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A mediation analysis of performance differences between family and non-family businesses

The article analyzes the connection between business ownership, goal setting, and financial performance. Understanding this relationship is essential to deepen the comprehension of the family's effect on business and its financial performance. Research in this particular area is steadily growing, but many significant questions remain unanswered, and disputes continue. This article answers the following research question: In what way does family ownership influence goal setting and financial business performance? It also seeks to identify items of goal setting and financial performance that are significantly influenced by business ownership. The analysis is performed using a single-mediator structural model based on survey data. The dataset consists of an ownership variable according to the EU definition of family business, goal setting items, and subjective performance measures. The results show that small and medium-sized family businesses achieve superior financial performance compared to non-family businesses, and that the positive relationship between family business ownership and financial performance is mediated by goal setting.

Keywords: family business, goal setting, business performance, mediation analysis

JEL classification: D22, G38, L22, L25

Introduction

In the last 20 years research on family businesses has accelerated. In the 1980s scholars started to not only take family businesses for granted, but treat the overlap between business and family as worthy of a much more detailed examination. A large number of studies show that family businesses account for a significant share of global economic growth and job creation. According to a study by de Bruin and Lewis [2004], 67–90% of all businesses worldwide are both owned and managed by families. Furthermore, according to Flören [1998], family businesses provide half of the jobs and half of the total economic growth for many European countries. Klein [2000] estimates that in Germany ca. 60% of all companies are family businesses, and those businesses account for 55% of GDP and 58% of private employment. Generating most of the jobs, investments, and value, family busi-

nesses are clearly the foundation of welfare in Germany and the backbone of the German economy, and as such their further scientific examination can only be of utmost interest.

Many family businesses ensured their survival through crises, economic downturns, and two world wars. This remarkable achievement makes them an important part of the global economy. Consequently, a question arises as to the secret of their excellent financial performance. What management decisions and factors allowed them to persevere and brought them to their present success? In order to find an answer, this article investigates the impact that the form of business ownership, and the resulting process of goal setting, have on financial business performance.

1. Definition and characteristics of small and medium-sized enterprises and family businesses

Researchers have not yet come up with one universally accepted definition of a family business. Having analyzed 238 articles written in the years 2002–2011 devoted to the subject, Steiger et al. [2015] concluded that no definition dominates in the literature. One possible explanation is that this strand of research is relatively young and the concepts behind definitions require further refinement and investigation.

The specific characteristics of family businesses result from the unique overlap of family relations, ownership, and management [Lansberg, 1988] that transforms. Under these conditions, family, hitherto a purely social unit, starts working as an economic unit as well [Basu, 2004], which gives it several advantages. "Family altruism" fosters cooperative behavior that maximizes the family's business resources and reduces agency costs [Blanco-Mazagatos et al., 2007]. Additionally, it helps to improve efficiency and lower costs by putting monitoring and control in the hands of family members, who enjoy a higher degree of trust compared to outsiders. These gains are very valuable especially in the long run and in terms of sustainability. Positive economic effects are further reinforced when external stakeholders do not apply leverage in order to secure short-term returns [Sirmon et al., 2003].

According to the EU definition, companies are considered to be SMEs if they employ fewer than 250 persons, their turnover does not exceed EUR 50 million, and their annual balance sheet total does not exceed EUR 43 million [CEC, 2003]. This means that SMEs constitute 99.5% of Germany's businesses, employ 66% of the German workforce, and have a 58% share in the GDP [D'Imperio, 2015; OECD, 2017].

SMEs cannot be thought of as scaled-down versions of larger businesses, for as they grow, they undergo an evolution that leads to significant changes in management structure and financing mechanisms. Research identifies the following main differentiators between SMEs and larger businesses [Ates et al., 2013]:

- limited resources, lack of human capital, funding, time, and information,
- short-term priorities, less formalized decision making, focus on internal operations, lack of external orientation,
- high level of tacit knowledge and emotional intelligence,
- lack of entrepreneurial, managerial, and leadership skills.

The above-listed characteristics translate into a number of advantages and disadvantages for SMEs. The former include flat hierarchies and informality, which encourages the formation of stronger bonds between management, employees, stakeholders, and the business. The same informality, however, draws focus towards internal operations and away from the business environment. Noteworthy, it is also associated with less frequent use of information sources and a higher degree of tacit knowledge on the part of the owner and employees. On the downside, they tend to have poor leadership and managerial skills and generally suffer from lack of various resources. A look at these characteristic features of SMEs may help to identify potential areas for improvement in their financial and non-financial performance.

Even irrespectively of the family aspect, SMEs, due to their prevalence, constitute a very interesting research subject. Family SMEs exhibit an additional, unique mix of features, especially with regard to non-financial business operations and behavior. Since most of them do not disclose financial or other data, they have, thus far, been under-investigated due to the resulting difficulty in applying research methods and measures.

2. Business performance and goal setting

Research analysis is a valid approach to the comparison of family and non-family business performance that allows to take into account the impact of management structure. Those structural components, along with the form of ownership and degree of management control, have been examined in order to identify performance differences. Hansen and Block [2020] analyzed a sample of 1,095 primary studies into large, medium-sized, and small family and non-family businesses and found empirical evidence that family businesses record better performance compared to non-family businesses. In turn, Villalonga and Amit [2006] show that the correlation between family ownership, control, and management on the one side and business performance on the other is heavily dependent on the applied definition of family business.

Goal setting is a process informed by organizational-environmental interactions. An organization consists of individuals who form groups, or coalitions, that share similar goals. Next, organizational goals are negotiated, set, fixed, and operationalized through budgets. Eventually, when finalized, they become organization policy and translate into actions [Cyert, March, 1963; Stevenson et al., 1985; Williams et al., 2019]. Although extensive research has been conducted into the process of goal setting, it has brought no thorough conceptual model. Organizational goals reflect the final outcome of goal setting and align with the position of top management. More importantly, they clarify the mission, facilitate planning, performance assessment, and control, and motivate employees [Barney, Griffin, 1992; Gagné et al., 2014], i.a. by providing them with direction and guiding them through the decision making process.

The goal setting process and the resulting organizational goals may be regarded as important explanatory factors for the performance differences between family and non-family businesses.

3. Methodology

In order to further explore the issues discussed here, a study was conducted into the impact of the form of business ownership and the goal setting model it favors on financial business performance. The sample was selected, contacted, and emailed a questionnaire using the private database of Splendid Research GmbH. It included family and non-family SMEs (as defined by the EU), of which 298 returned completed questionnaires. The survey was addressed to people in management positions and comprised wide-ranging questions about their current situation of their business, including goal setting and organizational performance.

The data was analyzed in two steps. First, the measurement model's unidimensionality was assessed by exploratory factor analysis, and its reliability measured using Cronbach's alpha. Once this was done, the hypothesis was tested with a single-mediator structural equation model.

4. Variables

4.1. Dependent variable

This study measures organizational performance by the amount of resources allocated for achieving financial goals.

Family business research suggests numerous reasons why family control could improve or weaken financial performance. Arguments for its beneficial impact

include lower agency costs [Ang et al., 2000; Savitri, 2018], long-term stakeholder management strategy [Palia et al., 2008], and the importance attached to business survivability [Bertrand, Schoar, 2006; Casson, 1999; Stafford et al., 2013]. Conversely, factors that negatively affect the financial performance of family businesses include family conflicts [Harvey, Evans, 1994], exploitation of private benefits by family members [Bennedsen et al., 2007; Zellweger et al., 2012], focus on non-financial goals [Chrisman et al., 2012], and favoritism [Liu et al., 2015].

Moreover, organizational performance is the most important dependent variable in management research [Richard et al., 2009]. It can be divided into two areas: financial and non-financial [Dossi, Patelli, 2010]. The former, multidimensional area can be further broken down into accounting profits and stock market values to provide a complete picture [Villalonga, Amit, 2006].

As a dependent variable, financial performance will be determined based on a subjective performance measure, i.e., answers the respondents provided when asked to compare performance constructs with their main competitors [Santos, Brito, 2012]. Objective performance measures are often found inaccessible, which lowers response rates [Dubihlela, Sandada, 2014; Runyan et al., 2008]. Meanwhile, subjective performance measures have been repeatedly, and successfully, used by many scholars [Alves, Lourenço, 2021; Kellermanns et al., 2008; Sciascia, Mazzola, 2008]. Furthermore, literature has verified the correlation between subjective and objective performance measures for the purposes of their application in surveys [Dawes, 1999; Ling, Kellermanns, 2010; Vij, Bedi, 2016].

4.2. Independent variable

The form of business ownership – family and non-family – serves as the independent variable. Conventionally, studies on family business were emphasizing that family ownership results in underperformance and low or no profits [Chu, 2011]. More recent findings reveal a slight performance edge of family businesses, but remain inconclusive due to the heterogeneity of definitions adopted in family business research [Astrachan et al., 2002; Chua et al., 2012; Villalonga, Amit, 2006; Werner et al., 2018; Zahra et al., 2007]. The independent variable is therefore treated as a dichotomous dummy variable that assumes the value of 1 for family businesses and 0 for non-family businesses.

4.3. Mediator variable

Goal setting, which is the mediator variable, refers to the process of discussing goals and to the outcome of this process, i.e. the set of goals the business ultimately pursues [Kotlar, 2012]. This process moves to the next stage when the mission of the business and the activities it undertakes find their way from the level of the

organization to the level of the individuals. Literature characterizes the process of goal setting in non-family businesses as professional, and in family businesses as familial. The goal setting framework is shaped by the environment in which the process takes place, including the perceptions of the internal and external stakeholders it comprises, and by the adopted goal setting theory [Kotlar, De Massis, 2013].

Family businesses tend to exhibit particularistic behaviors and attach great importance to family-centered goals; however, family involvement in matters of ownership and management means greater goal diversity [Chrisman et al., 2012]. Goal diversity sparks the process of interactions during which family-centered goals are weighted against non-family-centered goals. Three steps of this goal setting process have been distinguished [Cyert, March, 1963; Fang et al., 2013]:

- formation of coalitions, which establish their goals by means of bargaining and side payments,
- stabilization of goals, which take the form of a policy and become a control mechanism,
- regular adjustments of the goals based on new experience.

4.4. Control variables

Several control variables were used to assess other potential influences on the dependent variable and to reduce the risk of misleading explanations. Several scholars posit that financial decision making and performance in family businesses is affected by a variety of business factors [Greve, 2008; Koropp et al., 2014]. For this reason, business industry, size, age, and location were selected as control variables. Only businesses operating in the manufacturing industry and located in Germany were accepted in the study. Moreover, natural logarithm transformation was applied to all control variables in order to avoid statistical distortions in numerical edge regions for multivariate analyses [Simarasl et al., 2020; Molly et al., 2010; Sciascia, Mazzola, 2008].

5. Hypothesis development

The positive link between family ownership and overall business performance can be explained by the goal setting model observed in family businesses, which differs significantly from the model adopted in non-family businesses in terms of behavior and stakeholder influence [Kotlar, De Massis, 2013]. On the behavioral level, in family businesses the goal setting framework is more informal and guided by mutual trust, customs, and moral concepts [Uhlaner et al., 2012].

The established goals are as challenging as in non-family businesses, but the pervasive informality leaves employees more freedom to work towards their goals, which has a positive impact on financial performance. With respect to stakeholders, family businesses focus more on human and social capital, which over the long term gives them a financial edge over non-family businesses. As such, the influence of stakeholders also adds positively to organizational performance.

The hypothesis is therefore proposed that the superior financial performance of family businesses is mediated by the behavioral framework of goal setting.

6. Sample

The descriptive data regarding the businesses participating in the study are presented in Table 1. They show that family businesses in the sample are younger than non-family businesses (M = 73.14 years, M = 78.19 years, resp.). They are also smaller than non-family businesses in terms of the number of employees (M = 94.21, M = 120.78, resp.) as well as in terms of turnover (M = EUR 20,300 billion, M = EUR 28,218 billion, resp.). The sample is homogenous with regard to age, but not business size. Statistical differences are accounted for by the control variables in the structural equation model.

Table 1. Descriptive data

Item	Group	Max.	Min.	Mean	SD	No.
business age	FB	191	3	73.14	58.39	298
	NFB	199	4	78.19	54.74	298
number of employees	FB	249	8	94.21	70.96	298
	NFB	248	8	120.78	64.72	298
turnover (EUR billion)	FB	48,440	1,100	20,300	13,790	298
	NFB	49,890	1,200	28,218	10,261	298
external stakeholders	FB	6	2	4.4	1.30	296
	NFB	6	2	3.6	1.16	
schedules and defined roles	FB	6	1	4.2	1.22	298
	NFB	6	2	4.6	1.03	
irregularity and non-defined roles	FB	6	1	4.2	1.19	297
	NFB	6	2	3.8	1.12	
social control	FB	6	1	4.3	1.29	298
	NFB	6	2	4.2	1.19	
return on asset growth	FB	6	2	4.3	0.89	298
	NFB	6	2	4.4	0.67	

Item	Group	Max.	Min.	Mean	SD	No.
return on sales growth	FB	6	2	4.5	0.87	298
	NFB	6	2	4.1	0.73	
market value growth	FB	6	2	4.4	0.79	297
	NFB	6	2	4.0	0.75	

Notes: FB – family businesses, NFB – non-family businesses; 6-point Likert scale: 6 – "fully applicable", 5 – "largely applicable", 4 – "rather applicable", 3 – "rather not applicable", 2 – "largely not applicable", 1 – "not applicable at all".

Source: Own elaboration.

7. Analysis

The exploratory factor analysis shows that the goal setting items load into one factor and explain 56% of the variance, and the financial performance items also load into one factor and explain 60.16% of the variance, which testifies to the unidimensionality of the measures. Additionally, both goal setting and financial performance show Cronbach's alpha of over 0.70, indicating reliability.

Due to problems with the mediation approach of Baron and Kenny [1986], this study takes the approach to test mediation proposed by Hayes [2017]. Bootstrapping is used to calculate indirect effects by resampling the gathered data 5,000 times, and generates a representative sample distribution which is then used to calculate indirect effects with 95% confidence intervals. The hypothesis was thus tested with OLS regression techniques using the R software (v. 4.1.0).

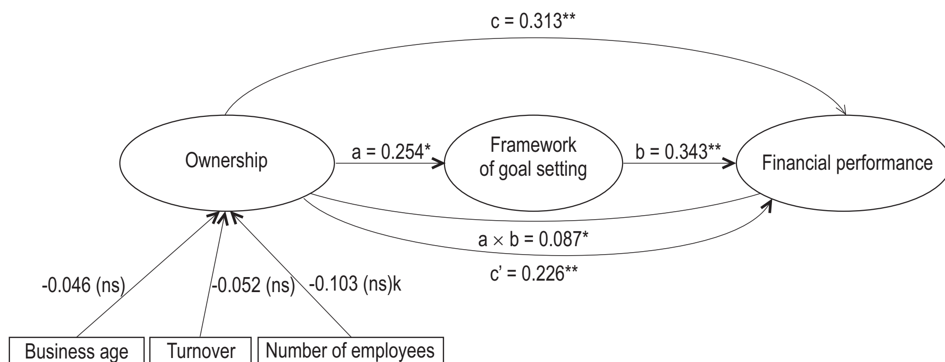

Figure 1. Mediation model

Notes: *** $p \leq 0.001$, ** $p \leq 0.01$, * $p \leq 0.05$, † $p \leq 0.10$; all coefficients standardized.

Source: Own elaboration.

The results of the mediation analysis are presented in Figure 1. They show a significant positive impact of family business ownership on financial performance ($c = 0.313$, $p \leq 0.01$).

As proposed in the hypothesis, the form of business ownership exerts an influence on financial business performance through the framework of goal setting. The indirect effect can be regarded as significant ($a \times b = 0.087$, $p \leq 0.05$). The effect of control variables (business age, turnover, and number of employees) on the form of business ownership is not significant and can therefore be ignored.

Conclusions

This paper raises the question of why family businesses achieve better financial performance than non-family businesses. A literature review suggested that family ownership underlies a complex pattern of factors which affect strategic business processes, and which result from a set of characteristics that a family dynamic adds to the business. Scholars have recently started to mention goal setting as this potential "fingerprint" a family leaves on the business.

The first methodological step taken in this study, which is based on a deductive approach to management theory, was to hypothesize that performance differences between family and non-family businesses result from the adopted goal setting model. The concept of goal setting thus acquired new dimensions. The second methodological step was to conduct an empirical analysis of the multidimensional concepts of business ownership, financial performance, and goal setting. The explanatory power of goal setting for financial performance differences between family and non-family businesses was put to the empirical test, which confirmed that goal setting mediates the superior performance of family businesses.

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