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The effect of family ownership and generation on financial literacy

La influencia de la propiedad y la generación familiar en la educación financiera de la empresa

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Abstract

The purpose of this article is to study the effect of family ownership and family generation on financial literacy. To do that, we have analysed a sample of 195 Spanish family businesses, reaching the conclusion that the level of family ownership exerts a negative influence on financial literacy. On the other hand, as family generations advance, financial literacy is favoured. This study benefits professionals and entrepreneurs, since they could, through a series of guidelines, improve financial literacy and, with it, the viability of their respective firms

Keywords: family business; financial literacy; family ownership; family generation

JEL Classification: A29; G32; G39

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Resumen

El propósito de este artículo es estudiar el efecto que surte la propiedad y la generación familiar en la educación financiera de una empresa. Para ello, hemos analizado una muestra de 195 empresas familiares españolas, llegando a la conclusión de que el grado de propiedad familiar ejerce una influencia negativa en la educación financiera dentro de la empresa familiar. Por otro lado, a medida que avanzan las generaciones dentro de la empresa familiar, la educación financiera se ve incrementada. Este estudio es beneficioso para profesionales y empresarios, ya que podrían, a través de una serie de pautas, mejorar la educación financiera de sus miembros y, con ello, la viabilidad de sus respectivas empresas

Palabras clave: empresa familiar; educación financiera; propiedad familiar; generación familiar

Clasificación JEL: A29; G32; G39

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1. Introduction

The present investigation analyses the influence exerted by the degree of family ownership and the course of the family generations in the financial literacy level of the family business. The interest of our study is based on the importance of financial literacy, which has grown dramatically in recent years. Proof of this is the number of articles published in the years 2018 and 2019, which amount to 6,175, according to the research made in the Web of Science database using the following terms as the subject; financial literacy, financial literacy or financial knowledge. One of the causes of this growth has been the global financial crisis, which has led countries to consider financial literacy as a complementary part to the financial market regulation policies and to the protection and inclusion of the consumer in such matter (Kell, 2014).

The concept of financial literacy was first introduced for the first time by the authors Chen and Volpe (1998). Since then, there has been a great amount of literature approaching this concept. Most of these definitions lead to the idea of improving financial knowledge, in order to create understanding and increase decision-making capacity when selecting one financial product or another.

In the present article, financial literacy is understood as a process by which people, in our case businesspeople and managers, improve their understanding of products, services and financial concepts throughout information, advice or instruction, thus developing skills necessary to carry out an informed decision-making process, making them more aware of the risks and opportunities in financial matters (OECD, 2005; President's Advisory Council on Financial literacy, 2008).

In addition, the literature agrees that financial literacy is considered one of the critical management skills in the development and evolution of companies (Spinelli, Timmons & Adams, 2011), and more especially in the case of the family business, because this type of firm requires special attention both for its specific characteristics and for the importance they exercise in the economy of certain countries. Specifically, in Spain, the family business accounts for 88.8% of all companies, offering 66.7% of employment and contributing to PIB by 57.1% (Instituto de la Empresa Familiar, 2018).

Most authors who study financial literacy in a family business context focus on the comparison between family and non-family businesses (Duréndez & Mariño, 2013; Llach & Nordqvist, 2010; Esparza, García-Pérez-de-Lema, & Duréndez Guillamón, 2010; Jorissen, Laven, & Martens, 2001; Reid, Morrow, Bridgita, Adams, & McCarton, 2000), agreeing that the family business has a lower level of financial literacy with respect to the non-family counterpart. There is consistency in the literature that addresses this relationship, arguing that family ownership is a limiting factor in the level of financial literacy of the family business, mainly due to behaviours related to non-economic incentives, such as the expressed desire on the part of the owner to preserve the control of the family business, as well as the inclusion of family members who are not trained for the position for which they are hired, based only on family ties (Schulze, Lubatkin, & Dino, 2003; Lubatkin, Schulze, Ling, & Dino, 2005; Cromie, Dunn, Sproull, & Chalmers, 2001; Amat, 2002). In addition, there are articles that, through the study of financial sophistication, hint at how these non-economic incentives may decrease over the course of generations (Di Giuli, Caselli, & Gatti, 2011; Filbeck & Lee, 2000).

Given that there are many academics who insist on the importance of analysing heterogeneity in the family business (Chua, Chrisman, Steier, & Rau, 2012; Nordqvist, Sharma, & Chirico, 2014), this study aims to help better understand the heterogeneous behaviour of the family business with respect to financial literacy levels. For this, the objective of this paper will be to analyse if the level of family ownership and the generation stage in charge of the firm influences the degree of financial knowledge of the firm.

Therefore, our two main research questions will be: What is the influence of the level of family ownership on the financial knowledge of the family business? As the generations advance, does the financial knowledge in the family business increase? In order to carry out the present work, and to answer the previous research questions, an ad hoc survey was carried out on SMEs operating in Spain, of which 195 family businesses are those that make up our sample. Also, in our study, although there are many definitions and aspects to take into account when classifying companies as a family firm (Donnelly, 1964; Churchill, 1986; Dyer, 1988; Barry, 1975; Barnes & Hershon, 1976; Lansberg, Perrow, & Rogolski, 1988), we can identify these companies as a business that meets the following requirements: Control of capital is exercised by the family, participation in the management of the firm of a family member and transmission or intention to transmit the firm to the next generation (Comblé & Colot, 2006).

This paper presents the following contributions. The previous investigation of financial knowledge in the family business has been limited at comparing the variations between family and non-family businesses. Our research tries to understand the heterogeneity in the family business (Chua et al., 2012) regarding financial knowledge, analysing as potential causes of heterogeneity, both the level of family control through the percentage of ownership and the generational stage in which the family business is located. In addition, most articles study financial knowledge in samples of listed companies, due to the lower complexity of extracting information. However, our study focuses on small and medium companies (SMEs), because very little is known about the current state of financial knowledge in SMEs (Sulaiman, 2016).

The rest of the article is organized following these steps. First, we present the literature that links financial literacy and family business, as well as hypotheses. After this, the research methodology is included with the results, to finally conclude the discussion and conclusions.

2. Financial literacy and family business.

Financial literacy has a great importance for citizens in general, and particularly for those entrepreneurs who are going to start a new business activity and for professionals who are already part of companies, since their decisions must be well-founded as they affect to the business as a whole. Thus, for example, an entrepreneur has to struggle with financial issues from the moment he decides to create his firm and knowledge of finances allows autonomy when dealing with financial issues that arise (Domínguez, 2012). Certainly, there is a growing importance of financial literacy in companies, in part because the growth of financial markets has led to a greater variety and complexity of financial products. Therefore, the decisions made by the professionals' demand to be perfectly trained from a financial point of view. For example, financial literacy allows choosing the most suitable systems for business needs through the understanding of financial products, interest rates, charges, etc. (Carbajal, 2008).

The study of financial literacy is, in particular, specially relevant in the family business, given that previous literature evidences that family managers have lower levels of education than non-family managers (Jorissen, Laveren, & Martens, 2001; Cromie, Stephenson, & Monteith, 1995; Reid et al., 2000). The importance of financial literacy for the family firm is so important that the lack of professionalization of the management leads, on many occasions, to the failure of this type of firm (Goffee, 1996). Thus, family entrepreneurs can focus on how to earn more money, leaving aside how to make decisions in other areas such as spending, saving, or investing such benefits (Arrubla, 2016). The task of training owners or managers in the field of finance is especially important in the family business, and also when it comes to moving on to the following stages. The fact of understanding and knowing the language of money will result in an ability to generate and multiply it (Arrubla, 2016).

3. Hypothesis

3.1. Financial literacy and family ownership

The family business can suffer the agency costs, result of practices such as adverse selection, which consists of the occupation of jobs by family members who do not meet the necessary requirements to perform this task. These costs can also come from the so-called moral risk, which is the forefront of family comfort to the welfare of the firm, preserving at all costs the control of the family business by the business family (Ospina, & Ramírez, 2012; Schulze et al., 2003).

There are many academics who conclude in their studies that family businesses try to include family members in the organization at all costs, even when they lack financial knowledge (Schulze et al., 2003; Lubatkin et al., 2005; Cromie et al., 2001). This entails the hiring of unqualified people to effectively develop the assigned responsibility and the emergence of problems of mismanagement, as many of them do not conform to the professional profile that would be required in that position.

Also, companies with greater family ownership, and especially when managers are in turn the owners of companies, are less likely to hire staff with university training, resulting in there being a high permanence of the family in charge of the management. This accentuates agency costs, since the family remains at all costs in positions that do not correspond to them, in order to include them in the firm and to preserve control by the family that owns them (Amat, 2002).

The presence of external shareholders significantly influences the level of financial sophistication of the family business, reducing agency costs (Schulze, 2003). Thus, this circumstance facilitates access to products that require greater financial preparation, expanding the range of financial availability and, therefore, having a beneficial effect on the development of the firm (Di Giuli et al., 2011). In addition, as family ownership increases, the number of family members on the Board of Directors will increase too. However, the previous literature has shown that precisely the contrary policy, that is, the increase of external owners (not family members), and therefore, the presence of non-family members in the Board of Directors ("external influences"), increases the probability of enjoying a higher level of financial literacy and, consequently, uses more sophisticated financial budgeting techniques (Di Giuli et al., 2011; Filbeck & Lee, 2000).

Finally, as the level of ownership of family members' increases, the likelihood of adopting a corporate strategy that does not give sufficient weight to the training will increase. Consequently, members of companies with greater family ownership will tend to have less financial literacy throughout their professional careers, decreasing the general financial knowledge of the firm (Matlay, 2002). This lack can be attributed to the preference of family comfort with respect to organizational efficiency (Cromie et al., 2001).

With all the above, one would think that the degree of family ownership will negatively influence the level of financial literacy that the family business has.

> ***H1:*** Family involvement in the onwerhip has a negative effect on the financial literacy of the firm.

3.2. Financial literacy and family generation

The passage of generations in the family business can affect the importance given to training in financial matters (Filbeck & Lee, 2000, Di Giuli et al., 2011). As generations pass, we can expect a reduction in agency costs derived from actions such as the hiring of family members in jobs, based solely on family ties and not on criteria of merit and capacity (Ospina & Ramírez, 2012; Schulze, 2003). Therefore, as the family business goes through successive generational stages, the agency costs should be reduced, increasing the financial knowledge of the family business as a whole (Filbeck & Lee, 2000).

In this sense, previous studies have confirmed that family businesses from the third generation are more likely to hire an external manager or external CFO. They have also shown that external managers or CFOs who join the firm are better prepared financially than family members, so it seems logical to infer that they will contribute to increase the financial literacy level of the family business (Di Giuli et al., 2011). Likewise, other authors have verified that companies that are in their third or later generation implement more sophisticated financial techniques (capital budgets, risk adjustments, analysis of working capital...), especially in the transition from the second to the third generation (Filbeck & Lee, 2000). However, these researchers conclude that this higher level of financial sophistication occurs only in certain techniques.

With all this, and based on previous theoretical and empirical evidence, we propose that the course of family generations will have a positive effect on the level of financial literacy of the family business.

> ***H2:*** Family businesses with a higher generation stage will have a better level of financial literacy.

4. Methodology

4.1. Data

An empirical study was carried out based on the information from the survey of 310 Spanish SMEs (199 family members and 111 non-family members), addressed to the firm manager. In our study, we focused on the 199 family businesses. However, due to different errors analysed in the surveys or in certain responses, we have been forced to discard 4 companies, so that finally our work consists of a sample of 195 companies. In the sample used, companies with 5 or less workers are not included. The information collection technique was a telephone survey and the field work was carried out during the months from October to December 2016.

The selection framework was the SABI database of the Bureau van Dijk firm. Additionally, and as usual, we used as criterion to determine the sample size the maximum error fixation in the estimation of the proportion (p) corresponding to a dichotomous variable (estimation of the population proportion corresponding to the response of an item of a question from the sample relative frequency). This procedure ensures an objective and comparable procedure to determine the adequacy of the sample to the objectives of the investigation.

The initial criterion to determine the size of the sample was established so that the maximum error (assumption of greater uncertainty p = q = 0.5), in the estimation of a proportion for the whole population, was close to 5 points percentage, with a confidence level of 95%.

4.2. Sample composition

The following table shows the composition of the sample that we used for our study, segmenting the family business according to size and industry (Table 1).

Table 1. Sample Composition

	Industry				
Size	Manufacturing	Construction	Trade	Services	Total
Micro	22	7	18	19	66
Small	35	15	17	21	88
Medium	16	11	5	9	41
Total	73	32	40	49	195

Source: Own elaboration using STATA

4.3. Definition of variables

4.3.1. Dependent variable

From our research, and from the survey of companies signing up this project, we understand the financial literacy as updated set of information that businesses have on economic data and financial sector. This financial literacy is understood in this article as a process by which people, in our case entrepreneurs and managers, improve understanding about the products, services and financial concepts through information, advice or instruction, developing skills necessary to carry out an informed decision making process, which provides with them greater awareness about the risks and opportunities in financial matters (OECD, 2005; President's Advisory Council on Financial literacy, 2008).

Financial information acquired essentially comprises information on the evolution of the economy and monetary and financial policy both national and international, as well as alternative financial sources to banking. In this research, we have included in the concept of financial literacy, the influence of financial knowledge in making decisions, for which it must have economic and financial information on the situation of current market. Thus, we define the variable financial literacy as a process where financial information measures entrepreneurs and managers in order to bring out decision-making within the context of family business (see Table 2). This variable measurement was performed similarly to previous studies (Sulaiman, 2016; Huston, 2010). Regarding the aforementioned previous studies, we can verify that our dependent variable is identified with the English term "Financial Literacy". This term studies the financial training aimed at making decisions and business management (Almenberg & Widmark, 2011; Carter, 1973; Johnson & Sherraden, 2007; Lusardi & Mitchell, 2007; Van Rooij et al., 2007).

Table 2. Questions that make up our variable financial literacy.

Rotated component matrix	
Updated sectoral information	0.73
Policy development	0.80
Alternative financial sources	0.83
Investment alternatives	0.83
Decision making	0.80
Relevance of staff training	0.72
Number of factors	1 factor
Net explained variance Sig Barlett	553.066***
KMO	0.86

Source: Own elaboration using STATA

Table 3 shows the factorial analysis of the variables that constitute the variable dependent. To build the variable financial literacy, we conducted an exploratory factorial analysis using the method of principal components. Barlett statistic ($\chi 2$ = 553,066, with a significance level of 0.000, confirmed a linear dependence between constructs. They are forming the dependent variable and the test Kaiser-Meyer-Olkin (KMO), with an index of 0.86 (see Table 3), verified that the factor analysis has satisfactory results.

Table 3 Measuring the combination of inputs of financial literacy. Results of factor analysis.

FINANCIAL LITERACY: indicate their degree of agreement with the following statements (where 1 is 'disagree' and 5 'full agreement') ...	Strongly disagree				Total agreement
	1	2	3	4	5
1. The firm has updated information on economic and financial data sector					
2. I am well informed of developments in the economy and national and international monetary and financial policies					
3. I am knowledgeable of alternative financial sources to banking (equity loans, venture capital, MAB, business angels, etc.)					
4. I am knowledgeable of financial assets to invest surplus cash					
5 The firm uses economic and financial information in their decision-making					
6. Training department and financial management is very relevant					

Source: Own elaboration using STATA

4.3.2. Independent variables

The variables that we have used at this study are the following, always starting from the survey to all companies:

Family ownership.

With this variable, we analysed the degree of family ownership comprising the firm. The survey included two questions in which we questioned whether the firm had family character, with reference to one or more families are part of the ownership and management, and also with the firm intention to transmit it to the next generation. The other was due to write the percentage of corporate ownership in the hands of the family. This study is similar to previous works measuring the family ownership as the percentage of ownership of the firm that is owned by the family (Agrawal & Mandelker, 1990; De Miguel, Pindado & de la Torre, 2004).

Family Generation.

This question in the survey is aimed to know the family generation who runs the firm today. This data gives us an idea about how long the family business has remained active and the feasibility of it in its sector. The variable is measured by the posibility to answer: (1st) first generation, (2nd) second generation, (3rd) third-generation or (4th) fourth generation or successive. This variable has been measured similarly as in previous studies (Handler, 1991; Landsberg, 1988).

4.3.3. Control variables

The control variables considered in our model are: firm size, measured by total turnover; business sector as areas of activity, among which are manufacturing, construction, trade and services; age firm, measured by the number of years it has been in operation; protocol and family counselling, according to the presence or absence thereof; CEO gender, asking if it is male or female; CEO experience, as the number of years in the firm. Furthermore, using a Likert scale, we include the following control variables: family management, measured by a question as to whether the majority of management positions are occupied by family members; family workers, according, to what extent they are engaged in different departments of the firm; family strategy, measuring the degree to which these participate in strategic decisions of the firm.

The model used to test our hypotheses (H1 and H2) is as follows:

$$Yi = \beta0 + \beta1 \text{ (FAMILY OWNERSHIP)} + \beta2 \text{ (FAM GENERATION.)} + \Sigma\ \beta j \text{ (CONTROL VARIABLES)} + \mu$$

Where Yi corresponds to the dependent variable, financial literacy. The model integrates independent variables, family ownership and family generation, and control variables mentioned in the previous section.

5. Results

Table 4 summarizes the main descriptive statistics of the variables used in regressions that we developed to test our hypothesis (mean, standard deviation, minimum and maximum).

Table 5 shows the different correlations between financial literacy, independent variables (family ownership and generation) and variables control (CEO experience, family run, family protocol, family counselling, industry, size, age, family workers and family strategy).

Table 4 Descriptive analysis.

Variable	Mean	Standard deviation	Min	Max
Financial literacy	-3.67e-09	1	-2.608709	1.608286
CEO experience	17.91282	12.01149	1	58
Gender	.1538462	.3617299	0	1
Family ownership	92.65282	18.597	1	100
Family generation	1.789744	.6595042	1	4
Family Strategy	4.292308	1.084897	1	5
Family workers	3.892308	1.404592	1	5
Family management	3.841026	1.502698	1	5
Family protocol	.3230769	.4688556	0	1
Family council	.4512821	.4989018	0	1
Industry	2.333333	1.217004	1	4
Size	3.76e+07	9.08e+07	0	8.23e+08
Age	25.14979	12.43029	4.53	77

Source: Own elaboration using STATA

	Financial literacy	Family ownership	Family Generation	CEO Experience	Gender	Family Strategy	Family workers	Family Management	Family protocol	Family council	Industry	Size	Age
Financial literacy	1.0000												
Family ownership	-0.0997	1.0000											
Family generation	0.2343	0.0945	1.0000										
CEO experience	-0.0483	-0.0535	-0.1253	1.0000									
Gender	-0.1752	0.0693	-0.0150	-0.1677	1.0000								
Family Strategy	0.0559	0.1428	0.1440	0.0755	0.0687	1.0000							
Family workers	0.1097	0.0559	-0.0023	0.2243	0.0531	0.2643	1.0000						
Family management	-0.0869	0.1097	0.0857	0.1826	0.0832	0.4523	0.3997	1.0000					
Family protocol	0.2026	-0.0869	0.1208	0.2155	0.0701	0.1681	0.2331	0.1318	1.0000				
Family council	0.0108	0.2026	-0.0078	-0.0407	-0.1011	-0.0545	-0.0921	0.0137	0.0346	1.0000			
Industry	0.0435	0.0108	-0.0214	0.0806	-0.1171	-0.1093	-0.0151	0.0545	-0.0542	-0.0368	1.0000		
Size	0.1829	0.0435	0.1148	0.0404	-0.1004	0.0236	0.0143	-0.0247	0.0765	0.0422	-0.0106	1.0000	
Age	0.1823	0.1829	0.3562	0.0516	-0.1338	0.1044	-0.1422	-0.0628	0.0261	-0.0480	-0.0866	0.1822	1.0000

Source: Own elaboration using STATA

To test H1, we checked if the degree of family involvement in the ownership has a negative effect on financial literacy firm. On the other hand, to examine the H2, we tested whether higher generational family businesses have a better level of financial literacy. For this, four models were built using STATA, where the corresponding regressions are implemented considering as the variable dependent financial literacy, extracted from exploratory factor analysis using the method of principal components (see Table 6). The first model only takes into account control variables; in the second, the independent variable family ownership is introduced, and in the third, the independent variable generation is included. Finally, the fourth model carries out a regression with the set of variables used in our study, both the control variables as the two independent variables. Our results suggest that the degree of family ownership adversely affects financial literacy in family business (model 2, coef = -0.079, p <0.1; model 4 coef = -0.108, p <0.05), confirming H1. Likewise, these results show the generational course positively affects our dependent variable (Model 3, coef = 0.110, p <0.1; model 4, coef = 0.149, p <0.05), confirming the H2. As for the control variables, the results show that the size, experience CEO, gender, family workers, and family protocol are variables consistently relevant to explain the degree of financial literacy within the family business.

Table 6 Regression models.

Financial literacy	Model 1 (Control variables)	Model 2 (Control variables + Family ownership)	Model 3 (Control variables + Family Generation)	Modelo 4 (Control variables + Family ownership + Family Generation
Independent variables:				
Family ownership		- 0.079 (0.003)*		- 0.108 (0.003)**
Family generation			0.110 (0.098)*	0.149 (0.101)**
Control variables:				
CEO Experience	- 0.175 (0.007)**	-0.167 (0.007)**	- 0.161 (0.007)**	- 0.144 (0.007)*
Gender	- 0.202 (0.234)**	- 0.188 (0.235)**	- 0.206 (0.235)**	- 0.188 (0.236)**
Family strategy	0.002 (0.068)	0.053 (0.080)	-0.024 (0.070)	0.034 (0.078)
Family workers	0.135 (0.058)*	0.150 (0.058)*	0.128 (0.057)	0.146 (0.057)*
Family management	- 0.148 (0.070)	-0.136 (0.069)	- 0.156 (0.069)	- 0.142 (0.069)
Family protocol	0.225 (0.153)***	0.215 (0.155)***	0.214 (0.154)***	0.197 (0.156)***
Family council	-0.019 (0.130)	0.008 (0.135)	-0.031 (0.130)	0.002 (0.134)
Manufacturing	-0.067 (0.200)	-0.047 (0.201)	-0.102 (0.210)	-0.088 (0.210)
Trade	-0.086 (0.232)	-0.065 (0.235)	-0.108 (0.235)	-0.087 (0.236)
Services	0.038 (0.225)	0.070 (0.229)	-0.002 (0.237)	0.028 (0.238)
Turnover	0.111 (5.15e-10)**	0.098 (5.62e-10)*	0.111 (4.98e-10)**	0.092 (5.63e-10)*
Age	0.123 (0.005)*	0.142 (0.005)**	0.079 (0.005)	0.089 (0.005)
N	195	195	195	195
R-Squared	0.169	0.179	0.179	0.196
F	3.69	3.61	3.74	3.68

The standardized betas (standard errors) are detailed.
The dummy "Construction" has been rejected by the system due to redundancy.
* p < 0.1. ** p < 0.05. *** p < 0.01.

Source: Own elaboration using STATA

6. Discussion and conclusions

This study aims to analyse how the level of financial literacy in family business is influenced, among other factors by the degree of family ownership and family generation. Our results conclude that the greater the degree of family ownership, the lower the level financial literacy of the family business. In this sense, the results of this study can be explained knowing that a higher percentage of family ownership favours hiring family members for decision-making positions in the firm without proper training (Schulze, 2003) or employing staff without university qualification (Amat, 2002). Also, it can be argued that more family ownership percentage unequivocally represents a lower percentage of unfamiliar foreign shareholders, which normally brings strong financial knowledge (Di Giuli et al., 2011), and lower incentives for training as a business priority (Matlay, 2002). This result is consistent with results of previous literature where it is concluded that most family business incurs agency costs (Cromie et al., 2001; Lubatkin et al., 2005; Schulze, 2003) derived from opportunistic actions that implement the family members working in the firm (Ospina & Ramírez, 2012). Also, it has a logical connection with the inverse situation, which is none other than the benefits in financial matters including external members to the family in the family business (Filbeck & Lee, 2000; Di Giuli et al., 2011) as agency costs are reduced.

Our findings also confirm that, as the family business is passing from one generation to another, the level of financial literacy is favoured. It seems to confirm that the course of generations causes reducing agency costs due to lower implementation of opportunistic behaviour, such as adverse selection and moral hazard (Schulze, 2003). Our study is fully in line with the results achieved by Di Giuli et al. (2011), who found that the generational course is a driver of financial sophistication of the small family business, resulting in increased use of non-core financial products. Similarly, our research agrees partially with the conclusions drawn by Filbeck & Lee (2000), who only were able to confirm this positive relationship on the use of only some of the financial products analysed. However, our results do not appear to be consistent with the implications that we would expect for financial literacy from an increase in agency costs, that some academics expect for the second or later generation in family businesses, due to the recruitment of unskilled family members (Eddleston, Kellermanns, Floyd, Crittenden, & Crittenden, 2013; Lubatkin et al., 2005; Gersick, Davis, Hampton, & Lansberg, 1997).

This paper contributes to previous literature as follows. Firstly, and not as earlier studies that perform traditional comparisons between the family and non-family business without taking into account the heterogeneity within the family business (Duréndez & Mariño, 2013; Llach & Nortqvist, 2010; Esparza et al., 2010Pequeñas y Medianas Empresas (MIPYME; Jorissen et al., 2001; Reid et al., 2000), this research analyses how the level of family ownership, as a source of heterogeneity, affects the financial literacy of the firm. Numerous scholars have recommended analysing the heterogeneity in the family business and its influence on financial decisions, since most articles only compare the differences between family and non-family businesses (Chua et al., 2012; Nordqvist et al., 2014).

Secondly, this study examines how financial literacy in the family business depends on the generation in charge of the firm. The business objectives change when the firm passes from one generation to another, and given that financial challenges are growing across generations (Coleman & Carsky, 1999), so financial literacy also does. We argue that as they pass generations, the availability of sufficient family human resources with enough financial knowledge is scarce and family businesses consider of vital importance to professionalize the firm (Chrisman, Chua. & Sharma, 2003) in order to acquire sufficient capacity in terms of financial knowledge and achieve the objectives of the firm and the family (Chrisman & Holt, 2016).

Thirdly, this research relies on primary data collected through a survey ad hoc, not like most research on financial issues in family business, which often only rely on secondary data. This fact allow us to take into account the heterogeneity of the family business in a more refined context and measure financial literacy using a quite complete construct (Michiels & Molly, 2017; Sulaiman, 2016).

In practice, our research is really important for three major interests' groups, due to the undeniable importance of the family business as one of the main generators of wealth in most developed countries. In the first place, for academics, offering continuity to the study of financial literacy in the family business, providing possible lines of future research. In second place, for professionals and entrepreneurs, as it provides a set of guidelines that, whether applied to the family business, will bring an improvement in performance. A measure, which it intends to implement the entrepreneur and/or the practitioner in their respective family firm, is to gradually increase their propensity to recruit members outside the owning family, in order to advance the inherent benefits in the generational course to its early stages of development. The inclusion of external agents leads to an increase in financial literacy of the family business, causing an improved performance in financial matters and, therefore, in the feasibility of the business. Thirdly, for the government and authorities, to design effective public policies that promote financial literacy of family business in its early stages of development through training courses for business family.

This study presents a number of limitations and opens the possibility for different lines of future research. The first limitation is about the sample. Our sample includes micro, small and medium-sized family businesses, considering them homogeneously, without taking into account possible differences in size. However, the focus of the study on SMEs makes it really interesting because it is very difficult to extract information from this type of businesses and there is little literature dealing with the study of financial literacy in a SME context. Moreover, our regression models have controlled by size. A future line of interesting research could be to replicate this same study in samples of family businesses more specific, such as micro family businesses or small family firms, in order to verify the existence of significant differences with the rest of family SMEs. A second limitation may be the possible existence of response bias obtained by questionnaire of family businesses in the sample. Anyway, however, we have carried out everything possible from a methodology point of view to avoid such bias. Although the number of firms in the sample is sufficient for justifying the robustness of the results achieved, another possible research could be to perform this same study minimizing potential bias, that is, increasing the number of surveys.

Thirdly, our definition of family generation does not address the different combinations of family members that can compose a generation or another. Consequently, another possible line of research could be based on defining the generation variable in a broader way, distinguishing not only the family generation that has the family business, but also what members make up each and every generation, checking possible implications in financial literacy.

Fourth, the study analyses Spanish firms, so it should have to be checked whether the results are generalizable to other countries. Therefore, future studies could analyse the level of financial literacy in samples of family businesses from different countries.

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