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Family firm competitiveness and owner involvement

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Abstract

We examine the impact of family competitiveness and owner involvement on SME performance. Using a random sample of 1,137 non-listed Finnish SMEs, we find that family ownership is a more profitable ownership structure than dispersed ownership. When measuring profitability by ROA based on EBITDA (net income) family owned and controlled SMEs perform significantly better, returning 15.1% (23.4%) more on average than non-family firms. Additionally, while the performance of family managed, and outsider managed family firms do not differ per se, the number of family members actively involved in daily business operations bears a significant negative relation to firm performance. In contrast, non-family firms in which owners are actively involved, provide comparable returns to family firms, suggesting that in non-family firms active involvement contributes to performance. We find that employee ownership in SMEs does not provide an efficient way to compensate employees since more dispersed ownership does not lead to higher performance.

Family firm competitiveness and owner involvement

1. Introduction

Given that many international corporations are to a large degree owned and controlled by families (Anderson and Reeb, 2003a; Morck and Yeung, 2004; Faccio and Lang, 2002; La Porta et al., 1999), it is not surprising that family ownership effects have attracted considerable research attention. A common thread in existing family ownership studies is the focus on large listed firms that generally support the conjecture of the positive effects of family ownership. Equally important, is the empirical evidence that family involvement affects firm performance. Combined, these are both linked with the concept of “familiness” (Zellweger et al., 2010) and contribute to the debate on family firm uniqueness (Chrisman et al., 2005). Chrisman et al (2005) acknowledge further research is needed to determine whether this extends to small firms and firms where family involvement is not confined to founding family members. In this paper, we aim to bridge this gap in the literature.

We approach the family ownership and involvement issue from a different angle. Unlike many earlier studies, we examine the impact of family ownership and involvement on the financial performance of privately owned small and medium-sized enterprises (hereafter referred to as SMEs). Our main research question examines whether private family SMEs perform better than comparable non-family firms. Like Villalonga and Amit (2006), we distinguish between management and ownership, and examine the effects of family management, family and employee ownership and owner involvement.

We employ a comprehensive financial statement database of privately-owned Finnish SMEs.¹ Using a random sample of 1,137 non-listed firms, we present several new findings about the effects of ownership structure and involvement. Our empirical results show, that in contrast to Barth et al. (2005), family ownership is a more profitable ownership structure than dispersed ownership in SMEs. When profitability is measured by ROA based on EBITDA (net income), the results show that family owned, and controlled SMEs perform significantly better,

returning 15.1% (23.4%) more on average than non-family firms. We also find no difference in the performance of family managed and outsider managed family firms. We also find that the number of family members actively involved in daily business operations bears a significant negative relation to the performance of family firms. Moreover, for non-family firms, our results indicate that active involvement of owners significantly improves firm performance. However, our results suggest that employee ownership does not provide an efficient way to compensate employees in SMEs as the more dispersed ownership among employees does not substantially contribute to performance.

Our study is also motivated via the increased importance of SMEs in Western economies. Large firms have historically been job creators, but the situation has reversed during the past two decades. There has also been a dramatic increase in the amount of capital allocated to private firms (Denis, 2004). In the US private sector, SMEs account for a net total of 85 percent of new jobs. In the European Union, more than 20 million SMEs provide around 75 million jobs². Research has not kept pace with this development.

Connecting family ownership and involvement is particularly important in a Finnish context, where ownership and control of companies are highly concentrated with families and individuals. SMEs are the cornerstone of the Finnish economy, where 98.8 percent of SMEs employ less than 50 people (Eurostat, 2018). Our paper helps shed light on the role of family ownership and involvement as a possible explanatory factor of overall economic performance.

The remainder of this paper is organized as follows. In Section 2 we present a literature review and our research question. This is followed by the methodology in Section 3 which includes the financial statement, ownership data and variables used in the analysis. Section 4 presents summary statistics and a preliminary data analysis. We then report the empirical findings on the effects of family ownership and involvement on firm performance. Section 5 concludes.

2. Literature Review and Research Question

Family firm identity is a source of competitive advantage in the marketplace (Sundaramurthy and Kreiner, 2008) and can make a positive contribution to an organization Zellweger et al. (2010). Habbershon and Williams (1999) introduce the concept of “familiness” to increase understanding about the nature of family firm competitiveness. “Familiness” describes the distinctive resources and capabilities resulting from family involvement and interactions. It is a multidimensional construct impacting firm competitiveness. Pearson et al. (2008) elaborate that familiness can be used as a unique element to differentiate family and non-family firms and to discriminate performing from non-performing firms.

Even though most firms around the world are family controlled, the existing literature remains inconclusive about the effects of family ownership on firm performance. One of the main challenges in the family business literature is defining a family firm (Cucellini et al., 2014; Barbera and Moores, 2013; Chrisman et al., 2005). Cucellini et al (2014) recognize there is no single definition of a family firm in the literature. Various definitions in the literature include a focus on control, firm strategic direction, family firm behaviour and transgenerational succession (Chrisman et al, 2005; Chua et al., 1999).

Family involvement is a relatively less explored area of the literature (Barbera and Moores, 2013) and mirrors the family’s strategic decision-making participation (Sciascia and Mazzola, 2008). Family involvement in management offers a way of explaining family firm behaviours Steier (2003). Chrisman et al (2005) draw on agency theory and the resource-based view of the firm to explain why family involvement might affect firm performance. To distinguish family from non-family firms, Chrisman et al (2005) introduce the “components of involvement” and “essence” approaches. The components of involvement approach highlight family ownership and control. The essence approach emphasizes behaviours, synergistic resources and capabilities a family contributes to a business. Family involvement in ownership,

management or control is a sufficient condition to classify a firm a family business. The heterogeneity of family firms is captured by the essence approach (Westhead and Howorth, 2007) and behaviour that embodies family firm and involvement are regarded as a necessary condition.

In the literature there is also a third theoretical approach called organisational identity (Sundaramurthy and Kreiner, 2008) that says family identity is unique to firms and as a result is impossible to copy completely. It describes the collective behaviour of the family firm. As a result, the organization becomes an extension of the employee's self and embodies the perception of "oneness" that an employee feels with an organization. One way of providing this may be through employee ownership, so that employees feel they are part of the decision-making process.

The theoretical roots of the components of involvement approach is based on agency theory. In the family business literature, agency theory focuses on the conflict of interest and asymmetric information between owners and managers, or majority versus minority shareholders (Jensen and Meckling, 1976; Morck, et al., 1988). Family members provide a monitoring and disciplinary agent, thereby reducing costs (Fama and Jensen, 1983). Also, a country's legal system appears to matter when it comes to agency issues. To prevent expropriation by majority shareholders, the widely held professionally managed firm is the optimal model in countries with a strong legal system (Burkart et al., 2003).

In terms of empirical studies, Anderson and Reeb (2003a) find that family firms are more profitable than non-family firms. Anderson, Mansi and Reeb (2003) suggest that founding families reduce agency conflicts between the equity and debt claimants. They report that family firms can obtain lower cost financing than comparable non-family firms. Furthermore, Anderson and Reeb (2003b) report that minority shareholders in large publicly listed firms benefit from founding family ownership. According to Anderson and Reeb (2003b) and James

(1999), families have long investment horizons and view their firms as an asset to be passed on to their heirs as a going concern. Wang (2006) finds that founding families may have incentives to produce higher-quality earnings to avoid damaging the family's reputation and to improve long-term performance of the firm. Wang (2006) concludes that founding-family ownership is associated with lower abnormal accruals, greater earnings informativeness, and less persistence of transitory loss components in earnings. Empirical support for the positive effects of founding-family ownership has also been documented in Barontini and Caprio (2006), Maury (2006), Villalonga and Amit (2006) and Martikainen et al. (2009).^{3, 4}

The recent literature addressing the effects of ownership and management structures has concentrated principally on large publicly listed companies. Ang, Cole and Lin (2000) analyse a sample of 1,708 small corporations and find that agency costs are higher when an outsider manages the firm. They report that agency costs are inversely related to the manager's ownership share and increase as the number of non-manager shareholders increases. Barth, Gulbrandsen and Schøne (2005) conclude that family owned SMEs are less productive than non-family owned firms, which contrasts with Anderson and Reeb (2003a) and Anderson, Mansi and Reeb (2003). Eisenberg, Sundgren and Wells (1998) focus on the board size effect in small firms with small boards in Finland and report a significant negative correlation between board size and profitability in privately owned SMEs. Our paper differs from Eisenberg et al (1998) because we consider family ownership and involvement.

We extend Chrisman, Chua and Sharma (2005) call for research that identifies family firms' uniqueness, focusing on how the family's involvement is a root cause of their distinctiveness. We also address their call for more research on this topic as applied to SMEs. Using this as a starting point, we hypothesize that small and medium-sized family firms perform better than comparable non-family firms.⁵ We contribute to the existing literature by focusing on the effects of family management, family and employee ownership and owner involvement

on SME performance. Since owner involvement reduces agency costs and presents a substantial economic incentive to maximize firm value, we expect that these firms perform better than the firms whose owners are not actively involved in daily business operations. Investigating these issues using SME data may be considered particularly fruitful since the proportion of founding family ownership is typically much higher in privately owned SMEs than in large publicly listed firms. Consequently, focusing on the effects of family ownership using an SME sample may provide new insights on the existing literature regarding the effects of different ownership and management structures on firm performance.⁶ In the next section, we describe the data collection process and methodology.

3. Methodology

3.1 Financial statement and ownership data and variables definition

To investigate the impact of family ownership and involvement on SME performance, family ownership and involvement information are needed. For this purpose, we use a joint survey of the Federation of Finnish Enterprises and Finnvera, Ltd, which is based on telephone interviews, conducted in 2000, with 3,042 randomly sampled Finnish SMEs. The sampling of firms is based on the TOL 95 industry classification and company register of Statistics Finland. According to the Federation of Finnish Enterprises⁷, the survey is representative across company sizes, industries, and geographic areas in Finland. The sample includes various forms of business entities, for example, individuals, partnerships, and corporations. We follow Eisenberg et al. (1998) and focus on corporations excluding individuals, partnerships, etc. from the sample. Thus, we include only the incorporated enterprises, representing 38 per cent of all Finnish SMEs. This data screening is also similar, for example, to Ang et al. (2000) who use U.S. data and limit their investigation to small corporations.

We then match the sample companies and the sample year with financial statement data. Financial statement data are drawn from the comprehensive Statistics Finland database, which contains financial statements for Finnish firms. The database is based on the business taxation register (EVR), compiled by the tax authorities in Finland. For this study, the tax year starts in 2001. The financial statements of our sample firms are collected up to 2013 and have been audited.

We include firms from the six largest main industries according to SIC classification provided by Statistics Finland.⁸ These industries are (D) manufacturing, (F) construction, (G) wholesale and retail trade; repair of motor vehicles, motorcycles and personal and household goods, (H) hotels and restaurants, (I) transport, storage and communication, and (K) real estate, renting and business activities. The industries cover the 99.3 percent of all small and medium sized corporations in the sample. In total, 1,137 non-listed Finnish incorporated enterprises are included in the empirical analyses.

Table 1 presents the number of firms by industry. Table 1 also gives the numbers and percentages of family and non-family firms. Since the share of family ownership varies across industries, dummy variables are used to control for industry effects in our multivariate analyses as in Anderson and Reeb (2003a). Measuring family ownership is discussed in the following section.

[INSERT TABLE ONE ABOUT HERE]

3.2 Measuring family ownership, family involvement and firm performance

Following Anderson et al. (2003) and Anderson and Reeb (2003a), we adopt a binary variable approach to indicate firms with family ownership. A family ownership dummy variable equals one when one family is the firm's main shareholder and is consequently able to

significantly influence the composition of the board of directors. We also create a separate dummy variable for family firms in which family members are involved in daily business operations. Like Villalonga and Amit (2006), we identify family firms which are professionally managed by outsiders in such a way that ownership and involvement in daily business operations are separated. To control for ownership dispersion, we incorporate the ratio of the number of employees owning firm shares to the total number of employees. Finally, we also use an additional dummy variable to indicate whether employees own the shares of a non-family firm.

For the dependent variable, we use return on assets (ROA) as the performance measure. ROA as a firm performance measure of SMEs is strongly supported in the literature by Carpenter (2002), Dyer (2003), Holt et al (2012) and DeMassis et al. (2015). Like Anderson and Reeb (2003a), we compute ROA in two ways. First, we measure it as net income divided by the book value of total assets. A criticism of just using earnings is that a firm could manipulate earnings by controlling the timing of receipts and expenditures, or by choosing among alternative methods of accounting. As the second measure, we use earnings before interest, tax, depreciation and amortization (EBITDA) divided by the book value of assets. EBITDA is a measure that is generally believed to provide a better picture of core business operations.

3.3 Control variables

The set of control variables used in the multivariate analysis considers industry effects and various firm characteristics. We define the firm size variable as the natural logarithm of the book value of total assets and the firm age variable as the natural logarithm of the number of years since the firm was founded. Leverage is measured as the ratio of long-term debt to the

book value of total assets. In addition, we include the short-term debt to total assets ratio in the analysis.

The ratio of investments divided by the book value of total assets is used as a primary measure for growth opportunities. Following Anderson and Reeb (2003a), we also include the ratio of research and development (R&D) expenses to total sales into the analysis. However, this item is obtained from the survey because it is generally not available in SME financial statements. For further robustness, we also use a binary variable to denote firms with growth opportunities. A dummy variable equals one when a firm, according to the survey, has growth objectives.

4. Results

4.1 Summary statistics

Table 2 presents the summary statistics. It consists of three panels of which Panel A gives the means, medians, standard deviations, and minimum and maximum values for the most relevant variables in the analysis. Panel B presents the means or proportions separately for family and non-family firms and provides a univariate comparison of these groups. It also presents the Wilcoxon signed rank test results. Panel C reports the Pearson correlation coefficients for variables used in the multivariate analysis.

Firm growth opportunities are measured with three variables: the ratio of investments to total assets, the ratio of R&D expenses to sales, and a dummy variable indicating whether a firm has growth objectives. According to Table 2, Panel A, the average value of investments for sample firms is 7.21 percent of total assets. The average value of R&D expenses is 1.07 percent of sales. Sample statistics regarding long-term debt to assets show that the mean (median) of the ratio is 16.16 (9.27) percent. The corresponding mean and median for short term debt ratios are 41.85 percent (mean) and 38.96 (median). These statistics correspond well,

for example, with the European SME sample used by Hall, Hutchinson and Michaelas (2004) and the Australian SME sample used by Cassar and Holmes (2003). The sample mean for the long-term debt to assets ratio is also close to that reported by Anderson and Reeb (2003a) for the large S&P 500 companies. Ages of sample firms range from 2 to 173 years with the mean (median) being 19.59 (14) years. SMEs employ 16.22 persons on average, while the median is 8 persons. Regarding firm performance, the average (median) return on asset based on EBITDA is 21.92 (20.00) percent and 9.41 (8.12) percent when calculated using net income.

Table 2, Panel B reports means of financial ratios and means of size and age variables for family and non-family firms. Table 2, Panel B provides a univariate comparison of family and non-family firms. There are 991 (59.7 percent) family firms and 596 (40.3 percent) non-family firms in the sample. In 93.4 percent of family firms, owners are actively involved in the firm's day-to-day business, while the corresponding proportion in non-family firms is 69.7 percent. Among family firms, 17.9 percent of employees own stocks, whereas among non-family firms, 16.2 percent of employees are also shareholders.

The ratio of total net investments to total assets appears to be larger on average for family firms (7.66 percent) than for non-family firms (6.56 percent), while the research and development expenses of non-family firms are found to be significantly higher on average than those of family firms. According to the survey, 54.49 percent of family firms have growth objectives. For non-family firms, the proportion is significantly higher, 63.76 percent. Interestingly, small and medium sized family firms seem to have more long-term debt and less short-term debt than non-family firms do. The univariate results moreover show that family firms are smaller and older on average than non-family firms. Additionally, ROA (EBITDA) appears to be significantly higher for family-firms than for non-family firms, while the difference is not statistically significant in the case of ROA (using net income).

Table 2, Panel C presents the Pearson correlation coefficient matrix for the variables used in our analysis. As can be seen from Panel C, ROA (EBITDA) is positively and significantly correlated with family ownership, suggesting that ownership has a positive impact on ROA. It may also be observed that ROA is positively significantly correlated with the ratio of number of employees owning stocks to total number of employees, investments to total assets, and R&D expenses to sales and negatively significantly correlated with long-term debt to total assets and firm size. In addition, growth opportunities seem to be positively related to ROA, while leverage and firm size are negatively related to ROA. Furthermore, the dummy variable $Family_Firm_i$ is found to be positively significantly correlated with the ratio of number of employees owning stocks to total number of employees, long-term debt to the book value of total assets and firm size and negatively significantly correlated with R&D expenses to sales, short-term debt to total assets and firm size.

[INSERT TABLE TWO ABOUT HERE]

4.2 Impact of family and employee ownership and owner involvement on firm performance

4.2.1 Impact of family and employee ownership

To first investigate the impact of family ownership and employee ownership on financial performance, we estimate the following regression equation:

$$\begin{aligned}
 ROA_i = & \alpha_0 + \sum_{k=1}^5 \alpha_k SIC_i^k + \beta_1 Family_Firm_i + \beta_2 Ownership_Dispersion_i & (1) \\
 & + \delta_1 Investments_i / TA_i + \delta_2 R \& D_i / Sales_i + \delta_3 LT_Debt_i / TA_i \\
 & + \delta_4 ST_Debt_i / TA_i + \delta_5 \ln(TA_i) + \delta_6 \ln(Firm_Age_i) + e_i,
 \end{aligned}$$

where ROA_i denotes return on assets, SIC_i^k is a dummy variable based on industry classification, $Family_Firm_i$ is a dummy variable indicating whether firm i is a family firm, $Ownership_Dispersion_i$ is the ratio of the number of employees owning stock to total number of employees, $Investments_i/TA_i$ denotes total investments divided by book value of total assets, $R\&D_i/Sales_i$ is the ratio of research and development expenses to sales, LT_Debt_i/TA_i is the ratio of long-term debt to the book value of total assets, ST_Debt_i/TA_i is the ratio of short-term debt to total assets, $\ln(TA_i)$ is the natural logarithm of the book value of total assets, and $\ln(Firm_Age_i)$ is the natural logarithm of the number of years since the firm's founding.

In the model estimation, the possibility of multicollinearity is detected using the variance inflation factors (Judge, Hill, Griffiths, Lütkepohl and Lee, 1988)⁹. Based on the White and the Breusch-Pagan heteroskedasticity tests, we conclude that the error variances are heteroskedastic. Consequently, the White (1980) heteroskedasticity consistent covariance matrix is applied.

Table 3 presents the multivariate analysis results. Models (1) - (3) are estimated using ROA based on (EBITDA) and models (4) - (6) using ROA based on net income. For the basic models (1) and (4), the results reported in Table 3 show that the coefficient estimate of $Family_Firm_i$ is positive and significant when using ROA based on either EBITDA or net income. This implies that family firms perform better than non-family firms. More specifically, it may be noted that family firms return 15.05 (23.38) percent more relative to non-family firms when the average ROA based on EBITDA (net income) is used in the calculation¹⁰.

The results of models (2) and (5), including the variable $Ownership_Dispersion_i$, further supporting the hypothesis that family firms perform better than non-family firms, but not significantly so. As can be seen from Table 3, the coefficient estimates of $Family_Firm_i$ and

the corresponding p -values are unaffected when the new variable is added, whereas the coefficients for $Ownership_Dispersion_i$ are insignificant. At first glance, these results tend to suggest that more dispersed ownership among employees is not related to firm performance. However, we explore this issue further, as it may be the case that employee ownership dispersion may have a different impact on family and non-family firms.

[INSERT TABLE THREE ABOUT HERE]

The investigation is performed adding two interaction terms. The estimation results of models (3) and (6) include two terms, $Ownership_Dispersion_i \times Family_Firm_i$, and $Ownership_Dispersion_i \times Non-Family_Firm_i$, which allow the effect to have different sign and size for family and non-family firms. As can be seen from Table 3, the estimation results are in line with our expectations. For family firms, the coefficient estimate is negative and significant at the 10 per cent level indicating that wider ownership among employees negatively affects financial performance. By contrast, consistent with our original expectations, the estimate for non-family firms is positive and statistically highly significant.

In terms of the control variables, the coefficient estimates for $Investments_i/TA_i$ are positive and significant in the case of models (1) - (3), while the coefficient estimate for $R\&D/Sales$ is negative but insignificant in all cases. The coefficient estimates for leverage variables LT_Debt/TA and ST_Debt/TA are negative and statistically significant consistently across all regressions (1) - (6) suggesting that return on asset is negatively associated with leverage. The reported results also provide some indication that smaller SMEs return more than the larger firms.

In sum, the empirical results reported in Table 3 are in line with those of Anderson and Reeb (2003a), supporting the hypothesis that family firms perform better than non-family firms.

Additionally, employee ownership dispersion and firm performance are negatively related in family firms and positively related in non-family firms. In the following section, the issues of a separation of ownership and management in family firms and active owner involvement in non-family firms are further investigated.

4.2.2 *Impact of owner involvement*

To examine the effects of family management and ownership in family firms separately, the owner involvement in non-family firms, and the ownership dispersion among employees, the following regression equation is estimated:

$$\begin{aligned}
 ROA_i = & \alpha_0 + \sum_{k=1}^5 \alpha_k SIC_i^k + \beta_1 Family_Managed_Firm_i + \beta_2 Family_Owned_Firm_i \quad (2) \\
 & + \beta_3 Owners_Involved_i + \beta_4 Ownership_Dispersion_i \times Family_Firm_i \\
 & + \beta_5 Ownership_Dispersion_i \times Non-Family_Firm_i \\
 & + \delta_1 Investments_i / TA_i + \delta_2 R \& D_i / Sales_i + \delta_3 LT_Debt_i / TA_i \\
 & + \delta_4 ST_Debt_i / TA_i + \delta_5 \ln(TA_i) + \delta_6 \ln(Firm_Age_i) + e_i,
 \end{aligned}$$

where new variables are defined as follows. *Family_Managed_Firm_i* is a dummy variable indicating whether family members are actively involved in the day-to-day business, *Family_Owned_Firm_i* is a dummy variable indicating whether family firms are professionally managed by outsiders, and *Owners_Involved_i* is a dummy variable indicating whether an owner of a non-family firm is actively involved in the day-to-day business.

Table 4 reports the regression results. The results reported in the table show that the coefficients for the dummy variable, *Owners_Involved_i*, are positive and highly statistically significant in all models (7) – (10), implying that the active involvement of owners in the day-

to-day operations of a non-family firm leads to significantly higher financial performance. In addition, the estimates for *Family_Managed_Firm_i* and *Family_Owned_Firm_i* are positive and statistically significant. Based on the *F*-test, their equalities cannot be rejected in any cases (7) – (10).¹¹

[INSERT TABLE FOUR ABOUT HERE]

It may also be observed based on models (8) and (10) that adding the interaction variables measuring degree of employee ownership in family and non-family firms does not much affect the *Owners_Involved_i* coefficient. As can be seen in Table 4, in each specification, the coefficient for *Owners_Involved_i* appears to be close to those of *Family_Managed_Firm_i* and *Family_Owned_Firm_i*, and according to the *F*-tests, their equalities are not rejected. An interesting observation is that the coefficient estimate for the interaction variable measuring the dispersion of ownership among employees in non-family firms is no longer statistically significant, indicating that the degree of dispersion does not affect the performance of a non-family firm.

Overall, our empirical results indicate that family firms perform better than non-family firms. Among family firms, no significant difference is found between performance of family managed and outsider managed firms. For non-family firms, our results suggest that firms with stocks owned by employees return significantly more than non-family firms in which the owners are not actively involved in the day-to-day business. The results moreover show that non-family firms in which owners are actively involved provide as high returns as family firms. Our investigation reveals that it is not the degree of dispersion but the active owner involvement which leads to the increased performance in non-family firms.

4.3 Robustness Tests

To ensure the robustness of our results to various alternative specifications, we start by investigating the robustness with respect to firms' growth objective. According to our preliminary data analysis, family firms and non-family firms differ in their growth objectives. As Panel B of Table 2 shows, 54.40 percent of family firms have growth objectives, while the corresponding proportion for non-family firms is 63.76 percent, the difference being statistically significant with p -value < 0.001 . We apply this information in two ways. First, we include a new variable dummy variable, $Growth_Objectives_i$, into the regressions (11) and (13) reported in Table 5. Second, we include the interaction terms $Growth_Objectives_i \times Family_Firm_i$ and $No_Growth_Objectives_i \times Family_Firm_i$ and the corresponding cross terms for non-family firms with employees owning stocks in regressions (12) and (14).

Table 5 shows that the coefficient for $Growth_Objectives$ is negative but insignificant. Models (12) and (14) in Table 5 include the interaction terms. As can be seen, all interaction terms are positive and significant. Overall, the results reported indicate that ROA is not significantly different between family firms with growth objectives and family firms not aiming to grow. Regarding non-family firms with employees owning stocks the results are similar confirming that non-family firms with employees owning stocks are superior in their performance relative to other non-family firms. Therefore, we conclude that the results are not driven by the observation that family firms and non-family firms differ in their growth objectives.

[INSERT TABLE FIVE ABOUT HERE]

One major difference between our study and Anderson and Reeb (2003a) is that their sample includes the 500 largest listed U.S. companies. As a next step, we continue by directly investigating the robustness of our results with regard to firm size and age. It may be recalled that in the preliminary multivariate data analysis both these variables turned out to be discriminating factors between family and non-family firms. Consequently, the basic regression is first modified to include the interaction terms $Small_i \times Family_Firm_i$, $Big_i \times Family_Firm_i$, $Small_i \times Owners_Involved_i$, and $Big_i \times Owners_Involved_i$, where the dummy variable $Small_i$ (Big_i) has a value of one when firm size, measured as total assets, is below (above) the sample median. Following that, to examine the presence of an age interaction effect, the regression model, following Anderson and Reeb (2003a), is modified to include similar age interaction terms, $Young_i \times Family_Firm_i$, $Old_i \times Family_Firm_i$, $Young_i \times Owners_Involved_i$, and $Old_i \times Owners_Involved_i$, where $Young_i$ is a dummy variable having a value of one if the firm's age is less than the sample median, and Old_i is a dummy variable having a value of one if the firm's age is above the sample median. Consequently, like Anderson and Reeb (2003a) we take into account the possibility that as firms become older, family members have less to contribute in terms of productivity and efficiency.

Table 6 reports the results of the size and age regressions. Models (15) and (17) include the size interaction terms and models (16) and (18) the age interaction terms. It may be observed that the results reported closely resemble our earlier results. The results regarding size confirm that both family firms and non-family firms with employee stock ownership perform significantly better than non-family firms in which the owners are not actively involved. As an additional robustness check, we measure the firm size using the number of employees, instead of the log of total assets, and show that the results are not sensitive to the selected firm size measure. With respect to firm age, the results of regressions (16) and (18) show that, although

the firm age seems to have an impact on ROA, both young and old family firms return significantly more than non-family firms in which owners are not involved. Similarly, both young and old non-family firms, whose stocks are owned by employees, perform significantly better than non-family firms in which owners are not involved.

[INSERT TABLE SIX ABOUT HERE]

The sensitivity of all results is further tested in several ways. The Weisberg (1988) test is used to assess the effects of potential outliers in the data. The results remain unaffected. We also delete five percent of observations according to the lowest ROA in the case of non-family firms in which owners are not actively involved and re-estimate the regression equations. We repeat the procedure by removing five percent of observations according to the highest ROA in the other groups of firms. The key variables remain statistically significant. In addition to outlier tests, alternative sets of control variables are used. For example, the regression equations are estimated without the ratio of short-term debt to total assets as an explanatory variable. The results continue to hold. In sum, we conclude that our results are robust to alternative variable measures, alternative sets of control variables, endogeneity, heteroskedasticity, outliers, and multicollinearity.

5. Conclusion

In many countries, SMEs are primarily responsible for wealth, economic growth, innovation and research and development. In this paper, we examine the impact of family ownership and owner involvement on the financial performance of unlisted Finnish SMEs. Following the literature that families have long investment horizons and view their firms as an asset to be passed on to their heirs as a going concern, we hypothesize that SMEs perform better

than corresponding non-family firms. Furthermore, we investigate the impact of active owner involvement on financial performance. Since involved owners reduce agency costs and have substantial economic incentives to maximize firm value, we expect that these firms perform better than the firms whose owners are not actively involved in the daily business.

To investigate these issues, we utilize a comprehensive financial statement database from Statistics Finland. Using a random sample of 1,137 Finnish non-listed corporations, our study presents several new findings about the effects of ownership structures and owner involvement on the performance of SMEs. First, family ownership is a more profitable ownership structure than dispersed ownership. When measuring profitability by ROA based on EBITDA (net income), our results reveal that family owned and controlled SMEs perform significantly better, returning 15.1 percent (23.4 percent) more on average than non-family firms. Second, the results indicate that the performance of family managed, and outsider managed family firms does not differ per se, but that the number of family members actively involved in the day-to-day business bears a significant negative relation to firm performance. Third, according to our expectations, non-family firms in which owners are actively involved provide as high returns as family firms, thereby suggesting that in non-family firms active involvement contributes to performance. Our results also suggest that employee ownership does not provide an efficient way to compensate employees in SMEs since the more dispersed ownership among employees does not lead to better performance.

Our results imply that in the case of Finland, family ownership is an effective organizational structure. Our paper also has potential policy implications. Recently in Europe, the Small Business Act has highlighted the role of family businesses and the need to exploit their full potential. The European Commission is encouraging initiatives in favor of family businesses, especially SMEs. Especially during the times of an economic crisis, it is crucially important to find out the forms of committed ownership that are aiming to keep their employees

in order to generate future growth and employment to economies. This has been particularly highlighted during the recent COVID pandemic and unfolding economic crisis. Liquidity and credit availability have become major challenges for SMEs, the dominant business model around the world. Governments and central banks have undertaken various rescue packages (including furlough schemes) to keep businesses afloat. As the depth of the recession remains uncertain, firms with committed ownership are key to the economic recovery.

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Table 1. Number and Percent of Family and Non-family Firms by Industry Classification Code

Number and percent of firms by the standard industry classification code (SIC). Finland's national standard industrial classification is based on the European Union classification of economic activities NACE 2002. Family firms refers to those firms in which one family is the firm's main stockholder.

SIC	Industry Description	Number of Firms	Family Firms	Non-Family Firms	Family Firms (%)
D	Manufacturing	199	113	86	56.8
F	Construction	194	134	60	69.1
G	Wholesale and retail trade; repair of motor vehicles, motorcycles and personal and household goods	272	177	95	65.1
H	Hotels and restaurants	55	42	13	76.4
I	Transport, storage and communication	155	112	43	72.3
K	Real estate, renting and business activities	262	101	161	38.5
	All Firms	1137	679	458	59.7

Table 2. Descriptive Statistics and Preliminary Data Analysis

Panel A of the table reports descriptive statistics for key variables of the sample firms. The number of firms is 1,137. Panel B of the table reports means of selected financial ratios and means of size and age variables and proportions of dummy variables for family and non-family firms. Standard normal deviates (Test Statistic) are based on the Wilcoxon signed rank test and the property that the proportions are approximately normally distributed. Panel C of the table provides the Pearson correlation coefficients for key variables. *p*-values are given in parentheses.

Panel A: Summary Statistics

Variable	Mean	Median	Standard Deviation	Minimum	Maximum
Investments/Total Assets (%)	7.21	3.73	9.98	-41.57	71.37
R & D/Sales (%)	1.07	0.00	3.87	0.00	60.00
LT Debt/Total Assets (%)	16.16	9.27	18.94	0.00	94.08
ST Debt/Total Assets (%)	41.85	38.96	20.62	2.38	98.40
Ln (Total Assets)	6.16	6.00	1.25	3.28	11.89
Firm Age (Years)	19.59	14.00	17.80	2.00	173.00
Number of Employees	16.22	8.00	40.54	3.00	882.00
Annual Sales (€ 1,000,000)	3.62	0.89	17.12	0.10	380.41
Return on Assets (EBITDA) (%)	21.92	20.00	24.10	-183.78	152.58
Return on Assets (Net Income) (%)	9.41	8.12	18.06	-169.15	91.14

Panel B: Univariate Comparison of Family and Non-family Firms: Means or Proportions

Variable	Family Firms Non-Family Firms		Test Statistic	p-value
	Mean / Proportion	Mean / Proportion		
Number of Firms	991	596		
Proportion (%)	59.7	40.3		
Owner Involvement (Proportion %)	93.4	69.7	-12.63	<0.001
Dispersion of Ownership	17.9	16.2	-3.54	<0.001
Investments/Total Assets (%)	7.66	6.56	-2.20	0.028
R & D/Sales (%)	0.74	1.56	4.64	<0.001
Growth Objectives (Proportion %)	54.49	63.76	3.62	<0.001
LT Debt/Total Assets (%)	17.92	13.54	-4.80	<0.001
ST Debt/Total Assets (%)	40.82	43.38	2.02	0.043
Ln (Total Assets)	6.05	6.33	2.79	0.005
Firm Age (Years)	21.44	16.83	-5.25	<0.001
Return on Assets (EBITDA) (%)	23.35	19.79	-2.90	0.004
Return on Assets (Net Income) (%)	10.00	8.54	-0.95	0.340

Panel C: Pearson Correlation Coefficients

Variable	Employee		Inv./ TA	R&D/ Sales	LT Debt/TA	ST Debt/TA	Ln (Total Assets)	Ln (Firm Age)
	Family Firm	Dispers. Own.						
Dispersion of Own.	0.065 (0.028)							
Investments/TA	0.054 (0.069)	0.028 (0.339)						
R&D/Sales	-0.104 (<0.001)	0.063 (0.034)	0.025 (0.397)					
LT Debt/TA	0.121 (<0.001)	0.016 (0.581)	0.207 (<0.001)	0.068 (0.021)				
ST Debt/TA	-0.085 (0.004)	-0.072 (0.015)	-0.057 (0.054)	-0.011 (0.706)	-0.252 (<0.001)			
Ln (Total Assets)	-0.163 (<0.001)	-0.469 (<0.001)	-0.064 (0.031)	-0.028 (0.344)	0.054 (0.067)	-0.142 (<0.001)		
Ln (Firm Age)	0.112 (0.001)	-0.091 (0.002)	-0.045 (0.129)	(-0.065) (0.029)	0.050 (0.090)	-0.121 (<0.001)	0.201 (<0.001)	
ROA (EBITDA)	0.072 (0.015)	0.107 (<0.001)	0.126 (<0.001)	0.066 (0.031)	-0.105 (<0.001)	-0.019 (<0.530)	-0.158 (<0.001)	-0.019 (0.527)

Table 3. Return on Asset and Family Ownership

The estimation results reported in the table are based on the following regression equation:

$$ROA_i = \alpha_0 + \sum_{k=1}^5 \alpha_k SIC_i^k + \beta_1 Family_Firm_i + \beta_2 Ownership_Dispersion_i + \delta_1 Investments_i / TA_i + \delta_2 R\&D_i / Sales_i + \delta_3 LT_Debt_i / TA_i$$

+ $\delta_4 ST_Debt_i / TA_i + \delta_5 \ln(TA_i) + \delta_6 \ln(Firm_Age_i) + e_i$, where ROA_i denotes return on assets, SIC_i^k is a dummy variable according to industry classification, $Family_Firm_i$ is a dummy variable indicating whether firm i is a family firm, $Ownership_Dispersion_i$ is the ratio of number of employees owning stocks of a firm to total number of employees, $Investments_i / TA_i$ denotes total investments divided by the book value of total assets, $R\&D_i / Sales_i$ is the ratio of research and development expenses to total sales, LT_Debt_i / TA_i is the ratio of long-term debt to the book value of total assets, ST_Debt_i / TA_i is the ratio of short-term debt to total assets, $\ln(TA_i)$ is the natural logarithm of the book value of total assets, and $\ln(Firm_Age_i)$ is the natural logarithm of the number of years since the firm's founding. The estimation results of models (3), and (6) include interaction terms $Ownership_Dispersion_i \times Family_Firm_i$ and $Ownership_Dispersion_i \times Non-Family_Firm_i$. p -values are calculated based on the White (1980) heteroskedasticity consistent covariance matrix.

Dependent Variable	ROA (EBITDA)						ROA (Net Income)					
	Model (1)		Model (2)		Model (3)		Model (4)		Model (5)		Model (6)	
Model	Estimate	p-value	Estimate	p-value	Estimate	p-value	Estimate	p-value	Estimate	p-value	Estimate	p-value
Intercept	0.459	<0.001	0.423	<0.001	0.391	<0.001	0.289	<0.001	0.272	<0.001	0.254	<0.001
Family Firm	0.033	0.019	0.033	0.017	0.094	<0.001	0.022	0.030	0.022	0.028	0.057	<0.001
Dispersion of Ownership			0.070	0.209					0.031	0.448		
Dispersion×Family Firm					-0.123	0.056					-0.081	0.076
Dispersion×Non-Family Firm					0.237	0.005					0.128	0.032
Investments/Total Assets	0.270	0.009	0.272	0.008	0.279	0.006	-0.069	0.430	-0.069	0.432	-0.064	0.453
R & D/Sales	-0.004	0.088	-0.004	0.081	-0.005	0.059	-0.003	0.156	-0.003	0.151	-0.003	0.124
LT Debt/Total Assets	-0.211	<0.001	-0.211	<0.001	-0.210	<0.001	-0.236	<0.001	-0.236	<0.001	-0.236	<0.001
ST Debt/Total Assets	-0.178	<0.001	-0.173	<0.001	-0.176	<0.001	-0.164	<0.001	-0.161	<0.001	-0.164	<0.001
Ln (Total Assets)	-0.024	<0.001	-0.020	0.002	-0.020	0.003	-0.011	0.030	-0.009	0.090	-0.009	0.093
Ln (Firm Age)	0.001	0.958	0.001	0.947	0.002	0.834	-0.006	0.457	-0.006	0.455	-0.005	0.521
F-value	11.73	<0.001	10.98	<0.001	11.17	<0.001	12.69	<0.001	11.69	<0.001	11.44	<0.001
Adjusted R Square	0.10		0.10		0.11		0.11		0.11		0.11	

Table 4. Return on Asset and Family Ownership and Owner Involvement

The estimation results reported in the table are based on the following regression equation:

$$ROA_i = \alpha_0 + \sum_{k=1}^5 \alpha_k SIC_i^k + \beta_1 Family_Managed_Firm_i + \beta_2 Family_Owned_Firm_i + \beta_3 Owners_Involved_i + \beta_4 Ownership_Dispersion \times Family_Firm_i + \beta_5 Ownership_Dispersion_i \times Non-Family_Firm_i + \delta_1 Investments_i / TA_i + \delta_2 R \& D_i / Sales_i + \delta_3 LT_Debt_i / TA_i + \delta_4 ST_Debt_i / TA_i + \delta_5 \ln(TA_i) + \delta_6 \ln(Firm_Age_i) + e_i,$$

where ROA_i denotes return on assets, SIC_i^k is a dummy variable according to industry classification, $Family_Managed_Firm_i$ is a dummy variable indicating whether family members are actively involved in day-to-day business, $Family_Owned_Firm_i$ is a dummy variable indicating whether family firm is managed by outsiders, and $Owners_Involved_i$ is a dummy variable indicating whether an owner of a non-family firm is actively involved in day-to-day business, $Ownership_Dispersion_i$ is the ratio of number of employees owning stocks of a firm to total number of employees, $Family_Firm_i$ and $Non-Family_Firm_i$ respectively denote family and non-family firms, $Investments_i / TA_i$ denotes total investments divided by the book value of total assets, $R \& D_i / Sales_i$ is the ratio of research and development expenses to total sales, LT_Debt_i / TA_i is the ratio of long-term debt to the book value of total assets, ST_Debt_i / TA_i is the ratio of short-term debt to total assets, $\ln(TA_i)$ is the natural logarithm of the book value of total assets, and $\ln(Firm_Age_i)$ is the natural logarithm of the number of years since the firm's founding. p -values are calculated based on the White (1980) heteroskedasticity consistent covariance matrix.

Dependent Variable	ROA (EBITDA)				ROA (Net Income)			
	Model (7)		Model (8)		Model (9)		Model (10)	
Model	Estimate	p-value	Estimate	p-value	Estimate	p-value	Estimate	p-value
Intercept	0.299	<0.001	0.327	<0.001	0.186	<0.001	0.207	<0.001
Family Managed Firms	0.121	<0.001	0.142	<0.001	0.078	<0.001	0.093	<0.001
Family Owned Firms	0.107	0.006	0.106	0.007	0.066	0.011	0.065	0.013
Owners Involved	0.121	<0.001	0.112	0.002	0.077	0.001	0.081	0.002
Dispersion×Family Firm			-0.142	0.038			-0.096	0.053
Dispersion×Non-Family F.			0.016	0.850			-0.032	0.612
Investments/Total Assets	0.265	0.009	0.266	0.008	-0.073	0.396	-0.074	0.383
R & D/Sales	-0.005	0.057	-0.005	0.060	-0.003	0.120	-0.003	0.128
LT Debt/Total Assets	-0.218	<0.001	-0.217	<0.001	-0.241	<0.001	-0.241	<0.001
ST Debt/Total Assets	-0.165	<0.001	-0.173	<0.001	-0.156	<0.001	-0.161	<0.001
Ln (Total Assets)	-0.015	0.017	-0.018	0.007	-0.004	0.352	-0.007	0.171
Ln (Firm Age)	0.003	0.761	0.004	0.742	-0.005	0.586	-0.005	0.595
F-value	11.97	<0.001	10.66	<0.001	12.28	<0.001	11.54	<0.001
Adjusted R Square	0.12		0.12		0.12		0.12	

Table 5. Robustness of the Results to Growth Objectives

The estimation results of models (11) and (13) are based on the following regression equation:

$$ROA_i = \alpha_0 + \sum_{k=1}^5 \alpha_k SIC_i^k + \beta_1 Family_Managed_Firm_i + \beta_2 Family_Owned_Firm_i + \beta_3 Owners_Involved_i + \delta_0 Growth_Objectives_i + \delta_1 Investments_i / TA_i + \delta_2 R \& D_i / Sales_i + \delta_4 ST_Debt_i / TA_i + \delta_5 \ln(TA_i) + \delta_6 \ln(Firm_Age_i) + e_i,$$

where ROA_i denotes return on assets, SIC_i^k is a dummy variable according to industry classification, $Family_Managed_Firm_i$ is a dummy variable indicating whether family members are actively involved in day-to-day business, $Family_Owned_Firm_i$ is a dummy variable indicating whether a family firm is managed by outsiders, and $Owners_Involved_i$ is a dummy variable indicating whether an owner of a non-family firm is actively involved in the day-to-day business, $Growth_Objectives_i$ is a dummy variable indicating whether the firm has growth objectives, $Investments_i / TA_i$ denotes total investments divided by the book value of total assets, $R \& D_i / Sales_i$ is the ratio of research and development expenses to total sales, LT_Debt_i / TA_i is the ratio of long-term debt to the book value of total assets, ST_Debt_i / TA_i is the ratio of short-term debt to total assets, $\ln(TA_i)$ is the natural logarithm of the book value of total assets, and $\ln(Firm_Age_i)$ is the natural logarithm of the number of years since the firm's founding. Regressions (12) and (14) include the cross terms $Growth_Objectives_i \times Family_Firm_i$, $No_Growth_Objectives_i \times Family_Firm_i$, where $Family_Firm_i$ is dummy variable indicating whether firm i is a family firm, and the cross terms $Growth_Objectives_i \times Owners_Involved_i$, $No_Growth_Objectives_i \times Owners_Involved_i$. p -values are calculated based on the White (1980) heteroskedasticity consistent covariance matrix.

Dependent Variable	ROA (EBITDA)				ROA (Net Income)			
	Model (11)		Model (12)		Model (13)		Model (14)	
Model	Estimate	p-value	Estimate	p-value	Estimate	p-value	Estimate	p-value
Intercept	0.302	<0.001	0.300	<0.001	0.189	<0.001	0.187	<0.001
Family Managed Firms	0.120	<0.001			0.078	<0.001		
Family Owned Firm	0.107	0.006			0.066	0.012		
Owners Involved	0.120	<0.001			0.077	0.001		
Growth × Family Firm			0.124	<0.001			0.081	<0.001
Growth × Owners Involv.			0.116	<0.001			0.078	0.001
Non-Growth × Family F.			0.115	<0.001			0.074	<0.001
Non-Growth × Owners In.			0.123	<0.001			0.076	0.002
Growth Objectives	-0.007	0.624			-0.010	0.304		
Investments/Total Assets	0.265	0.008	0.267	0.008	-0.071	0.404	-0.070	0.413
R & D/Sales	-0.004	0.064	-0.005	0.058	-0.003	0.142	-0.003	0.128
LT Debt/Total Assets	-0.217	<0.001	-0.216	<0.001	-0.240	<0.001	-0.239	<0.001
ST Debt/Total Assets	-0.163	<0.001	-0.164	<0.001	-0.153	<0.001	-0.155	<0.001
Ln (Total Assets)	-0.014	0.020	-0.015	0.014	-0.004	0.415	-0.005	0.331
Ln (Firm Age)	0.003	0.782	0.004	0.738	-0.005	0.544	-0.005	0.590
F-value	11.18	<0.001	11.18	<0.001	11.52	<0.001	11.46	<0.001
Adjusted R Square	0.12		0.12		0.12		0.12	

Table 6. Robustness of the Results to Firm Size and Age

The estimation results of models (15) and (17) are based on the following regression equation:

$$ROA_i = \alpha_0 + \sum_{k=1}^5 \alpha_k SIC_i^k + \beta_1 Small_i \times Family_Firm_i + \beta_2 Big_i \times Family_Firm_i + \beta_3 Small_i \times Owners_Involved_i + \beta_4 Big_i \times Owners_Involved_i + \delta_1 Investments / TA_i + \delta_2 R \& D / Sales_i + \delta_3 LT_Debt / TA_i + \delta_4 ST_Debt / TA_i + \delta_5 \ln(TA_i) + \delta_6 \ln(Firm_Age_i) + e_i,$$

where ROA_i denotes return on assets, SIC_i^k is a dummy variable according to industry classification, the dummy variable $Small_i$ (Big_i) has value one when firm size is below (above) the sample median, $Family_Firm_i$ is a dummy variable indicating whether firm i is a family firm, and $Owners_Involved_i$ is a dummy variable indicating whether an owner of a non-family firm is actively involved in day-to-day business, $Investments_i / TA_i$ denotes total investments divided by the book value of total assets, $R \& D / Sales_i$ is the ratio of research and development expenses to total sales, LT_Debt_i / TA_i is the ratio of long-term debt to the book value of total assets, ST_Debt_i / TA_i is the ratio of short-term debt to total assets, $\ln(TA_i)$ is the natural logarithm of the book value of total assets, and $\ln(Firm_Age_i)$ is the natural logarithm of the number of years since the firm's founding. Regressions (16) and (18) include the cross terms $Young_i \times Family_Firm_i$, $Old_i \times Family_Firm_i$, where, and the cross terms $Young_i \times Owners_Involved_i$, $Old_i \times Owners_Involved_i$. The dummy variable $Young_i$ (Old_i) has a value of one when firm age is below (above) the sample median. p -values are based on the White (1980) heteroskedasticity consistent covariance matrix.

Dependent Variable	ROA (EBITDA)				ROA (Net Income)			
	Model (15)		Model (16)		Model (17)		Model (18)	
Model	Estimate	p-value	Estimate	p-value	Estimate	p-value	Estimate	p-value
Intercept	0.289	<0.001	0.266	<0.001	0.204	<0.001	0.169	0.003
Small × Family Firm	0.125	<0.001			0.073	0.001		
Small × Owners Involved	0.125	0.001			0.065	0.007		
Big × Family Firm	0.117	<0.001			0.076	<0.001		
Big × Owners Involved	0.120	<0.001			0.084	0.001		
Young × Family Firm			0.140	<0.001			0.088	0.001
Young × Owners Involved			0.132	<0.001			0.084	0.003
Old × Family Firm			0.102	<0.001			0.068	<0.001
Old × Owners Involved			0.113	<0.001			0.071	0.001
Investments/Total Assets	0.267	0.008	0.268	0.008	-0.070	0.409	-0.070	0.411
R & D/Sales	-0.005	0.057	-0.005	0.059	-0.003	0.121	-0.003	0.120
LT Debt/Total Assets	-0.217	<0.001	-0.216	<0.001	-0.240	<0.001	-0.240	<0.001
ST Debt/Total Assets	-0.166	<0.001	-0.169	<0.001	-0.156	<0.001	-0.159	<0.001
Ln (Total Assets)	-0.013	0.087	-0.015	0.012	-0.007	0.256	-0.005	0.297
Ln (Firm Age)	0.004	0.738	0.018	0.299	-0.004	0.603	0.003	0.804
F-value	11.16	<0.001	11.36	<0.001	11.50	<0.001	11.55	<0.001
Adjusted R Square	0.12		0.12		0.12		0.12	

¹ As Eisenberg et al. (1998) point out, the propriety of comparing U.S. and Finnish results depends on the Finnish data environment being similar to the U.S. environment. The financial statement data of Statistics Finland used in our analysis provide a representative example of audited financial statements of small and medium sized Western corporations. It may be observed that the financial ratios in our sample, for instance, closely correspond to those

reported in the previous U.S. and European studies. Furthermore, Eisenberg et al. (1998) note that the mechanism by which board sizes are fixed and the duties of board members and management are similar in the U.S.A. and Finland.

² Annual Report on European SMEs. European Commission (2015).

https://ec.europa.eu/jrc/sites/jrcsh/files/annual_report-eu_smes_2015-16.pdf

³The effects of different organizational structures have also been a focus of extensive research. For example, the relation between managerial ownership and control and corporate performance/value has attracted much interest in the literature. The studies include Jensen and Meckling (1976), Demsetz and Lehn (1985), Mørck, Shleifer and Vishny (1988), McConnell and Servaes (1990), Cho (1998), Himmelberg, Hubbard and Palia (1999), Demsetz and Villalonga (2001), Cui and Mak (2002) and Adams and Santos (2006).

⁴ Many studies suggest that the founder serving as the CEO has a positive impact on firm performance. These include McConnaughey, Walker, Henderson and Mishra (1998), Smith and Amoaku-Adu (1999), Anderson and Reeb (2003), Barontini and Caprio (2006), and Villalonga and Amit (2006). Villalonga and Amit (2006) find that family ownership contributes to the family firm value when the founder serves as the CEO or as the chairman with a hired CEO. Similarly, Barontini and Caprio (2006) report higher valuation and performance of founder-controlled firms.

⁵ The significant proportions of family ownership are suggested to have several positive effects on firm value. According to Demsetz and Lehn (1985) concentrated investors have economic incentives to decrease agency conflicts and maximize firm value. Furthermore, Casson (1999) among others suggests that founding families are long-term owners who view their holdings as an asset to be passed to their heirs. For more comprehensive discussions, see Anderson et al. (2003) and Anderson and Reeb (2003a).

⁶ It may be noted that owners of small and medium-sized family firms in particular are likely to hold undiversified portfolios relative to the owners of corresponding non-family firms.

⁷ <https://www.yrittajat.fi/suomen-yrittajat/tutkimukset/pk-yritysbarmetrit-539687>

⁸ Finland's national standard industrial classification is based on the European Union classification of economic activities NACE 2002.

⁹ This determines how much variance is inflated owing to multicollinearity.

¹⁰ Specifically, the calculations are based on Table 2 and 3 data, and are as follows: Using EBITA, return = $0.033/0.2192 = 0.1505$ (or 15.05%). Using net income, return = $0.022/0.0941 = 0.2338$ (or 23.38%).

¹¹ Insignificant test results are not reported but are available upon request.