Family-Ownership, or Founder-CEO, Does it Matter, For the Firm Performance?

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Abstract: The debate on whether a founder should be or should remain as a CEO is one that has attracted various authors. One stride of literature emphasise the effect of founder-CEO on the firm performance (McConaughty, et al. 1998). Such literature argue that the founder has an 'emotional' connection with the business they started and are keen on the future sustainability of the business. On the other hand, those who argue that the founder should relinquish some control of the firm hold that an external CEO could perform better than the founder. Other literature have concentrated on the family ownership and its effect on firm performance while other distinguish a lone founder firm and family firms with multiple relatives (Miller, et al., 2007). In this research, we investigate whether family ownership has greater influence than founder-CEO on firm performance. The questions raised in this short paper are, does it matter whether it is family-ownership or founder-CEO in relation to firm performance. Do family firms perform better than non-family firms? Does a founder-CEO bring better firm performance?

Keywords: Family ownership, Founder-CEO, Firm performance.

I. INTRODUCTION

The debate on whether family-ownership has significant effect on the performance of firms has been in the lime light for long. Different authors have looked at the effect of family control and ownership in regard to firm growth, firm leverage, decision making, mergers and acquisition, firm size, firm superior performance (among others). On their part, Caprio, Croci and Del Giudice (2011) document that family-control will less likely to engage in acquisitions especially if the family control is guaranteed. They however, did not find any evidence that family control has negative effect on the growth of firm.

In the same breathe, different research have been dedicated to find the effect of founder CEO on the firm performance, growth, firm leverage, decision making, among others. For instance, the research by Caprio, et al. (2011) note that founder CEO may have an influence in the performance of the firm

especially in the nascent periods of the firm. However, the authors also document no significant effect of the founder CEO in decision making of the firms. On the contrary, research by Miller, et al. (2007) shows positive effect of founder CEO on performance. Due to these conflicting outcomes, by this paper we were interested to find whether founder CEO has influence in the firm performance. However, our interest, which also adds to the contribution of this research, attempts to combine the family-ownership effect and the founder-CEO effect in our analysis. This prompted us to inquire whether family-owned firm perform better than nonfamily-owned firm, whether founder CEO firms perform better than non-founder CEO firms. When these two angles are combined in one research, we were able to combine the variables of research and investigated the effect of family-founder CEO on the firm performance. Further, we looked at whether non-founder family CEO firms outperform our family-founder CEO firms.

First, this paper in part, follows the arguments of Anderson and Reeb (2003) in their family firm effect on the firm performance. It however deviates from their arguments and in part take the argument of Adams in their founder CEO effect on the firm performance. The paper further investigate whether family firms perform better than firms with nonfamily founder CEO.

The primary sample which comprise of 459 firms was obtained from two main data sets, one that was used by Adams, Almeida and Ferreira (2005) and the other one that was used by Anderson and Reeb (2003). According to Adam, et al. (2005), the data set they used was obtained from Fortune 500 firms covering the period 1992-1999. The data provided this paper with five main variables. The first variables are ROA and Tobin's Q that measure performance. Whilst ROA is an accounting based measure of performance, Tobin's Q is a market based measure of performance. Other variables include volatility, high-tech, digit2_in, assets, mean age of founder and founder-CEO. The second set of data from Anderson and Reeb (2003) was initially obtained by the authors from S&P 500 firms also running from 1992 to 1999.

II. SAMPLING AND DATA COLLECTION

A. THE SAMPLE

In this research, the data was obtained from two previously used data sets, one from Adams, et al. (2005) paper and the other from Andersons and Reeb (2003) paper. The Adams data set forms the primary source of the data and according to the authors the data was obtained from Fortune 500 firms for the period 1992-1999. This comprised of 928 firms, but after eliminating the firms with missing variables and years, the sample was reduced to 459 firms. The criterion used for this selection was the available information on the study variables. All those firms with missing information for more than seven years were dropped, that is, only firms with full variable information for seven years or eight years were retained. In effect, the data set from Adams provided this paper with the following variables ROA, Tobin's Q, volatility, assets (in million USD), high-tech, digit2_in, mean age of and founder-CEO. For measuring performance, ROA which is an accounting measure of performance was used along the Tobin's Q, which is also a measure of firm performance but based on the market.

On the other hand, the second data set from Anderson and Reebs (2003) was initially obtained by the researchers from S&P 500 firms which comprised of 401 firms and also covered the period 1992-1999. The data set provided the information on the family firms. This variable was merged with the first data set. In total, 459 firms running from 1992-1999 are used in this research. This represent 3435 firm years for all the firms and a total of nine different variables.

B. MEASURING FAMILY OWNERSHIP, FOUNDER CEO, NON-FOUNDER-FAMILY CEO AND FIRM PERFORMANCE

For the sake of this research, I have replicated the data used by Anderson and Reeb (2003) for measuring family ownership. According to the authors, family firm were determined using the proportion of equity

ownership of the founding family and/or the presence of family members on the board of directors. Considering all different issues that may determine whether a firm is to be considered as owned by a family, for instance ownership may not necessarily translate to control, the authors measured family ownership as a dummy variable. In this case, the dummy variable equals one when founding families hold shares in the firm or when founding family members are present on the board.

On the other hand, I have used the data used by Adams, et al. (2005) paper for measuring the variable founder CEO. According to these authors, the founder CEO is a dummy variable which is equal to one if the current CEO is the founder of the firm and zero elsewhere. I have also included in the analysis the non-founder-family CEO firms as a dummy variable. These are family firms in which the founder is not CEO and is equal to one when the family firm whose founder is not also a CEO. Return on asset (ROA) and Tobin's Q are used as proxy for the firm performance.

C. CONTROL VARIABLES

Included as control variables in the analysis are the industry and firm characteristics. The industry control variables include a 2 digit SIC code used as a dummy variable and high tech, a dummy variable indicating one if the firm is in high tech industry. To control for firm characteristics, the natural log of the book value of assets was used as proxy for firm size, standard deviation of the firm's previous 60 month stock returns as proxy for uncertainty in the firms environment were introduced in the analysis. Also introduced as a control variable was a full set of year dummy variable to control the changes of the firm and industry over time.

D. SUMMARY STATISTICS

Table II presents the summary statistics in three different panels A, B and C. Panel A provides the summary descriptive, the means, medians, standard deviations, maximum and minimum values for the study variables in the sample. The average performance measures for the full sample is 5.38 and 1.989 for ROA and Q respectively. Panel B provides the results of difference of means test between family and nonfamily firms, between non-founder CEO and founder CEO firms, and between non-founder-family CEO and founder-family CEO firms. Panel C provides the correlation matrix for the variables in the sample. Anderson and Reeb (2003) first take averages for the firm and use these for presentation of the summary statistics. In this paper, apart from assets which is dollar amount, all the other variables are either ratios or dummy variables. It would be of no significance value to follow the approach of Anderson and Reebs here because of this factor. To also correct for high variability of assets, natural log transformation was used and this is sufficient.

III. FAMILY OWNERSHIP, FOUNDER CEO, NON-FOUNDER-FAMILY CEO AND FIRM PERFORMANCE

A. MULTIVARIATE ANALYSIS

Table III in the appendix presents the results for the regression analysis conducted for family firms, founder CEO firms and for non-founder-family firms. Column (1) of Table III estimates the firm performance for family firms, Tobin's Q as proxy for firm performance using OLS. The equation is given as below:

$$y = b_0 + b_1 famfirm + b_2 bs\_volatility + b_3 \ln(assets) + b_4 hightech + full\ set\ year\ dummies + full\ setof\ industry\ dummies + u$$

Where y= firm performance (Q)

Famfirm=family firm

ln(assets)=natural log of book values of assets

hightech= dummy variable which is one if a firm is in the high-tech industry

The model also includes full set year dummies as well as industry dummies. This model is re-estimated under the assumptions of heteroskedasticity and the results are shown in column (2) of Table III. As seen from the results, the coefficients on family firm are both positive but not significant. There is also very insignificant change from model one to model two even for other coefficients. In fact, only natural log of assets change much with its significant level in the model two achieved at 10%, as shown by the t-statistics.

Table III column (3) re-estimates the model under heteroskedasticity assumption but now replacing family firms with founder CEO firms. As seen from the results, the coefficient is positive and higher than for family firms but is also found not to be significant. Column (4) of Table III is a re-estimation of model in column (2) but with non-founder-family CEO firms. Here still, the non-founder-family coefficient is not significant though is quite different from the other three models in term of the negative sign.

The model equations in columns (2), (3) and (4) of Table III are re-estimated as in columns (5), (6) and (7) respectively, but this time with ROA as the proxy for firm performance. It these re-estimations, the coefficients for family firms, founder-CEO and non-founder-CEO firms were still not significant. In fact, there is only slight changes from models in columns (2), (3) and (4). One notable change is the change in sign from positive to negative for family firms, from column (2) to column (5).

Further, the same models were re-estimated but this time with natural log of Q (lnQ) as the proxy for firm performance. The results are displayed in columns (8), (9) and (10) of Table III, respectively. As shown by these results, the main significant change is for founder-CEO firms with the coefficient being positive and becoming significant at 5%. Model in column (2) is re-estimated but this time after eliminating all observations with founder CEO from the sample but retaining Q as proxy for firm performance. The analysis is done for family firms and the results shown in column (11) of Table III do not reveal much improvement of the coefficient. However, when the same model is re-estimated for founder CEO firms, after eliminating all observations with family firm from the sample, significant changes are reported as shown in column (12). The coefficient becomes significant and is positive. It also shows more explanatory power compared to the results in column (9) since the t-statistics also increases.

Lastly, the model in column (1) is re-estimated with Q the proxy for firm performance and for family firms. It is re-estimated under the assumption of heteroskedasticity but this time including the firm fixed effects. In this model, the industrial and year dummies are not included as their effect is well captured under the firm dummies or the fixed effect model. The results are shown in column (13) of Table III and they reveal a much significant shift on the coefficient for family firms. This time, the coefficient is significant at 1% with bigger explanatory power.

IV. INSTRUMENTAL VARIABLE ESTIMATION

The instrumental variable estimation is conducted in this section for the founder CEO firms. In this case, the assumption is that founder CEO is endogenous and that the mean age of the founder (meanagef) is a significant instrument that influences the founder CEO and hence the performance the firm performance. The mean age of the founder which is a measure of the current age of the founder regardless whether the founder works for the company or not. For simplicity, the mean age was measured for the year 1994 and used for the whole sample.

To investigate the effectiveness of these assumptions, the model in column (3) of Table III was re-estimated. The results for these are shown in Table IV in the appendix. Column (1) of this Table shows the main structural equation Q as the proxy for firm performance. This is similar to the equation found in Table III column (3). The two stage least square (2SLS) method was used to determine the effectiveness

of the instrument. I first conducted the first stage regression equation which is shown in column (2) of Table IV. In the assumption under instrumentalism, the instrumental variable should be significantly related to the variable it instruments. In this case, the results show that meanagef is positive and significant 1%. Therefore, the second stage equation was determined as shown in Table IV column (3). Compared with the results of the structural equation column (1), the coefficient for founder CEO has improved both positively and significantly. This is an indication that our assumption of mean age of the founder instruments on the founder CEO. The conclusion drawn here is that, since the coefficients on meanagf in the first stage equation column(2) and on the counderCEOhat in the second stage equation column (3) are bot significant, then mean age of founder is a good instrument for founder CEO.

To further check on this, Hausman test of endogeneity was conducted with the results displayed in Table IV columns (4) and (5) in the appendix. The hypothesis for Hausman test for endogeneity is stated as follows:

$H_0: cov\,(y,u) =\, 0$ or There is no endogeneity

$H_1: cov\,(y,u) =\, 0$ or There is endogeneity

On investigating the coefficient on the residue e in column (5), the results show that it is significant at 1%. This therefore leads to a rejection of the null hypothesis revealing that there is endogeneity in the founder CEO. This has confirmed our earlier believe that founder CEO is endogenous variable.

In addition to these tests, a full 2SLS was conducted and the results displayed in Table IV column (6). The results show that there is a slight difference in the coefficient for founder CEO as compare with the results in Table IV column (3). Both the coefficients for foundeCEOhat in column (3) and founderCEO in column (6) are significant and positive. However, in column (3) it is slightly higher and with a higher t-statistics.

In Table III, the coefficients for founderCEO were majorly not significant (see Table III columns (3), (6), (9), (12) and (13), wherever founder CEO was used. In particular, columns (3), (12) and (13) where Q is used as proxy for performance. However, after the introduction of the mean age of founder as an instrument for the founder CEO, the coefficient increases in magnitude as well as in its significance to firm performance as measured by Tobin's Q.

DISCUSSIONS

OLS assumes that the residues are drawn from the same population and therefore a constant variance, or homoscedasticity. However, if this is violated, there is presence of heteroskedasticity and the variance is not constant. In such a case, the OLS is not a consistent estimator and needs to be corrected. Homoscedasticity is needed to ensure that the estimates are accurate and the p-values and predictions are valid. The effect of correcting for heteroskedasticity is to make the predictions more accurate and valid. However, in our results, there were no significant changes from model in Table III column (1) and column (2).

Different performance measures give different angles of the firm performance. For instance the return on asset is an accounting based performance measure and may therefore reflect some accounting some accounting estimates that do not necessary relate to actual cash. Such estimates include depreciation and other accounting provisions. Tobin's Q on the other hand is based on the value of assets of a company and the market value. It expresses whether a company's stocks are overvalued or not. This tend also to capture one side of firm performance. Including different measures of firm performance is therefore important in analysis because there is no one measure that is fully sufficient. Each of these measures have their advantages and disadvantages. Hence include different performance measures may help an analyst

to capture different aspects of firm performance. The results shown in Table III columns 1 through to 13 show that using different performance measure yield different results.

The data used in this analysis is panel data, with both cross-sectional features and time features. When analysing such data it is possible that the changes are not because of the variables being analysed but rather due to the firm (cross-sectional) characteristics. To correct this, it is important to include the firm dummies to control for cross-section effect in the analysis. Moreover, firms differ in their operations across industries and even within same industries. Such variant may be capture in an analysis giving biased results, if not controlled for. The results in column (13) of Table III show the regression of Q with fixed effect or firm dummies. As seen from the results, the coefficient for family firms is significant at 1%. It is only in this model that the coefficient for family firms is significant showing that family firms perform better when we control for firm characteristics.

I think the main driver for the results obtained by Anderson and Reeb (2003) is on how they classify family firms. How the family firms is measured is of important because it can significantly influence the outcomes. According to the authors, family firms were categorized as those with founding family holding shares in the firm or having founding family members' presence in the board. Though this may sound plausible, the family control on the firm may be something else. Having shares or being in the board may not necessarily translate to control. Caprio, et al. (2011) agree that the description by Anderson and Reeb (2003) does not offer restrictive criteria to reflect family control and influence in the firm decisions. According to our results, family firms do not perform any better as shown in Table III columns (1), (2), (5), (8) and (11). It is only in column (13) that the coefficient for family firms turn significant, after introducing the fixed effect. This could possibly imply that family firms as defined, would operate better where the firm conditions and characteristics are controlled.

According to the results obtained, founder CEO firms perform better. This is shown in Table III columns (3), (6), (9) and (12). Regardless of the measure of firm performance, founder CEO firms have higher coefficients and better t-statistics, though not significant for columns (3) and (6) (which anyway is the case for family firms and non-founder-family firms). After eliminating the non-founder-family firms from the sample, the coefficient for founder CEO improves and becomes significant at 5% (see column (12) of Table III). This is not observed for family firms after eliminating the founder-CEO firm from the sample (see column (11) of Table III). In fact, in two cases the founder CEO firms have coefficients that are significant in column (9) with natural log of Q and in column (12) with Q after eliminating non-founder-family firms. Family firms report coefficients that are not significant with columns (5) and (11) being negative. Family firms only become significant under fixed effect model. In conclusion, the results show that founder CEO perform better.