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Can Debt Mitigate Majority-Minority Shareholders Agency Problem?

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ABSTRACT

Voluminous research on agency theory has focused mainly on the significant challenge of how to mitigate the fundamental agency problem. Unlike the issue of independence, equity, and the market for corporate control that has been a substantial focus of previous studies on mitigating agency problems, very little empirical attention has been given on the role of debt to solve agency problems. This study contributes to the existing empirical literature of agency problem by empirically assessing the role of debt as a moderating variable in mitigating the agency problem of majority-minority shareholders from the perspective of Indonesia. Specifically, this study empirically discusses the relationship between concentrated ownership, loans, and the performance of family and non-family companies in Indonesia over the 2009-2018 period using the GMM-difference estimation method. The study found that ownership concentration has an inverted U shaped relationship with the performance of family and non-family companies. Agency conflicts between majority-minority shareholders occur at high concentrated levels of ownership. The interaction of high concentrated ownership with loans has a positive influence on company performance. This implies that conflicts between majority-minority shareholders can be mitigated through specific size of debts.

INTRODUCTION

From the perspective of agency theory, concentrated ownership causes the agency conflicts between majority-minority shareholders (Pindado et al., 2014; and Wang, 2018). In a developing country that is characterized by concentrated ownership structure (Al-Saidi dan Al-Shammari, 2015); agency problem has been a dominant issue. Majority shareholders tend to have moral hazard behavior by expropriating

the rights of minority shareholders (Guerrero-Villegas et al., 2018); particularly in countries that has lenient law protection for investors. Concentrated ownership adversely affects firm performance due to agency conflict. Thus, the issue of concentrated ownership remains an essential topic in good corporate governance. Many previous studies on the relationship between concentrated ownership and firm performance have been conducted in developed economies. For example, research by Halili et al. (2014) in Australia found that concentrated ownership contributed to improved firm performance. Meanwhile, Miralles-Marcelo et al. (2014) documented that concentrated ownership only improved firm accounting performance, but not the firm market performance, for the case of Spain. Furthermore, Pindado et al. (2014) and Poutziouris et al. (2015) showed that family concentrated ownership has an inverted U shaped relationship with firm performance.

Similar studies have also been conducted in emerging economies, such as by Shyu (2011) for the case of Taiwan, Muttakin et al. (2014) for the case of Blangladesh, Jameson et al. (2014) for the case of India, and Wang (2018) for the case of China. These studies documented mixed findings. Some of them found a significant positive (Muttakin et al., 2014; and Jameson et al., 2014), and insignificant (Yasser and Al-Mamun, 2015) effects of concentrated ownership on firm performance, while some others found a non-linear relationship between concentrated ownership and firm performance (Shyu, 2011; and Wang, 2018). Finally, in the context of Indonesia, previous studies by Achmad et al. (2009) and Surifah (2013) found a significant negative effect of concentrated family ownership on firm performance. In general, these studies indicate that the majority of shareholders tended to expropriate the rights of minority shareholders when the firm has high concentrated ownership.

The above-reviewed studies focused their analyses only on identifying of agency conflict between majority-minority shareholders in family companies (Shyu, 2011; Pindado et al., 2014, Poutziouris et al., 2015; and Wang, 2018). Additionally, previous studies have focused more on the direct influence of debts on company performance (Martin-Reyna and Duran-Encalada, 2015; and Vieira, 2017), but ignored the role of debts in mitigating agency problem, whereas according to Nuesch (2015), debt could be used to resolve agency conflicts between majority-minority shareholders. Thus, this study intends to fill up this existing gap by identifying the role of debts as a moderating variable in mitigating the majority-minority shareholder agency problem. To the best of our knowledge, this study is a pioneer to provide empirical evidence on agency problem resolution mechanism through debts from the perspective of Indonesia.

The findings of this study are hoped to enrich the existing empirical evidence on the relationship between concentrated ownership and firm performance and agency conflicts between majority-minority shareholders. In addition, this study also provides new evidence on the role of debts in mitigating agency conflicts between majority-minority shareholders of the family and non-family companies. Family companies have different characteristics from non-family firms from the perspective of Indonesia. Family firms have owner self-control (Chu, 2011) and have a strong motivation to sustain their family business in the firm by buying stocks of the firm (Poutziouris et al., 2015). Consequently, the negative effect of concentrated ownership on firm performance will occur at different concentrated ownership levels between family companies and non-family companies. The rest of the study is structured in the following sequences. Section 2 reviews previous related studies, followed by the discussion of data and research method in Section 3. Section 4 provides the findings and discussion. Finally, Section 5 concludes the paper.

1. LITERATURE REVIEW

1.1 Concentrated ownership and firm performance

Concentrated ownership has two effects; monitoring effect and expropriation effect. The positive impact of concentrated ownership on company performance shows that concentrated ownership is a useful monitoring tool for companies (Nguyen et al., 2015) both in family and non-family companies. Such arguments support the monitoring effect (monitoring hypothesis). Under such conditions, concentrated ownership can improve company performance (Tsionas et al., 2012) because controlling owners have incentives to control managers at low costs (Desoky and Mousa, 2013; and Hamadi and Heinen, 2015).

Some empirical evidence shows that family-concentrated ownership can be used as a monitoring tool for the company, which is reflected in the improved company performance (Chu, 2011; Martin-Reyna and Duran-Encalada, 2015; Muttakin et al., 2014; and Al-Saidi and Al-Shammari, 2015). In addition to monitoring effect, concentrated ownership opens opportunities for controlling owners to take personal benefits at the expense of minority shareholders (Filatotchev et al., 2011; and Jameson et al., 2014). Under these conditions, concentrated ownership breeds an expropriation effect (expropriation hypothesis). Concentrated ownership increases the power of controlling owners to expropriate minority shareholders (Guerrero-Villegas et al., 2018). This act of expropriation can be done through larceny, fraud, inter-company loans, transfer pricing, or dilution of new shares (Jiang and Kim, 2015). Expropriation actions taken by family control owners towards minority owners cause a reduction in company performance (Poutziouris et al., 2015).

Some empirical evidence shows the trade-off between concentrated ownership and company performance. For example, Hamadi and Heinen (2015) prove that the controlling actions of the controlling owner of the company turn into acts of expropriation of minority rights when the concentration of ownership is high. At a certain level of ownership, family concentrated ownership increases company performance, and after exceeding a certain level of ownership, family concentrated ownership adversely affects company performance (Shyu, 2011; and Poutziouris et al., 2015). Thus, concentrated ownership has an inverse U-like relationship with company performance (Shyu, 2011; and Pindado et al., 2014) both in family and non-family companies. In these studies, concentrated ownership is found to have a non-linear effect on company performance, both family companies, and non-family companies.

Based on these explanations, the study proposed the first hypothesis, as follows:

– H1a: The quadratic concentration of ownership has a negative effect on the performance of the family company.
– H1b: The quadratic concentration of ownership has a negative effect on the performance of the non-family firms.

1.2 Concentrated ownership, debts, and firm performance

Debt can be used as a mechanism for good corporate governance. Debt reduces agency costs between majority and minority shareholders (Nuesch, 2015). Companies that need debts tend to practice better governance so that it has a positive effect on company value (Chen et al., 2010). Companies with high debt levels are monitored more closely by debt holders. The proportion of debt in the capital structure increases the interest expense, while limiting the majority owner to divert company resources to their desires. In other words, debt prevents the individual benefit behavior of the controlling owner (Nuesch, 2015). Concentrated ownership increases the risk of expropriation of minority shareholders (Jameson et al., 2014; and Guerrero-Villegas et al., 2018). Debt has the role in reducing this risk through supervisory actions taken by the debt owner to the efforts of controlling shareholders both from family and non-family members. Debt carries out an external monitoring function (Ghosh, 2007). The creditor takes the action of monitoring the debt recipient company. As a result, minority shareholders also get more extensive access to information about the company. In their study, Chen et al. (2010) documented a positive interaction of financing needs through debt with the governance quality index on company performance. Debt can reduce the act of expropriation of majority shareholders towards minority shareholders. Thus, the effect of concentrated ownership on company performance in both family and non-family companies can be explained through corporate debt.

Based on these delineations, the second hypothesis is proposed, as follows:

– H2a: Debt moderates the effect of the quadratic concentration of ownership on the performance of the family firms.

– H2b: Debt moderates the effect of the quadratic concentration of ownership on the performance of the non-family firms.

2. RESEARCH METHODS

2.1 Data

This study explores both family and non family firms in the non-financial sector in Indonesia over the 2009-2018 period. A number of 252 firms, comprising 143 (56.75%) of family firms and 109 (43.25%) of non-family firms, are investigated in the study. Financial sector companies are excluded from the sample of the study due to their unique characteristics, both in governance and regulation. Non-financial firms that are sampled are those with a minimum concentration of ownership of 20%. The owners have a strong influence and can control the firm effectively if their equity reaches, at least, 20% (Achmad et al., 2009).

In this study, a family firm is defined as a company with equity ownership by the founding family or family member, and one of the founding families or family members occupies the position of the company board (Achmad et al., 2009). On the other hand, a firm that does not fulfil a family firm's characteristics is called a non-family firm. The family company can be easily identified by the name of the founder or family member of the founding family, which is traced through the full name of a family-level relationship or a name that may be repeated. Furthermore, the founding family is further rechecked through an explanation of the firm's board profile in the annual report. The biography of the founder or founding family of the company is also obtained from various sources on the internet, such as the company's website.

The data utilized in this study include concentrated ownership, the market value of equity, debt, assets, company age, and operating income. Data on debt, assets, company age, and operating income, are obtained through the company's annual report, while data on the market value of equity is obtained through the DataStream database.

2.2 Variables' Measurement

2.2.1 Dependent variable

In this study, the dependent variable is company performance, measured by Tobin's Q. Tobin's Q reflects the company's profit and future growth (Muttakin et al., 2014; Nuesch, 2015) and is more sophisticated compared to other market performance indicators. In so doing, the study follows Muttakin et al. (2014) and Nuesch (2015) to measure Tobin's Q, namely by adding the market value of equity to the book value of total debt and then divided by the book value of total assets.

2.2.2 Explanatory variable

An independent variable used in the study is concentrated ownership. Concentrated ownership is measured by the percentage of share ownership by the largest shareholder (Desoky and Mousa, 2013). This study uses a 20% cut-off to determine the concentrated ownership of large shareholders, following the previous studies by Achmad et al. (2009) and Muttakin et al. (2014). Concentrated family ownership is a percentage of share ownership by the founder and members of the founding family, either directly or indirectly. Family ownership is calculated by the number of shares owned by the family divided by the number of shares outstanding (Chu, 2011).

2.2.3 Moderating variable

In this study, debt is utilized as the moderating variable. Debt is measured by total long-term debt to total assets (Chu, 2011). The use of long-term debt as it can be used as a monitoring tool for the company (Nuesch, 2015). A significance impact of estimated coefficient of debt and its interaction to concentrated ownership implies a significant role of debt in mitigating majority-minority shareholders agency problem.

2.2.4 Control variables

This study uses firm characteristics as a control variable. These characteristics comprise firm size, firm age, and firm growth. A larger size of a company has more significant coordination problems that can negatively affect the company (Muttakin et al., 2014). In this study, firm size is measured by the natural log of total assets (Chu, 2011; and Guerrero-Villegas et al., 2018). The age of the firm describes the firm's reputation based on its knowledge and experience (Al-Saidi and Al-Shammari, 2015). Firm complexity increases with the increasing age of the company. Firm age is measured by the natural log of the age of the company since its establishment, while firm growth is measured by the reducing the operating income for the year from the operating income for the previous year divided by operating income in the prior year (Muttakin et al., 2014).

2.3 Empirical Model

Previous studies have proven the problem of endogeneity between ownership structures and firm performance (Desoky and Mousa, 2013; and Pindado et al., 2014). Endogeneity can result in parameter estimation being biased and inconsistent (Wintoki et al., 2012). To overcome this problem, this study adopts the Generalized Method of Moments (GMM) technique. Specifically, this study uses a combination of the GMM-difference model proposed by Muchtar et al. (2018) within the framework of quadratic regression approach proposed by Pindado et al. (2014) and Poutziouris et al. (2015). The proposed quadratic GMM model equation is used to test the effect of concentrated ownership on the performance of both family and non-family firms (Model 1) can be written, as follows:

$$Tobin\ Q = \delta_{10_j} + \delta_{11_j}Tobin\ Q(-1) + \delta_{12_j}CONW + \delta_{13_j}CONW\char`^2 + \delta_{14_j}FSIZE$$
$$+ \delta_{15_j}FAGE + \delta_{16_j}GROWTH + \varepsilon_i \qquad (1)$$

Tobin Q is the firm performance, δ_{ii} are the estimated regression coefficient, *j = 1* and *j = 2* represent the model parameters for family firms (FF = 1) and non-family firms (FF = 0), respectively, *CONW* is the concentrated ownership, *(CONW^2)* is the quadratic of concentrated ownership, *FSIZE* is the firm size, *FAGE* is the firm age, *GROWTH* is the firm growth, and ε_i are the error terms.

Furthermore, to examine the effect of debts (*DEBT*) on the performance of both family and non-family firms (Model 2) and the moderating effect of debts interaction to the concentration of ownership (*CONW^2*DEBT*) on the performance of both family and non-family firms (Model 3), the following equations are estimated.

$$Tobin\ Q = \rho_{10_j} + \rho_{11_j}Tobin\ Q\ (-1) + \rho_{12_j}CONW + \rho_{13_j}CONW\char`^2 + \rho_{14_j}DEBT$$
$$+ \rho_{15_j}FSIZE + \rho_{16_j}FAGE + \rho_{17_j}GROWTH + \varepsilon_i \qquad (2)$$

$$Tobin\ Q = \rho_{10_j} + \rho_{11_j}Tobin\ Q\ (-1) + \rho_{12_j}CONW + +\rho_{13_j}CONW\char`^2 + \rho_{14_j}DEBT$$
$$+ \rho_{15_j}CONW * DEBT + \rho_{16_j}CONW\char`^2 * DEBT + \rho_{17_j}FSIZE + \rho_{18_j}FAGE$$
$$+ \rho_{19_j}GROWTH + \varepsilon_i \qquad (3)$$

3. FINDINGS AND DISCUSSION

3.1 Descriptive Statistics

This study explored 252 non-financial firms, consisting of 143 (56.75%) of family firms and 109 (43.25%) of non-family firms. This finding showed that families owned the majority of companies in Indonesia. The number of family firms in Indonesia is higher than those in Malaysia and India. Family firms in Malaysia were 43.08% (Amran, 2011), while in India were about 46% (Jameson et al., 2014). This evidence shows that family companies in Indonesia tend to get new company's equity while maintaining the company's control rights by the family owner.

Table 1. Descriptive Statistics

Variable	Mean	Median	Maximum	Minimum	Std. Dev	Observation
Panel A: All Firms						
Tobin's Q	1.6553	1.0795	23.2857	0.0061	1.8903	2520
CONW	0.5464	0.5385	0.9909	0.2000	0.2011	2520
DEBT	0.2108	0.1454	5.0951	0.0000	0.2630	2520
FSIZE	28.3655	28.3125	34.3406	21.9268	1.8581	2520
FAGE	3.4039	3.4657	5.0875	1.6094	0.4874	2520
GROWTH	0.3076	0.0813	96.8759	-0.9953	3.1455	2520
Panel B: Family Firms						
Tobin's Q	1.4293	1.0157	13.0385	0.0061	1.2724	1430
CONW	0.5265	0.5255	0.9811	0.2000	0.1955	1430
DEBT	0.1992	0.1529	2.1477	0.0000	0.1872	1430
FSIZE	28.3485	28.3357	34.3406	22.7577	1.7665	1430
FAGE	3.3902	3.4657	4.7184	1.6094	0.4385	1430
GROWTH	0.2721	0.0782	96.8759	-0.9943	2.8340	1430
Panel C: Non-Family Firms						
Tobin's Q	1.9519	1.2227	23.2857	0.0781	2.4466	1090
CONW	0.5727	0.5698	0.9909	0.2005	0.2055	1090
DEBT	0.2261	0.1356	5.0951	0.0000	0.3371	1090
FSIZE	28.3877	28.2958	33.4737	21.9268	1.9724	1090
FAGE	3.4219	3.4339	5.0875	1.7917	0.5446	1090
GROWTH	0.3541	0.0826	73.4528	-0.9953	3.5134	1090

Note: Tobin's Q is the market value of equity plus the book value of total debt divided by the book value of total assets, CONW is the concentrated ownership, DEBT is the total long-term debt divided by assets, FSIZE is the company size, FAGE is the company age, and GROWTH is the growth of the company.

Table 1 reports the descriptive statistics of the investigated variables. In terms of firms' performance as measured by Tobin's Q, on average, the performance for family and non-family companies was 1.429 and 1.951, respectively. The company's performance value (Tobin's Q) above 1 indicates that the company's share capital is higher than the value of replacement costs of tangible assets of the company. The previous study by Muttakin et al. (2014) found the average Tobin's Q for family businesses of 1.682 and non-family businesses of 1.445 in 141 non-financial companies in Bangladesh over the 2005-2009 period. Meanwhile, the study by Miralles-Marcelo et al. (2014) found the average Tobin's Q of 55 family and non-family companies were 1,799 and 2,577, respectively, in Portugal during the period 1999-2008. Furthermore, Shyu (2011) showed an average of Tobin's Q for family companies of 1.20 for 465 non-financial companies listed in the Taiwan Stock Exchange for the period 2002-2006.

Furthermore, the average concentrated ownership of family and non-family companies were 52.65% and 57.27%, respectively. The average concentration of ownership of family companies was smaller than non-family companies. This finding showed that, on average, the majority shareholders of non-family companies have tried to maintain a higher level of ownership to gain a more dominant influence in corporate governance. Compared to other developing countries, the average concentration of ownership of family companies in Indonesia is higher than in other Asian countries. Muttakin et al. (2014), for example, found average family ownership in Bangladesh was 28.1% over the 2005-2009 period and Amran (2011) recorded average family ownership in Malaysia was 43.24% during the 2003-2007 period.

3.2 Findings of the First-Difference GMM Model Regression

3.2.1 Effect of concentrated ownership and firm performance

The accuracy of the GMM model estimated in this study is determined by the Hansen Test and Autoregressive, AR (2). As shown in Table 2 and Table 3, the estimated Model 1 (Equation 1) and Model 2 and Model 3 (Equation 2 and Equation 3) are found to be valid because it has over-identified restriction and there is no second-order autocorrelation (Hansen Test p-value and AR (2) > 0.05).

Table 2. Estimated Finding for Model 1

Variable	Estimated Coefficient		
	All Firms	Family Firms	Non Family Firms
Tobin's Q(-1)	0.4765***	0.3935***	0.3295***
	(16.2830)	(19.6195)	(14.8794)
CONW	32.7408***	1.6022**	77.6509***
	(4.9655)	(2.2511)	(8.7941)
CONW^2	-27.3384***	-1.3222*	-66.0057***
	(-4.7398)	(-1.8573)	(-8.1253)
FSIZE	-0.6079***	-0.4598***	-1.1532***
	(-7.2435)	(-5.5817)	(-10.4165)
FAGE	1.6511***	1.0173***	2.5716***
	(4.7532)	(3.2670)	(4.1111)
GROWTH	-0.0485*	0.0038	-0.0004
	(-1.7249)	(0.4394)	(-0.1243)
Hansen test (p-value)	0.0924	0.3523	0.1276
Instrument	40	41	41
Observation	1764	1144	872
AR(1)	0.0002	0.0035	0.0066
AR(2)	0.6413	0.3164	0.9152

Note: Tobin's Q is the market value of equity plus the book value of total debt divided by the book value of total assets, CONW is concentrated ownership, CONW^2 is the square of concentrated ownership, FSIZE is the size of the company, FAGE is the age of the company, and GROWTH is the company's growth. ***, **, and * indicate significant levels at the 1%, 5%, and 10%, respectively.

As illustrated in Table 2, the quadratic of concentration of ownership has a significant adverse effect on the performance of the family company (p-value < 0.1). Thus, the alternative Hypothesis 1a (H1a) was not rejected. This finding provided evidence that concentrated ownership in family firms has an inverted U-shaped influence on company performance. The concentration limit of ownership that has a positive impact on performance was 60.58% [i.e., 1.6022 / (2 x 1.3222)]. If the level of concentrated ownership exceeds 60.58%, concentrated ownership has a negative effect on performance. For non-family firms, the concentrated ownership square has a significant negative effect on company performance (p-value < 0.01). Thus, the alternative Hypothesis 1b (H1b) was not rejected. This finding also showed that concentrated ownership in non-family firms has an inverted U shaped influence on firm performance. The maximum point of separating the positive and negative effects of concentrated ownership on performance in non-family companies was 58.82% [i.e., 77.6509 / (2 x 66.0057)]. This finding implies that the expropriation of majority shareholders on the minority shareholders in non-family companies occurred at a lower concentration of ownership compared to family companies. Thus, the moral hazard behavior of the majority shareholders in non-family companies is more dominant compared to family companies.

The low concentrated level of ownership encourages majority shareholders to use their power to control management behavior to work in their interests (Desoky and Mousa, 2013; Hamadi and Heinen, 2015; and Nguyen et al., 2015) at low costs. Our empirical findings support the monitoring hypothesis (Tsionas et al., 2012). A high level of concentrated ownership opens up opportunities for controlling owners to utilize company resources for their interests, while at the same time harming minority shareholders (Jameson et al., 2014). This finding is in line with the expropriation hypothesis. Majority shareholders carry out an expropriation of the rights of minority shareholders through particular relationship group transactions, manipulation of company assets, and dilution of new shares (Jiang and Kim, 2015). The results of our study are consistent with some previous studies documenting the inverted U-shaped effect of concentrated ownership on company performance (Shyu, 2011; Pindado et al., 2014; Poutziouris et al., 2015; and Guerrero-Villegas et al., 2018).

3.2.2 Concentrated ownership, debts, and firm performance

As reported in Table 3, for the family company, the estimated coefficient value of interaction between the square of concentrated ownership and debts was 23.4968 (p-value < 0.1). This finding showed that debts significantly moderated the effect of the concentrated ownership squares on the

company performance, showing the non-rejection of the alternative Hypothesis 2a (H2a). The debts caused the concentration of ownership squared to have a positive effect on performance for debts value of higher than 0.1909. For the opposite value, debts caused the concentration of ownership to have a negative influence on performance. Thus, the debts acted as a quasi moderator variable because of the estimated coefficients of debts and interaction of the square of concentrated ownership and were both significances at the levels of 1% and 10%, respectively.

Furthermore, Table 3 also reported that, for non-family companies, debts significantly moderated the effect of the concentrated ownership squares on company performance, indicating the non-rejection of the alternative Hypothesis 2b (H2b). This finding showed that the interaction of concentrated ownership squares with debt has a significant positive effect on performance for the value of the debts of greater than 0.9706. For the opposite value, debts caused the concentration of ownership to have a negative influence on performance. The value of debts (DEBT) of 0.9706 was obtained from the estimated regression function of Tobin's Q [i.e., (-83.8379 + 86.3697*DEBT) * CONW^2 with the condition of (-83.8379 + 86.3697 * DEBT) * DEBT] is equal to zero. For non-family firms, debts is also found to act as a quasi moderator variable since both estimated coefficients of debts coefficient and the interaction between concentrated ownership square and debts were both significant at the 1% level. Our findings showed that at a certain amount, the debt has played a critical tool for monitoring and resolving conflicts between majority-minority shareholder's agency problems, both in family and non-family companies. However, in non-family companies, the number of debts that can mitigate agency conflicts was higher than for family companies. These findings further proved that the monitoring function of debt holders was more dominant in family companies. In non-family companies, the debts monitoring function occurred when the number of a company's debts was almost the same as the company's assets.

Table 3. Estimated Findings for Model 2 and Model 3

Variable	Estimated Coefficient (t-Statistic)					
	All Firms		Family Firms		Non-Family Firms	
	Model 2	Model 3	Model 2	Model 3	Model 2	Model 3
Tobin's Q(-1)	0.4525***	0.4324***	0.4021***	0.3075***	0.3529***	0.2558***
	(15.3757)	(21.0414)	(19.7098)	(10.7736)	(15.7582)	(9.2706)
CONW	29.4728***	27.6311***	1.7258***	2.3095	55.1174***	91.2624***
	(4.5250)	(3.8166)	(2.2383)	(0.5399)	(6.4901)	(6.4715)
CONW^2	-24.7335***	-23.1720***	-1.4282*	-4.4855	-46.6032***	-83.8379***
	(-4.3440)	(-3.6729)	(-1.8347)	(-1.0284)	(-5.9527)	(-6.3520)
DEBT	1.0397***	2.4565	0.9413***	2.6444	1.0347***	27.0581***
	(6.6131)	(1.2568)	(5.9969)	(0.9001)	(7.8434)	(5.9721)
CONW*DEBT		-4.6687		-19.9423		-97.3337***
		(-0.6419)		(-1.5787)		(-5.7721)
CONW^2*DEBT		3.5540		23.4968*		86.3697***
		(0.5554)		(1.9097)		(5.5287)
FSIZE	-0.5064***	-0.5320***	-0.4454***	-0.8326***	-0.9540***	-1.0116***
	(-6.6949)	(-6.8987)	(-5.6865)	(-8.0751)	(-8.4871)	(-7.2896)
FAGE	1.4173***	0.9908***	0.8536***	2.2630***	2.4258***	2.9182***
	(4.4876)	(3.3195)	(3.0307)	(4.8791)	(4.1077)	(3.8653)
GROWTH	-0.0437	0.0063	0.0035	-0.0003	-0.0517**	0.0470
	(-1.6361)	(0.7468)	(0.3892)	(-0.0757)	(-2.0450)	(1.0994)
Hansen test (p-value)	0.1238	0.0541	0.2081	0.1973	0.0791	0.0743
Instrument	41	44	42	43	41	44
Observation	1764	2016	1144	1144	763	872
AR(1)	0.0004	0.0001	0.0034	0.0008	0.0463	0.0080
AR(2)	0.6385	0.7488	0.4184	0.5179	0.8223	0.6068

Note: Tobin's Q is the market value of equity plus the book value of total debt divided by the book value of total assets, CONW is the concentrated ownership, CONW^2 is the square of concentrated ownership, DEBT is the firm debts, CONW*DEBT is the interaction of concentrated ownership with debt, CONW^2 * DEBT is a concentrated quadratic ownership interaction with debts, FSIZE is the size of the company, FAGE is the age of the company, and GROWTH is the growth of the company. ***, **, and * indicate significances at the levels of 1%, 5%, and 10%, respectively.

Overall, our empirical evidence is in line with previous study by Ghosh (2007) that proved debts as a corporate monitoring tool. This finding is consistent with the control hypothesis, which states that debt functions as a corporate control tool. With a high amount of debts, the desire of the controlling owner to take personal benefits at the expense of the minority owner can be limited. This finding is also consistent with the results of Nuesch (2015), which found that debts can minimize agency costs between the controlling owner and the minority owner. Chen et al. (2010) also found that debts improved the quality of corporate governance and, consequently, enhanced company performance.

Furthermore, at a low level of indebtedness, the controlling owner used his control to increase the act of taking personal benefits from company resources. Our finding proved that, in developing country of Indonesia, with a weak legal protection against owners and creditors, controlling owners used debts to carry out tunnelling actions through inter-company loans and particular relationship transactions. Access to loans for a specific group leads to increased expropriation of minority owners by majority shareholders through debts. Creditors do not closely monitor the company if their amount of indebtedness is small. Meanwhile, a large amount of debts has a high risk of default so that the creditors closely follow the company and leads the company to use resources effectively to generate more cash inflows and enhances the firm's ability to pay its obligations. Thus, at a higher level, the debts can mitigate majority-minority shareholders agency problem in Indonesia.

CONCLUSIONS

This study examined and analyzed the effect of concentrated ownership on company performance and the role of debts in moderating the impact of concentrated ownership on the performance of family and non-family companies. For this purpose, this study was developed by examining agency theory that explains the relationship of majority-minority shareholders. The study documented that concentrated ownership has an inverse U-shaped effect on the performance of both family and non-family companies. Thus, agency conflicts of majority-minority shareholders occurred at a high concentration of ownership level. In family companies, the expropriation of minority shareholders by majority shareholders happened at a higher concentration of ownership compared to non-family companies. Majority shareholders with highly concentrated ownership expropriated minority shareholders, the findings supported by many previous studies (Shyu, 2011; Pindado et al., 2014; Poutziouris et al., 2015; and Guerrero-Villegas et al., 2018). Further findings showed that at a certain level of debt, a high concentration of ownership has a positive effect on the performance of family and non-family companies. Thus, debt can prevent the majority shareholder's expropriation behavior towards minority shareholders (Nuesh, 2015) and can improve the quality of good corporate governance (Chen et al., 2010). In non-family companies, the debt monitoring function occurred when the amount of debt approached the total assets of the company.

The findings of this study enriched the existing empirical evidence on the agency conflicts between majority and minority shareholders in family and non-family companies in Indonesia and the mechanism for resolving these conflicts through debts. Our findings provided policy implications for regulators in formulating policies regarding the governance mechanisms of family and non-family companies. A strict legal protection of shareholders can improve corporate governance. The results of this study indicated the need to consider the level of concentrated ownership and the number of debts to create a suitable corporate governance mechanism that can benefit all shareholders, both majority and minority, in family and non-family companies.

This study has several limitations. First, testing the effect of concentrated ownership on firm performance is carried out on the whole sample. Under a two-tier system, the placement of family members in the board occurs in three models, namely; (1) family companies that only place family members on the board of directors, (2) family companies that only place family members on the board of commissioners, and (3) family companies that place family members on the board of directors and commissioners. Future studies are suggested to examine the effect of concentrated ownership on company performance in all three models of positioning family members on the board. Secondly, this study only tested the Type II Agency Theory. It is necessary to examine various agency theories in family companies since multiple-agency problems could occur in family firms (Filatotchev et al., 2011).

REFERENCES

Achmad, T.R., Neilson, J., Tower, G. (2009), "The Iniquitous Influence of Family Ownership Structures on Corporate Performance", *The Journal of Global Business Issues*, Vol. 3, No. 1, pp. 41-48.

Al-Saidi, M., Al-Shammari, B. (2015), "Ownership Concentration, Ownership Composition and the Performance of the Kuwaiti Listed Non-Financial Firms", *International Journal of Commerce and Management*, Vol. 25, No. 1, pp. 108-132.

Amran, N.A. (2011), "Corporate Governance Mechanisms and Company Performance: Evidence from Malaysian Companies", *International Review of Business Research Papers*, Vol. 7, No. 6, pp. 101-114.

Chen, W.P., Chung, H., Hsu, T.L., Wu, S. (2010), "External Financing Needs, Corporate Governance, and Firm Value", *Corporate Governance: An International Review*, Vol. 18, No. 3, pp. 234–249.

Chu, W. (2011), "Family Ownership and Firm Performance: Influence of Family Management, Family Control, and Firm Size", *Asia Pacific Journal of Management*, Vol. 28, No. 4, pp. 833–851

Desoky, A.M., Mousa, G.A. (2013), "An Empirical Investigation of the Influence of Ownership Concentration and Identity on Firm Performance of Egyptian Listed Companies", *Journal of Accounting in Emerging Economies*, Vol. 3, No. 2, pp. 164 -188.

Filatotchev, I., Zhang, X. Piesse, J. (2011), "Multiple Agency Perspective, Family Control, and Private Information Abuse in an Emerging Economy", *Asia Pacific Journal of Management*, Vol. 28, No. 1, pp. 69–93.

Ghosh, S. (2007), "Bank Monitoring, Managerial Ownership and Tobin's Q: An Empirical Analysis for India", *Managerial and Decision Economics*, Vol. 28, No. 2, pp. 129-143.

Guerrero-Villegas, J., Giráldez-Puig, P., Pérez-Calero Sánchez, L., Hurtado-González, J.M. (2018), "Ownership Concentration and Firm Performance: The Moderating Effect of the Monitoring and Provision of Resources Board Roles", *Spanish Journal of Finance and Accounting/Revista Española de Financiación y Contabilidad*, Vol. 47, No. 4, pp. 464-484.

Halili, E., Saleh, A.S., Zeitun, R. (2014),"Governance and Long-Term Operating Performance of Family and Non-Family Firms in Australia", *Studies in Economics and Finance*, Vol. 32, No. 4, pp. 398-421.

Hamadi, M., Heinen, A. (2015), "Firm Performance when Ownership is Very Concentrated: Evidence from a Semiparametric Panel", *Journal of Empirical Finance*, Vol. 34, pp. 172–194.

Jameson, M., Prevost, A., Puthenpurackal, J. (2014), "Controlling Shareholders, Board Structure, and Firm Performance: Evidence from India", *Journal of Corporate Finance*, Vol. 27, pp. 1-27.

Jiang, F., Kim, K.A. (2015), "Corporate Governance in China: A Modern Perspective", *Journal of Corporate Finance*, Vol. 32, pp. 190-216.

Martin-Reyna, J.M. S., Duran-Encalada, J.A. (2015), "Effects of Family Ownership, Debt and Board Composition on Mexican Firms Performance", *International Journal of Financial Studies*, Vol. 3, No. 1, pp. 56–74.

Miralles-Marcelo, J.l., Miralles-Quiros, M.D.M., Lisboa, I. (2014),"The Impact of Family Control on Firm Performance: Evidence from Portugal and Spain", *Journal of Family Business Strategy*, Vol. 5, No. 2, pp. 156-168.

Muchtar, D., Mat Nor, F., Albra, W., Arifai, M., Ahmar, A.S. (2018), "Dynamic Performance of Indonesian Public Companies: An Analysis of Financial Decision Behavior", *Cogent Economics & Finance*, Vol. 6, No. 1, pp. 1-14.

Muttakin, M.B., Khan, A., Subramaniam, N. (2014), "Family Firms, Family Generation and Performance: Evidence from an Emerging Economy", *Journal of Accounting in Emerging Economies*, Vol. 4, No. 2, pp. 197-219.

Nguyen, T., Locke, S., Reddy, K. (2015), "Ownership Concentration and Corporate Performance from a Dynamic Perspective: Does National Governance Quality Matter?", *International Review of Financial Analysis*, Vol. 41, pp. 148-161.

Nuesch, S. (2015), "Dual-Class Shares, External Financing Needs, and Firm Performance", *Journal of Management & Governance*, Vol. 20, No. 3, pp. 525-551.

Pindado, J., Requejo, I., Torre, C.D. (2014), "Family Control, Expropriation, and Investor Protection: A Panel Data Analysis of Western European Corporations", *Journal of Empirical Finance*, Vol. 27, pp. 58–74.

Poutziouris, P., Savva, C.S., Hadjielias, E. (2015), "Family Involvement and Firm Performance: Evidence from the UK Listed Firms", *Journal of Family Business Strategy*, Vol. 6, No. 1, pp. 14-32.

Shyu, J. (2011), "Family Ownership and Firm Performance: Evidence from Taiwanese Firms", *International Journal of Managerial Finance*, Vol. 7, No. 4, pp. 397-411.

Surifah, S. (2013), "Family Control, Board of Directors and Bank Performance in Indonesia", *American International Journal of Contemporary Research*, Vol. 3, No. 6, pp. 115-124.

Tsionas, M.G., Merikas, A.G., Merika, A.A. (2012), "Concentrated Ownership and Corporate Performance Revisited: The Case of Shipping", *Transportation Research Part E: Logistics and Transportation Review*, Vol. 48, No. 4, pp. 843-852.

Vieira, E.F.S. (2017),"Debt Policy and Firm Performance of Family Firms: The Impact of Economic Adversity", *International Journal of Managerial Finance*, Vol. 13, No. 3, pp. 267-286.

Wang, B. (2018), "Ownership, Institutions and Firm Value: Cross-Provincial Evidence from China", *Research in International Business and Finance,* Vol. 44, pp. 547-565.

Wintoki, M.B., Linck, J.S., Netter, J.M. (2012), "Endogeneity and the Dynamics of Internal Corporate Governance", *Journal of Financial Economics*, Vol. 105, No. 3, pp. 581-606.

Yasser, Q.R., Al Mamun, A. (2015), "Effects of Ownership Concentration on Firm Performance: Pakistani Evidence", *Journal of Asia Business Studies,* Vol. 9, No. 2, pp. 162-176.