

Is Substantial Family Influence a Good Measure of Family Involvement? Evidence from the Czech Republic

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The role of family business in management theory is getting a topic of interest of academics and practitioners. However, there are many definitions of family businesses which are far from being standardized. Substantial family influence (SFI) is one of the possible ways to distinguish family- and non-family firms. A large number of existing studies confirmed a positive relationship between family involvement and performance, at least up to a certain point (inverted U-shaped relationship). In the article we examined the relationship between SFI and profitability. Based on the data on Czech family firms from 2006-2011, we tested the dependence between SFI and return on equity, return on assets and return on sales. The results suggest that there is no statistically significant relationship between profitability and SFI, neither in terms of an inversely U-shaped relationship, nor in terms of a linear dependence. Although the SFI indicator can actually help identify family businesses and distinguish companies with no family involvement at all and companies where families play a certain role, this measure, when applied mechanically, is not predicative in terms of profitability. In particular, the individual components of the SFI indicator do not take into account various informal and formal roles family members may play in the decision-making.

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1. Introduction

Family-controlled enterprises play a powerful role in the world economy constituting more than 30% of all companies with sales in excess of \$1 billion (Kachaner et al. 2012). In most countries, regardless of company size, family businesses account for a major share of economy. It is therefore no wonder that interests of academicians have been attracted towards studying family businesses. Family firms are considered to be different from non-family firms because they are owned or managed by members of a family whose intention is to continue the business across generations. Family members are supposed to be altruistic toward each other, following moral obligations which are part of normative order in most cultures around the world. As an emerging field, the family business discipline has been establishing especially in the two following directions: defining family business and measuring performance gaps between family and non-family businesses.

In the Czech Republic, the family business has become an interesting research topic especially due to “succession issues”. While by the beginning of 1990’s we could hardly speak of any family businesses due to the existence of a state-controlled economy, some 25 years later it is quite common that owners (parents) have already transferred their businesses to their heirs or have at least started considering it. From this perspective the reality of family businesses in the Czech Republic resembles the situation in other countries with free market economies around the world. Despite the importance of family businesses in the world described above, the role of family businesses in the Czech Republic has been neglected and there has not been any significant project pertaining to this issue

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2. Literature Review

The very definition of family business is crucial since most past research studies compared family and non-family businesses from many perspectives. However, the definition of family business is far from being standardized.

Most researchers agreed that due to unique institutional legal contexts in states across the globe, it makes no sense to come up with a definition that could be universally applicable. Nevertheless each study must explicitly state what is understood under the family business because different definitions do lead to different findings. In spite of the fact that there is no unanimous agreement upon it, each definition of family business includes three dimensions (Massis et al. 2012): ownership (one or several families hold a significant part of the share capital), management (family members hold top management positions), or board-membership (family members retain significant control over the company via membership in executive or supervisory board).

One of the possible definitions of family businesses proposed by Klein (2000) is called the substantial family influence (SFI). This indicator attempts to define family firms in a quantitative manner. It is composed of three parts: the percentage share of family members in management board, in supervisory board, and in share capital. These shares are then summed up. Formally,

$$SFI = \frac{MoMB_{fam}}{MoMB_{all}} + \frac{MoSB_{fam}}{MoSB_{all}} + \frac{S_{fam}}{S_{all}} \quad (1)$$

where *fam* stands for family, *MoMB* denotes the number of members in management board, *MoSB* denotes the number of members in supervisory board, and *S* denotes stock. If the sum of the three terms is greater than one, the firm is considered to be a family business. However, an important question is: does the SFI indicator reflect the real involvement of a family in a particular company? And if so, will it reflect the performance differences among family businesses? To deal with that question, we will first discuss the existing evidence on the effects of family involvement on performance, and then verify empirically the relationship between SFI and performance.

Family businesses are often supposed to aim to achieve a combination of financial and nonfinancial business goals. Some authors suggest that while family proprietors seek to continue their business across generations and to maximize its long-term value, managers of non-family firms focus on a shorter term, seeking mainly to satisfy shareholders and to pursue their own personal goals (Daily and Dollinger 1992). In addition, some studies suggest a presence of positive benefits of the family involvement such as friendly and intimate relationships among managers and owners, as well as employees, which has a positive effect on knowledge dissemination within the firm. It is also possible that family companies, especially the small ones, are not motivated to pursue financial objectives and often prefer to maintain the status quo (Birley 2000). However, the findings on the differences in performance are mixed.

While many authors found evidence of a better economic performance of family firms compared to non-family firms (Aguiló and Aguiló 2012; Allouche et al. 2008; Coleman and Carsky 1999; Maury 2006; McConaughy, Matthews, and Fialko 2001; San Martin-Reyna and Duran-Encalada 2012; Shyu 2011), other authors present the opposite results: a negative relationship between family involvement and performance (Lam and Lee 2012;

Lin and Chen 2012; Oswald, Muse, and Rutherford 2007; Perez-Gonzalez 2006; Westhead and Howorth 2006).

However, many authors found no significant relationship between family involvement and performance (Chrisman, Chua, and Litz 2004; Demsetz and Villalonga 2001; Himmelberg, Hubbard, and Palia 1999; Schulze et al. 2001). According to some researchers, family businesses seem to outperform non-family firms in terms of performance, but their performance decreases across generations. Control by heirs is sometimes associated with a lower profitability and growth; family successions can have a negative causal impact on firm performance (Bennedsen et al. 2007; Villalonga and Amit 2006). In addition, non-family firms have frequently been reported to grow faster than family firms, since family owners often restrict growth in order to retain control of the firm within the family (Daily and Dollinger 1993).

The differences in performance comparison outcomes are sometimes explained by the idea that family influence has a positive effect on firm performance up to a certain level. In particular, the relationship between family involvement and firm performance is often considered being inverted U-shaped, which means that increased family involvement may initially contribute to firm performance, but when it becomes large enough, it may foster negative effects of the family ownership and management, for instance altruism and conflicts among family members, and eventually reduce performance (Ernst, Kraus and Matser 2012; Holdermess et al. 1999; Kowalewski, Talavera, and Stetsyuk 2009; Sciascia and Mazzola 2008).

3. Methodology

To test the impact of SFI onto performance, we tested two kinds of relationship: linear and quadratic. The relationships stated above can be described using the following equations (where P denotes profitability):

$$P = b_1 + b_2 \times SFI + b_3 \times SFI^2 \quad (2)$$

$$P = a_1 + a_2 \times SFI \quad (3)$$

Profitability indicators belong to the most frequently used measures of performance in comparative studies on family businesses' performance (Machek, Brabec, and Hnilica 2013).

The null hypotheses can be formulated as "there is no significant inverted U-relationship of performance on SFI" and "there is no significant linear dependence of performance and SFI". So, the alternative hypotheses are:

H1: Performance of family businesses is inversely U-related to SFI.

H2: Performance of family businesses is positively linearly related to SFI.

As measures of profitability, we have used return on equity (ROE), return on assets (ROA) and return on sales (ROS). ROE was calculated as the ratio of net earnings over equity, while ROA was calculated as the ratio of earnings before interests and taxes (EBIT) over total assets, and ROS was calculated as the ratio of EBIT over sales. The period under consideration was 2006-2011. For every year, we performed regressions using the SPSS software and recorded the coefficient of determination (R^2), the F-test of equality of

variances (ANOVA), the regression coefficients and their statistical significance for each of the profitability measures: ROE, ROA, and ROS.

To test the relationship between SFI and business performance, we used a sample of Czech family businesses (Machek and Hnilica 2013). To define a “flag” distinguishing family and non-family firms, we decided to apply the following criteria:

1. Among owners there are more individuals with the same surname, or
2. within the supervisory board there are more individuals with the same surname, or
3. within the management board there are more individuals with the same surname.

When applying the above-mentioned algorithm, we had to take into account several issues. Firstly, family names of spouses in the Czech Republic usually end in –ová (this is a traditional ending of last names in Slavic languages). This means, of course, that the algorithm cannot detect companies where husband and wife have different last names; however, heirs usually do carry a family name of one of their parents. Secondly, relatives often own or control a company via an intermediary company (legal person) – it was therefore necessary to check the ownership/management structure of owning companies as well. Thirdly, the algorithm will not detect companies where relatives are not involved in ownership or management but contribute to a substantial part of the firm’s success by various types of work, help and support.

After having applied the algorithm to the set of the all Czech companies with registered ID (whose database is maintained by the Bisnode’s Magnus database), we obtained 3 560 companies which were marked as family businesses in 2011. Out of these companies, we selected 800 subjects with the largest headcount. Then, it was necessary to manually check all records for possible mistakes. The most frequent sources of mistakes were namesakes (accidental occurrence of the same last names, especially the most frequent Czech family names such as Novák or Svoboda), a marginal family influence (possible relatives but among a very large number of other people, or in insignificant positions such as press officers). The final sample contained 520 companies (ranging from 2 533 to 93 employees) which could objectively be classified as family businesses. Then, after having eliminated observations with no useful data (some companies did not disclose their true owners) or missing balance sheet items, we obtained the final sample. For every firm, we recorded the relative shares in management board, supervisory board and ownership, which allowed us to calculate the substantial family influence (SFI) indicator as described in equation 1. The number of observations and the average SFI values are described in Tab. 1.

Tab. 1: SFI of Czech family businesses

Year	2006	2007	2008	2009	2010	2011
No. of useful observations	224	217	244	284	312	319
Mean SFI	1.71	1.74	1.74	1.76	1.81	1.82

4. Findings and Discussion

The regression results (coefficient of determination R², ANOVA F-test and the associated p-value, regression coefficients and their p-values) at the 5% level of significance are described and discussed below for each of the profitability measures.

Return on Equity

The inverted U-shaped relationship between ROE and SFI has not been found. Since all regression statistics are non-significant we failed to reject the null hypotheses (see Tab. 2). Moreover, in 2006 and 2007, the regression coefficients b_2 and b_3 are of the opposite signs as they should be. Based on the non-significant observations in all years under consideration, we can't confirm that return on equity is inversely U-related to SFI. The same finding applies for the linear relationship. In 2006 and 2007, the significance of the regression coefficient a_1 is better but the coefficient of determination of the whole regression is small enough to conclude that there is no evidence of a positive linear relationship between SFI and ROE. All regression results are summarized in Tab. 2.

Tab. 2: Return on equity and SFI – regression outputs

Quadratic (inverted U-shaped) relationship							
	R ²	F	p-value	b_2	b_3	b_2 p-value	b_3 p-value
2011	0.005	1.661	0.198	0.004	0.001	0.841	0.942
2010	0.020	5.032	0.025	0.042	-0.008	0.099	0.229
2009	0.008	0.280	0.596	0.041	-0.010	0.129	0.151
2008	0.009	2.050	0.153	0.021	-0.003	0.494	0.693
2007	0.057	12.42	0.001	-0.001	0.006	0.960	0.392
2006	0.016	3.021	0.083	-0.010	0.006	0.712	0.424
Linear relationship							
	R ²	F	p-value	a_2	a_2 p-value		
2011	0.005	1.661	0.198	0.006	0.198		
2010	0.015	5.032	0.025	0.012	0.025		
2009	0.001	0.280	0.596	0.003	0.596		
2008	0.008	2.050	0.153	0.009	0.153		
2007	0.054	12.425	0.000	0.022	0.0005		
2006	0.013	3.021	0.083	0.011	0.083		

Return on Assets

Similarly to the previous findings, no statistically significant evidence of an inverted U-shaped relationship between return on assets and substantial family influence has been found (see Tab. 3). Likewise, the linear dependence between ROA and SFI has found to be non-significant. This finding applies for all years under consideration. The results are summarized in Tab. 3.

Tab. 3: Return on assets and SFI – regression outputs

Quadratic (inverted U-shaped) relationship							
	R2	F	p-value	b_2	b_3	b_2 p-value	b_3 p-value
2011	0.001	0.265	0.766	0.008	-0.002	0.602	0.538
2010	0.012	1.972	0.140	0.025	-0.005	0.139	0.242
2009	0.008	1.174	0.310	0.041	-0.010	0.129	0.151
2008	0.012	1.517	0.221	0.012	-0.001	0.544	0.801
2007	0.042	4.717	0.009	-0.021	0.009	0.276	0.089
2006	0.032	3.664	0.027	-0.022	0.009	0.225	0.081
Linear relationship							
	R2	F	p-value	a_2	a_2 p-value		
2011	0.001	0.151	0.697	-0.001	0.697		
2010	0.008	2.571	0.109	0.005	0.109		
2009	0.001	0.001	0.989	-0.000	0.989		
2008	0.012	2.983	0.085	0.007	0.085		
2007	0.029	6.475	0.011	0.011	0.011		
2006	0.018	4.219	0.041	0.009	0.041		

Return on Sales

We observed the same findings for the last indicator, return on sales (profit margin). Again, we observed that there is no sufficient evidence against the null hypotheses in favour of the alternative hypotheses (see Tab. 4). Obviously, there is no statistically significant relationship between ROS and SFI, neither in terms of an inversely U-shaped relationship, nor in terms of linear dependence.

Tab. 4: Return on sales and SFI – regression outputs

Quadratic (inverted U-shaped) relationship							
	R2	F	p-value	b_2	b_3	b_2 p-value	b_3 p-value
2011	0.008	1.364	0.257	0.025	-0.007	0.160	0.120
2010	0.008	1.344	0.262	0.018	-0.003	0.303	0.460
2009	0.001	0.065	0.936	0.007	-0.001	0.736	0.765
2008	0.009	1.099	0.334	0.021	-0.003	0.494	0.694
2007	0.023	2.556	0.079	-0.026	0.008	0.133	0.066
2006	0.017	1.969	0.142	-0.030	0.009	0.131	0.077
Linear relationship							
	R2	F	p-value	a_2	a_2 p-value		
2011	0.001	0.300	0.583	-0.002	0.583		
2010	0.006	2.145	0.144	0.005	0.144		
2009	0.001	0.042	0.836	0.001	0.836		
2008	0.008	2.050	0.153	0.009	0.153		
2007	0.007	1.688	0.195	0.005	0.195		
2006	0.003	0.788	0.375	0.004	0.375		

According to our observations, there is no statistically significant relationship between profitability and substantial family influence. So, what's wrong with the SFI measure? There are, in fact, two possibilities: either the involvement of a family does not affect performance, or, which is more probable, SFI does not capture the family involvement accurately. To find out why, let us discuss the individual parts of the indicator.

- *Share of family members in the supervisory board* – the problem of such measure is that it does not distinguish between relative importances of functions. In our sample of firms, we obtained 16 distinct and incomparable roles with various importances and functions in the board. Typically, the most important person is the chairman of the board, followed by the vice-chairman. However, there are also individual members of the board which possess a lower control over the company. Moreover, the indicator mixes the advisory and executive board in two-tier board system like in Germany. This suggests that SFI will not assure international comparability if the board systems in individual countries differ. Last but not least, the structure of the board will differ for joint-stock, limited liability companies and partnerships, since there are different functions which are not comparable. But if we exclude a category of business entities, we will not obtain a reliable sample.
- *Share of family members in the management board* – this measure does not make a difference between the chief executive, who is without any doubt the most important member of the board, and other members. In our sample of firms, we obtained 30 different functions in management boards, including finance, HR, research & development, production, marketing, and other managers, as well as holders of procurement, chief economists, etc. But who has the greatest power over the company? The indicator will provide different results for companies with

different management board structure, as well as for different categories of business entities, and does not capture the real influence of individual family members, both in terms of formal and informal power.

- *Share of family members in the ownership structure* – the problem with this measure is that sometimes, companies are partially owned by legal persons whose true owner may be unknown. This applies for companies which reside in tax paradises such as Cyprus or Cayman Islands. The family may own only a minor portion of shares, but may control the company via the management/supervisory board, or vice versa. And sometimes, only one family member participates in the ownership, which would disqualify such a company from being a family firm; but still, other family members may figure in management/supervisory boards.

The indicator will also not detect family companies where relatives are not directly involved in ownership or management but contribute to a substantial part of the firm's success by various types of work, help and support. Another source of confusion may be the presence of multiple families within one firm, in which case it is not clear-cut what SFI should represent: the share of one of the families, or of all families involved?

5. Conclusion

The main finding is that although the SFI indicator can actually help identify family businesses and distinguish companies with no family involvement at all and companies where families play a certain role, this measure, when applied mechanically, is not predicative in terms of profitability. In particular, the individual components of the SFI indicator do not take into account various informal and formal roles family members may play in the decision-making. Moreover, and most importantly, SFI does not capture one of the main characteristics of family businesses: the intention for succession.

The main conclusion is not, of course, to decline SFI as a measure of family involvement, but to emphasize that bare relative shares of family members in boards are not sufficient to determine the real family involvement in a company. We would recommend this indicator as an underlying measure of family involvement; it should, however, be accompanied by a deeper analysis. Using weighted shares (with weights reflecting the real importance of individuals) instead of simple ratios could also improve the explanatory power of the substantial family influence indicator.

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End Notes

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