

Two-tier board system and Indonesian family owned firms performance

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ABSTRACT

The two-tier board system practiced in Indonesia provides greater opportunity for the majority shareholders to place representative on board which may expropriate interest of minority shareholders and increase information asymmetry. This study looks at the influence of family ownership on firm's performance, by differentiating the influence of family ownership from family involvement in companies listed on the Indonesia Stock Exchange. Family ownership is measured based on family's equity ownership in the firm and family's involvement. This study explores family involvement in threefold: involvement in the board of commissioners, involvement in the board of directors and involvement in both boards. Firm performance is measured based on Value Added Intellectual Coefficient (VAIC) which comprises of capital employed efficiency, human capital efficiency, and structural capital efficiency. Data was collected for a period of three years from 2007 to 2009 on 155 firms which were identified as family firms. The findings show that family ownership has a positive influence on firm performance. Family involvement, however, shows mixed results. Family involvement in the board of commissioners has a positive but insignificant influence on firm's performance. Family involvement in the board of directors has a negative influence on firm's performance. Family involvement in both boards has a positive influence on firm performance. The findings suggest that family involvement in both boards creates a balance between the supervisory function and the management function, thus resulting in a more effective monitoring of firm's management.

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1. Introduction

Family-owned enterprises are accounted for 15% of the world's largest firms in 2010 and will move to 40% by 2025 (GBG Indonesia, 2016). The issue of family ownership has persistently been debated among researchers in terms of family's role in controlling firm performance and corporate governance practices (Adams et al., 2009). The most significant family ownership is in Indonesia (about 68.6%). Family ownership in Indonesia is ranked as the second highest family concentrated ownership in Asia (Claessen et al., 2000; Rusmin et al., 2011) and contributes to 30% of Indonesia's GDP (World Bank, 2006; Hanazaki & Liu, 2007).

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Although Indonesian listed firms were characterized with higher family holdings, there are limited studies which address the family ownership and involvement. According to Indonesia's Company Law, all Indonesian firms are required to adopt two boards system in the organizational structure of the firm (*Undang-Undang Perseroan Terbatas* or "UUPT"). This system puts the responsibility of the management in the hands of management board, Board of Directors (BOD), or known as *Dewan Direksi*, while responsibilities in maintaining BOD's work are carried out by supervisory board, Board of Commissioners (BOC), or known as *Dewan Komisaris*. Many previous studies looking at the effects of ownership and family involvement in management have been accomplished in countries with one-tier board system and found mixed findings (Millet-Reyes & Zhao, 2010; Alizadeh et al., 2014). Some studies discovered that family involvements in the board of directors can help monitoring of management and reduce agency costs (Schleifer & Vishny, 1986; O'Boyle Jr et al., 2012). However, some studies discovered a negative effect of family involvement (Cronqvist & Nilsson, 2003; Barth et al., 2005; Adhami & Asgari, 2013). Many questions regarding the impact of family involvement in two-tier boards in Indonesian firm are still unanswered.

Different forms of family involvement and the role are expected to have a different influence on the performance of the firm. On the other hand, most previous studies in Indonesia have used earnings approaches such as ROA or ROE and Tobin's q to measure firm performance (Prabowo & Simpson, 2009; Tower et al., 2008; Darmadi, 2011). This expected that earnings or market approach were inappropriate as a whole factor firm's performance evaluator. To address this problem, performance measurement based on the firm Value Added Intellectual Coefficient (Value Added Intellectual Coefficient- VAIC) was viewed as a different appropriate approach to take the efficiency of a firm's operations as a whole. The VAIC method was received a wide approach of the researchers because the method was applied to consider the creation of value - added firms contributing to economic firms (Zeghal & Maaloul, 2010). This study was executed to separately examine the relationship between family ownership and family involvement in the two boards (BOC and/or BOD) to determine the influence of family ownership and involvement on firm performance. Meanwhile, the family involvement in the two institutions were also examined separately, including the family involvement in the supervisory board (BOC), family involvement in the management board (BOD), as well as family involvement in both the board (BOC and BOD). In contrast, previous studies tended to combine the functionality of control and management, so it was difficult to determine the impact of family ownership and involvement in the monitoring and management of the firm (Anderson & Reeb, 2003; Lee, 2006; Allouche et al., 2008). The current study expects to provide new evidences on the effect of ownership and involvement of families in the two institutions on firm performance.

Prior studies suggest that ownership and family involvement in two separate board system may affect the contractual mechanism to improve the performance of the firms (Andretsch et al., 2010). Until now, there are limited studies which focus on examining performance of firms in the two board system such as Indonesia with a degree of ownership and the presence of a high family in listed firms. High family ownership in the equity structure of the firm will create a high incentive to involve family members in the board of the firm. Two-tire board system (BOC and BOD) presents opportunities for shareholders in maximizing the majority interests. Different functions of BOC and BOD offer a lot of choices for the majority shareholder to involve owner family members in the BOC or BOD, and even in both boards. This apparent may increase the potential agency problem and information asymmetry between the two separate boards (Giovannini, 2010; Zhao & Millet-Reyes, 2007; Firth et al., 2007) and expect to provide a different impression on the performance of the firm. To see the impact of family involvement on firm performance as a whole including the physical assets and intellectual assets, this study uses VAIC method which is different from commonly used methods. Our article contributes to the seemingly effect of family ownership and family involvement in two boards system on firm performance in several ways. Firstly, concerning family firm performance (Burkart et al., 2003), we used the combination of ownership (as individual and families) to focus on collectivity of ownership. Secondly, most of previous articles do not clearly separate between family members in BOC, BOD or BOC and BOD. To take this into account,

this study separated three variables according to family involvement in two board system. As authors were aware that two tier system might increase conflicts of interest caused by family involvement in board monitoring functions (BOC) and management (BOD) separately, this study included variables of involvement family in both boards (BOC and BOD) in order to see combination control by shareholder as strategy to reduce conflicting interest in two boards. Thirdly, concerning methodological issues, because the used performance measure might affect the results of analyses, we used VAIC method to avoid inappropriate measure of firm performance in country which adopted two tier systems. The article is organized as follows: The section “Theoretical background and Hypothesis” briefly presents the theoretical framework and the proposed hypotheses.

2. Theoretical Background and Hypotheses Development

Previous studies on ownership structure have considered individual or family ownership holding in the equity of the firm as a factor that affects the performance of the firm. The role of family ownership has become an important issue that is linked to the performance of the firms, especially the firms in North America, Europe and Asia (Fan & Wong, 2002; Maury, 2006; Villalonga & Amit, 2006; Martinez et al., 2007; King & Santor, 2008; Khan et al., 2017; Lukviarman, 2004). Family ownership can be defined as the percentage ratio of equity ownership by family and members of the founding family to the firm equity (Anderson & Reeb, 2003). General form of family ownership can be shaped into a majority stake owned by an individual or family. The unique feature of family ownership seems to be the long-term ownership and it is kept from falling into the hands of others. High family ownership in the equity structure of the firm may affect the firm operations, because the existence of family shareholders will control the firm in their decision-making as well as to obtain benefits from its shareholders by increasing the value of the firm. This is supported by Anderson & Reeb (2003) and Andres (2008) who found that firms performed better when they are managed by an active founding member of the business. Evidence from Korea by Han and Naughton (2008) also shows a positive association between concentrated ownership in the hands of a family and firm performance as measured by the productivity of the firm. In Indonesia, Tower et al. (2008) found that stock ownership by the family could be associated with a lower performance compared with public ownership in non-family firms. Similar results obtained by Setiawan (2006) showed that concentrated shareholding family had a negative influence on firm performance. However, several other studies found the contrary findings. This is supported by Mortar and Pawestri (2006) who discovered that the control of individual ownership and family members had a positive effect on firm value because of family control tending to influence every decision to maximize firm value. In line with this, Susanti, et al. (2010) also found that ownership control affected firm turnover as measured by the Price Book Value (PBV). This finding indicates that the ownership structure dominated by family ownership in Indonesia was a form of control to ensure maximum performance of the firm. Although previous studies found a mixed relationship, taking into account the high level of family ownership in Indonesian listed firms, the family ownership was aimed to maintain the control and to reduce the agency conflicts as well as to improve the performance of the firm. Thus, the percentage of equity ownership by the family was expected to be positively related to firm performance, which was tested through hypothesis H1 as follows:

Hypothesis 1: Percentage of families’ equity is positively related to firm performance

The implementation of two-board system (BOC and BOD) happens in not only Indonesia, but also several countries in the world continue to uphold this system, such as China, Germany, Japan, Taiwan, Denmark, the Netherlands and France (Yeh et al., 2009). However, two board systems in Indonesia have different characteristics in comparison with those in other countries. For example, the position of supervisory board (BOC) are more likely to be passive, not involved in the management and serve only to monitor the BOD in the management of the company as an advisor. BOC cannot suspend a member of the BOD though the board were elected by the BOC. Instead, BOD membership can only be suspended by general meeting of shareholders. BOC members also authorize to give approval for certain decisions made by the BOD as bank loans that require security of company assets. Based on the above discussion,

the BOC in Indonesia has power to supervise the BOD's decisions. UUPT 2007 set the role of BOC which was responsible for monitoring and advising BOD decision. This role may mitigate opportunistic behavior in the decision and corporate governance (Jungman, 2008). In addition, high surveillance by the BOC also gives confidence for foreign parties to do business with the company (Dahya et al., 2003; Mohid Rahmat et al., 2009). BOC's power in the constitution also recommends appointing the members of audit committees to assist the BOC in the Monitoring of financial firms. This power can influence the shareholder wishes to place its representative person as an agent that can protect owners' interests. In line with this, Siregar and Utama (2008) found that the BOC in Indonesia was dominated by the majority shareholder, as a result, members of the BOC are less free to expropriate shareholders' interests. These findings suggest that there was a high affiliate relationship between the shareholders and BOC members in Indonesia. The effectiveness of family involvement in the firm BOC's performance can be viewed from a positive perspective, because BOC role in controlling the firm is very important to be dealt with and their position is not as implementers but rather to give judgment in the performance monitoring firm. Given the BOC function as supervisor and adviser to the BOD and the findings of previous studies that have shown the importance of monitoring efforts to mitigate opportunistic behavior affecting the interests of shareholders, the presence of the family in the BOC is expected to maximize the functions of supervision and positive impact on firm performance.

In this regard, the involvement of families in the BOC members is expected to have a positive relationship with firm performance, which is tested through the following hypothesis H2:

Hypothesis 2: Family involvement in BOC is positively related to firm performance

UUPT 2007 set the BOD function as the authority responsible for the firm's operations. BOD's member should be responsible for the firm's strategic decisions and the achievement of vision and mission of the firm. BOD members are individuals who are elected by the shareholders in the general meeting. Apart from that, every company must have at least one member of the BOD as the minimum composition of the board. Mäntysaari (2005) argued that through the two boards, BOD had the increasingly important role in the firm's strategic decision - making. In this regard, the involvement of families in the BOD can be seen as the active involvement of the family in the firm management, which enables the high availability of the owner interference in the management of the firm. Simanjuntak (2001) and Husnan (2001) found that the appointment of BOD members representing the shareholders in family firms in Indonesia preferred the loyalty of individual experience in managing the firm. In line with this, Anderson and Reeb (2003) argued that family involvement can take over the firm's wealth through excessive compensation, transactions with related parties, and a high dividend. DeAngelo and DeAngelo (2000) found that family involvement might affect the distribution of a special dividend capital firm on operations and lower stock prices. In another study, Villalonga and Amit (2006) also found that the presence of the family in management could result in losses. Besides, several previous studies in Indonesia indicated similar findings. The study by Tower et al. (2009) found that family involvement in management might be associated with lower firm performance rather than non-family firms. Additionally, Feliana (2016) found that family involvement in family management associated with transactions with related parties was high and low levels of exposure in the financial report. Furthermore, Drieffield et al. (2006) found that family involvement in the management of the implementation of mechanisms contributed to the weakness of corporate governance as it is driven by an effort to maximize the high personal interest. Through previous studies, it can be generally concluded that family involvement BOD board was often associated with lower firm value. Therefore, family involvement BOD members are expected to have a negative relationship with firm performance, which is tested through hypothesis H3 as follows:

Hypothesis 3: Family involvement in BOD is negatively related to firm performance

This section looks at the involvement families in both boards (BOC and BOD) on firm performance. To answer this question, the hypothesis, that takes into account newly formed family involvement both as a

guard by the board of BOC, and as a management firm, is done through the BOD. The board of directors under a system board is a combination of general managers or executive directors to non-executive directors who are not full-time employed and appointed because of their experience and good relations with shareholders (FCGI, 2007). Two-board system can be seen as an appropriation of responsibility undertaken by the BOD management and oversight responsibilities undertaken by the BOC. Through the separation of responsibilities in two separated boards, an effective system to control a firm decision can be produced. In view of the different functions, the majority shareholders have the option to control both boards through the involvement of family members in BOD or BOC (Prabowo & Simpson, 2009). Family involvement in both boards is expected to reduce the information asymmetry between the two boards and to increase the effective control. However, Jungman (2008) argued that the system board had two shortcomings in the implementation of the role of the director board. Thus, the problem of information asymmetry will arise between the BOC and BOD for different positions. On the other hand, the management will also face with the question of how to convince the BOC to give approval on decisions which affect the operations of the firm. All the factors discussed above may affect the ability of shareholders to engage or family members in the two institutions. Taking into account previous studies, the involvement of families in the two boards (BOC and BOD) is expected to create an effective monitoring and positively related to firm performance. Thus, the relationship between family involvement in the BOC and BOD and firm performance is examined through the following hypothesis H4:

Hypothesis 4: Family involvement in the BOC and BOD are positively related to firm performance

3. Research methodology and Data collection

This study used panel data analysis that combined time series and cross-section data. The data used in this study is secondary data, namely financial and non-financial data derived from company annual reports downloaded from the website Indonesian Stock Exchange or "IDX". This study used the same number of observations for time series and cross-section or referred to as a balanced panel (balanced panel). Time series data used consisted of the annual report for the period of 3 years from 2007 to 2009 while the cross-sectional data used was from the holding company that focused on the family. Data on family holdings were derived from the annual report of the shared capital of the sub report to see equity firm through individual holdings, through companies under their control and collective shares owned by family members (Anderson & Reeb, 2003; Villalonga & Amit, 2006; Saito, 2008). While the data on the involvement of family members in the BOC or BOD was obtained from the annual reports of public firms in the sub report firm. Other data was collected from the annual report data to measure the performance of the firm based on VAIC. Therefore, 155 firms from 2007 to 2009 were selected. In terms of methodology, the study did not use the stock market or Tobin's Q approach, so the market fluctuations that occur in the year 2008 do not affect the secondary data. Although the study is limited on observation for a period of 3 years (2007-2009), thanks to the analysis of cross-sectional and time series used, it can be considered sufficient to see the cause and effect as well as the tendency of occurring (Christie, 1987). The review is also expected to be relatively short not to create problems given that firms in Indonesia showed a stable ownership structure (Du & Dai, 2005). Therefore, the result is not affected by the use of a short period of time. In addition, seven control variables which were identified in the previous studies may influence the regression model are included in the study as control variables. The variables are: firm size, R & D, a member of the BOC, a member of the BOD and BOC who is a member of the audit committee (AC), and industries effects. By considering the difference between the firms, the study uses nine industrial classifications as the unit of observation to see its effect on firm performance. This classification is based on the characteristics and nature of the business or the Jakarta Stock Exchange Industrial Classification (JASICA) as prescribed by the IDX.

4.1 Sampling method

This study used purposive sampling technique (purposive sampling), where the sample is selected based

on specific criteria set (Sekaran, 2006). In this case, the criteria are the existence of concentrated ownership in family firms with share ownership structure, either individually or through other companies. The sampling method is considered appropriate because it emphasizes on the definition of family ownership to be used as the sample. The data source is derived from the company listed in Indonesia Stock Exchange or IDX from 2007 to 2009. For the purposes of this study, a wide selection of the study uses the sector indices covering the entire company in nine industry sectors classified according to industrial classification (JASICA) as determined by the IDX. The study takes into account the firm in financial and non-financial industries, which was performed by King and Santor (2008). These results are due to the ownership structure of the company which was subject to the government policies and it is difficult to trace family ownership and family involvement in firms concerned.

3.2. Operating Variables

This study has two independent variables, one dependent variable and seven control variables. Independent variables are family ownership and family involvement in the firm board, the dependent variable is firm performance. Control variables are firm size, R & D, the size of the BOC, the size of the BOD, BOC members present in the audit committee (AC), and the influence of industry and year. The dependent variable is firm performance which is measured by the added value of the efficiency of use of the three main elements in the firm's operating efficiency of capital utilization (Capital Employed Efficiency), the efficiency of human capital (Human Capital Efficiency) and structural capital efficiency (Structural Capital Efficiency) (Kim, 2006). The uniqueness of this approach is the intellectual capital of the firm which counts in the measurement of long-term value creation performance of the firm. In line with this, Pulic (1998) defined VAIC as intellectual resources of knowledge, information, intellectual property and expertise that can be leveraged to create wealth. This study focuses on calculating VAIC based on the elements of intellectual human capital and structural capital as the basis of firm efficiency. VAIC is a combination of three indicators of efficiency including (1) Capital Efficiency (CEE) (2) Human Capital Efficiency (HCE) (3) Structural Capital Efficiency (SCE). Based on the above discussion, VAIC model can be summarized as in the equation below:

$$CEE + VAIC = HCE + SCE \text{ With,}$$

$$CEE = VA / CE \quad HCE = VA / HC \quad SCE = SC / VA.$$

VA firm can be calculated using the formula: $VA = I + DP + D + T + M + R$,

where;

VA = firm value addition

I = Interest expense

DP = Depreciation

D = Dividend

T = Corporate Tax

M = Components of net expense that is charged to non-controlling interests (minority)

R = Retained earnings

CEE = Efficiency of Capital, VA represents the efficiency of physical capital

HCE= Efficiency of Human Capital, VA represents the efficiency of intellectual capital (personnel)

SCE = Structural Capital Efficiency, VA represents the efficiency of intellectual capital (organizational)

CE = Book value of net assets

HC = Salary and benefit expenses for employees and officers of the firm. $SC = VA - HC$

This approach begins with the calculation of value added as a guide efficient use of firm capital. Value-added output is obtained, while the input is the summation of the firm expenses which consist of interest

expense, depreciation expense, tax expense, minority interest, dividends paid, and retained earnings (Abidin et al., 2009). The calculation of value-added is as follows:

$$VA = I + DP + D + T + M + R$$

The independent variables consist of family ownership and family involvement in BOD, BOC and family involvement, and family involvement in both the board (BOC and BOD). According to Anderson and Reeb (2003), family ownership, which is measured as a ratio of equity shares held by the respective owners of the issued share capital, refers to the identity of equity holders and the size of their holdings. As the determination of the actual firm owner, the existence of family involvement is measured from the involvement of one or more members of the family based on equality of owner name and relationship with the firm. The use of the approach is to take into account the tendency of family controlling shareholder of both the board of the firm through family involvement in those organizations (BOC and BOD). The presence of family members in the BOC is measured by using a dummy variable, where a value of 1 is given if there are family members in BOC and otherwise, a value of 0 is given if there is no family presence in the BOC. Consistent with the previous studies, this study measures the natural logarithm of the firm size based on total assets of the firm (Bharathi, 2010; Sacristán-Navarro et al., 2011). The R&D expenses used to overcome the difficulties in getting the amount of R & D for each firm by the family firms is smaller than that used by firms without family (Villalonga & Amit, 2006). The study uses a dummy variable to measure the R & D expenditure for each firm, with a given value of 1 if the firm has R & D expenditure set out in the annual financial report. The controlled variable is measured by taking into account the number of individuals on the board of BOC. Conventionally, an audit committee's responsibilities are assigned by the BOC in the monitoring of the implementation of the company management. Members of the audit committee would be the main focus of the firm because they play an important role in monitoring the firm's operations and strengthen the firm's internal control system in order to protect the shareholders' interests (Mohd et al., 2009; Dalton et al., 1999; Jaggi & Leung, 2007). Therefore, this study adopts the variables of the audit committee as control variables which are measured by the percentage of the number of BOC in the audit committee of the whole amount of the audit committee. This study includes the effect of the industry as a control variable, which is in accordance with the IDX industrial classification based on nine industry sectors. The specify model of study as follows:

Pooled Least Square (PLS) model

$$PERF_{it} = \beta_{it} + \beta_1 F_SHARE_{it} + \beta_2 F_BOC_{it} + \beta_3 F_BOD_{it} + \beta_4 F_BOTH_{it} + \beta_5 SIZE_{it} + \beta_6 R_D_{it} + \beta_7 BCSIZE_{it} + \beta_8 BDSIZE_{it} + \beta_9 AC_{it} + u_{it} \quad (1)$$

Fixed Effect Model (FEM) model

$$PERF_{it} = \alpha_1 + \alpha_2 D_{2i} + \alpha_3 D_{3i} + \alpha_4 D_{4i} + \alpha_5 D_{5i} + \alpha_6 D_{6i} + \alpha_7 D_{7i} + \alpha_8 D_{8i} + \alpha_9 D_{9i} + \beta_1 F_SHARE_{it} + \beta_2 F_BOC_{it} + \beta_3 F_BOD_{it} + \beta_4 F_BOTH_{it} + \beta_5 SIZE_{it} + \beta_6 R_D_{it} + \beta_7 BCSIZE_{it} + \beta_8 BDSIZE_{it} + \beta_9 AC_{it} + u_{it} \quad (2)$$

Random Effect Model (REM) model

$$PERF_{it} = \beta_{it} + \beta_2 F_SHARE_{it} + \beta_3 F_BOC_{it} + \beta_3 F_BOD_{it} + \beta_4 F_BOTH_{it} + \beta_5 SIZE_{it} + \beta_6 R_D_{it} + \beta_7 BCSIZE_{it} + \beta_8 BDSIZE_{it} + \beta_9 AC_{it} + \varepsilon_i + u_{it} \quad (3)$$

PERF is firm performance which is measured by VAIC. FSHARE is the proportion of family share. FBOC is the involvement of family in BOC. FBOD is the involvement of family in BOD. FBOTH is the involvement of both in two boards. LNBSIZE is the natural logarithm of total assets as the proxy for firm size. R&D is the natural logarithm as the proxy for R&D expenditure. BCSIZE is the number of family member in BOC. BDSIZE is the number of family member in BOD. AC is the number of the family of audit committee member.

4. Results

The sample study consists of 397 companies. From this amount, a total of 65 government-owned companies and 149 non-family companies were removed from the sample. Next, 28 companies with incomplete data were also released, which gives a final sample of 155 companies representing nine industry sectors based on the classification JASICA. Because the data were collected within three years from 2007 to 2009, the number of observations is 465 firms (3×155). The summary of the industrial sector firms in the study sample showed that 5 companies (3.0%) are in the agriculture sector, followed by the industrial sector with three mining companies (1.9%). The industrial sector and chemical basis consist of 22 companies (14.2%), a range of industry sectors include 15 companies (9.7%), followed by the amount of companies in the consumer with 11 ones (7.1%). The industrial sector, real estate, and building construction include 18 companies (12.0%) whereas the infrastructure, utilities and transportation areas count for 7.1% with 11 firms. The financial sector consists of 29 companies (19.0%), and finally the industrial sector trade, services and investment having 41 companies (26.5%)

Panel A, Table 1 (Appendix) shows the average VAIC family firm in Indonesia at 3.12 with the range between -1.53 and 6.58 with 1:49 standard deviation. Based on the average VAIC, it can be concluded that the performance of family firms in Indonesia was lower as compared to the average value of companies in Malaysia with VAIC at 5.02 as presented in the findings by Abidin et al. (2009). Whereas, Ho and Williams (2003) analyzed samples in the UK and South Africa and found that the average value VAIC was 5.32 and 4.27 respectively. Parallel to that, Kamath (2010) conducted a study on the bank in Pakistan and the result showed that VAIC value is an average of 5.01. However, studies conducted in Malaysia, the UK and South Africa, and Pakistan did not review the performance of the company specifically focusing on the family as the focus of this study. While the distribution of family involvement variables in the system was divided into two boards including family involvement in monitoring board (BOC), family involvement in the management board (BOD) and family involvement in both boards (BOC and BOD). Referring to Table 1, the average family's involvement in BOC showed 114 (25%), while 111 (24%) firms presented the family on the BOD, and 240 (51%) had involvement of family firms in both the board (BOC and BOD). This finding is similar to the results by Claessen et al. (2000), and Feliana (2016) who found a high concentrated family ownership and family involvement on the board in Indonesia. In line with this, Tower et al. (2008) found that high family involvement in the management of public companies in Indonesia can have an influence on corporate governance practices. Seven control variables included in the regression model in the study are the firm size, the size of BOC, BOD size, R & D, the audit committee, and the influence industry. Referring to Table 1, the recorded firm size which was measured by total assets in billion rupiahs ranged from 16.685 (9.720) to 77.857 (18.170) with a standard deviation of 9.720 and an average value of 13.712. This means that on average, the surveyed companies are small and medium-sized. In another research, Driffield et al. (2006) used the data collected between the years 1994 -1998 and found the average size of firms in Indonesia of 16.93. Panel A, Table 1 provides the descriptive statistics for all continuous variables, while Panel B provides the descriptive statistics for the outcome variables measured by the dummy variable

4.1 Correlation Analysis

Not only used to identify the existence of multi-collinearity problems, the results of correlation analysis can also be used to describe the relationship between variables. Panel B in Table 2 shows that there are some positive and negative correlation between the variables. Correlation between FBOD and FSHARE, FBOTH and FSHARE are negatively correlated. However, the correlation is not significant. Another interesting result was shown on the correlation between FBOC and BCSIZE, which shows a negative relationship. This discrepancy may be caused by many factors, and one of those factors can be the too big size of the BOC members or caused by a member of the BOC that passive management is less able to do surveillance firm. This is consistent with the descriptive statistics in Table 2 which shows the difference in the high range of BOC members ranging from 2 to 8 people in a family-focused company in

Indonesia. In this regard, Herwidayatmo (2000) indicated that the numbers of BOC do not reflect the ability and integrity in accordance with the task of monitoring which should be carried out. This means that the position of member of the board of many companies is due to certain factors and not based on the basis of ability and integrity. From different aspects, the correlation between FBOD and BDSIZE shows a positive relationship. This means there is no problem in the number of BOD members of its management. However, the obtained correlation is not significant. Panel B Table 2 also shows a positive correlation between the variables with independent variables VAIC FBOTH. This provides an indicator that the higher the family's involvement in both boards (BOC and BOD) is, the more it contributes to VAIC. Other variables such as BCSIZE, BDSIZE, and AC are also positively correlated with VAIC. However, FBOC variables, FBOD, and R & D are found to negatively correlate with VAIC. This means there is a problem in the function which is run independently of supervision and management only on its performance. Similarly, the expenditure on R & D is found not to contribute to VAIC. VAIC correlation results in FBOD and FBOC are seen to be consistent with Tower et al. (2008) who studied the performance of firms in Indonesia by using ROA and found a negative correlation between family involvements and the company's performance. However, they did not isolate variables in family involvement. Furthermore, the results indicated a high correlation between VAIC and LNSIZE with the significant positive relationship. These results show that if there is a 10 percent increase in the size of the firm then it will follow by 7.4 percent increase in value VAIC. It can be concluded that the value VAIC very closely relates to the firm size

4.2 Panel Data Analysis

According to Table 3, Redundant test and Hausman test for the three approaches showed that REM approach is better than the PLS and FEM, so REM approach was used to test the hypothesis of the study. This is in line with Gujarati's opinion (2004) which states that the method is suitable for the condition of REM data with a large cross-section (115 firms) with a small time series data (3 years). Table 3 shows the results of multiple regressions on all variables used in the model. Model 1, which is tested using PLS approach, is divided into Model 1a, 1b, and 1c. Model 2 is divided into three main divisions including Model 2a, 2b, and 2c using FEM approach, while Model 3, which consists of the Model 3a, 3b and 3c, adopts REM approach. The three models were used to separately test the variables and family involvement on firm performance BOC (Model 1a, 2a and 3a), the involvement of families in BOD (Model 1b, 2b and 3b) and family involvement in the BOC and BOD (Model 1c, 2c and 3c). The test of family ownership on firm performance was conducted simultaneously in all three models. Thus, totally 9 model (3x3x3) appeared in multiple regression as a step in the analysis of panel data to determine the most appropriate modeling approach for testing hypotheses of the study.

4.3 The Effects of Family Ownership on Firm Performance

Effects of family ownership on firm performance which is reported in Table 3 based on REM approach show that the percent of family ownership (FSHARE) has a positively relationship on firm performance. These results are in line with the expectations of a study in which an increase in family ownership will affect the company's performance positively. Based on Model 3a, on average every 10% increase in the family share ownership structure of firms will be followed by a 3.8% increase in the VAIC as a measure of firm performance. Model 3a, Model 3b and 3c model also showed an increase of respectively 3.2% and 3.9% of the company's performance. These findings are consistent with evidence from Bezemer et al. (2007, 2012) in their study in the Netherlands with the finding that the two boards gave wider opportunities to the majority shareholders to play a role in overseeing the operations of the firm through a separate board up can have an impact on firm performance. Another reason that may be attributed to the above findings is the average equity holdings by individuals and families who are at a high level, which is 49.53% and is seen more concentrated compared to the situation in countries that have a system of a board (Kamal, 2010). Thus, shareholders with large holdings have a high incentive to engage in the

management of the firm (Susanti et al., 2010; Mortar & Pawestri, 2006). This view is consistent with the view by Jungman (2008) who states that the opportunities that allow shareholders to participate in the firm's decision would be seen as an instrument for monitoring more effective. Apart from this, family firms generally have substantial long-term equity. These findings relate to the ownership structure of firms in the sample which was seen more widespread. Therefore, it is more difficult for the majority shareholder to increase the role of communication in a firm's operations

4.4 The Effect of Family Involvement in BOC on Firm Performance

Subsequent test was conducted to determine the effect of family involvement in the BOC only on firm performance. BOC in principle has a high power to oversee the management of the firm, the separation of responsibility in monitoring the firm should be able to curb the opportunistic behavior on management and assure the implementation of corporate governance better. H2 expects BOC family involvement with a positive influence on firm performance. Results of the tests shown in Table 3, Model 3a recorded that the regression coefficient was obtained at 0.073 ($t = 0.537$), with $p > 0.1$. This shows that there is a positive influence, but no significant correlation between family involvements BOC and firm performance, which rejected H2. The relationship which is not significant in Model 3a suggests that the involvement of families in the BOC board alone is not effective enough to significantly affect the performance of the firm. These results indicate that not all family involvement BOC performs its oversight functions effectively to have influence on firm performance. The results also provide an insight into the existence of the BOC of only family which has not been able to effectively monitor performance management. Involvement of family members in the BOC was initially called as an agent to protect the interests of shareholders, but many of their implementation fail perform surveillance for a variety of questions. One of the reasons is the less effective family relationships and not on professionalism and experience acquired. These findings are supported by previous studies done by FCGI (2007) who found that the appointment of the BOC is still dominated by family members who have a high relationship and loyalty factor than professional experienced people. In addition, the test results of control variables and the size of the BOC also support that finding. Table 1 shows the high range for the BOC size between 2 and 8 people. This means that the size of the BOC is varied and it depends on the needs of the firm. The regression results in Table 3 (Model 3a) show that the size of the BOC has a negative relationship with firm performance (-1120, ($t = -2.525$), $p < 0.05$). This means that the larger the size of BOC results in more down firm performance. A large BOC member is less effective and has a negatively impact on firm performance. This is supported by research by Novia et al., (2006) and Wardhani (2006) who noticed that the BOC is not effective in the coordination and monitoring of the management to influence firm performance. On the other hand, the implementation of the two boards by firms in Indonesia was also seen in contrast to the special features implemented in the continental Europe, where the officer in a firm typically has not been appointed as a member of the BOC (Kamal 2010). BOC members in Indonesia are generally an individual who are appointed as the closeness factor with shareholders and have extensive communication links with politicians and the government and certain business groups. Typically, members or individuals appointed in BOC are a former government official, politician and former military who do not have spare time to focus on the functions of the BOC doing. This condition will affect the level of professionalism, integrity and quality of the BOC members in the exercise of supervisory functions and give instructions to members of the BOD. The data used in this study also shows that high involvement BOC members of the audit committee board is one factor required by code GCG 2006 to set up and operate the independence of the majority shareholder. BOC is unique in Indonesia and it could support the findings that there are no significant influence family members in BOC on firm performance. However, the findings which do not support this hypothesis can also be associated with a number of firms involving family members in the BOC only a little more than involvement in both the board until this amount can affect the outcome of the study.

4.5 *The Effect of Family Involvement in BOD on Firm performance*

This section presents the results of hypothesis which tested the relationship between family involvement in the management board (BOD) and firm performance. The system of Indonesian board provides two important positions in the management of BOD that is directly related to the firm's strategic decision-making. Family involvement enables the high interference in the management of the owner and an active role in BOD family members may also create an individual impulse to maximize personal gain. The third hypothesis BOD expected that only family involvement had a negative relationship with firm performance. Based on REM approach in Table 3, Model 3b recorded the regression coefficient of -0,915 ($t = -4.863$), with values of $p < 0.01$ which shows the involvement of the family in relation to BOD negatively and significantly related to firm performance. These results support H3 which means that the family involvement is able to lower the performance of the management board of the firm. These results demonstrate that the presence of the family in the management board can affect the performance of the firm. The negative impact of BOD management on firm performance is evident, which supports the interests of shareholders in the management of the firm, with the involvement of families in BOD indicating the dominance of majority of shareholders' interest in management. It has implications for firm value creation process as seen from the CEE, HCE and SCE, as family involvement in management is seen as a representative of the majority of shareholders who can restrict each firm's results of operations that may give rise to grievances not on behalf of the family. These findings are supported by Giovannini (2010) who suggested that the composition of BOD supposed to represent shareholders' interests in a balanced way so that the implementation process management could increase the value of the firm. Family involvement in management may affect the performance of the firm if the opportunity is used to derive the importance of family with the interest of other shareholders. According to DeAngelo and DeAngelo (2000), high family involvement in management may affect the interests of shareholders as the influences of the desire of personal and family interests are high as a special dividend, thus sacrificing the strategic decisions and causing a decrease in the value of the firm. This situation will become worsen if the BOC does not conduct effective surveillance. This is in line with studies by Sacristán-Navarro et al. (2011) who found that family involvement in management as chief executive managers can improve the performance of the firm, but the presence of BOD members from outside the family can improve firm performance. The study is connected with the negative influence of increased control mechanisms that have families through participation in firm management. However, in their study, Simanjuntak (2001) and Husnan (2001) found that the appointment of BOD in Indonesia tend to be based on loyalty and not because of the professionalism and experience of the individual. Lacking of experience and professionalism BOD members can influence the firm's decision making and errors, resulting in being detrimental to the firm. In line with this, the level of family involvement in management alone can create a bad personal relationship between the management of the family and non-family employees. In some cases, non-family employees are not motivated to achieve a high level of management if there is family involvement as a major role in the firm. Sharma (2004) argued that the distinction between family and non-family employees will be raised when the family is involved in the control of dominant position, making it difficult to manage non-family to build strong commitment, thereby adversely affecting the performance of the firm. Meanwhile, from the descriptive statistics on the size of the BOD as control variables, as shown in Table 1, it was found that the range could occur between 2 to 9 members of BOD in a firm. This means that the amount is consistent with the implementation of the activities and functions of the firm's management in different levels. In terms of total BOD members, they are seen to fit to run an active role in management. However, the question arisen is related to the role of family members in management affect firm performance. This finding indicates that other factors causing important positions in BOD in the management firm acquiring a negative relationship were also due to the role of individuals and the interests of shareholders are to be protected in the exercise management. The role of shareholders can be seen from the structure of firm ownership, ownership dispersion data show a high family ownership and the ownership of the family is not spread in the percentage of low ownership. The interests of shareholders as well as other important factors that may cause the lack of monitoring carried out on the management to impact on firm performance is low.

4.6 The Effect of Family Involvement in Both Boards (BOC and BOD) on Firm Performance

The fourth hypothesis test is addressed on the involvement of families in the two-board firms (BOC and BOD). The result shows that involvement families on BOD and BOC are positively related to firm performance. Based on REM approach reported in Table 3, Model 3C recorded regression coefficient of 0.747 ($t = 6.659$) with a value of $p < 0.01$. This indicates that family involvement in both boards (BOC and BOD) had positive and significant impact on firm performance. The decision means that the involvement of families in the BOC and BOD can compensate for the implementation and management oversight to the effect of increasing firm performance. Thus the test results show that the results support the hypothesis H4. The findings which showed the positive influence of family involvement in both boards with firm performance are new evidence in the study of listed firms in Indonesia. This finding supports the view by Mantyasaari (2005) who stated that the separation of board and committed involvement in both boards can create a balance of firm control. However, the involvement of families in the two institutions also raises many questions. According to a number of sample studies, there are evidences that showed the position of an individual on the board of a firm often switch involvement in one the board and other board in the same business group. Family involvement by both boards is seen as the solution of the possibility of system failure in carrying out the role of the two institutions. Kamal (2010) argued that the agency problem occurring between members of the BOC and BOD members tend to increase the potential conflict in establishing the importance of each of the parties. This situation may happen because each institution has different functions in monitoring and management. The presence of family members in the BOC and BOD can be seen as a moderated factor to reduce the information asymmetry problem and facilitate coordination between two separate boards so that it can improve the performance of the firm. In line with this, previous studies by Davis and Stern (1988) and Perry (2000) stated that conservative family firms are more likely to choose a conservative strategy and maintain the high control over family presence in an important position in the firm. In the short term, this behavior will maintain the performance, while the performance of the firm can be done gradually in the long run. Consistent with this point, Bezemer et al. (2007, 2012) found in his study that the BOC members involved in controlling BOD managers can improve compliance and reduce the risk of failure but reduced in other firms focusing on innovation and research and development firms (Hendry & Kiel, 2004; Sundaramurthy & Lewis, 2003). On the other hand, family involvement in the two boards reduces conflicts of interest between the BOC and BOD and provides a positive influence on firm performance. This means that the possibility of the acquisition of the minor interests in companies where both boards balanced firm control by the majority of shareholder is less common. In fact, both sides can gain the benefits derived from such control, as evidenced by the positive performance of the firm. These results are in line with the study conducted in France by the Millet-Reyes and Zhou (2009) on the influence of the board and two boards on the performance of a firm's operations. The study found that the use of two-board system positively related to firm operating performance but negatively affected the market price of shares. A positive correlation was obtained by the two institutions in the operation of the firm suggested that the existing shareholders in the two monitoring boards become stronger and focus on the firm's operating cash flow. Family owned firms in Indonesia also have different special features compared to the situation in other countries (Kamal, 2010). Although adopting two-board system observed in the Netherlands, the adaptation is done with much difference. This is analyzed under the influence by a variety of factors such as the "family spirit" (Family spirits or Brotherhood) that took place in Indonesia and involvement mechanisms implemented. Data from 2007 to 2009 show that adopted family-owned firms in Indonesia tend to have a subsidiary of company affiliated with a particular firm in a group. This is in line with studies by Siregar & Utama (2008) who found that firms in Indonesia have many subsidiaries within a group of similar transactions. This situation with high opportunity helps the majority of shareholder to do a combination of controls that allow family members to have different positions on the board of BOC or BOD in different firms in a group. Involvement occurring cross will strengthen the control and management of the firm even if the firm has a lot of subsidiaries with various activities.

5. Conclusion and implications

This study has aimed to look at the performance of family firms in Indonesia, which have a system of two boards (Two-tier system) including the relationship between family ownership, family involvement in the monitoring and management with firm performance. As expected, regression test results show the positive influence of family ownership on firm performance. These results support the hypothesis and may be associated with the conduct of family ownership generally focusing on long-term goals that tend to maintain performance through efficiency. In terms of family involvement in the board of supervision (BOC), the results of the test revealed that family involvement in the BOC showed a positive but not significant effect on firm performance, thus not supporting the second hypothesis. Results of the third hypothesis test in the BOD concerning family involvement indicated a negative and significant relation with firm performance. This finding is accordance with the expectation because the active role of the BOD without strong oversight allows the individual practices and other pressures to cause adverse side action of the company. However, the positive results were found in the relationship between family involvement in both boards (BOC and BOD) with firm performance. These findings provide evidence that the balance control is important because two-board system have disadvantages in terms of both coordination and functions. To support the results of the study's hypothesis, seven variables including firm size, the size of the BOC, the size of the BOD, the percentage participation of BOC in the audit power (AC) and expenditure on R& D and the influence of industry dummy variable and year were controlled. However, not all the controlled variables have a positive relationship with performance. Variable of the size of the BOC, R & D and AC showed a significant negative relationship, while the variables of firm size and the size of the BOD members showed a positive and significant relationship to firm performance. Meanwhile, analysis of the influence of industrial classification on the performance of the firm found that nine classes, as measured by the industry dummy variable, consisting of agriculture, mining, and chemical base, diversified, consumer, real estate and property and construction of buildings, infrastructure, utilities and transportation, finance, trade, services and investment showed different effects on firm performance. This means that there are differences of each industrial classification on firm performance which is measured by VAIC value.

Effects of family ownership and involvement opportunities and barriers to firm performance, as the presence of family in the ownership of the firm, are seen as a form of long-term investment for the efficiency of the company maintained. Through the involvement of family separation, it was found that the family would have a negative impact on firm performance as involving in the management board (BOD). Conversely, a positive effect on firm performance would be obtained if the family factor presents in both institutions. This means the presence of family in both control boards is able to enhance the balance value (VAIC) and to reduce the information asymmetry problem between the two boards. In other words, the involvement of family in both boards was efficient to monitor firm value and also had the power to impact on the income statement base of accounting. Family involvement in the control and management has become an important concern in the implementation of increased corporate control and corporate governance vision. However, these findings may affect the existence of audit committee members who carry out the delegation of tasks in examining BOC financial reporting and accounting companies. Financial expertise on the audit committee is an important mechanisms for guarantee and control quality of financial reports.

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Appendices

Table 1
Descriptive Statistics

Panel A: Continuous Variables							
	N	Mean	Median	Standard Deviation	Minimum	Maximum	
VAIC	465	3.116	3.190	1.486	-1.530	6.580	Kurtosis
FSHARE	465	44.775	46.083	15.200	10.074	84.260	Skewness
LNSIZE	465	13.712	13.730	1.757	9.720	18.170	
BCSIZE	465	0.673	0.602	0.129	0.477	0.954	
BDSIZE	465	0.686	0.698	0.137	0.477	1.000	
AC	465	0.258	0.333	0.161	0.000	0.500	
Panel B: Dummy Variables							
Variables	Category*		Distribution		Percentage		
FBOC	1	114	111	24.52			
	0	351	354	75.48			
	Total		465	100			
FBOD	1	111	111	23.87			
	0	354	354	76.13			
	Total		465	100			
FBOTHC	1	240	240	51.6			
	0	225	225	48.4			
	Total		465	100			
R D	1	66	66	14			
	0	399	399	86			
	Total		465	100			

Note: * 1 there is family involvement BOC (FBOC) / BOD (FBOD) / BOC and BOD (FBOTHC) and 0 otherwise.

Table 2
Multicollinearity Test
Panel A: Auxiliary Regression
Independent Variables

	R²	TOL	VIF
FSHARE	0.044	0.956	1.04
FBOC	0.370	0.630	1.58
FBOD	0.120	0.880	1.13
FBOTHC	0.380	0.620	1.61
LNSIZE	0.400	0.600	1.66
R_D	0.028	0.972	1.02
BCSIZE	0.300	0.700	1.42
BDSIZE	0.295	0.705	1.41
AC	0.083	0.917	1.09

Panel B: Correlation matrix

	V/AC	FSHARE	FBOC	FBOD	FBOTHC	LNSIZE	R_D	BCSIZE	BDSIZE	AC
V/AC	1									
FSHARE	-0.031(0.503)	1								
FBOC	-	0.093**(0.044)	1							
FBOD	-	-0.064(0.168)	-	1						
FBOTHC	0.421*** (0.00)	-0.026(0.576)	-	-	1					
LNSIZE	0.704*** (0.00)	-	-	-0.067(0.150)	0.235*** (0.0)	1				
R_D	-0.074(0.111)	-0.022(0.623)	-	0.047(0.312)	0.036(0.436)	-	1			
BCSIZE	0.265*** (0.00)	-	-	-0.056(0.231)	0.134*(0.00)	0.502*** (0.0)	-0.005418	1		
BDSIZE	0.404*** (0.00)	-0.079*(0.087)	-	0.006(0.905)	0.166*** (0.0)	0.500*** (0.0)	-	0.413*** (0.0)	1	
AC	0.093*** (0.044)	-	-0.011(0.812)	-0.049(0.287)	0.052(0.266)	0.257*** (0.0)	0.085*(0.0)	0.157*** (0.0)	0.141*** (0.0)	1

Note: * Significant at p < 0.10, ** significant at p < 0.05, *** significant at p < 0.01

Table 3
Multiple Regression Result Analysis

	Pool least Square (PLS)			Fixed Effect Model (FEM)			Random Effect Model (REM)		
	Model 1a	Model 1b	Model 1c	Model 2a	Model 2b	Model 2c	Model 3a	Model 3b	Model 3c
FSHARE	0.401(1.792)**	0.344(1.715)*	0.403(1.967)**	-0.055(-0.445)	-0.015(-0.1039)	-0.0547(-0.364)	0.387(1.679)*	0.325(2.590)***	0.395(1.865)*
FBOC	0.044(0.336)			0.270***(4.646)			0.073(0.537)		
FBOF		-0.933(-8.264)***			-0.670(-5.208)***			-0.915(-4.863)***	
FBOFHC			0.752(6.976)***			0.436(1.723)*			0.747(6.659)***
LNSIZE	0.599(152.16)***	0.584(16.809)***	0.557(15.414)***	0.483(3.363)***	0.475(12.670)***	0.483(12.662)***	0.601(14.737)***	0.582(47.332)***	0.557(14.922)***
R_D	-0.209(-1.917)*	-0.201(-1.943)**	-0.241(-2.286)***	-0.133(-2.451)**	-0.150(-3.023)**	-0.133(-2.465)**	-0.199(-1.843)**	-0.202(-2.367)*	-0.232(-2.205)**
BCSIZE	-1.085(-2.476)**	-1.062(-2.664)***	-1.070(-2.623)***	-1.536(-9.192)**	-1.306(-11.228)***	-1.628(-20.469)***	-1.120(-2.525)**	-1.051(-8.027)**	-1.113(-2.686)**
BDSIZE	1.013(2.472)**	1.122(2.999)***	1.0271(2.683)***	0.579(15.335)***	0.592(12.178)***	0.611(6.308)***	0.981(2.359)**	1.108(3.264)***	1.000(2.565)**
AC	-0.890(-2.645)**	-1.014(-3.375)***	-0.934(-3.033)***	-0.360(-0.814)**	-0.315(-0.870)	-0.378(-0.965)	-0.909(-2.639)***	-1.002(-1.375)***	-0.948(-2.899)***
Constant	-3.936(-6.373)***	-3.723(-7.002)***	-3.967(-7.272)***	-2.808(-4.187)***	-2.664(-4.158)***	-2.921(-5.426)***	-3.882(-6.003)***	-3.688(-22.711)***	-3.913(-6.888)***
Years Effect	No	No	No	No	No	No	No	No	No
Industries Effect	No	No	No	Yes	Yes	Yes	Yes	Yes	Yes
F statistic	24.434***	37.039***	33.861***	20.016***	20.441***	20.124***	22.893***	34.465***	31.719***
R ²	0.481	0.584	0.562	0.915	0.917	0.915	0.465	0.567	0.546
R ² Adjusted	0.461	0.569	0.546	0.869	0.872	0.870	0.445	0.550	0.529
Redundant test				799.650(8.842)***	720.719(7.160)***	728.807(7.320)***			
Hausman test							10.260	0.000	9.538
Durbin Watson	1.963	1.976	1.967	2.905	2.891	2.882	1.989	1.961	1.949
Observation	465	465	465	465	465	465	465	465	465
Sample	155	155	155	155	155	155	155	155	155

Note: * Significant at p < 0.10, ** significant at p < 0.05, *** significant at p < 0.01, Cross Section Weight using SUR period

