Concentration of Ownership, Firm Performance and Investor Protection Quality

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The purpose of this research is to test the effect of ownership concentration on firm performance with investor protection quality as a moderating variable. The research sample consists of manufacturing companies listed on the Indonesian Stock Exchange during 2013-2017. There were 302 observations sampled in the research. This research employs multiple linear and moderated regression analysis techniques. Firm performance is the dependent variable of the research. The results of this research confirm the negative effect of ownership concentration on firm performance. Furthermore, we find that investor protection moderates the relationship between ownership concentration and firm performance. The results show that investor protection quality weakens the relationship of ownership concentration to firm performance. The results of this study provide the implications for companies that have a high concentration of ownership. They can improve firm performance through increasing investor protection quality in their firms.

Keywords: Ownership concentration, Firm performance, Investor protection quality.

Introduction

Companies in Asia tend to have concentrated corporate ownership structures (Altaf & Shah, 2018). Indonesia is considered a country with companies that adhere to concentrated corporate ownership structures (Claessens et al., 2000). Hu et al. (2010) show that ownership concentration had a negative effect on firm performance in China. Seeing the similarities that exist, it is possible that concentrated ownership structure in companies in Indonesia have a negative impact on firm performance. Nguyen et al. (2015) show that the investor protection index significantly moderates the effect of ownership concentration on firm performance in
Concentrated ownership can cause agency problem II, namely conflict between controlling shareholders and minority shareholders (Filatotchev, Jackson, & Nakajima, 2013; La Porta, Lopez-de-Silanes, & Vishny, 2002; Lee, 2008). The controlling shareholder will have the power to expropriate minority shareholders (La Porta, Lopez-de-Silanes, & Shleifer, 1999). As a result, minority shareholders will suffer.

Ownership structure within a firm has been proven to be able to influence performance (Soewarno & Ramadhan, 2020; Ngatemin et al., 2018), the condition of a firm's shares (Madyan et al., 2019; Agustia et al., 2019) and policies related to assets, taxes and dividends within the firm (Jayanti & Puspitasati, 2019; Verawaty et al., 2016; Iskandar et al., 2012; Lubis et al., 2017; Bulutoding, 2016). This gives an indication that concentration of ownership will have an impact on firm performance. Figure 1 shows the average trend of ownership concentration and Figure 2 shows the average Tobin's-Q in manufacturing companies in Indonesia from 2013-2017. Figure 1 shows that the trend of ownership concentration in manufacturing companies in Indonesia tends to increase. Hu et al (2010) show that the presence of concentrated ownership will be negatively related to a firm's market performance. In line with these indications, in Figure 2 it is shown that the average Tobin's Q in manufacturing companies listed on the Indonesia Stock Exchange from 2013 to 2017 shows a declining trend. The existence of this trend encourages researchers to analyse whether there really is a relationship between ownership concentration and firm market performance.
Hu et al (2010) show the detrimental effect of ownership concentration on firm performance. For this reason, it is important to know other aspects that can mitigate the negative relationship between ownership concentration and firm performance. La Porta et al. (1999) show that agency problems between controlling and minority shareholders, caused by a concentrated ownership structure, can be addressed by improving the quality of investor protection for minority shareholders.

The quality of the protection of minority shareholders is also referred to as investor protection quality. Investor protection quality in a country can be known through an investor protection index developed by the Doing Business Project Word Bank. Previous research has documented that investor protection quality could mitigate the negative relations between ownership concentration and firm performance within companies in Vietnam, Singapore and India (Nguyen et al., 2015; Altaf & Shah, 2018). However, there are no studies analysing this topic for companies in Indonesia. For this reason, the researchers are interested in studying the effect of ownership concentration on firm performance more closely by taking into account the moderating effect of investor protection quality in Indonesia.

The sample used in this study consists of manufacturing companies listed on the Stock Exchange from 2013 to 2017 that have ownership concentrations equal to or more than 20%. Our final sample consist of 302 observations. Based on multiple linear regression testing, the results of this study indicate that there is a negative relationship between the concentration of ownership and firm performance. This study also succeeded in confirming the existence of investor protection quality is able to mitigate the negative relationship between ownership concentration and firm performance. The results of this study suggest that investors need to
consider concentration of ownership and investor protection quality in estimating a firm's performance in the future.

The remainder of this paper is structured as follows: Section 2 develops the research hypotheses. Section 3 describes the research design. Section 4 specifies the empirical results. Section 5 summarises the paper and presents concluding remarks.

Hypotheses Development

**Firm Ownership and Performance Concentration**

A concentrated ownership structure will encourage controlling shareholders’ expropriation of minority shareholders. Expropriation is the process of using control to maximise one's own welfare using the wealth of others (Claessens et al., 2000). The control right is in the form of voting rights to participate in determining firm policy (La Porta et al., 1999). In this case, the beneficiary is the controlling shareholder and the injured party is the minority shareholder.

Acts of expropriation carried out by controlling shareholders towards minority shareholders can be in the form of transactions between related parties, transfer pricing between related parties, and so on (Bai et al., 2003). As a result of the act of expropriation by majority shareholder, there is a high possibility for minority shareholders to attract investment in a firm by selling the shares of the firm they have. More and more minority shareholders who sell their shares causes the value of a firm, which is reflected by the firm's stock price, to decrease. Hence, when there is expropriation, a firm's performance (which is proxied through the firm's market performance) will show a decline. Concentration will negatively affect firm performance. The higher the concentration of firm ownership, the lower a firm's performance. We argue that ownership concentration is negatively related to firm performance.

**H1:** Concentration of ownership has a negative effect on firm performance.

**Investor Protection Quality, Ownership Concentration and Firm Performance**

Minority shareholders have the right to a firm's performance that uses capital invested, although in a relatively smaller amount compared to controlling shareholders. Consequently, minority shareholders are entitled to protection from expropriation by controlling shareholders. Expropriation in a firm indicates a low level of protection for minority shareholders. As the level of protection for minority shareholders gets higher, minority shareholders are increasingly protected. When more protected, minority shareholders are more loyal to continue investing in a firm. This has an impact on maintaining the firm's market value, so as to close the opportunity for a decline in the firm's market value caused by the sale of shares by minority shareholders. The higher the level of protection for minority shareholders, the lower the expropriation. In other words, an increase in the quality of
protection of minority shareholders has an impact on reducing the negative influence of ownership concentration on firm performance.

Minority shareholders can be protected using minority shareholder protection instruments (La Porta, Lopez-de-Silanes, Shleifer, & Vishny, 2000). Indonesia already has a minority shareholder protection instrument contained in Law No. 40 of 2007 concerning limited liability companies and general guidelines for good corporate governance in Indonesia. It contains the rights of minority shareholders in firms.

The value of a country's investor protection index shows the level of quality of protection for shareholders in companies in that country. A high value of investor protection quality in a country means minority shareholders who invest in firms in that country feel safe and protected. High investor protection quality will mitigate the negative effect of the concentration of ownership on firm performance.

**H2:** Investor protection quality weakens the negative influence of ownership concentration on firm performance.

**Methods**

**Data and Sample**
The data used in this study was obtained from the financial statements and annual reports of manufacturing companies downloaded from an official website. The sample used in this study consisted of manufacturing companies listed on the Stock Exchange from 2013 to 2017 that had ownership concentrations equal to or more than 20%. Manufacturing companies that have gone public include companies in the basic and chemical industry sector, various industry sectors, and the consumer goods sector. The final sample in this study was 302 observations.

**Measurement of Dependent Variable**
Firm performance is a measure of the level of management's success in managing a firm's financial resources, especially in managing investments as an effort to create value for shareholders (Moerdijanto, 2011). Referring to Altaf & Shah (2018), Hu et al. (2010), and Nguyen et al. (2015), this study measures firm performance (TOBINSQ) using Tobin's Q. Tobin's Q shows a firm's market performance. TOBINSQ is measured using the sum of the market value of equity and the total book value of debt, then divided by the book value of total assets (Chung & Pruitt, 1994).
Measurement of Ownership Concentration
Ownership concentration is characterised by shareholders who have a proportion of a firm's share ownership in large numbers and have the ability to control the firm. La Porta et al. (1999) classify controlling shareholders into 5 groups: family, government, financial institutions, companies, and other controlling shareholders (such as foreign investors, cooperatives, and employees) with a large proportion of share ownership. La Porta et al. (1999) state the criteria for controlling shareholders of a firm: shareholders who have a percentage of ownership of at least 20% of the total shares of the firm. This is in accordance with regulations issued by the Financial Services Authority in the Financial Services Authority Circular Letter Number 57/POJK.04/2017 concerning controlling shareholders (OJK, 2017). The concentration of ownership (OWN) in this study is measured as a proportion of total share ownership of at least 20% of the outstanding shares of firm i in year t with the number of shares of firm i in year t.

Measurement of Investor Protection Quality
Investor protection quality is the quality of protection for minority shareholders of a firm. The Indonesian government has enacted regulations to protect minority shareholders of companies in Indonesia through Law No. 40 of 2007 concerning limited liability companies and general guidelines for good corporate governance.

Investor protection quality in this study is proxied by the investor protection index (IP), developed by the Doing Business Project World Bank, which measures the strength of protection for minority shareholders in a country. The investor protection index (IP) is a simple average of the conflict of interest regulation index and shareholder governance index. The conflict of interest level index is a simple average of the disclosure level index, an index of directors’ liability levels and an index of ease of suit for shareholders. The shareholder governance index is a simple average of the index of the level of shareholder rights, the level of ownership and control, and the level of firm transparency (Indonesian Investment Coordinating Board, 2017: 7).

The disclosure level index measures the examination and approval of transactions made between parties and the requirements for internal, immediate and periodic disclosure of transactions made. The director's level of liability index measures the ability of minority shareholders to sue and hold directors accountable for transactions between adverse parties and available legal solutions (losses, repayment of profits, fines, imprisonment, cancellation of transactions). Shareholder suitability index measures access to firm internal documents, evidence obtained during trials, and allocation of legal costs (Indonesian Investment Coordinating Board, 2017: 7).
The shareholder rights index measures the rights of shareholders and their role in making major decisions in firms. The index of ownership and control measures the safeguards that the government carries out to protect shareholders from improper council control and defence. The firm transparency index measures firm transparency over significant owners, executive compensation, annual meetings and audits.

The indexes mentioned above have measurement scales from 0-10. As a measurement scale gets closer to 10, the quality of protection of minority shareholders gets higher. The data above was obtained from questionnaires distributed to companies and lawyers in the stock market and was based on regulations regarding securities, firm law, civil law and rules of evidence from the court (Indonesian Investment Coordinating Board, 2017: 7). Thus, IP is measured using the sum of the conflict of interest regulation index and the shareholder governance index divided by 2.

**Measurement of Control Variable**
This study uses leverage (LEV), firm size (FSIZE) and firm age (FAGE) as control variables. Leverage measures how much debt is used in corporate spending (Sudana, 2011: 20). The higher the leverage, the higher the financial risk of a firm (Sudana, 2011: 20). High risk negatively affects firm performance. Leverage (LEV) is measured using the proportion of total debts to total assets. Firm size (FSIZE) can be seen from a firm's total assets. FSIZE is measured using the natural logarithm of total assets (Arifuddin et al., 2017). The age of a firm shows how long a firm has existed since it was founded (Borda, Geleilata, Newburry, & Kundu, 2017). The longer a firm has been established, the better and more efficient the firm. It establishes a competitive advantage in the core business that drives the success and prosperity of the organisation (Arrow, 1962; Jovanovic, 1982). Hence, the age of a firm has a positive effect on firm performance. FAGE is measured using the natural logarithm of the difference between the observation year and the year the firm was founded.

**Methodology**
This study used ordinary least square to test the hypotheses. The first hypothesis was tested using a regression model (1). In this regression model we expected a negative coefficient for the relationship between OWN and TOBINSQ.

\[
\text{TOBINSQ}_{i,t} = \alpha_0 + \beta_1 \text{(OWN)}_{i,t} + \beta_2 \text{(LEV)}_{i,t} + \beta_3 \text{(SIZE)}_{i,t} + \beta_4 \text{(AGE)}_{i,t} + \varepsilon_{i,t} \quad \ldots \ldots \quad (1)
\]

To test Hypothesis 2, a regression model (2) was used. In this regression model, we expected a positive coefficient for the relationship between OWN * IP and TOBINSQ.
TOBINSQi,t = α0 + β1 (OWN)i,t + β2 (IP)i,t + β3 (OWN*IP)i,t + β4 (LEV)i,t + β5 (SIZE)i,t + β6 (AGE)i,t + εi,t ......................................................... (2)

The level of significance indicates the level of error that is tolerated by research, namely 1%, 5%, and 10%. In this study, if the significance value is smaller than a level of significance of (α) 1%, 5%, and 10%, then H0 is rejected and H1 is accepted. However, if the significance value is greater than a level of significance of (α) 1%, 5%, and 10%, then H0 is accepted and H1 is rejected.

Empirical Results

Descriptive Statistics
Table 1 shows the statistical description of the research variables, which includes the number of observations (N), the lowest value (minimum), the highest value (maximum), the average value (mean), and the standard deviation of the variables used in this study. Based on table 1, the number of research observations was 302. The average performance of a firm (TOBINSQ) was 0.0634 with a Tobin's Q value of 1.22289. This means the average value of manufacturing companies listed on the Stock Exchange was overvalued, because the average value of Tobin's Q>1. This shows the market value of the average firm was greater than the book value of the firm's assets. An average concentration of ownership of firms (OWN) of 0.6103 means manufacturing companies listed on the IDX had a concentrated ownership pattern. On average, controlling shareholders owned 61% of the total shares issued by firms. An average investor protection index (IP) of 5.8765 means that the average level of protection of minority shareholders in manufacturing companies listed on the Stock Exchange from 2013 to 2017 was 5.8765. This figure shows a relatively high level of minority shareholder protection. The average leverage (LEV) of 0.46 means that the sample companies in the study used 46% debt to finance their assets. FSIZE values vary from 24.86 to 34.89. The FAGE value has an average of 3.5875.

Table 1: Descriptive Statistics

<table>
<thead>
<tr>
<th></th>
<th>N</th>
<th>Minimum</th>
<th>Maximum</th>
<th>Mean</th>
<th>Std. Deviation</th>
</tr>
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<tbody>
<tr>
<td>Q</td>
<td>302</td>
<td>-1,4300</td>
<td>1,8500</td>
<td>0,0634</td>
<td>0,5020</td>
</tr>
<tr>
<td>OWN</td>
<td>302</td>
<td>0,2000</td>
<td>0,9800</td>
<td>0,6103</td>
<td>0,2005</td>
</tr>
<tr>
<td>IP</td>
<td>302</td>
<td>5,3000</td>
<td>6,1000</td>
<td>5,8768</td>
<td>0,2506</td>
</tr>
<tr>
<td>LEV</td>
<td>302</td>
<td>0,0400</td>
<td>0,9900</td>
<td>0,4600</td>
<td>0,2277</td>
</tr>
<tr>
<td>FSIZE</td>
<td>302</td>
<td>24,860</td>
<td>34,890</td>
<td>28,2273</td>
<td>1,6449</td>
</tr>
<tr>
<td>FAGE</td>
<td>302</td>
<td>1,6100</td>
<td>4,5700</td>
<td>3,5875</td>
<td>0,3933</td>
</tr>
<tr>
<td>Valid N (listwise)</td>
<td>302</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Ownership Concentration and Firm Performance

Table 2, column 1, shows the results of the regression test between ownership concentration and firm performance. The OWN variable in model 1 has a negative coefficient value with a significance value below the level of significance (α) of 5%, so it can be concluded that H0 is rejected, while H1 is accepted. In other words, ownership concentration has a significant negative effect on firm performance. LEV and FSIZE variables show results that match predictions, where LEV is negatively related to firm performance and FSIZE is positively related to firm performance.

Table 2: Regression Results

<table>
<thead>
<tr>
<th>Variable</th>
<th>Independent Variable: TOBINSQ</th>
</tr>
</thead>
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<tr>
<td></td>
<td>Model 1</td>
</tr>
<tr>
<td></td>
<td>(1)</td>
</tr>
<tr>
<td>OWN</td>
<td>-0.328**</td>
</tr>
<tr>
<td></td>
<td>(0.027)</td>
</tr>
<tr>
<td>IP</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>IP*OWN</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>LEV</td>
<td>-0.221*</td>
</tr>
<tr>
<td></td>
<td>(0.092)</td>
</tr>
<tr>
<td>FSIZE</td>
<td>0.099***</td>
</tr>
<tr>
<td></td>
<td>(0.000)</td>
</tr>
<tr>
<td>FAGE</td>
<td>0.083</td>
</tr>
<tr>
<td></td>
<td>(0.247)</td>
</tr>
<tr>
<td>R Square</td>
<td>0.138</td>
</tr>
<tr>
<td>Observation (n)</td>
<td>302</td>
</tr>
</tbody>
</table>

Description: level of significant, α = 10% (*), α = 5% (**), α = 1% (**)

FAGE does not indicate a relationship with firm performance. The value of R2 in model 1 is 0.138. This shows that 13.8% of the firm's performance variable (Q) can be explained by the independent variables used in the study, while the rest (86.2%) is explained by other variables that are not used in this study.

This study found that ownership concentration had a significant negative effect on firm performance. This means that the higher the level of concentration of a firm's stock ownership (the more concentrated the firm's share ownership), the lower the firm's performance. These findings are consistent with the results of research conducted by H. W. Hu, Tam, & Tan (2010). They found concentration of ownership has a significant negative
effect on firm performance. Concentrated ownership structure increases the expropriation carried out by controlling shareholders of minority shareholders. Expropriation can result in a minority shareholder withdrawing investment in a firm by selling the shares of the firm they own. More and more minority shareholders selling shares makes a firm's stock prices decline. This has an impact on the value of Tobin's Q.

The Moderating Effect of Investor Protection Quality on the Relationship Between Ownership Concentration and Firm Performance

Table 2, column 2 shows the results of regression of IP * OWN and TOBINSQ interaction variables. The moderating variable (OWN * IP) in model 2 has a positive coefficient, with a significance value below a level of significance (α) of 1%. Consequently, H0 is rejected and H1 is accepted. In other words, investor protection quality weakens the negative influence of (moderate) concentration of ownership on firm performance. In model 2, the results also show that the coefficient of regression of ownership concentration’s influence on firm performance is significantly negative. Therefore, it can be concluded that investor protection quality significantly weakens the negative influence of ownership concentration on firm performance. In other words, higher investor protection quality has the effect of weakening the negative influence of ownership concentration on firm performance. The results of this study indicate that the investor protection quality variable acts as a pure moderating variable. This is because the results of testing in model 2 show that the coefficient of the interaction between ownership concentration and investor protection quality is significantly positive. However, the coefficient of the ownership concentration variable is not significant.

The higher the value of a country's investor protection index, the higher the level of quality protection for minority shareholders. Minority shareholders will tend to feel safe and protected, so this causes the negative effect of ownership concentration on firm performance, as measured by market performance (Tobin's Q), to be weaker when investor protection quality is higher. The results of this study are consistent with the results of research conducted by Nguyen et al. (2015). In this research, the results show that the investor protection index moderates concentration of ownership and weakens the latter’s effect on firm performance (Altat & Shah, 2018).

Conclusion

Based on the results of research conducted using 302 research observations of manufacturing sector companies listed on the Indonesia Stock Exchange from 2013 – 2017, it is concluded that ownership concentration negatively affects firm performance. However, the presence of good investor protection quality can mitigate these adverse effects.
The existence of ownership concentration can increase the occurrence of expropriation by majority shareholders of minority shareholders. This activity is detrimental for minority shareholders. As a result of the act of expropriation by the majority shareholders, there is a high possibility for minority shareholders to attract investment in a firm by selling the shares of the firm they have. As a result, the share price declines and the firm's market performance becomes low. To mitigate this, an increase in investor protection quality can be made. Indonesia already has a minority shareholder protection instrument contained in Law No. 40 of 2007 concerning limited liability companies and general guidelines for good corporate governance in Indonesia, which contains the rights of minority shareholders in a firm. With a high value of investor protection quality in a country, minority shareholders feel safe and are protected from the risk of expropriation by majority shareholders. Hence, higher investor protection quality mitigates the negative effect of concentration of ownership on firm performance.

The results of this study suggest that investors need to consider concentration of ownership and investor protection quality to estimate a firm's performance in the future. In further research, another measure of firm performance other than Tobin's Q can be used to obtain comprehensive research results related to the effect of ownership concentration on firm performance moderated by investor protection quality. Cross country research can also be conducted to obtain deeper research results related to the moderating role of investor protection quality on the effect of ownership concentration on firm performance.

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