

Financial Constraints and Corporate Governance in Family Controlled Firms in Malaysia

by

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Abstract

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

Keywords:-

Investments, Financial Constraints, Corporate Governance, Duality, Independent Director, Family Controlled firms

JEL: G3 Corporate Finance and Corporate Governance

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Introduction

Finance literature such as pecking order theory suggests 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 be able to follow the hierarchy system because of the problem of information asymmetry. Moreover, debt and equity financing are not perfect substitution after firms utilize internal capital (Myers and Majluf, 1984). Based on this argument, Fazzari, *et al.* (1988)'s seminar work suggest 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 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 empirical subject. 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) prove that financially unconstrained firms controlled by family underperform vis-à-vis non-family during global financial crisis in 2008-2009. This suggests mismanagement of free cash flow for inefficient investment if firms are not financial constrained. Moreover, family controlled firms do not alleviate financial constraints during a financial shock as compared to non-family controlled firms. This further suggest that investment in non-family firms and return to shareholders are higher. The findings aligned to the findings that large shareholders expropriate shareholders' value during East Asian financial crisis (eg. Claessens, *et. al.*, 1999; Lemmon and Lins, 2003).

The above literature suggests that firms are predisposed to expropriate shareholders value when face with 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 poorer capital market performance where Bursa Malaysia saw a plunged to 864 index point in August 2008 from 1445 index point in 2007 (Bank Negara Malaysia, 2010). On the same notes, loan disbursed was reducing by 10% during global financial period of 2008-2009. This raises an interesting question on whether firms enhancing shareholders' value during the crisis. More importantly, is there any differences between family controlled firms and non-family controlled firms in financing and investments' decision towards benefits of shareholders value during financial crisis. Two fundamental reasons may explain the misappropriation of shareholders' value. First, there are 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 poorer governance firms in emerging economy such as Malaysia are well documented in Singh's (2003), Claessens *et al's* . (2000) studies on poor performance in 1990s, prior to 1997 East Asian financial crisis. Some literature also suggested that poor corporate governance 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, did not provide further explanations on the reasons why family firms underperform during global financial crisis. Moreover, the data provided in particularly for Malaysian firms are dubious¹.

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 fiduciaries duty of board member. Nonetheless, the effectiveness of board on firms decision making are seldom examine empirically, especially from the perspective of ownership form perspective. A priori, it is uncertain on the influence of corporate governance mechanisms on firms' cash flow, or external capital towards their decision in investments in this economy.

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.*(1998); Claessens *et al.* (2000). The type of controlling structure have not changed much even in 2015.

Some literature in western economies describe corporate governance in family controlled firms as being weak (eg 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). Based on this literature, hence, this rise questions whether family controlled firms facing financial constraints in Malaysia or not? Are family controlled firms become more effective under corporate governance mechanisms in Malaysia? Undeniably, family controlled firms which 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 national Gross National Product through their international business expansion and establishment of conglomerates which create value. In order to protect their family business, firms are independent and relying on internal capital rather than raising funds from external market which subject them to external governance and may also reduce their controlling interest in firms. In that perspective, relying on internal capital could lead to entrepreneurship characteristics of risk taking and faster decision making which subsequently enhancing large family controlling block interest, which minority shareholders may also share the benefits.

In Malaysia, where local established firms are largely family owned. Therefore, a study on whether family firms invest effectively or not 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.

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. After the crisis, various corporate governance mechanism are introduced to ensure firms' dedication towards good governance which enhancing board effectiveness

through its compositions, such as number of independent board members, and reducing duality of leadership. 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 emphasis their private family business rather than serving a wide shareholders' benefits.

Generally family firms are always argued as less efficient in investment as information asymmetries 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 lead 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 which 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 debt market rather than equity market to avoid the dilution of ownership and control. Similar findings are also found in developed economies such as USA and UK. Kathuria and Mueller (1995) raise the question on why the private investment in these countries dependent more on internal financing rather than external financing which is more developed. Another study by Aggrawal 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 investment 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 counterpart 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 perspective of firms' financing on investment. Andres' (2011) findings in Germany further suggest that investment in family firms are not constraints towards external capital market. 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, suggest that independent firms face more financial constraints vis-à-vis national groups and subsidiaries of multinational corporations (Shiantarelli and Sembenelli, 2000). Lins (2013) concludes that family firms underperform and reduce their capital investments during the global financial crisis (2008-2009). Nonetheless, family constrained firms do not underperform as compared to family unconstrained 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 to employ mostly internal finance rather than external debt and equity financing. Based on this statement and the fundamental issues in financial constraints, and family firms have a longer investment horizons than non-family firms in investments which may enhance their controlling interest. Moreover, the proposition in Myers and Majluf (1984) suggest that the problem 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 preferences. Hence, we propose that:-

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

Whether the introduction of corporate governance create an impact on firms' board leadership and quality of decision making is a subject of interest. San Martin and Duran (2012) conclude that corporate governance structure in family firms diverge 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 corporate governance 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 family business. Based on this framework for family business, Goh *et al.* (2014) conclude from the study on Malaysia that CEO duality are more towards facilitating relational transactions in a relationship based economy, rather than have an effective role for corporate governance purpose. This indicates that CEO duality will further weakens the roles of governance mechanisms in family business. Moreover, independent directors in family business, on the other hand, make no impacts 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 which discourage 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 will opportunity for expropriation of firms' value. On the same notes, a weak corporate governance structure such as CEO duality board structure will encourage high cash holding structure for their investment, a scenario of financial constraints, which eventually lead to inefficient investments.

Incorporation of independent directors as board member is always viewed as inefficient monitoring mechanism, especially in family business. Literature suggest 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 which 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) enhance 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.

Methodology

The first model is to examine whether firms face the problem of financial constraints. We follow the model proposed by Goergan and Renneboog (2001), which follows the variant of the Bond and Meghir's (1994) first-order conditions of a maximization process. The 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 investments² if 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 equilibrium³. However, in an imperfect capital market, due to the effects of financial constraints, future investment may be positively related to cash flow. Our based line analysis is as follow.

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

--eq.1

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.

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 represent independent director. Dummies for year 2008 and 2009 are also included.

To examine hypothesis 1, the equation 1 is extended to incorporate interact term of dummy for family in equation 2. If the largest shareholder is related to family owned (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 relationship, we could determine whether family firms are financial constraints.

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

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

$$\begin{aligned} \left(\frac{I}{S}\right)_{it} = & \alpha_1 \left(\frac{I}{S}\right)_{i,t-1} + \alpha_2 \left(\frac{I}{S}\right)_{i,t-1}^2 + \alpha_3 \left(\frac{S}{K}\right)_{i,t-1} + \alpha_4 \left(\frac{CF}{S}\right)_{i,t-1} + \alpha_5 \left(\frac{D}{K}\right)_{i,t-1} + \alpha_6 Duality \\ & + \alpha_7 IND + \alpha_8 \left(\frac{CF}{S}\right)_{i,t-1} \times Fam + \alpha_9 \left(\frac{D}{K}\right)_{i,t-1} \times Fam + \alpha_{10} \left(\frac{CF}{S}\right)_{i,t-1} \times CG + \alpha_{11} \left(\frac{D}{K}\right)_{i,t-1} \times CG \\ & + Y_{08} + Y_{09} + \varepsilon_{i,t} \end{aligned} \quad \text{-----eq. 3}$$

Lastly, we examine whether the problem of corporate governance mechanisms on cash flows prevail on family firms or not. The equation 4 is extended to include Fam with the interaction of $CF \times CG$, i.e., $CF \times CG \times Fam$. This interaction term serve as robust test whether the result of financial constraints is valid in family control firms. In all the models, sales $\left(\frac{S}{K}\right)$ serve as controlling variable. Table 1 summarises the variables used in this study.

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

-----eq.4

Table 1: Description of Variables

Variables	Definitions
Investment $\left(\frac{I}{S}\right)$ <i>IS</i>	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 $\left(\frac{CF}{S}\right)$	Cash flow normalized by sales
DEBT $\left(\frac{D}{K}\right)$	Total Debt divided by equity
Sales $\left(\frac{S}{K}\right)$	Total Sales normalized by equity
<i>CG- Duality</i>	Corporate governance mechanism for CEO or managing director who has two roles- as CEO or managing director and chairman in a company.
<i>CG- IND</i>	Corporate governance mechanism for fraction of independent directors over total directors in a company,
<i>Fam</i>	Dummy for family controlled firms. Dummy equals 1, otherwise equals 0
<i>Y08, Y09</i>	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 criteria is to assess the availability of data based on annual reports from 2008 to 2010 to whether a firm is controlled by a family or not. The family status is determined through the largest shareholder is an individual name or a Sdn Bhd family name. A total of 157 sample firms is the finalized figures from initial list of 279 firms. The sample firms are 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.

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 flow in non-family controlled firms has become higher on the back of increasing investment in the country. In 2010, while investment was reducing marginally, the sample firms showed 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)

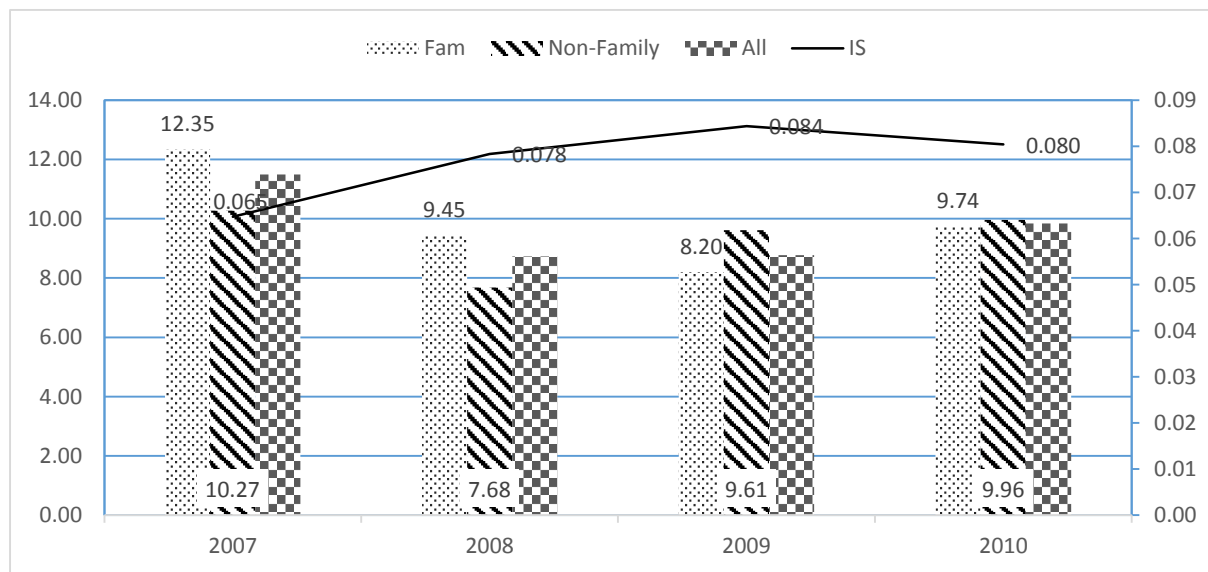


Table 2 presents descriptive statistics for the sample in our study. On average, the investment level in our sample was 8.13 times from the sales for the period year 2008 and 2009, and reaching 8.24 times in 2009 and 2010. The cash flow over sales, in fact increased steadily to 8.93 times in 2009-2010 as compared to 2008. The sample firms also show a debt ratio of 0.7 to equity. There are 99 firms which are family owned, while 69 firms are non-family related. Out of the 168 sample, there are 70 firms whose CEO or managing directors are holding duality post while 98 firms' CEO are not. Fraction of independent directors from 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
<i>IND</i>	0.4635	0.4300	1	0.14	0.1547
<i>Duality</i>	<i>Duality = 70 Non-Duality = 98</i>				
<i>Fam</i>	<i>Family Controlled=99 Non-Family= 68</i>				

Table 3 Correlations

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

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

Table 4 Financial Constraints in Family Firms

Variable	Model 1	Model 2	Model 3	Model 4
c	0.0093 (3.2693)***	0.0217 (7.5509)***	0.0111 (3.6717)***	0.0200 (5.4899)***
$(IS)_{i,t-1}$	0.6472 (17.9701)***	0.6187 (16.2411)***	0.7229 (21.5915)***	0.6167 (14.9883)***
$(IS)^2_{i,t-1}$	-0.3327 (-2.5177)**	-0.2705 (-1.9962)**	-0.7008 (-7.7516)***	-0.5121 (-5.1017)***
$(S/K)_{i,t-1}$	0.0001 (1.6594)*	0.0001 (2.1117)**	0.0000 -0.6995	0.0001 (1.2757)
$(CF/S)_{i,t-1}$	0.0006 (0.1883)	-0.003 (-0.8450)	-0.0081 (-0.8565)	-0.0070 (-0.8109)
$(D/K)_{i,t-1}$	0.0004 (1.1203)	0.0002 -0.558	0.0082 (2.3665)**	0.0074 (2.1348)**
<i>DUALITY</i>	0.0086 (3.3419)***	0.0087 (3.4137)***	0.0049 (1.9423)*	0.0058 (2.2999)**
<i>IND</i>	-0.0021 (-0.3966)	-0.0051 (-0.9544)	-0.0124 (-2.3885)**	-0.0052 (-0.7618)
$(CF/S)_{i,t-11} \times FAM$			0.0370 (3.5403)***	0.0268 (2.3866)**
$(D/K)_{i,t-1} \times FAM$			-0.0082 (-2.3628)**	-0.0074 (-2.1312)**
<i>D08</i>		-0.0105 (-4.8173)***		-0.0110 (-4.2398)***
<i>D09</i>		-0.0172 (-8.0314)***		-0.0186 (-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

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

Table 3 gives the Pearson correlation matrixes of the variables in our sample. None of the variables shows significantly high correlations among each other's. The initial findings on relationship show that cash flows is positive, while debt shows a negative relationships 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 investment, but their relationship with cash flows are positive which highlights a possible weak governance in firms. Nonetheless, the correlation between family and corporate governance mechanisms are negative.

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, for which is less than one for squared lagged independent variable $(IS)_{i,t-1}^2$. 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 sign⁴, 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 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 relationship confirms the trend in the sample firms' investment in 2008 and 2009, comparing to the 2010.

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 will face financial constraints. In model 3, the findings show that each percent in cash flow in family $[(CF/S)_{i,t-1} \times FAM]$ will increase 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 $[(D/K)_{i,t-1} \times FAM]$ of -0.0082 further confirms family firms reduce their external debt financing will result in reducing their investment by 0.82%, which confirm the presence of financial constraints in family controlled firms. On the

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).

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, 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)
<i>DUALITY</i>	-0.0068	(-1.9268)*	-0.0117	(-1.9689)**
<i>IND</i>	-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)
<i>DUALITY</i> x <i>FAM</i>	0.0114	(2.3955)**	0.0178	(2.5595)**
<i>DUALITY</i> x $(CF/S)_{i,t-1}$	0.0856	(2.8763)***	0.0578	(1.7260)*
<i>DUALITY</i> x $(CF/S)_{i,t-1}$ x <i>FAM</i>	-0.0408	(-1.0782)	-0.0087	(-0.2159)
<i>DUALITY</i> x $(D/K)_{i,t-1}$			0.0088	(0.8764)
<i>DUALITY</i> x $(D/K)_{i,t-1}$ x <i>FAM</i>			-0.0162	(-1.5622)
<i>D08</i>	-0.0108	(-4.0437)***	-0.0113	(-4.1450)***
<i>D09</i>	-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	

* 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 affective 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, Table 5.

The presence of CEO's duality in family firms do not cause family firms to face financial constraints (model 1, table 5). This is in contrast to our hypothesis which predict 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 lead 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.

In contrast, independent directors appear to be 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 [$IND \times (CF/S)_{i,t-1} \times FAM$] 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 [$IND \times (D/K)_{i,t-1} \times FAM$], 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 [$IND \times (CF/S)_{i,t-1} \times FAM$] is now at 13.2% as compared to 18% in model 1. In non-family firms, with the presence of independent director, [$IND \times (D/K)_{i,t-1}$, when $Fam=0$], it is found that increment of 1% in external financing will lead to the investment of 6.4%.

The findings clearly confirm that the presence of independent directors in family firms lead to financial constraints as they rely on internal financing rather than external financing. The

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

	Model 1		Model 2	
<i>c</i>	0.0341	(11.2536)***	0.042537	(7.6411)***
$(IS)_{i,t-1}$	0.5787	(14.3517)***	0.636868	(14.6015)***
$(IS)_{i,t-1}^2$	-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)***
<i>DUALITY</i>	0.0053	(2.2043)**	0.004721	(1.8710)*
<i>IND</i>	-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)
<i>IND</i> \times <i>FAM</i>	-0.0153	(-2.4550)**	-0.00513	(-0.6807)
<i>IND</i> \times $(CF/S)_{i,t-1}$	0.1138	(1.9131)*	0.019453	(0.4619)
<i>IND</i> \times $(CF/S)_{i,t-1} \times FAM$	0.1863	(2.7494)***	0.132042	(2.0624)**
<i>IND</i> \times $(D/K)_{i,t-1}$			0.064345	(3.0024)***
<i>IND</i> \times $(D/K)_{i,t-1} \times FAM$			-0.03421	(-1.645)*
<i>D08</i>	-0.0092	(-4.0982)***	-0.01049	(-3.9165)***
<i>D09</i>	-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	

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

reduction in investment when using debt and cash flows financing clearly confirm the presence of financial constraints. This confirms hypothesis 3, that H3: In the scenario of weak corporate governance mechanism- Independent directors will lead to financial constraints in family firms.

Conclusions

This study explains whether there is an issue of financial constraints in Malaysia family firms. Apparently, family firms prefer to utilize internal cash flow rather than external debt 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. Family firms with CEO's duality do not increase their investments either through internal financing or external capital market. 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 reduce firms financing especially through debt equity method. Independent directors' role in non-family firms appear 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. Although family's CEO duality is arguably presence to protect their controlling interest, we do not find them to further exaggerate the issues of financial constraints in family firms. However, the investment growth in family firms with CEO's duality will be rather stagnant as shown by insignificant relationship of financing methods and investments. Clearly, firms with CEO's duality are rather conservative towards investment. There may be other better reasons such as CEO's controlling interest, or their compensation benefits which may affect this finding. Lastly, the findings on independent directors indicates that its role as corporate governance mechanism is rather weak. Their presence clearly reduced the opportunities for investments which may benefits shareholders.

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