family firms: Theoretical dimensions, assessment approaches, and agenda for future research. *Family Business Review*, 25(3), 258-279.
- Björnberg, Å., & Nicholson, N. (2012). Emotional ownership: The next generation's relationship with the family firm. *Family Business Review*, 25(4), 374-390.
- Boudreau, J. W., Boswell, W. R., & Judge, T. A. (2001). Effects of personality on executive career success in the United States and Europe. *Journal of Vocational Behavior*, 58(1), 53-81.
- Bretz R. D., Judge, T. A. (1994). Person-organization fit and the theory of work adjustment: Implications for satisfaction, tenure, and career success. *Journal of Vocational Behavior*, 44(1), 32-54.
- Brockhaus, R. H. (2004). Family business succession: Suggestions for future research. *Family Business Review*, 17(2), 165-177.
- Brown, T. A. (2014). *Confirmatory factor analysis for applied research*. Guilford Publications, NY
- Cabrera-Suárez, M. K., Déniz-Déniz, M. D. L. C., & Martín-Santana, J. D. (2014). The setting of non-financial goals in the family firm: The influence of family climate and identification. *Journal of Family Business Strategy*, 5(3), 289-299.

- Caldwell, C., Hayes, L. A., Bernal, P., & Karri, R. (2008). Ethical stewardship—Implications for leadership and trust. *Journal of Business Ethics*, 78(1-2), 153-164.
- Campopiano, G., De Massis, A., Rinaldi, F. R., & Sciascia, S. (2017). Women's involvement in family firms: Progress and challenges for future research. *Journal of Family Business Strategy*, 8(4), 200-212.
- Cardoso, P., & Moreira, J. M. (2009). Self-efficacy beliefs and the relation between career planning and perception of barriers. *International Journal for Educational and Vocational Guidance*, 9(3), 177-188.
- Casillas Bueno, J.C., López Fernández, M.C., Meroño Cerdán, Á., Pons Vigués, A., Baiges Giménez, R. (2016). *La empresa familiar en España (2015)*. Instituto de la Empresa Familiar. Retrieved from Instituto de la Empresa Familiar: <http://www.iefamiliar.com/Publicaciones/La-Empresa-Familiar-En-Espana-2015>
- Cater III, J. J., & Kidwell, R. E. (2014). Function, governance, and trust in successor leadership groups in family firms. *Journal of Family Business Strategy*, 5(3), 217-228.
- Cater III, J. J., Kidwell, R. E., & Camp, K. M. (2016). Successor team dynamics in family firms. *Family Business Review*, 29(3), 301-326.
- Chadwick, I. C., & Dawson, A. (2018). Women leaders and firm performance in family businesses: An examination of financial and nonfinancial outcomes. *Journal of Family Business Strategy*, 9(4), 238-249.
- Cherryholmes, C. H. (1992). Notes on pragmatism and scientific realism. *Educational Researcher*, 21(6), 13-17.
- Cheung, G. W., & Rensvold, R. B. (2002). Evaluating goodness-of-fit indexes for testing measurement invariance. *Structural Equation Modeling*, 9(2), 233-255.
- Child, J. (1972). Organizational structure, environment and performance: The role of strategic choice. *Sociology*, 6(1), 1-22.
- Child, J. (2002). A configurational analysis of international joint ventures. *Organization Studies*, 23(5), 781-815.
- Chrisman, J. J., Chua, J. H., Kellermanns, F. W., & Chang, E. P. (2007). Are family managers agents or stewards? An exploratory study in privately held family firms. *Journal of Business Research*, 60(10), 1030-1038.
- Churchill Jr, G. A. (1979). A paradigm for developing better measures of marketing constructs. *Journal of Marketing Research*, 64-73.
- Cole, P. M. (1997). Women in family business. *Family Business Review*, 10(4), 353-371.
- Comrey, A. L. (1988). Factor-analytic methods of scale development in personality and clinical psychology. *Journal of Consulting and Clinical Psychology*, 56(5), 754-761.
- Constantinidis, C., & Nelson, T. (2009). Integrating succession and gender issues from the perspective of the daughter of family enterprise: A cross-national investigation. *Management International/ Gestión Internacional/ International Management*, 14(1), 43-54.
- Creswell, J. W., & Plano Clark, V. L. (2003). *Research Design, Qualitative, Quantitative, and Mixed Methods Approaches*. Thousand Oaks, CA.
- Creswell, J. W., & Plano Clark, V. L. (2011). Choosing a mixed methods design. In *Designing and conducting mixed methods research*, (53-106) Sage, Thousand Oaks, CA.
- Creswell, J. W., Plano Clark, V. L., Gutmann, M. L., & Hanson, W. E. (2003). Advanced mixed methods research designs. *Handbook of mixed methods in social and behavioral research*, (209-240) Sage publications, Thousand Oaks, CA.
- Curimbaba, F. (2002). The dynamics of women's roles as family business managers. *Family Business Review*, 15(3), 239-252.

- Dalpiaz, E., Tracey, P., & Phillips, N. (2014). Succession narratives in family business: The case of Alessi. *Entrepreneurship Theory and Practice*, 38(6), 1375-1394.
- Danes, S. M., & Olson, P. D. (2003). Women's role involvement in family businesses, business tensions, and business success. *Family business review*, 16(1), 53-68.
- Daspit, J. J., Holt, D. T., Chrisman, J. J., & Long, R. G. (2016). Examining family firm succession from a social exchange perspective: A multiphase, multistakeholder review. *Family Business Review*, 29(1), 44-64.
- Day, R., & Allen, T. D. (2004). The relationship between career motivation and self-efficacy with protégé career success. *Journal of Vocational Behavior*, 64(1), 72-91.
- Deci, E. L., & Ryan, R. M. (2002). Overview of self-determination theory: An organismic dialectical perspective. *Handbook of Self-Determination Research*, 3-33.
- Deci, E. L., Eghrari, H., Patrick, B. C., & Leone, D. R. (1994). Facilitating internalization: The self-determination theory perspective. *Journal of Personality*, 62(1), 119-142.
- Deci, E., & Ryan, R. M. (1985). *Intrinsic motivation and self-determination in human behavior*. Springer Science & Business Media, Berlin.
- Deng, X. (2015). Father-daughter succession in China: Facilitators and challenges. *Journal of Family Business Management*, 5(1), 38-54.
- DeVellis, R. F. (2016). *Scale development: Theory and applications* (Vol. 26). Sage publications, Thousand Oaks, CA.
- Diéguez-Soto, J., López-Delgado, P., & Rojo-Ramírez, A. (2015). Identifying and classifying family businesses. *Review of Managerial Science*, 9(3), 603-634.
- Doty, D. H., Glick, W. H., & Huber, G. P. (1993). Fit, equifinality, and organizational effectiveness: A test of two configurational theories. *Academy of Management Journal*, 36(6), 1196-1250.
- Dumas, C. (1989). Understanding of father-daughter and father-son dyads in family-owned businesses. *Family Business Review*, 2(1), pp. 31-46.
- Dumas, C. (1998). Women's pathways to participation and leadership in the family-owned firm. *Family Business Review*, 11(3), 219-228.
- Dumas, C. A. (1990). Preparing the new CEO: Managing the father-daughter succession process in family businesses. *Family Business Review*, 3(2), 169-181.
- Dumas, C., Dupuis, J. P., Richer, F., & St-Cyr, L. (1995). Factors that influence the next generation's decision to take over the family farm. *Family Business Review*, 8(2), 99-120.
- Eagly, A. H. (2003). More women at the top: The impact of gender roles and leadership style. In *Gender—from Costs to Benefits* (pp. 151-169). VS Verlag für Sozialwissenschaften. Westbaden, Germany.
- Ely, R. J., Ibarra, H., & Kolb, D. M. (2011). Taking gender into account: Theory and design for women's leadership development programs. *Academy of Management Learning & Education*, 10(3), 474-493.
- Englisch, P., Hall, C., Burgess, I., Macoto, H., Astracán, J., Pieper, T. M. (2015) *Women in leadership: Family business advantage. Special report based on a global survey of the World's largest family businesses*. Family Business Center of Excellence. EYGM Limited. Retrieved from EY website: [http://www.ey.com/Publication/vwLUAssets/ey-women-in-leadership-the-family-business-advantage/\\$FILE/ey-women-in-leadership-the-family-business-advantage.pdf](http://www.ey.com/Publication/vwLUAssets/ey-women-in-leadership-the-family-business-advantage/$FILE/ey-women-in-leadership-the-family-business-advantage.pdf)
- Fiss, P. C. (2007). A set-theoretic approach to organizational configurations. *Academy of Management Review*, 32(4), 1180-1198.
- Fiss, P. C. (2011). Building better causal theories: A fuzzy set approach to typologies in organization research. *Academy of Management Journal*, 54(2), 393-420.
- Fiss, P. C., Marx, A., & Cambré, B. (2013). Chapter 1 Configurational Theory and Methods in Organizational Research: Introduction. In *Configurational theory and methods in*



- organizational research* (pp. 1-22). Emerald Group Publishing Limited. Howard House, Wagon Lane, Bingley, UK.
- Frey, B. S. (2012). Crowding out and crowding in of intrinsic preferences. In *Reflexive governance for global public goods*, (pp. 75-83), MIT press, Cambridge, MA.
- Frey, B. S., & Jegen, R. (2001). Motivation crowding theory. *Journal of Economic Surveys*, 15(5), 589-611.
- Gagné, M., & Deci, E. (2005). Self-determination theory and work motivation. *Journal of Organizational Behavior*, 26(4), 331-362.
- Gagné, M., Forest, J., Gilbert, M. H., Aubé, C., Morin, E., & Malorni, A. (2010). The Motivation at Work scale: Validation evidence in two languages. *Educational and Psychological Measurement*, 70(4), 628-646.
- Garcia-Alvarez, E., López-Sintas, J., & Saldaña Gonzalvo, P. (2002). Socialization patterns of successors in first-to second-generation family businesses. *Family Business Review*, 15(3), 189-203.
- Garcia-Castro, R., & Aguilera, R. V. (2014). Family involvement in business and financial performance: A set-theoretic cross-national inquiry. *Journal of Family Business Strategy*, 5(1), 85-96.
- Garcia-Castro, R., & Casasola, M. J. (2011). A set-theoretic analysis of the components of family involvement in publicly listed and major unlisted firms. *Journal of Family Business Strategy*, 2(1), 15-25.
- Gerbing, D. W., & Anderson, J. C. (1988). An updated paradigm for scale development incorporating unidimensionality and its assessment. *Journal of Marketing Research*, 25(2), 186-192.
- Gherardi, S., & Perrotta, M. (2016). Daughters taking over the family business: Their justification work within a dual regime of engagement. *International Journal of Gender and Entrepreneurship*, 8(1), 28-47.
- Glover, J. L. (2014). Gender, power and succession in family farm business. *International Journal of Gender and Entrepreneurship*, 6(3), 276-295.
- Grant, A. M. (2008). Does intrinsic motivation fuel the prosocial fire? Motivational synergy in predicting persistence, performance, and productivity. *Journal of Applied Psychology*, 93(1), 48-58.
- Grant, A. M. (2008). Does intrinsic motivation fuel the prosocial fire? Motivational synergy in predicting persistence, performance, and productivity. *Journal of Applied Psychology*, 93(1), 48-58.
- Greene, J. C., Caracelli, V. J., & Graham, W. F. (1989). Toward a conceptual framework for mixed-method evaluation designs. *Educational Evaluation and Policy Analysis*, 11(3), 255-274.
- Gupta, V., & Levenburg, N. M. (2013). 16 Women in family business: Three generations of research. *Handbook of research on family business*, 346-370, Edward Elgar, Northhampton, MA.
- Haberman, H., & Danes, S. M. (2007). Father-daughter and father-son family business management transfer comparison: Family FIRO model application. *Family Business Review*, 20(2), 163-184.
- Hair, J. F., Black, W. C., Babin, B. J., & Anderson, R. E., (2017). *Multivariate data analysis* (8th ed.). Boston: Cengage.
- Halkias, D., Thurman, P. W., Harkiolakis, N., Katsiolouides, M., Stavrou, E., Swiercz, P., & Fragoudakis, M. (2010). Father-daughter succession issues in family business among regional economies of Asia. *International Journal of Entrepreneurial Venturing*, 2(3-4), 320-346.

- Handler, W. C. (1992). The succession experience of the next generation. *Family Business Review*, 5(3), 283-307.
- Harveston, P. D., Davis, P. S., & Lyden, J. A. (1997). Succession planning in family business: The impact of owner gender. *Family Business Review*, 10(4), 373-396.
- Hinkin, T. R. (1995). A review of scale development practices in the study of organizations. *Journal of Management*, 21(5), 967-988.
- Hinkin, T. R. (1998). A brief tutorial on the development of measures for use in survey questionnaires. *Organizational Research Methods*, 1(1), 104-121.
- Hisrich, R. D., & Fülöp, G. (1997). Women entrepreneurs in family business: The Hungarian case. *Family Business Review*, 10(3), 281-302.
- Hollander, B. S., & Bukowitz, W. R. (1990). Women, family culture, and family business. *Family Business Review*, 3(2), 139-151.
- Hu, L. T., & Bentler, P. M. (1998). Fit indices in covariance structure modeling: Sensitivity to underparameterized model misspecification. *Psychological Methods*, 3(4), 424-453.
- Hytti, U., Alsos, G. A., Heinonen, J., & Ljunggren, E. (2017). Navigating the family business: A gendered analysis of identity construction of daughters. *International Small Business Journal*, 35(6), 665-686.
- Iannarelli, C. L. (1992). *The socialization of leaders: A study of gender in family business* (Unpublished doctoral dissertation). University of Pittsburgh, Pittsburgh, PA.
- Jaffe, D. (1990). *Working with the ones you love: Conflict resolution and problem solving strategies for successful family business*. Berkeley, CA: Conran Press.
- Jaskiewicz, P., Combs, J. G., & Rau, S. B. (2015). Entrepreneurial legacy: Toward a theory of how some family firms nurture transgenerational entrepreneurship. *Journal of Business Venturing*, 30(1), 29-49.
- Jayantilal, S., Jorge, S. F., & Palacios, T. M. B. (2016). Effects of sibling competition on family firm succession: A game theory approach. *Journal of Family Business Strategy*, 7(4), 260-268.
- Joshi, A., Neely, B., Emrich, C., Griffiths, D., & George, G. (2015). Gender research in AMJ: An overview of five decades of empirical research and calls to action: Thematic issue on gender in management research. *Academy of Management Journal*, 58(5), 1459 – 1475.
- Judge, T. A., Cable, D. M., Boudreau, J. W., & Bretz, R. D. (1995). An empirical investigation of the predictors of executive career success. *Personnel Psychology*, 48(3), 485-519.
- Kan, A. K. S., Adegbite, E., El Omari, S., & Abdellatif, M. (2016). On the use of qualitative comparative analysis in management. *Journal of Business Research*, 69(4), 1458-1463.
- Karataş-Özkan, M., Erdoğan, A., & Nicolopoulou, K. (2011). Women in Turkish family businesses: Drivers, contributions and challenges. *International Journal of Cross Cultural Management*, 11(2), 203-219.
- Keating, N. C., & Little, H. M. (1997). Choosing the successor in New Zealand family farms. *Family Business Review*, 10(2), 157-171.
- Kellermanns, F. W. and Hoy, F. (2016). Familiness, socioemotional wealth, and internationalization of family firms: A review of capabilities and motivations in different modes of internationalization. In *The Routledge companion to family business*. (148–172) Routledge, NY.
- Kellermanns, F. W., Eddleston, K. A., Sarathy, R., & Murphy, F. (2012). Innovativeness in family firms: A family influence perspective. *Small Business Economics*, 38(1), 85-101.
- Ketchen Jr., D. J., Thomas, J. B., & Snow, C. C. (1993). Organizational configurations and performance: A comparison of theoretical approaches. *Academy of Management Journal*, 36(6), 1278-1313.

- Khanin, D., Turel, O., & Mahto, R. V. (2012). How to increase job satisfaction and reduce turnover intentions in the family firm: The family-business embeddedness perspective. *Family Business Review*, 25(4), 391-408.
- Kraus, S., Mensching, H., Calabrò, A., Cheng, C. F., & Filser, M. (2016). Family firm internationalization: A configurational approach. *Journal of Business Research*, 69(11), 5473-5478.
- Kubicek, A., & Machek, O. (2018). Gender-related factors in family business succession: a systematic literature review. *Review of Managerial Science*, 1-40.
- Lent, R. W., Brown, S. D., & Hackett, G. (1994). Toward a unifying social cognitive theory of career and academic interest, choice, and performance. *Journal of Vocational Behavior*, 45(1), 79-122.
- Lent, R. W., Brown, S. D., & Hackett, G. (2000). Contextual supports and barriers to career choice: A social cognitive analysis. *Journal of Counseling Psychology*, 47(1), 36.
- Luzzo, D. A. (1995). Gender differences in college students' career maturity and perceived barriers in career development. *Journal of Counseling & Development*, 73(3), 319-322.
- Luzzo, D. A. (1996). Exploring the relationship between the perception of occupational barriers and career development. *Journal of Career Development*, 22(4), 239-248.
- Luzzo, D. A., & McWhirter, E. H. (2001). Sex and ethnic differences in the perception of educational and career-related barriers and levels of coping efficacy. *Journal of Counseling & Development*, 79(1), 61-67.
- Marsh, H. W., & Hocevar, D. (1985). Application of confirmatory factor analysis to the study of self-concept: First-and higher order factor models and their invariance across groups. *Psychological Bulletin*, 97(3), 562-582.
- Martinez Jimenez, R. (2009). Research on women in family firms: Current status and future directions. *Family Business Review*, 22(1), 53-64.
- Mathew, V. (2016). Women and family business succession in Asia-characteristics, challenges and chauvinism. *International Journal of Entrepreneurship and Small Business*, 27(2-3), 410-424.
- McDonald, S. (2011). What's in the "old boys" network? Accessing social capital in gendered and racialized networks. *Social Networks*, 33(4), 317-330.
- Meyer, A. D., Tsui, A. S., & Hinings, C. R. (1993). Configurational approaches to organizational analysis. *Academy of Management Journal*, 36(6), 1175-1195.
- Miles, R. E., Snow, C. C., Meyer, A. D., & Coleman Jr, H. J. (1978). Organizational strategy, structure, and process. *Academy of Management Review*, 3(3), 546-562.
- Miller, D., & Breton-Miller, L. (2014). Deconstructing socioemotional wealth. *Entrepreneurship Theory and Practice*, 38(4), 713-720.
- Mintzberg, H. (1983). The case for corporate social responsibility. *Journal of Business Strategy*, 4(2), 3-15.
- Murphy, J. P., & Rorty, R. (1990). Pragmatism. Westview press, Boulder, Colorado.
- Murphy, L., & Lambrechts, F. (2015). Investigating the actual career decisions of the next generation: The impact of family business involvement. *Journal of Family Business Strategy*, 6(1), 33-44.
- Mussolino, D., Cicellin, M., Iacono, M. P., Consiglio, S., & Martinez, M. (2019, in press). Daughters' self-positioning in family business succession: A narrative inquiry. *Journal of Family Business Strategy*, ISSN 1877-8585.
- Neubaum, D. O., Thomas, C. H., Dibrell, C., & Craig, J. B. (2017). Stewardship climate scale: An assessment of reliability and validity. *Family Business Review*, 30(1), 37-60.
- Newbert, S., & Craig, J. B. (2017). Moving beyond socioemotional wealth: Toward a normative theory of decision making in family business. *Family Business Review*, 30(4), 339-346.

- Ordanini, A., Parasuraman, A., & Rubera, G. (2014). When the recipe is more important than the ingredients: A qualitative comparative analysis (QCA) of service innovation configurations. *Journal of Service Research*, 17(2), 134-149.
- Otten-Pappas, D. (2013). The female perspective on family business successor commitment. *Journal of Family Business Management*, 3(1), 8-23.
- Overbeke, K. K., Bilimoria, D., & Perelli, S. (2013). The dearth of daughter successors in family businesses: Gendered norms, blindness to possibility, and invisibility. *Journal of Family Business Strategy*, 4(3), 201-212.
- Pascual Garcia, C. (2012). *Empresa familiar: mujer y sucesión* (Disertación Doctoral.) Universidad De Cordoba, Cordoba.
- Pérez López, J. A. P. (1991). *Teoría de la acción humana en las organizaciones: la acción personal* (Vol. 6). Ediciones Rialp, Madrid.
- Peters, M., Raich, M., Märk, S., & Pichler, S. (2012). The role of commitment in the succession of hospitality businesses. *Tourism Review*, 67(2), 45-60.
- Pieper, T. M. (2010). Non solus: Toward a psychology of family business. *Journal of Family Business Strategy*, 1(1), 26-39.
- Quigley, N. R., & Tymon Jr, W. G. (2006). Toward an integrated model of intrinsic motivation and career self-management. *Career Development International*, 11(6), 522-543.
- Ragin, C. C. (2000). *Fuzzy-set social science*. University of Chicago Press, Chicago, IL.
- Ragin, C. C. (2007). Fuzzy sets: Calibration versus measurement. In *The Oxford handbook of political methodology* (Vol. 10). Oxford Handbooks of Political Science. Oxford University Press, NY.
- Ragin, C. C. (2008). *Redesigning social inquiry: Fuzzy sets and beyond* (Vol. 240). Chicago: University of Chicago Press.
- Rosenblatt, P., de Mik, L., Anderson, R., and Johnson, P. (1985). *The Family-in business*. San Francisco: Jossey-Bass.
- Rossiter, J. R. (2011). Validity and reliability. In *Measurement for the Social Sciences* (pp. 13-28). Springer, New York, NY.
- Rummel, R. J. (1988). *Applied factor analysis*. Northwestern University Press, Evanston, IL.
- Ryan, R. M., & Deci, E. L. (2000). Self-determination theory and the facilitation of intrinsic motivation, social development, and well-being. *American Psychologist*, 55(1), 68-78.
- Salganicoff, M. (1990). Women in family businesses: Challenges and opportunities. *Family Business Review*, 3(2), 125-137.
- Schneider, C. Q., & Grofman, B. (2006, July). It might look like a regression equation... but it's not! An intuitive approach to the presentation of QCA and fs/QCA results. In *Conference on "Comparative Politics: Empirical Applications of Methodological Innovations"*, Sophia University, Tokyo (Japan) (pp. 15-17), Sophia University, Tokyo.
- Schneider, C. Q., & Wagemann, C. (2010). Standards of good practice in qualitative comparative analysis (QCA) and fuzzy-sets. *Comparative Sociology*, 9(3), 397-418.
- Schneider, C. Q., & Wagemann, C. (2012). *Set-theoretic methods for the social sciences: A guide to qualitative comparative analysis*. Cambridge University Press, Cambridge.
- Schneider, M. R., Schulze-Bentrop, C., & Paunescu, M. (2010). Mapping the institutional capital of high-tech firms: A fuzzy-set analysis of capitalist variety and export performance. *Journal of International Business Studies*, 41(2), 246-266.
- Schröder, E., Schmitt-Rodermund, E., & Arnaud, N. (2011). Career choice intentions of adolescents with a family business background. *Family Business Review*, 24(4), 305-321.
- Schulze, W. S., Lubatkin, M. H., Dino, R. N., & Buchholtz, A. K. (2001). Agency relationships in family firms: Theory and evidence. *Organization Science*, 12(2), 99-116.
- Schulze-Bentrop, C. (2013). *Qualitative comparative analysis (QCA) and configurational thinking in management studies*. Frankfurt am Main: Peter Lang.

- Schwellnus, G. (2013, September). Eliminating the influence of irrelevant cases on the consistency and coverage of necessary and sufficient conditions in fuzzy-set QCA. In *The 7th ECPR General Conference*, Domaine Universitaire, Bordeaux.
- Seibert, S. E., Crant, J. M., & Kraimer, M. L. (1999). Proactive personality and career success. *Journal of Applied Psychology*, 84(3), 416-427.
- Seibert, S. E., Kraimer, M. L., & Crant, J. M. (2001). What do proactive people do? A longitudinal model linking proactive personality and career success. *Personnel Psychology*, 54(4), 845-874.
- Sharma, P. (2004). An overview of the field of family business studies: Current status and directions for the future. *Family Business Review*, 17(1), 1-36.
- Sharma, P., & Irving, P. G. (2005). Four bases of family business successor commitment: Antecedents and consequences. *Entrepreneurship Theory and Practice*, 29(1), 13-33.
- Song, M. (1995, May). Between “the front” and “the back”: Chinese women's work in family businesses. In *Women's Studies International Forum* (Vol. 18, No. 3, pp. 285-298). Pergamon.
- Songini, L., & Gnan, L. (2009). Women, glass ceiling, and professionalization in family SMEs: A missed link. *Journal of Enterprising Culture*, 17(04), 497-525.
- Stavrou, E. T. (1998). A four factor model: A guide to planning next generation involvement in the family firm. *Family Business Review*, 11(2), 135-142.
- Steiger, J. H. (1990). Structural model evaluation and modification: An interval estimation approach. *Multivariate Behavioral Research*, 25(2), 173-180.
- Steinbrecher, P., Hyde, S., Pound, O., Bokpé, A. and Rodwell, S. (2016). *PwC Next Generation Survey 2016: The female perspective. A special release of the Next Generation Survey.* [online] PwC. Available at: [http://www.pwc.com/gx/en/family-business-services/assets/Next\\_Generation\\_Survey\\_%20Female\\_Perspective\\_Final.pdf](http://www.pwc.com/gx/en/family-business-services/assets/Next_Generation_Survey_%20Female_Perspective_Final.pdf). Accessed:10/01/2019
- Steinbrecher, P., Hyde, S., Pound, O., Bokpé, A., Rodwell, S. (2016). *PwC Next Generation Survey 2016: The female perspective. A special release of the Next Generation Survey.* PwC. Retrieved from PwC website: [http://www.pwc.com/gx/en/family-business-services/assets/Next\\_Generation\\_Survey\\_%20Female\\_Perspective\\_Final.pdf](http://www.pwc.com/gx/en/family-business-services/assets/Next_Generation_Survey_%20Female_Perspective_Final.pdf)
- Teddlie, C., & Tashakkori, A. (2003). Major issues and controversies in the use of mixed methods in the social and behavioral sciences. *Handbook of mixed methods in social & behavioral research* (3-50), Sage, Thousand Oaks, CA.
- Van den Berghe, L. A., & Carchon, S. (2003). Agency relations within the family business system: An exploratory approach. *Corporate Governance: An International Review*, 11(3), 171-179.
- Vandemaele, S., & Vancauteran, M. (2015). Nonfinancial goals, governance, and dividend payout in private family firms. *Journal of Small Business Management*, 53(1), 166-182.
- Vera, C. F., & Dean, M. A. (2005). An examination of the challenges daughters face in family business succession. *Family Business Review*, 18(4), 321-345.
- Wang, C. (2010). Daughter exclusion in family business succession: A review of the literature. *Journal of Family and Economic Issues*, 31(4), 475-484.
- Ward, J. (2016). *Keeping the family business healthy: How to plan for continuing growth, profitability, and family leadership.* Palgrave Macmillan, NY.
- Ward, J. L. (1997). Growing the family business: Special challenges and best practices. *Family Business Review*, 10(4), pp. 323-337.
- Wayne, S. J., Liden, R. C., Kraimer, M. L., & Graf, I. K. (1999). The role of human capital, motivation and supervisor sponsorship in predicting career success. *Journal of Organizational Behavior*, 20(5), 577-595.

- Welter, F., Haag, K., & Achtenhagen, L. (2017). The role of gender in family-business research: A systematic review of the literature. In *Women Entrepreneurship in Family Business* (pp. 16-45). Routledge, NY
- Westhead, P., & Cowling, M. (1998). Family firm research: The need for a methodological rethink. *Entrepreneurship Theory and Practice*, 23(1), 31-56.
- Westhead, P., Cowling, M., & Howorth, C. (2001). The development of family companies: Management and ownership imperatives. *Family Business Review*, 14(4), 369-385.
- Wheaton, B., Muthen, B., Alwin, D. F., & Summers, G. F. (1977). Assessing reliability and stability in panel models. *Sociological Methodology*, 8, 84-136.
- Worstal, T. (2015). The effect of female executives: Positive for family firms, negative for public ones. *Forbes*. Retrieved from <https://www.forbes.com/sites/timworstall/2015/12/07/the-effect-of-female-executives-positive-for-family-firms-negative-for-public-ones/#53ad7bef44b4>
- Zellweger, T. M., Kellermanns, F. W., Chrisman, J. J., & Chua, J. H. (2012). Family control and family firm valuation by family CEOs: The importance of intentions for transgenerational control. *Organization Science*, 23(3), 851-868.
- Zellweger, T. M., Chrisman, J. J., Chua, J. H., & Steier, L. P. (2019). Social Structures, Social Relationships, and Family Firms. *Entrepreneurship Theory and Practice*, 43(2), 207–223.

Appendix A: Sample Description – Companies

Question	Options	(N)	(%)
Turnover last year available (Euros)	Less than 1,000,000	9	11 %
	Between 1,000,000 and 5,000,000	27	36 %
	Between 5,000,000 and 20,000,000	21	18 %
	More than 40,000,000	6	9 %
	Mean	11,266,000	
	Median	3,992,000	
Number of employees	Less than 10	14	21 %
	Between 10 and 20	13	20 %
	Between 20 and 60	21	31 %
	Between 60 and 100	9	14 %
	Between 100 and 500	9	14 %
	Mean	57	
	Median	22	
Generations	2	40	60 %
	3	19	29 %
	4	5	8 %
	More than 5	2	3 %
	Total	66	100 %
Family members working in the company	1 or 2	25	42 %
	3 or 4	21	28 %
	Between 5 and 10	19	28 %
	More than 10	1	2 %
	Total	66	100 %

Appendix B: Sample Description – Daughters in Family Business

Question	Options	(N)	(%)
Education	University grade	15	23%
	Master	28	42%
	Master MBA	18	27%
	PhD	2	3%
	Total	63	95%
Years working in family firm	Less than 5	4	6%
	Between 5 and 10	17	26%
	Between 10 and 20	32	48%
	More than 20	9	14%
	Total	62	94%
Position*	Basic level, internship	0	0%
	Professional	8	12%
	Head of Department	33	50%
	In charge of the whole company	25	38%
	Total	66	100%

Appendix C: Descriptive Statistics of Sample of In-Depth Interviews

Group	Sector	Region	Turnover (2016) mn Euro	Employees (2016)	Generation	Family members involved	Males same generation	Years in family business	Experience outside	Education
In charge of the company	Food sector	Girona	80	36	2	3	Yes	> 15	Yes	Commerce, marketing
	Food sector	Barcelona	190	442	> 5	4	Yes	> 40	Yes	Business administration
	Food sector	Girona	250	845	3	4	Yes	> 30	Yes	Business administration
	Food sector	Tarragona	15	160	2	4	No	> 20	No	Business administration
	Food sector	Barcelona	0.3	5	5	4	Yes	> 30	Yes	Computer science
In charge of the department	Pharm/cosmetics	Madrid	65	200	2	4	Yes	> 15	Yes	Business administration
	Pharm/cosmetics	Madrid	67	200	2	4	Yes	22	Yes	Law
	Pharm	Barcelona	63	107	2	8	Yes	30	No	Pharmacy
Left the family company	Fashion (Fabrics)	Barcelona	0.3 (12)	2 (40)	(2)	(5)	(Yes)	(4)*	(Yes)	Design
	Fashion (Fashion)	Barcelona	NK (8)	2 (87)	(2)	(3)	(Yes)	(11)*	(Yes)	Design, commerce
	Education	Barcelona	NK (3)	NK (28)	(2)	(2)	(Yes)	(14)*	(No)	Business administration
	(Automotive)									

NK – not known; Information in brackets refers to family company which daughter left; \*years before left family company



Appendix D: Items Measuring Motivation of Daughters in Family Business With Sources

Motivation	Area	Item code	Question: Compared to other possible employment available to me, working in the family firm I have opportunity to:	Sources of items	
EXTRINSIC MOTIVATION	Work–life balance	ME1	Have a reasonable workload	New items, based on articles: Rosenblatt et al. (1985) Salganicoff (1990) Cole (1997) Stavrou (1998) Dumas (1998) Vera and Dean (2005) Overbeke et al. (2013)	
		ME2	Have more time for my family		
		ME3	Have a flexible schedule		
	Respect	ME4	Be approved of		
		ME5	Be respected		
	Easy career	ME6	Work with easier and familiar practices		
		ME7	Improve my career profile		
		ME8	Be promoted faster		
		ME9	Enter the job I wanted without formal barriers (without competing for it)		
	Monetary	ME10	Have competitive income		Adapted from MAWS, Gagné et al. (2010)
		ME11	Gain a certain standard of living		
		ME12	Work for the pay cheque		
		ME13	Make a lot of money		
INTRINSIC MOTIVATION	Interest	MI1	Do challenging tasks	New items, based on articles: Handler (1992) Dumas et al. (1995) Stavrou (1998) Dumas (1998) Constantinidis and Nelson (2009)	
		MI2	Be independent at work		
		MI3	Do interesting tasks		
	Professional learning	MI4	Align my career interests		
		MI5	Have good mentoring		
		MI6	Develop professionally		
		MI7	Work with products, markets, or strategies which are professionally interesting to me		
	Enjoyment	MI8	Enjoy the working atmosphere		Adapted from MAWS, Gagné et al. (2010)
		MI9	Take the moments of pleasure		
		MI10	Have fun working		
		MI11	Do the work that I enjoy		
ETHICAL MOTIVATION	Business contribution	MT1	Mentor employees	New items, based on articles: Stavrou (1998) Dumas (1998) Vera and Dean (2005)	
		MT2	Improve the business		
		MT3	Improve product or service		
		MT4	Improve relationships with partners		
	Family contribution	MT5	Help family		
		MT6	Work for family		
		MT7	Continue family tradition		
		MT8	Influence the future of the business		
	Social contribution	MT9	Provide benefit to others		Adapted from Prosocial motivation scale, Grant (2008)
		MT10	Help others through my work		
		MT11	Make a positive impact on others		
		MT12	Do good for others through my work		

Items that were retained after interviews are marked with grey colour

Appendix E: Items Measuring Career Barriers of Daughters in Family Business With Description

Barrier	Explanation	Item code	Item	Sources of items
<b>Primogeniture</b>	Traditional transfer of leadership from father to the first-born son	V22	Sons a priori had more ability to influence strategic decisions	Dumas (1992); Cole (1997); Keating and Little (1997); Martinez Jimenez (2009)
<b>Invisibility</b>	Being viewed by others, whether within or outside the business, differently compared to the male members	V23	I was forced into a position where I could not participate in strategic decisions	Hollander and Bukowitz (1990); Cole (1997)
<b>Role incongruity</b>	Two incompatible roles (family and business) contained in family business relations	V24	Family undervalued my ability to assume leadership position	Salganicoff (1990); Cole (1997)
<b>Lack of family support</b>	The problem of unequal treatment of daughters and sons	V32 V26	Family did not support me My career was stuck due to lack of education	Rosenblatt (1985); Iannarelli (1992)
<b>Work–family balance</b>	The problem of managing time between different facets of life	V28 V33	I had problems reconciling work and family Needed to prioritize other areas	Salganicoff (1990); Cole (1997); Vera and Dean (2005)
<b>Low self-confidence</b>	A low subjective estimation of the ability to perform a task	V30 V31	Had doubts about my professional abilities Had doubts about my leadership abilities	Eagly (2003)
<b>Old boys’ network</b>	Organizational culture and social structure that prevents women from socializing in a way that could benefit them professionally	V25 V29	My social connections were not professionally helpful It was difficult to advance because men prevailed in the hierarchy of the company	McDonald (2011)
<b>Lack of role models</b>	Adapting “masculine” leadership styles due to lack of positive feminine examples to follow	V27	I did not have role models	Ely, Ibarra, & Kolb (2011)

Appendix F. Truth Table.

Conditions				Number of cases	Outcome	Consistency		
EM	IM	TM	Barriers		Position	RAW	PRI	SYM
1	0	1	0	1	1	1.00	1.00	1.00
1	1	1	1	2	1	1.00	1.00	1.00
1	0	1	1	1	1	0.99	0.99	1.00
0	1	1	0	20	1	0.96	0.95	1.00
1	1	1	0	15	1	0.92	0.89	0.97
0	1	1	1	8	1	0.91	0.82	0.93
0	0	1	0	2	1	0.86	0.73	0.81
0	1	0	1	1	0	0.84	0.53	0.63
1	0	0	1	3	0	0.77	0.37	0.42

*EM – extrinsic motivation, IM – intrinsic motivation, TM – ethical motivation*

Appendix G. Analysis of Necessary Conditions

Conditions tested	Consistency	Coverage
EM (em)	0.45 (0.64)	0.82 (0.83)
IM (im)	0.89 (0.18)	0.81 (0.76)
TM (tm)	0.93 (0.18)	0.85 (0.77)
B (b)	0.40 (0.71)	0.74 (0.89)

*EM – extrinsic motivation, IM – intrinsic motivation, TM – ethical motivation, B – barriers. Lowercase in brackets means negation of condition.*