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CORPORATE GOVERNANCE AND FINANCIAL CONSTRAINTS IN FAMILY CONTROLLED FIRMS: EVIDENCE FROM MALAYSIA

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ABSTRACT

The hypothesis of financial constraints suggests that firms will be denied profitable investment due to inaccessible to external capital markets as debt and equity financing are no longer perfect substitutions after firms utilize internal capital. In view of reduced investments during global financial crisis in 2008-2009, the study investigates 157 firms, whether they face the issues of financial constraints in Malaysia. In general, non-family firms rely heavily on the external debt market while family controlled firms utilizing internal cash and reducing their dependence on debt market for their investments, confirming financial constraints in family firms. However, the presence of CEO duality does not exaggerate the problem of financial constraints, but rather leads family firms to become stagnant in their investments. Independent directors appear to be ineffective in governing family firms in issuing finances for investment. Apparently, their presence in family firms reduces firms' investment opportunities either through internal cash and external debt financing, which could reduce shareholders' value in the long-term.

Keywords: Investments; Financial Constraints; Corporate Governance; Duality; Independent Director; Family Controlled firms.

1. INTRODUCTION

In the literature of finance, the pecking order theory suggests that firms may follow the hierarchy of financing on the conjecture that there is a perfect substitution among the sources of financing. However, firms may not able to follow the hierarchy system because of the problem of information asymmetry. Moreover, debt and equity financing are not

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perfect substitutions after firms utilize internal capital (Myers and Majluf, 1984). Based on this argument, Fazzari, *et al.* (1988)'s seminar work suggests the problem of financial constraints where firms have to foregone efficient investments when there are confined to limited internal cash flow and external capital are inaccessible. The problems lead to the problem of inefficient investment, especially in emerging economies where the degree of financial liberalizations and developments are lower as compared to developed countries (Laeven, 2003; Love, 2003).

One main cause of information asymmetry is due to the issues of ownership control. Agency problems that exist between managerial and external shareholders in Anglo-Saxon economies or between large block holders and external minority shareholders in East Asian countries will lead to disadvantages of information to shareholders. In East Asian countries where family controlled firms are prevalent, the issue of utilizing cash flows and their investment activities is always an interest of empirical subject. In this perspective, Hanazaki and Liu (2006) prove that family controlled firms face more financial constraints than non-family firms. Moreover, large shareholders who are normally controlling family firms are more inclined to expropriate shareholders' value for their private benefits.

A recent study across 40 countries by Lins, *et al*. (2013) puts the issues forward and proves that financially unconstrained firms controlled by family underperform vi's-à-is non-family during global financial crisis in 2008-2009. This suggests mismanagement of free cash flow for inefficient investment if firms are not financially constrained. Moreover, family controlled firms do not alleviate financial constraints during a financial shock as compared to non-family controlled firms. This further suggests that investment in non-family firms and return to shareholders are higher than family controlled firms. The findings aligned with the findings that large shareholders expropriate shareholders' value during East Asian financial crisis (e.g. Claessens, et. al., 1999; Lemmon and Lins, 2003).

The above literature suggests that firms are predisposed to expropriate shareholder value when face with a financial crisis. During the global financial crisis in 2008-2009, it is also observed that there is a decline in private investment in Malaysia on the back of the poorer capital market performance where Bursa Malaysia saw a plunged to 864 index points in August 2008 from 1445 index points in 2007 (Bank Negara Malaysia, 2010). On the same notes, loan disbursed was reduced by 10% during global financial period of 2008-2009. This raises an interesting question on whether firms enhance shareholders' value during the crisis. More importantly, is there any difference between family controlled firms and non-family controlled firms in financing and investment decision towards the benefits of shareholder value during the financial crisis. Two fundamental reasons may explain the misappropriation of shareholders' value. First, there is disparity of objectives between controlling large shareholders, which are usually family controlled, and minority of shareholders, and secondly, the effectiveness of corporate governance mechanisms in monitoring family large shareholders in utilizing financing towards firms' investments.

Studies on weak governance issues in emerging economy such as Malaysia are well documented in Singh (2003) and Claessens *et al.'s* (2000) on firms' poor performance in 1990s, prior to 1997 East Asian financial crisis. Some literatures also suggest that poor corporate governance mechanisms were the causes of over investments prior to East Asian financial crisis (Claessens *et al.*, 2003). The study in Lins, *et al*. (2013), although control for the specific issues of financial constraints, do not provide further explanations on the reasons why family firms underperformed during global financial crisis. Moreover, the data provided in particular for Malaysian firms are dubious[1].

The Malaysian Code on Corporate Governance was first introduced in 2000, and improved in 2007 and 2012, respectively. The code focuses on strengthening the roles and fiduciary duty of board member. Nonetheless, the effectiveness of board in firms decision making on investments is seldom examined empirically, especially from the perspective of ownership structure. A priori, it is uncertain on the influence of corporate governance mechanisms on firms' cash flow, and external capital towards their decision on investments in this economy.

Some literature describes corporate governance in family controlled firms as being weak (e.g. Berrone *et al*., 2012). On the other hand, literature suggests that excess cash flow is closely linked to weak governance structure and consequently increases in capital expenditures and acquisitions (Harford, *et al*., 2008). On the other hand, family controlled firms prefer to utilize internal capital for investment. Thus, this raises questions whether family controlled firms that face financial constraints affect investments in Malaysia? Do family controlled firms become more effective with the corporate governance mechanisms in Malaysia? Undeniably, family controlled firms that dominate the economy possess strength in corporate entrepreneurship, which may also lead to long term sustainability (Whyte, 1996). Moreover, family controlled firms in East Asian economies are known for contributing greatly to the gross national products through their international business expansions and establishment of conglomerates that create value. In order to protect the interests of their family business, firms are inclined to be capital independent and rely on internal capital rather than raising funds from external market, which subject them to external governance and may also reduce their controlling interests in firms. In that perspective, relying on internal capital could lead to entrepreneurship characteristics of risk taking and faster decision making process, which subsequently enhances large family controlling block interests and minority shareholders could also share the benefits.

[1] Lins *et al* (2013), based on Osiris database reported 70% of Malaysian firms are widely held, 8% are family controlled, 6% are non-family controlled and 16% are multiple block holders. The data may not hold true as Malaysian firms are mainly large block holders controlled by family. See example Claessens, *et al*.(1999); Claessens *et al*. (2000). The type of controlling structure have not changed much even in 2015.

In Malaysia, local established firms are largely family owned. Therefore, a study on whether family firms invest effectively is essential to the understanding of capital market development. Using 157 firms from 2008 to 2010, this study adds to our knowledge of the issues of financial constraints Malaysian firms are facing, under the perspective of corporate governance mechanisms. The findings highlight the effectiveness of the corporate governance mechanisms and issues related to effectiveness of investments in Malaysia.

2. LITERATURE

Prior to East Asian financial crisis, leverage in East Asian economies, measured by private debt over GDP were on average more than 100%. Finance literature on East Asian financial crisis documented that firms increase their leverage (Faccio, *et al*., 2003) so as to accelerate investments (Claessens, *et al*., 2003) and facilitate entrenchment or expropriation on shareholders. Johnson *et al.* (2000) further conclude that during bright economic prospects, family controlled firms treat external shareholders well, but are quick to expropriate external shareholders when external economic prospects deteriorate. Family controlled firms' ownership structures coupled with weak corporate governance structure that did not effectively protect external shareholders were among reasons for the East Asian financial crisis. After the Asian financial crisis, various corporate governance mechanisms were introduced to ensure firms' dedication towards good governance that enhances board effectiveness through its compositions, such as the number of independent board members, governance by independent chairperson, instead of CEO cum chairman in a company. Nonetheless, the interaction behavior between family ownership and corporate governance mechanisms on firms' capital (internal cash and external capital) and subsequently towards investments in emerging economy, such as Malaysia is a priori, unknown. This is due to family owners may emphasise their private family business rather than serving a wide spectrum of shareholders' benefits.

Generally family firms are always highlighted as less efficient in investment as information asymmetry is greater. It is deemed that firms are reluctant to raise capital from external equity market, where the cost of capital is higher and eventually reduce shareholders' value (Myers and Majluf, 1984). The objective of family firms therefore leads to the issues of financial constraints. Hence, adverse selection problem prevails and firms forgo investments and lead to the problem of under-investment. In this perspective, firms in developing countries that have a higher external cost of capital should pursue internal capital financing, which is lower in cost of capital.

However, the empirical findings on this perspective are not widely accepted. A 32% of investments in 10 developing countries are found to utilize external capital despite a higher cost of capital (Glen and Singh, 2004). A recent study by Ameer (2011) further shows that firms with concentrated ownership in developing countries and emerging

countries from a sample of 14 Asian countries are not financially constrained. On the other end, the ease of financing may have encouraged them to borrow more from the debt market rather than the equity market to avoid the dilution of ownership and control. Similar findings are also found in developed economies such as the USA and UK. Kathuria and Mueller (1995) raise the question of why the private investments in these countries depend more on internal financing rather than external financing, which is more developed. Another study by Aggarwal and Zong's (2006) on similar issues report that the US, UK, Japan and Germany have relied on internal financing despite their advanced development in debt and equity market. Moreover, financial unconstrained firms have a lower sensitivity towards investments in the US and UK than in Japan and Germany. This could be explained as widely dispersed ownership structure incurs higher monitoring and agency costs to shareholders as compared to their counterparts in Japan and Germany, which follow bank-based system as the debt holders provide monitoring directly.

Recent studies on individual countries on forms of ownership suggest different perspectives of firms' financing on investment. Andres' (2011) findings in Germany further suggest that investments in family firms are not constrained by external capital financing. Family firms are also found to invest effectively irrespective of cash flow availability. This finding is in contrast to the argument that families are reluctant to raise capital from external capital market. In another study in Italy, on the other hand, suggests that independent firms face more financial constraints vis-à-vis national groups and subsidiaries of multinational corporations (Schiantarelli and Sembenelli, 2000). Lins (2013) concludes that family firms underperform and reduce their capital investments during the global financial crisis (2008-2009). Nonetheless, family controlled firms do not underperform as compared to non-family controlled firms, which reduce firms' value.

Apparently, the empirical findings do not augur well with the argument of information asymmetry and agency costs. Singh (2003) further suggests that specifications in emerging markets could provide evidence that firms employ mostly internal finance rather than external debt and equity financing. Based on Singh (2003) and the fundamental issues on financial constraints, and family firms have a longer investment horizon than non-family firms in investments, which may enhance their controlling interest. Thus, financial constraints will be prevalent so as to protect their private interest. Moreover, the proposition in Myers and Majluf (1984) suggests that the problems of information asymmetry lead to the issues of imperfect capital substitution. Information asymmetry is prevalent in emerging economies such as Malaysia, firms face financial constraints will illustrate a positive sensitivity between cash flows and investment, which they may forgo investment due to insufficient external financing, as external financing may not be their preference. Hence, we propose that:-

H1: There is an issue of financial constraints in family controlled firms.

Whether the introduction of corporate governance creates an impact on firms' board leadership and quality of decision making is a subject of interest. San Martin-Reyna and Duran-Encalada (2012) conclude that the corporate governance structure in family firms diverges significantly from non-family firms. In a study related to cash holdings, Dittmar *et al.* (2003) conclude that countries with weak shareholders' right, cash holding in firms are twice than firms in strong shareholders' right. In another study, Dittmar and Mahrt (2007) find that a good corporate governance system could double the value of a dollar as compared to a weak corporate governance system. Firms with poor corporate governance also dissipate cash quickly and reduce firms' operating performance.

Siebels and Zu (2012) highlight governance mechanisms of CEO's duality and board independence as two board characteristics that could lead to the problem of expropriation shareholders by large shareholders in the family business. Based on this framework for family business, Goh *et al.* (2014) conclude from the study on Malaysia that CEO duality is more towards facilitating relational transactions in a relationship based economy, rather than having an effective role for corporate governance purpose. This indicates that CEO duality further weakens the roles of governance mechanisms in family businesses. Moreover, independent directors in family businesses, on the other hand, make no impact on firms' value, and could not function effectively as a corporate governance mechanism.

The presence of CEO duality is likely to compromise the effectiveness of corporate governance mechanism in family firms. However, the introduction of corporate governance mechanism that discourages duality may distort the founder's entrepreneurship, which could not be separated away from protecting family wealth and interest. In view that weak governance structure is associated with higher cash holding (Dittmar *et al*., 2003), this provides opportunity for expropriation of firms' value. On the same notes, a weak corporate governance structure such as CEO duality board structure encourages high cash holding structure for their investment, a scenario of financial constraints, which eventually leads to inefficient investments.

Incorporation of independent directors as board members is always viewed as an inefficient monitoring mechanism, especially in family businesses. Literature suggests that the appointment may be influenced by possible personal ties or contractual relationship with the controlling family. Moreover, family firms view independent directors as a source of expertise rather than monitoring. Hence, independent directors would likely lend support to board who appointed them, which render the effectiveness of internal governance (Goh, *et.al.,* 2014). Based on this conjecture, independent director that is relationship based (weak corporate governance) will lead to inefficient invest by incurring internal cash flow for investment in family controlled firms.

In view that we posit that family ownership is financial constraints in the first hypothesis, the second hypothesis will suggest that weak governance mechanism (CEO Duality and

Independent Directors) enhances the issues of financial constraints (a positive relationship between cash flows and investment) in family controlled firms.

H2: In the scenario of weak corporate governance mechanism- CEO duality will lead to financial constraints in family firms.

H3: In the scenario of weak corporate governance mechanism- Independent director will lead to financial constraints in family firms.

3. METHODOLOGY

The first model is to examine whether firms face the problem of financial constraints. We follow the model proposed by Goergen and Renneboog (2001), which follows the variant of the Bond and Meghir's (1994) first-order conditions of a maximization process. Equation 1 shows the model. Apparently, the future investment is dependent on the current's investments, and would only be unaffected by financial constraints. It would follow a positive coefficient sign higher than one for the lagged investments towards current investments, and the negative coefficient lesser than one for the squared lagged investments variable (Bond and Meghir, 1994). A negative coefficient is expected for cash flow towards future investments[2] if the market is perfect and there is no problem of financial constraints. This is due to a higher level of current cash flow implies lower net marginal adjustment costs of investing presently (*t*), which would lead to a lower expected investment next period (*t+1*) to achieve an equilibrium[3]. However, in an imperfect capital market, due to the effects of financial constraints, future investment may be positively related to cash flow. Our base line analysis is as follows:

$$\left(\frac{I}{S}\right)_{it} = \alpha_1\left(\frac{I}{S}\right)_{i,t-1} + \alpha_2\left(\frac{I}{S}\right)^2_{i,t-1} + \alpha_3\left(\frac{S}{K}\right)_{i,t-1} + \alpha_4\left(\frac{CF}{S}\right)_{i,t-1} + \alpha_5\left(\frac{D}{K}\right)_{i,t-1} + \alpha_7 Duality + \alpha_8 Ind + Y_{08} + Y_{09} + \varepsilon_{i,t} \quad (1)$$

Where I stands for the investment levels, S for the total sales, K for the capital stock, D for total debt and CF for cash flow, CEO Duality is a dummy of 1 equals duality, 0 otherwise, Ind represents independent director. Dummies for year 2008 and 2009 are also included.

To examine hypothesis 1, equation 1 is extended to incorporate interaction term of dummy variable for family in equation 2. If the largest shareholder is related to family owned

[2] A negative coefficient cash flow on investment implying a higher level of current cash flow but a lower net marginal adjustment costs today. Therefore, it would lead to a lower expected investment tomorrow (Harrison and McMillan, 2003).

[3] If the marginal benefits from the installation of an additional unit of capital at time t exceeded the marginal costs for investment at time *t+1*, the firm would invest more in time *t* and vice versa.

(*Fam*), it is dubbed as 1, other non-family firms will be 0. From the interaction term, we will know whether family firms incur higher cash flow (positive sign) for investment, and a lower debt/equity (negative) for investment financing. Based on these relationships, we could determine whether family firms are having financial constraints.

$$\left(\frac{I}{S}\right)_{it} = \alpha_1\left(\frac{I}{S}\right)_{i,t-1} + \alpha_2\left(\frac{I}{S}\right)^2_{i,t-1} + \alpha_3\left(\frac{S}{K}\right)_{i,t-1} + \alpha_4\left(\frac{CF}{S}\right)_{i,t-1} + \alpha_5\left(\frac{D}{K}\right)_{i,t-1} + \alpha_6 Duality + \alpha_7 IND + \alpha_8\left(\frac{CF}{S}\right)_{i,t-1} \text{ x } Fam + \alpha_9\left(\frac{D}{K}\right)_{i,t-1} \text{ x } Fam + Y_{08} + Y_{09} + \varepsilon_{i,t} \quad (2)$$

To examine hypothesis 2, we use an interaction term (*CG*) to represent governance mechanism that may influence independent variables towards investment decision making in equation 3. These two variables are CEO Duality (*Duality*) and Board Independent (*Ind*). A positive interaction result of $Duality \times (CF/S)_{i,t-1}$, and negative interaction of $Duality \times (D/K)_{i,t-1}$, indicates a weak governance that leads to the issues of financial constraints.

$$\left(\frac{I}{S}\right)_{it} = \alpha_1\left(\frac{I}{S}\right)_{i,t-1} + \alpha_2\left(\frac{I}{S}\right)^2_{i,t-1} + \alpha_3\left(\frac{S}{K}\right)_{i,t-1} + \alpha_4\left(\frac{CF}{S}\right)_{i,t-1} + \alpha_5\left(\frac{D}{K}\right)_{i,t-1} + \alpha_6 Duality + \alpha_7 IND + \alpha_8\left(\frac{CF}{S}\right)_{i,t-1} \text{ x } Fam + \alpha_9\left(\frac{D}{K}\right)_{i,t-1} \text{ x } Fam + \alpha_{10}\left(\frac{CF}{S}\right)_{i,t-1} \text{ x } CG + \alpha_{11}\left(\frac{D}{K}\right)_{i,t-1} \text{ x } CG + Y08 + Y09 + \varepsilon_{i,t} \quad (3)$$

Lastly, we examine whether the problem of corporate governance mechanisms on cash flows prevails on family firms or not. The equation 4 is extended to include Fam with the interaction of CF × CG, i.e, *CF* × *CG* × *Fam.*. This interaction term serves as a robust test whether the result of financial constraints is valid in family controlled firms. In all the models, sales (S/K) serves as controlling variable. Table 1 summarizes the variables used in this study.

$$\left(\frac{I}{S}\right)_{it} = \alpha_1\left(\frac{I}{S}\right)_{i,t-1} + \alpha_2\left(\frac{I}{S}\right)^2_{i,t-1} + \alpha_3\left(\frac{S}{K}\right)_{i,t-1} + \alpha_4\left(\frac{CF}{S}\right)_{i,t-1} + \alpha_5\left(\frac{D}{K}\right)_{i,t-1} + \alpha_6 Duality + \alpha_7 IND + \alpha_8\left(\frac{CF}{S}\right)_{i,t-1} \text{ x } Fam + \alpha_9\left(\frac{D}{K}\right)_{i,t-1} \text{ x } Fam + \alpha_{10}\left(\frac{CF}{S}\right)_{i,t-1} \text{ x } CG + \alpha_{11}\left(\frac{D}{K}\right)_{i,t-1} \text{ x } CG + \alpha_{12}\left(\frac{CF}{S}\right)_{i,t-1} \text{ x } CG \text{ x } Fam + \alpha_{13}\left(\frac{D}{K}\right)_{i,t-1} \text{ x CG x } Fam + Y08 + Y09 + \varepsilon_{i,t} \quad (4)$$

Table 1: Description Of Variables

Variables	Definitions
Investment (I/S), *IS*	Capital expenditure on fixed assets, which represents the funds used to acquire fixed assets other than those associated with acquisitions. Total sales are applied to normalize investment of the firms.
Cash flow (CF/S)	Cash flow normalized by sales
DEBT (D/K)	Total Debt divided by equity
Sales (S/K)	Total Sales normalized by equity
CG - Duality	Corporate governance mechanism for CEO or managing director who has two roles- as CEO or managing director and chairman in a company.
CG - IND	Corporate governance mechanism for fraction of independent directors over total directors in a company.
Fam	Dummy for family controlled firms. Dummy equals 1, otherwise equals 0
Y08,Y09	Year dummy for 2008 and 2009

Firms listed on Bursa Malaysia at Industrial Classification Benchmark (ICB) Subsector 2000 level are used as our sample. The fundamental criterion to assess the availability of data is based on the information in annual reports from 2008 to 2010. The family controlled status is determined through the identity of the largest shareholder if it indicates an individual name or a Sdn Bhd family name. A total of 157 sample firms is the finalized figure from an initial list of 279 firms. The sample firms are from the sectors of building materials (31 firms), heavy construction (24 firms), containers and packaging (15 firms), diversified industries (16 firms), electrical components and equipment (9 firms), electronic equipment (6 firms), commercial vehicles and truck (5 firms), industrial machinery (29 firms), transportation services (7 firms), trucking (4 firms) and business support services (11 firms). Other financial data were obtained from Thomson Financial Database.

4. FINDINGS

Figure 1 illustrates the trend of the sample firms from 2007 to 2010. The investment figures in fact increased from 2007 to 2009, despite global financial crisis in 2008-2009, before dipping in 2010. Interestingly, the cash flow in family firms was relatively higher than non-family firms in 2007 and 2008. In 2009, cash flows in non-family controlled firms have become higher on the back of increasing investments in the country. In 2010, while investment was reducing marginally, the sample firms show that cash flow was in fact increased during the year. However, the trend does not illustrate the relationship between cash flows and investment.

Figure 1: Sample Firms Cash Flow (CF/SALES) and Investment (IS-CAPITAL/SALES) (2007 TO 2010)

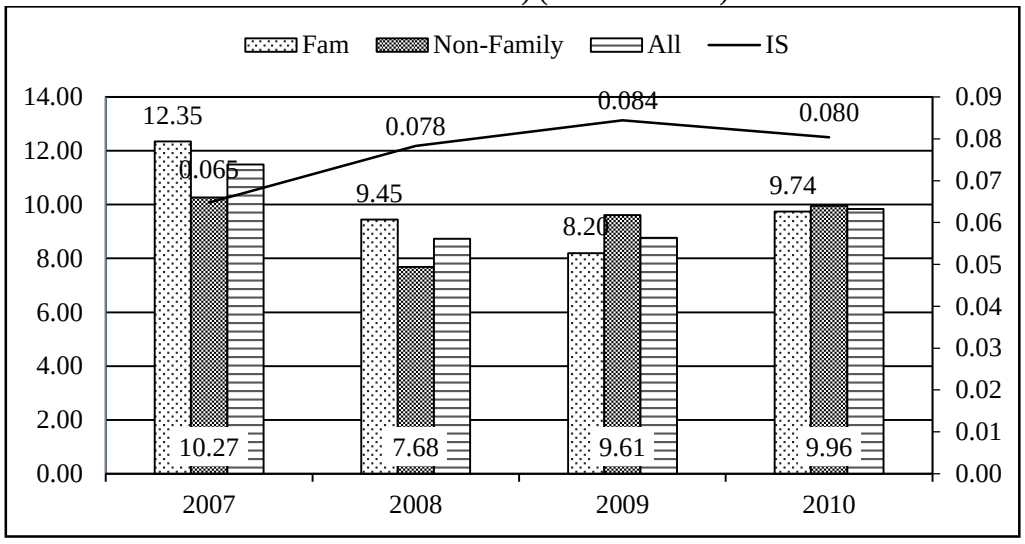

Table 2 presents descriptive statistics for the sample in our study. On average, the investment level in our sample is 8.13 times from the sales for the period year 2008 and 2009, and reaches 8.24 times in 2009 and 2010. The cash flow over sales, in fact increases steadily to 8.93 times in 2009-2010 as compared to 2008. The sample firms also show a debt ratio of 0.7 to equity. There are 89 firms that are family owned, while 68 firms are non-family related. Out of the 157 sample, there are 70 firms whose CEO or managing directors are holding duality post while 87 firms' CEO are not. The fraction of independent directors from the total board members is about 46%.

Table 2: Descriptive Statistics

	Mean	**Median**	**Maximum**	**Minimum**	**Std. Dev.**
(I/S) 2008-2009	0.0813	0.0300	3.7682	0	0.2383
(I/S) 2009-2010	0.0824	0.0283	3.7682	0.0001	0.2601
(CF/S) 2008-2009	8.7377	7.73	80.62	-99.26	16.4021
(CF/S) 2009-2010	8.9341	7.84	137.46	-139.02	18.167
(D/K) 2008-2009	0.7132	0.3523	6.9762	0	1.0014
(D/K) 2009-2010	0.6992	0.3253	6.9762	0	0.9628
(D/K) 2008-2010	0.7085	0.3498	6.9762	0	0.9884
(S/K) 2008- 2010	0.6992	0.3253	6.9762	0	0.9628
IND	0.4635	0.4300	1	0.14	0.1547
Duality	*Duality = 70* *Non-Duality =87*				
Fam	*Family Controlled=89 Non-Family= 68*				

Table 3 shows Pearson correlation matrixes of the variables in our sample. None of the variable shows significantly high correlations among each other's. The initial findings on relationship show that cash flows is positive, while debt shows a negative relationship to investment, implying a scenario of financial constraints in Malaysia. There is a positive correlation between family controlled firms and investments. Corporate governance mechanism- duality and independent directors negatively explain investments, but their relationships with cash flows are positive which highlights possible weak governance in firms. Nonetheless, the correlation between family and corporate governance mechanisms are negative.

Table 3: Correlations

	(I/S)	(CF/S)	(S/K)	(D/K)	***Duality***	***IND***	***FAM***
(I/S)	1						
(CF/S)	0.1073	1.0000					
	(1.3561)	-					
(S/K)	0.0507	-0.0233	1.0000				
	(0.6386)	(-0.2935)	-				
(D/K)	-0.0421	0.0612	0.2694	1.0000			
	(-0.5300)	(0.7707)	(3.5169)***	-			
Duality	-0.0089	0.0512	0.0589	0.0542	1.0000		
	(-0.1114)	(0.6442)	(0.7420)	(0.6823)	-		
IND	-0.1082	0.0828	0.0215	0.0633	0.1840	1.0000	
	(-1.3677)	(1.0443)	(0.2699)	(0.7967)	(2.3533)**	-	
FAM	0.0559	-0.0610	-0.1335	-0.0416	-0.0103	-0.1810	1.0000
	(0.7033)	(-0.7680)	(-1.6937)*	(-0.5235)	(-0.1295)	(-2.3138)**	-

Notes: *Significant at the 10% level. **Significant at the 5% level. ***Significant at the 1% level. *t*-statistics are in parentheses.

The first two models in table 4 using the base line equation 1 to examine the issues of financial constraints in Malaysia. In these two models, we do not control for family firms. This is to examine whether the model comply with the financial constraints absent scenarios or not. The results show a positive coefficient sign for $(IS)_{i,t-1}$, for the lagged investments towards current investments, and a negative coefficient sign, which is less than one for squared lagged independent variable$(IS)^2_{i,t-1}$. These relationships comply with the theoretical predictions of first-order conditions of a maximization process as suggested by Bond and Meghir (1994) for financial constraints absent scenarios. However, the base model does not indicate a significant negative sign[4], but instead an insignificant positive sign implying that firms in Malaysia do not adjust for a lower investment in the next *t+1* period as their marginal cost today is higher. Similarly, there is no significant evidence of using debt for firms' investment. Hence, firms in Malaysia will not achieve equilibrium as suggested in Harrison and McMillan (2003), and will lead to inefficient investment due to their marginal cost is higher at *t*. The year dummies, which show negative relationships

[4] A negative coefficient cash flow on investment implying a higher level of current cash flow but a lower net marginal adjustment costs today. Therefore, it would lead to a lower expected investment tomorrow (Harrison and McMillan, 2003).

confirm the trend in the sample firms' investment in 2008 and 2009, comparing to the 2010.

Table 4: Financial Constraints in Family Firms

Variable	Model 1	Model 2	Model 3	Model 4
c	0.0093	0.0217	0.0111	0.0200
	(3.2693)***	(7.5509)***	(3.6717)***	(5.4899)***
$(IS)_{i,t-1}$	0.6472	0.6187	0.7229	0.6167
	(17.9701)***	(16.2411)***	(21.5915)***	(14.9883)***
$(IS)^2_{i,t-1}$	-0.3327	-0.2705	-0.7008	-0.5121
	(-2.5177)**	(-1.9962)**	(-7.7516)***	(-5.1017)***
$(S/K)_{i,t-1}$	0.0001	0.0001	0.0000	0.0001
	(1.6594)*	(2.1117)**	-0.6995	(1.2757)
$(CF/S)_{i,t-1}$	0.0006	-0.003	-0.0081	-0.0070
	(0.1883)	(-0.8450)	(-0.8565)	(-0.8109)
$(D/K)_{i,t-1}$	0.0004	0.0002	0.0082	0.0074
	(1.1203)	-0.558	(2.3665)**	(2.1348)**
DUALITY	0.0086	0.0087	0.0049	0.0058
	(3.3419)***	(3.4137)***	(1.9423)*	(2.2999)**
IND	-0.0021	-0.0051	-0.0124	-0.0052
	(-0.3966)	(-0.9544)	(-2.3885)**	(-0.7618)
$(CF/S)_{i,t-11} \times FAM$			0.0370	0.0268
			(3.5403)***	(2.3866)**
$(D/K)_{i,t-1} \times FAM$			-0.0082	-0.0074
			(-2.3628)**	(-2.1312)**
D08		-0.0105		-0.0110
		(-4.8173)***		(-4.2398)***
D09		-0.0172		-0.0186
		(-8.0314)***		(-7.4688)***
R-squared	0.5163	0.4899	0.7242	0.4761
Adj. R-squared	0.5108	0.4824	0.7188	0.4635
S.E. of regression	0.1427	0.1430	0.1350	0.1308
F-statistic	93.6308	65.3021	134.4879	37.9186
Durbin-Watson	1.9323	1.8837	2.0193	1.9147
Observations	471	471	471	471

Notes: * Significant at the 10% level. **Significant at the 5% level. ***Significant at the 1% level. *t*-statistics are in parentheses.

In model 3 and 4, we apply equation 2 to examine the interaction term of internal cash flow and external debt with family controlled firms, which we hypothesize that family firms face financial constraints. In model 3, the findings show that each percent increase in cash flow in family $\left[(CF/S)_{i,t-11} \times FAM\right]$ increases investments for an additional 3.7%, as compared to non- family firms [$(CF/S)_{i,t-1}$, when Fam equals 0], which is negative and insignificant. The negative significance for interaction term of $\left[(D/K)_{i,t-1} \times FAM\right]$ of -0.0082

further confirms family firms reduce their external debt financing results in reducing their investment by 0.82%, which confirms the presence of financial constraints in family controlled firms. On the other hand, non- family firms [$(D/K)_{i,t-1}$, when Fam equals 0], continues to rely on external debt for investment at a significant positive contribution to investment for 0.82%, while there is no significant findings for cash flow. The findings remain consistent in model 4, when the dummy for year 2008 and 2009 are included.

In summary, we find the support that family firms face financial constraints as compared to non-family firms, which rely largely on debt financing. Hence, hypothesis 1 that there is an issue of financial constraints in family controlled firms is supported.

Table 5: Financial Constraints and Corporate Governance (Duality) in Family Firms

	Model 1		**Model 2**	
C	0.023	(6.1021)***	0.0230	(5.9863)***
$(IS)_{i,t-1}$	0.5944	(13.8338)***	0.6220	(14.8519)***
$(IS)^2_{i,t-1}$	-0.4777	(-4.5293)***	-0.5456	(-6.2710)***
$(S/K)_{i,t-1}$	0.0001	(1.0569)	0.0001	(1.7231)*
$(CF/S)_{i,t-1}$	-0.0194	(-1.3864)	-0.0131	(-1.4108)
$(D/K)_{i,t-1}$	0.0104	(2.7653)***	0.0016	(0.6946)
DUALITY	-0.0068	(-1.9268)*	-0.0117	(-1.9689)**
IND	-0.009	(-1.2659)	-0.0007	(-0.1002)
$(CF/S)_{i,t-1} \times FAM$	0.0199	(1.304)	0.0116	(1.0904)
$(D/K)_{i,t-1} \times FAM$	-0.0103	(-2.7529)***	-0.0016	(-0.6880)
$DUALITY \times FAM$	0.0114	(2.3955)**	0.0178	(2.5595)**
$DUALITY \times (CF/S)_{i,t-1}$	0.0856	(2.8763)***	0.0578	(1.7260)*
$DUALITY \times (CF/S)_{i,t-1} \times FAM$	-0.0408	(-1.0782)	-0.0087	(-0.2159)
$DUALITY \times (D/K)_{i,t-1}$			0.0088	(0.8764)
$DUALITY \times (D/K)_{i,t-1} \times FAM$			-0.0162	(-1.5622)
D08	-0.0108	(-4.0437)***	-0.0113	(-4.1450)***
D09	-0.0175	(-6.8014)***	-0.0198	(-7.3591)***
R-squared	0.462		0.4656	
Adj. R-squared	0.4455		0.4469	
S.E. of regression	0.1312		0.1293	
F-statistic	27.9672		24.8332	
Durbin-Watson	1.8781		1.9463	
Observations	471		471	

Notes: * Significant at the 10% level. **Significant at the 5% level. ***Significant at the 1% level. *t*-statistics are in parentheses.

To test whether corporate governance mechanisms are effective in monitoring family firms in incurring cash towards investment, we apply equation 4, corporate governance mechanisms to interact with cash flows, debt, and family, respectively in model 1 and 2 in Table 5.

The presence of CEO's duality in family firms does not cause family firms to face financial constraints (model 1, table 5). This is in contrast to our hypothesis, which predicts that the presence of CEO's duality will weaken the governance and therefore firms facing financial constraints. As duality variable is included, $DUALITY \times (CF/S)_{i,t-1} \times FAM$ shows a non-significant of -0.04, showing that the role of CEO in employing cash flow for investment has become inessential in family firms. However, the presence of duality also leads to insignificant level of external debt financing. This is shown on the interaction term $DUALITY \times (D/K)_{i,t-1} \times FAM$ has caused the coefficient to become insignificant in family firms. In summary CEO's duality will make firms become more conservative in their investments, and we therefore could not find support for hypothesis 2, that CEO duality is a weak governance mechanism and will lead to the issues of financial constraints.

Table 6: Financial Constraints and Corporate Governance (Independent Director) in Family Firms

	Model 1		**Model 2**	
C	0.0341	(11.2536)***	0.042537	(7.6411)***
$(IS)_{i,t-1}$	0.5787	(14.3517)***	0.636868	(14.6015)***
$(IS)^2_{i,t-1}$	-0.4186	(-4.0134)***	-0.53439	(-4.5427)***
$(S/K)_{i,t-1}$	0.0001	-1.2341	6.73E-05	(1.6209)
$(CF/S)_{i,t-1}$	-0.0713	(-2.1973)**	-0.00977	(-0.4439)
$(D/K)_{i,t-1}$	0.0061	(1.3982)*	-0.02575	(-2.6954)***
DUALITY	0.0053	(2.2043)**	0.004721	(1.8710)*
IND	-0.0221	(-2.9727)***	-0.04667	(-3.7394)***
$(CF/S)_{i,t-1} \times FAM$	-0.0222	(-0.6530)*	-0.03952	(-1.4227)
$(D/K)_{i,t-1} \times FAM$	-0.0062	(-1.4219)*	0.008865	(0.9151)
$IND \times FAM$	-0.0153	(-2.4550)**	-0.00513	(-0.6807)
$IND \times (CF/S)_{i,t-1}$	0.1138	(1.9131)*	0.019453	(0.4619)
$IND \times (CF/S)_{i,t-1} \times FAM$	0.1863	(2.7494)***	0.132042	(2.0624)**
$IND \times (D/K)_{i,t-1}$			0.064345	(3.0024)***
$IND \times (D/K)_{i,t-1} \times FAM$			-0.03421	(-1.645)*
D08	-0.0092	(-4.0982)***	-0.01049	(-3.9165)***
D09	-0.0220	(-9.6053)***	-0.01882	(-7.3796)***
R-squared	0.5299		0.487823	
Adj. R-squared	0.5154		0.469852	
S.E. of regression	0.1330		0.129333	
F-statistic	36.7104		27.14484	
Durbin-Watson	1.8681		1.899796	
Observations	471		471	

Notes: * Significant at the 10% level. **Significant at the 5% level. ***Significant at the 1% level. *t*-statistics are in parentheses.

In contrast, independent directors appear to be an ineffective corporate governance mechanism as cash flow positively explain investments in family firms. Independent directors appear to be weak corporate governance as their presence in family firms $\left[IND\times\left(CF/S\right)_{i,t-1}\times FAM\right]$increases a percent of cash flow towards 18% in investment vis-à-vis non family firms of 11% in model 1 (Table 6).

The finding is consistent as we extend the variables to include external debt financing in model 2, Table 6. The presence of independent directors in family firms $\left[IND\times\left(D/K\right)_{i,t-1}\times FAM\right]$, will result in any one per cent reduction in external debt financing and subsequently reduce the investment by 3.4%, while the magnitude of cash flow towards investment in family firms $\left[IND\times\left(CF/S\right)_{i,t-1}\times FAM\right]$ is now at 13.2% as compared to 18.6% in model 1. In non-family firms, with the presence of independent directors, [$IND\times\left(D/K\right)_{i,t-1}\times FAM$, *when Fam=0*], it is found that an increment of 1% in external financing will lead to the investment of 6.4% (model 2).

The findings clearly confirm that the presence of independent directors in family firms leads to financial constraints as they rely on internal financing rather than external financing. The reduction in investment when using debt and cash flow financing clearly confirms the presence of financial constraints. This confirms hypothesis 3 that in the scenario of weak corporate governance mechanism, independent directors lead to financial constraints in family firms.

5. CONCLUSIONS

The study explains whether there is an issue of financial constraints in Malaysian family firms. Apparently, family firms prefer to utilize internal cash flow rather than external debt or equity market for their investments. In contrast, non-family firms rely heavily on debt financing for investments. The presence of CEO's duality in family firms is rather ambiguous towards investments as shown by insignificant used of internal financing and external debt equity for investments. Lastly, independent directors appear to be weak governance mechanism as it encourages internal financing but reducing firms to relying on external market. Their presence in family controlled firms significantly reduces firms financing especially through debt equity method. Independent directors' role in non-family firms appears to use external financing for investment purposes.

From the study, family firms face financial constraints as they reduce their dependence on external financing to protect their private interest. The presence of weak governance is obvious in Malaysia family controlled firms as it discourages efficient investments. The presence of CEO duality leads firms to be rather conservative as they do not show the interest of using internal cash flow or external capital financing for investments. There

may be other better reasons such as CEO's controlling interest, or their compensation benefits, which may affect the finding. Another issue of weak independent directors in the governance system clearly reduces the effectiveness of investments in the country. Their presence clearly reduces the opportunities for investments, which may benefit shareholders. Therefore, the corporate governance mechanisms need to be enhanced in view of poor investments by family controlled public listed firms.

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