International Review of Business Research Papers
Vol. 4. No. 5. September 2013 Issue. Pp. 52 – 67

Ownership Structure and Operating Performance: Family and Non-Family Firms in Australia

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This study empirically investigates the operating performance of listed firms on the Australian Securities Exchange (ASX) during the period 1998-2010. The purpose of this paper is to examine the operating performance and reveal differences between family and non-family companies. The paper used a fixed effect regression model to test the relationship between firm performance and control variables. The analysis revealed that 22.45% of listed companies are family owned businesses. Family firms are older than non-family firms. On average, family shareholders retain a higher level of fractional equity capital than non-family investors. The results show that Australian listed firms under analysis have experienced poorer operating performance. In terms of the median family companies have reported positive returns and performed better than non-family companies.

Keywords: Family Ownership, Family Firms, Operating Performance, Capital Market, Fixed Effects Regression, Longitudinal Analysis.

1. Introduction

This paper conducts an empirical analysis of the role of family ownership on the firm performance in Australia during the period 1998-2010. Founder- owners or families are the main actors who are motivated to undertake business activities, establish an enterprise and intend the transference of the business to their children. In Australia family businesses represent 74% of business organisations and have estimated wealth of 3.4 trillion dollars (Taylor 2010). They employ around three million people or 65.3% of employees of the private sector (Fleming, Heaney & McCosker 2005). Family businesses represent 24% of the Top 500 private companies in Australia (Glassop 2009). Family firms also play an important role in the capital markets and have a significant participation in the ASX by 22.45%.

The area of family businesses has been the focus of many researchers not only in the area of economics and finance but also in other social disciplines. However, this issue has not received yet the attention by academics it deserves (Connolly & Jay 1996; Dyer 2003; Nicholson 2008). Likewise, most empirical work has seemingly focused on the short-term perspectives, providing examinations of cross-sectional

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performance over limited periods. To the authors best knowledge no other Australian study has examined the operating performance of family-and-non-family firms listed on the ASX in the longitudinal context.

This study is motivated by the success, size, fast growth, long standing nature and especially the vital role of the family business in the economy as they create industrial production and gross domestic products (GDP), provide services and employment opportunities world-wide including Australia (Barbera & Moores 2011; Burkart, Panunzi & Shleifer 2003; Colli 2003; Glassop 2009; Klasa 2007). Therefore, this study seeks to gain further empirical insights and attempts make several contributions in the area of family business from the financial perspectives. *Firstly*, the study investigates a large number of companies listed on the ASX during the period 1998-2010. *Secondly*, this study conducts a comparative examination of family firms and non-family firms listed on the ASX using the fractional equity ownership as an underlying factor. *Thirdly*, this paper undertakes a longitudinal analysis of the operating performance using firm-based measures the returns on assets (ROA), the returns on equity (ROE) and returns on invested capital (ROIC) suggested by prior studies (Anderson & Reeb 2003; Bach 2009; Villalonga & Amit 2006, 2010). Operating performance is examined in terms of microeconomic factors (including firm ownership, size, age, leverage, risk, and growth). *Lastly*, as there is a paucity of studies in the area encompassing family business, it is expected that the outcomes from the study will assist researchers, market regulators and investors operating in the capital markets and other business activities.

The remainder of this paper is organised as follows. Section 2 reviews the literature and identifies the current gaps. Section 3 explores the sources of data and introduces the methodology used in the study. Section 4 provides an analysis of the empirical findings and Section 5 discusses some concluding remarks.

2. Literature Review

2.1 Fractional Equity Ownership: A Performance Factor

The investigation of the role of ownership structure on firm performance started more than two hundred years ago; dating back to Adam Smith (1776). Smith asserted that vigilance and attention cannot be expected from the directors of a joint stock company. Smith also noted that “the agents …. are careless at what price they buy, are careless at what price they sell, are careless at what expenses they transport their goods from one place to another” (p. 491). Later, the concepts of separation and integration of ownership structure were elaborated further in the classic work of Knight (1921), Berle and Means (1932) and Coase (1937). The integration of ownership and governance has positive impacts on the firm value (Coase 1937), as it eliminates the owner-managers and the insider-outsiders asymmetric information problems. In contrast, the diffusion of ownership is a serious concern about the firm performance (Knight 1921) as it transfers governance from the principal to agents and makes control extremely expensive (Berle & Means 1932).

The separation of ownership structure causes the asymmetric problems and increases agency costs which affect the business performance negatively. This issue was further explored in the seminal work of Jensen and Meckling (1976). The authors emphasised

that managers often have more knowledge about the new investment projects and undertake actions that place personal interests ahead of the firm's interest that do not have a favorable outcome on the shareholders wealth. In such a case the owners are forced to conduct some protection measures such as monitoring and bonding actions. However, when entrepreneurs manage their own company, there is no gap of information about business activities and there is not the principal-agent conflict of interests that minimises agency costs and positively impacts on the firm performance.

In addition, Jensen (2002) suggested that a business entity is a 'purposive organisation' in which all participants collaborate for mutual interest. For instance, founder-principals, founder-families and other individuals motivated by self-interest, undertake purposeful incentives and establish and manage their business organisations with the intention to generate incomes. Family shareholders allocate the firm's resources, and implement efficient performance policy to maintain a sound business. Family owner/managers prefer to invest a large part of their wealth, bear financial risk (borrowing money from external sources) and undertake the long-term projects in order to generate returns for their families (Anderson, Mansi & Reeb 2003; Anderson & Reeb 2003; McConaughy 2000; Villalonga & Amit 2010).

Family business scholars were motivated to investigate the firm performance using family ownership as fundamental factor. For instance, McConaughy (2000) indicated that the family ties, employment opportunities and multigenerational outlook of the business are credible devices for family business personnel to have strong motivations and pursue an efficient management. Family-member CEOs do not usually attempt pecuniary benefits from their positions because of the family-firm unity which relies on their reputation in the community. These are strong correlation factors between the family-CEOs and business which encourage them to overcome their selfish behaviour and act in harmony with shareholders interest which improves firm performance.

Anderson and Reeb (2003) have conducted a comprehensive analysis for the Standard & Poor 500 companies from 1992 to 1999. Their analysis showed that family firms comprise 1/3 of the whole sample group. Using profitability measures, family firms with ROA (EBITDA=15.90; Net Income=6.07) and ROE=53.89) perform significantly better than non-family firms (of EBITDA=14.63; Net Income=4.70; ROE=43.26). Their results indicate that family firms with either a family member or a hired CEO, showed a higher performance compared to their counterparts. The authors emphasised that the rational allocation of family portfolios, the objective to pass the business to the next generation and the positive correlation between the family and firm interest are strong reasons which motivate family managers to improve firm performance such that all investors are better off.

Villalonga and Amit (2010) also examined family controlled firms within and between industries in terms of 'competitive advantages' and 'private benefits control' behaviour applying fixed effects regression model. The results from their analysis showed that when founder and family members are in control, value is maximised for both family and non-family investors. However, if outside executives are in control the private benefits behaviour is present in the firm. Hence, while all types of control seek to maximise value for themselves only founding families are devoted and able to maximise value for all investors. The authors also asserted that "the implication is that non-family investors are

not only worse off than they would have been in the company of founders and founding families, but also worse off than they would have been in a non-family firm" (p.901).

In Australia, the relationship between fractional equity ownership and the firm performance has also been a topic of interest among many researchers in the field of finance. For example, Farrer and Ramsay (1998) analysed 180 listed companies on the ASX. They found a positive correlation between ownership stake by directors and firm performance. Likewise, Fleming, Heaney and McCosker (2005) examined the role of equity ownership on the firm performance for the small and medium size enterprises in Australia. Their analysis provides evidence in support of positive correlation between fractional ownership and the firm performance for both family-and-non-family enterprises. When the equity holding (family, managerial or employee) increases, agency costs reduce and the business performance improves.

In contrast to the above studies some other papers found either no significance or negative association between performance and ownership-governance. Morck, Shleifer and Vishny (1988) examined the correlation between managerial ownership and firm value using a piecewise regression. Their results present a positive correlation between 0% to 5% fractional ownership ranges that shows an increase of the firm value (Q) as ownership rises. Then, as ownership increases from 5% to 25%, firm value (Q) declines, suggesting a negative correlation. The negative effect is the result of ownership entrenchment, as the firm value might be adversely impacted by the conflict of shareholder-manager interests.

McConnell and Servaes (1990) also, analysed the cross-sectional relation between ownership and firm performance (Tobin's Q) using a quadratic model. The authors estimated the inflection (turning) points for two samples of more than 1000 Compustat companies. They found a significant curvilinear relation between Tobin's Q and the managerial ownership. Their results show that the Tobin's Q has a tendency of upward sloping from 0.00% to 40.00% of fractional ownership ranges. Then downward sloping begins before the ownership became concentrated in top executive hands and reached the level of 50%.

In the Australian context, some existing studies did not support the hypothesis of a positive correlation between ownership and operating performance. Welch (2003) conducted an analysis to investigate the relationship between ownership and firm performance. When the endogeneity of ownership was used in her analysis the 2SLS regression it did not show statistically significance in explaining the firm performance. Similarly, Khan, Balachandran and Mather (2007) examined the relation between managerial ownership and the firm performance for a period from 2000 to 2006. They found significantly negative correlation between director ownership and firm performance before and after controlling for endogeneity of managerial share ownership.

In addition, the superiority of operating performance as an important signal of the firm efficiency and it is an important factor for surviving market competition. A business entity that survives in the market competition is the one that creates products/services at the lowest possible costs or sells outputs at premium prices.

3. Data and Methodology

3.1 Definition of Family Firms

This is comparative research which compares and contrasts the financial performance of family and non-family companies listed on the ASX. Thus, it is of importance to introduce a definition of family firms in order to organise and classify the dataset into family and non-family firm portfolios. Existing studies have defined a family business based on the ownership structure that is held by a founder-family or by multiple members of different families (Anderson, Duru & Reeb 2009; Barontini & Caprio 2006; Lee 2006; Setia-Atmaja 2009; Villalonga & Amit 2006, 2010).

Following these studies, this paper introduces a definition of family firms based on the main factor of firm performance, such as ownership structure. This definition also, is consistent with the Australian Accounting Standards Board 1024- Consolidated Financial Statement (AASB1024) and Australian Accounting Standards Board 128 (AASB128). For instance, the AASB128.6 asserts that an individual who retains directly or indirectly 20% or more of the voting stocks has significant influence over the policy-making process (Reilly & Teoh 2006). When substantial shareholders retain at least 20% of equity holdings it provides sufficient voting power to them to maintain an effective management/control of their firms (Faccio, Lang & Young 2001; Fama & Jensen 1983b; La Porta, Lopez-de Silanes & Shleifer 1999; Masulis, Pham & Zein 2011). In line with these discussions, this study defines a family firm as "*a business entity where the owners, founder-families and/or descendants retain a substantial amount of equity-holdings and hold relevant positions in the firm governance (as CEOs, member of the board or a Chairman)*." This definition is used in this study, as it emphasises the role of family equity-ownership as a significant factor of the firm performance.

3.2 Sampling of the Research Portfolios

This study used annual panel data from 1998 to 2010 of firms that were listed on the ASX as of June 30 1998. The study observed accounting and other relevant financial information of Australian listed firms based on the Swinburne University Database. A panel was created including 7602 firm-year of observations for 677 companies. The panel was further divided into two groups based on the level of equity holdings determined on the definition of the family business. Hence, the dataset was divided into two samples:

Sample [A]: Family Firm Portfolios and

Sample [B]: Non-Family Firm Portfolios.

3.2.1 Primary Variables and Performance Measures

The source of the data used in this research was accented using DataStream provided by Morningstar (DatAnalysis) and Aspecthuntley (FinAnalysis). The dataset contains information obtained from the annual financial statements of listed firms on the ASX. The procedures and sources for obtaining secondary-quantitative data (the independent and dependent variables) which were used to measure the firm performance are represented and described in Table 1.

Table 1: Definition of Variables

Variables	Description
Family Firm (FF)	A private individual might be a founder and/or a member(s) of the family who manages (as a CEO), control (as a member of the board of directors, a director-Chairman) or owns at least 20% equity-stakes in the firm.
Non-Family Firm (NFF)	Firms which have no family equity-holdings and/or no presence of owners/family members in the governance.
Firm Ownership	Value of the specified firm's equity, as given in the balance sheet
Fractional Ownership (Ow)	A level-percentage of 20% or more of equity-holdings held by the existing (family) shareholders.
Firm Size (S_z)	Firm value is equal to the Market cap + total debt - cash
Firm Age (A_g)	The difference between incorporation year and a current year.
Firm Leverage (L_v)	Total assets / shareholders' equity
Firm Risk (R_s)	Standard deviation of daily share returns.
Firm Growth (G_r)	Invested Capital displays the amount of capital (both tangible and intangible) invested in the business by shareholders and creditors.
ROA	ROA is the Earnings before Interest / (Total Assets less Outside Equity interests).
ROE	ROE is NPAT before abnormals / (shareholders equity - outside equity interests).
ROIC	The ROIC is the NOPLAT / Operating Invested Capital before Goodwill.
Share Price	Closing daily share price index of the firm listed on the ASX.

Source: Glossary (Morningstar, 2010).

Information related to the firm operating performance (ROA, ROE, ROIC), and performance drivers (such as: firm ownership, size, leverage, and growth) was provided by firms annual financial statements (including annual ratios, annual balance sheet, annual growth rates reports). Information about the firm age was supplied from the Company History & Listing Details report. Information for the firm share price index was obtained from Charts and Prices (the price history) report of a particular firm.

3.3 Methods

This study creates a panel dataset which includes a large number of accounting data and financial indices of family and non-family companies observed across a 13-year time frame. While every business entity did not operate over the entire period of examination and every company does not have the same number of observations in every single year (Ti) the dataset thus, is an unbalanced panel ($Ti \neq T$ for some firms (i)). The study ascertains a family firm using a dummy variable one (FF = 1) and zero otherwise (NFF = 0).

In addition, panel data is associated with between and within variations thus, it is of practical importance to incorporate the Hausman test (Hausman 1978). This test should be implement to check whether there is any significant correlation between the model's error components (e_i) and the independent variables in the applied model (Cameron & Trivedi 2010; Torres-Reyna 2012a). The Hausman test was conducted to determine whether fixed affects (fe) technique or random effects (re) technique was more suitable for testing firm operating performance.

The regression equation which takes into consideration individual differences is of a particular importance in order to avoid omitted variable bias. Therefore, the fixed effects model is a suitable technique suggested by Baltagi (2008, 2012), Cameron and Trivedy (2010), Petersen (2009) and De Jager (2008). Following these studies the regression equation of the fixed effects model that we applied can be expressed as follows:

$$Y_{it} = ß_0 + ßX_{it} + e_{it}$$

Where

Y_{it} = dependent variable (DV), where *i* represents the cross-section unit observations (*i = 1,2,...,N*) and *t* represents the time series observations (*t = 1,2,...,T*),
$ß_0$ = intercept coefficient (*n* entity-specific intercepts),
$ß_n$ = slope coefficient for the IVs,
X_{it} = independent variables (IV),
e_{it} = the combined error term ($e_{it} = u_{it} + v_{it}$)
u_{it} = the unobservable unit specific effects and
v_{it} = the remainder disturbance.

This above model is widely used in the area of accounting and finance examining family firms [see for instance (Anderson, Duru & Reeb 2009; De Jager 2008; Faccio, Marchica & Mura 2011; Fahlenbrach, Low & Stulz 2010; Villalonga & Amit 2010; Zhou 2011)]. The research used univariate regression analyses to examine the relationship between the firm operating performance *(Op)* (as the dependent variables) and other independent variables (including fractional family-ownership, firm size, firm age, leverage and growth). Hence, the study transformed the above multi regression equation into the following model:

$$Fp_{it} = ß_0 + ß_1\,(Fractional\ Ownership) + ß_2\,(Control\ Variables) + ß_3\,(Year\ Dummy\ Variables) + e$$

where:

Fp = the firm operating performance (DV) measured by the ROA, ROE and ROIC.
$ß_0$ = intercept coefficient.
$ß_1$ = slope coefficient that captures the level of fractional equity-ownership.
$ß_2$ = the Control Variables (firm size, age, leverage, risk and growth).
$ß_3$ = the Year Dummy Variables (for each year of the sample period).
e = the error term.

4. Results and Discussions

4.1 Summary Statistics

This paper examined the operating performance using for the first time a comprehensive panel data that covers a large sample of 677 Australian listed firms during the period 1998-2010. To reveal whether family-owned firms performed better than non-family firms listed in Australia, different analyses have been conducted. Table 2 provides the descriptive statistics of the performance measures (the ROA, ROE and ROIC ratios) and performance drivers used to examine and reveal differences between family and non-family firm portfolios.

Table 2: Descriptive Statistics of Variables used in this Study

Variables	Total Portfolio				Family Firm Portfolio				Non-Family Firm Portfolio			
	Obs.	Mean	Med.	SD	Obs.	Mean	Med.	SD	Obs.	Mean	Med.	SD
Panel A: Performance Measures												
ROA	7589	-.3964	-.0112	3.8447	1760	-.3475	.0268	3.8570	5829	-.4112	-.0249	3.8412
ROE	7592	-.2282	-.0055	3.9995	1762	-.1473	.0452	4.4766	5830	-.2527	-.0250	3.8437
ROIC	6956	-.8484	.0078	7.1216	1618	-.5892	.5562	5.8454	5338	-.9270	-.0145	7.4642
Panel B: Performance Drivers												
Ow	7599	393.598	17.177	2518.74	1763	418.60	18.418	3303.31	5836	386.04	16.56	2228.35
Sz	7602	1130.631	27.455	8391.88	1763	809.78	26.91	6256.77	5836	1227.51	27.61	8935.04
Ag	7602	27.85	20.00	22.422	1763	29.72	23.00	20.50	5836	27.31	22.94	1.00
Lv	7584	1.8810	.0453	5.2008	1763	1.9126	1.587	5.139	5221	1.872	1.39	5.22
Rs	6215	.0586	1.4436	.0632	1456	.0539	.036	.066	4759	.0600	.048	.062
Gr_1	6948	.9662	1.4436	6.4251	1614	.8097	.042	6.287	5334	1.0135	.065	6.466
Gr_2	6555	.2223	.0642	1.3342	1542	.1966	.049	2.300	5013	.2302	.071	.840
Gr_3	6246	.1506	.0731	.4386	1490	.1001	.058	.338	4756	.1664	.079	.465

Table 2 reports descriptive statistics of segmented portfolios, referring Total Portfolio, Family Firm Portfolio and Non-Family Firm Portfolio presented by Obs = observations; Mean; Med - median and SD - standard deviation. Panel A provides information about the Performance Variables including ROA – the returns on assets; ROE - the returns on equity; ROIC - the returns on invested capital; Panel B presents findings about the Performance Drivers, such as: Ow - firm ownership; Sz - firm size; A - firm age; Lv - firm leverage; Rs - firm risk; Gr- firm growth (Gr_1 - capital expenditures for one year period of time; Gr_2 - capital expenditures over a three year period of time; and Gr_3- capital expenditures over a five year period of time).

Firstly, Table 2 in Panel A shows the empirical findings of the operating performance (measured by ROA, ROE and ROIC ratios). Based on average non-family firms generated a higher loss (ROA= -.4112; ROE = -.2527 and ROIC= - .9270) than family firms (ROA= -.3475; ROE = -.1473 and ROIC = -.5892) while there is no differences in terms of SD. Nevertheless, family companies in terms of median (ROA = .0268; ROE=.0452; ROIC =.5562) generated positive returns and compared to non-family companies (ROA = -.0249; ROE= -.025; ROIC = -.0145). These findings are consistent with the proposition of seminal studies that companies with a concentrated ownership structure outperformed family firms with separated ownership structure (Anderson & Reeb 2003; Berle & Means 1932; Coase 1937; Jensen & Meckling 1976; Villalonga & Amit 2006, 2010).

Secondly, Table 2 in Panel B presents descriptive statistics in relation to the performance drivers (firm ownership, size, age, leverage, risk and growth). The mean value of ownership structure is higher for family firms of 418.60 million dollars than the mean value of total sample of 393.60 million dollars and non-family firms of 386.04 million dollars. These results support the definition of family firms implemented in this study and are consisted with suggestions of prior studies (Anderson & Reeb 2003; Anderson, Reeb & Zhao 2012; Connelly et al. 2010).

The average size of the firm in the sample had a mean value of total assets of 1.131 billion dollars. Thus, the largest firm in the sample is a non-family family firm with a total value of 253.047 billion dollars compared to family firms of 153.498 billion dollars. These results are consistent with findings of prior studies which suggested that family firms are smaller than non-family firms (Anderson & Reeb 2003; Setia-Atmaja, Tanewski & Skully 2009; Villalonga & Amit 2006). Then, Panel B in Table 2 indicates that the average age of firms in the sample is 27.85 years old. The results of the study are similar to Smyrnios et al. (1998) who detected the average age of Australian family businesses of 30.8 years. The oldest family firm in the sample is Roberts Ltd (RBS)[4] with 117 years of age.

Panel B in Table 2 shows that non-family firms employ lower level of debts than family firms (mean=1.872; median 1.394). These results suggest that debt holders prefer to invest their capital in family owned business that is consistent with underlying theory and suggestions of previous studies (Anderson, Mansi & Reeb 2003). Panel B in Table 2 also illustrates that there are no statistically significant differences between family (mean= .0539; median= .0364; SD = .655) and non-family firms (mean= .060; median= .048; SD= .624) in terms of firm risk.

Lastly, Panel B demonstrates findings in relation to the level of firm growth. The results indicates that on average family firms have invested less amount of capital (Gr_1= .810; Gr_2=.196; Gr_3 = .100) than non-family companies (Gr_1= 1.014; Gr_2= .230 Gr_3= .166). These findings are inconsistent with suggestions of earlier studies (Anderson & Reeb 2003; Barontini & Caprio 2006; Villalonga & Amit 2006, 2010).

4.2 Regression Analyses

The study used the regression analysis in order to detect the correlation between the financial performance and independent variables (for family and non-family firm portfolios). Table 3 reports the empirical results from the univariate analysis measured by the ROA, ROE and ROIC ratios in terms of independent variables (firm ownership, size, age, leverage, risk and growth).

Table 3: Univariate Regression- Fixed Effects Model Results

Variables	Family Firm Portfolio			Non-Family Firm Portfolio		
	Coef.	t-stat	p-value	Coef.	t-stat	p-value
Panel A: ROA						
Ln (Ow)	.621013	3.75	0.000	.541238	14.26	0.000
Ln (Sz)	.416179	1.78	0.075	.309775	2.93	0.003
Ln (Ag)	-.830523	0.85	0.393	-1.994409	-4.30	0.000
Ln (Lv)	-.172847	-2.30	0.022	-.312130	-3.36	0.001
Ln(Rs)	.404085	6.62	0.000	.825984	14.45	0.000
Ln (Gr_1)	-.025996	-0.94	0.350	-.110771	-1.42	0.157
Ln (Gr_2)	-.016198	-0.19	0.850	.029723	0.41	0.684
Ln (Gr_3)	.042602	1.23	0.219	.078939	1.37	0.170
D-year			Included			Included
Panel A: ROE						
Ln (Ow)	2.669778	12.04	0.000	2.12596	21.97	0.000
Ln (Sz)	.363360	1.32	0.186	.135995	1.27	0.204
Ln (Ag)	-1.752114	-1.53	0.126	-.061315	-0.13	0.897
Ln (Lv)	-9.186933	-21.04	0.000	-5.653803	-24.61	0.000
Ln(Rs)	-.100521	-0.90	0.369	-.195541	-3.86	0.000
Ln (Gr_1)	.081729	1.34	0.181	.048409	0.78	0.436
Ln (Gr_2)	.203557	1.63	0.103	.052673	1.17	0.242
Ln (Gr_3)	-.963996	-3.99	0.000	.169216	2.26	0.024
D-year			Included			Included
Panel A: ROIC						
Ln (Ow)	1.040141	2.76	0.006	2.308358	9.39	0.000
Ln (Sz)	.833116	2.24	0.025	.938199	4.70	0.000
Ln (Ag)	-3.128426	-2.03	0.042	-2.64686	-2.89	0.004
Ln (Lv)	1.549488	1.94	0.053	-1.51744	-2.50	0.013
Ln(Rs)	-.255738	-1.57	0.118	-.109549	-0.76	0.445
Ln (Gr_1)	-.256271	-2.43	0.015	-.089143	-1.34	0.181
Ln (Gr_2)	-.144386	-1.07	0.286	.013684	0.17	0.861
Ln (Gr_3)	-.090419	-0.62	0.532	.013684	0.17	0.861
D-year			Included			Included

Note: This Table represents outputs of univariate regression of the operating performance of Family and Non-Family Portfolios. The results are reported in terms of the coefficients (Coef), t-statistics, p-values ($p < .05$) and D- year = dummy year (started from 1998).

The firm operating performance was examined by the ROA, ROE and ROIC ratios in terms of several independent variables. Table 3 findings show that in terms of p-value (p-value < 0.05) there is a significant and positive relationship between firm ownership and operating performance with regard to the three financial measures (ROA, ROE and ROIC) for both family and non-family companies. These results are consistent with themes developed in the literature (Anderson & Reeb 2003; Andres 2008; Villalonga & Amit 2006, 2010).

The results from Table 3 show the firm size has a positive and significant effect on the firm performance measured by the ROA and ROIC for both family-and-non-family firms and the ROE for non-family firms only. The findings reveal a negative relationship between the firm age and operating performance that is inconsistent with the themes developed in this study. Additionally, this correlation is significant in terms of ROIC for both family and non-family companies and the ROA for non-family companies only.

Further, Table 3 indicates that, irrespective to expectations of this study, the association of leverage and operating performance is mixed. In case of both family and non-family companies the relationship is negative and significant in relation to the ROA and ROE and it positive and moderate by the ROIC ratio. Table 3 also, indicates mixed results of the correlation between the operating performance and firm risk. Thus, the risk variable has a positive and significant association with the ROA for both family and non-family firms. However, it has a negative relation with the ROE and ROIC ratios. While this correlation is significant for non-family firms it is not significant for their counterparts. Analysing the outcomes related to growth variables (measured as the capital expenditure over one, three and five years) Table 3 shows that they are not statistically important predictors of operating performance except for the ROE for both family and non-family companies.

5. Concluding Remarks

This paper examined the operating performance using for the first time a large sample of 677 Australian listed firms during the period 1998-2010. The results from the regression fixed-effects model show that ownership structure has a significant and positive influence on the firm performance for both family and non-family companies. On average, our findings revealed that founder family shareholders or descendants retain a higher percentage of equity holdings compared to outside equity investors. These outputs reinforced the hypothesis considering the ownership structure as an underlying factor of the firm performance.

Our results also found that, based on the ROA, ROE, and ROIC ratios, Australian listed firms have experienced a poor operating performance during the entire period of time. However, in terms of the median family firms with concentrated ownership structure generated positive earnings and performed significantly better compared to non-family firms controlled by dispersed shareholders.

For listed companies, both family and non-family, the results indicated that some stimulus measures should be undertaken to improve business efficiency. The findings also suggest that non-family companies have made nearly double the losses compared to family firms in terms of the three performance ratios. This indicates that efforts must be made to increase efficiency among listed firms as they are the most important ingredients of the Australian capital markets. The policy makers including government bodies, market regulators, professional institutions and business-financial advisers should work together in providing adequate assistance to listed companies. For instance, the threshold of the firm performance should be increased (and strictly respected by any listed entity) which will encourage firms to work hard in order to survive the market

competition and save their position in the ASX which will save the reputation of the ASX and Australian economy.

There are also some other important findings that are in line with earlier studies (Anderson, Duru & Reeb 2009; Andres 2008; Villalonga & Amit 2007b). It is found that family companies are older, obtain more debt capital and are associated with lower level of risk than non-family companies. The empirical evidence presented in this paper further expanded the understanding of the link between endogenous factors and firm operating performance.

There are some limitations associated with this research. Based on these findings, the future research should be focused on the investigation of the Australian listed firms from other aspects, including the presence of family members in the firm governance and use the other benchmarks of equity-ownership rather that the level of 20% of equity holdings (suggested by the AASB128.6). Future studies should conduct an examination of specific firms or group of firms that made larger losses and determine sources of the poor performance. While listed firms operate in many different economies it is also of particular importance to analyse how this group of firms perform in those economies.

Endnotes

4. The oldest family firm in our sample is Roberts Ltd (RBS) with 117 years of age. However, according to Morningstar report (2011), Robert Ltd (RBS) was delisted on the 27th of June 2006.

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