

The Relationship Between Ownership Concentration, Environmental Performance and Firm Performance Evidence From Indonesia

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ABSTRACT

In this study the relationships between ownership concentration and environmental performance and firm performance are examined. Companies manufacturing and mining sectors are listed in the Indonesia Stock Exchange as the sample in this study. Environmental performance is measured using Performance Rating Program (PROPER) by the Ministry of Environment and Forestry of the Republic Indonesia. Ownership concentration is measured by the percentage ownership of largest shareholders the first three (at least 5 percent) of the outstanding shares. Firm performance is measured by proxy ROA and Tobins Q. The findings indicate that there is no relationship between ownership concentration and environmental performance. Additionally Ownership concentration positively related to firm performance, and environmental performance is positively related to firm performance (in measurement of Tobins Q but not in ROA). The overall findings support agency theory and legitimacy theory. Environmental performance can be a strategy to increase firm performance.

KeyWord : *Ownership Concentration, Environmental Performance, Firm Performance, PROPER, Agency Theory, And Legitimate Theory*

1. Introduction

In agency theory, the separation of control and ownership to the company led to conflict's agency; ownership concentration can be a monitoring mechanism that can reduce the agency conflict (Berle and Means, 1932; Jensen and Meckling, 1976). Ownership concentration is dominant present under the control, with a bit of shareholder increasingly easier to control managers to make efforts to improve firm performance (Shleifer and Vishny, 1997; Thomsen and Pedersen, 2000). Ownership concentration of directing the management to realize the interests of shareholders by voting power or represent himself in a management position (Porta *et al.*, 1999).

Ownership concentration and firm performance has been widely discussed in the financial literature, but there is no consensus on the relationship of both. The occurrence of the gap results of previous studies the relationship between ownership concentration and firm performance. Most studies suggest a positive relationship between ownership concentration and firm performance (Jaafar and El-Shawa, 2009; Alimehmeti and Paletta, 2010; Farooque *et al.*, 2010; Krivogorsky and Grudnitski, 2010; Anwar and Tabassum, 2011; Caixe and Krauter, 2013; Gaur *et al.*, 2015; Li *et al.*, 2015; Nguyen *et al.*, 2015). Most other studies suggest ownership concentration has no

impact on the firm performance (Ahmed *et al.*, 2012; Wahla *et al.*, 2012; Mule *et al.*, 2013; Warrad *et al.*, 2013; Al-Saidi and Al-Shammari, 2015). Jiang *et al.* (2009) found that the increase ownership concentration actually makes things worse, the controlling shareholders do not participate to supervise the manager and create bad behavior of managers in seeking personal gain.

The result of different studies is probably caused to other factors that indirectly affect the relationship of ownership concentration and firm performance. At the moment emergence of phenomena environmentally friendly business activities result in companies not only focus on economic performance. The development of stakeholder theory provides new paradigm changes in measuring the firm performance, one of them the concept of Triple Bottom Line, which measures the firm performance holistically with three performance measures, namely; economic, such as acquisition of profit; environmental, such as environmental awareness; and social, such as social care (Elkington, 1997). This paradigm encourages owners of the firm to integrate social and environmental concerns on the corporate strategic plan, for a reason to maintaining reputation and increase legitimacy of the firm (Aerts and Cormier, 2009). Concern corporation by improving environmental performance will provide economic benefits to the

corporation such as the advantages of efficiency (Porter and Linde, 1995; Caracuel and Mandojana, 2013) and improve firm performance (Purnomo *et al.*, 2012; Wassmer *et al.*, 2014; Muhammad *et al.*, 2015).

In Indonesia, the government has arranged policies related to environmental sustainability. Pelita seventh with TAP MPR No. II / MPR / 1998 regarding GBHN, states that "policy's environment sector among others, the development of environment directed toward the environment continues function of a support and buffers the ecosystem of life and realization of balance, harmony and harmonious dynamic ecological systems, socio-economic and social culture in order to ensure sustainable development "(GBHN, 1998). Similarly, the Law of the Republic of Indonesia No. 23 of 1997 regulated Environmental Management. By the regulation encourage a corporation in Indonesia have a sense of responsibility and concern for the environment.

Platform for environment-based economic practices being used as a benchmark for the industry in Indonesia includes; Environmental Management Systems, Energy Efficiency, Emissions Reduction, 3R (Reuse, Reduce, Recycle) for B3 waste, bio diversity protection and community development. The platform is used to assess propriety of industrial operations on the environment and society through a ranking program launched by the Ministry of Environment and Forestry of the Republic of Indonesia, called PROPER that can make corporate focus on environmental protection (Djajadiningrat *et al.*, 2014). PROPER aims to encourage a corporation to adhere to environmental regulations and achieve environmental excellence through the integration of sustainable development principles in the process of production and services, and ethical business conduct and responsible to the community through community development programs (PROPER, 2011).

Based above background, this study aims to test empirically the relationship between ownership concentration and environmental performance and firm performance. The study of the relationship between the concentration of ownership, environmental performance and corporate performance is still lack in Indonesia. Ownership concentration is measured by the percentage ownership of largest shareholders the first three (at least 5 percent) of the outstanding shares (Desoky and Mousa, 2013; Nguyen *et al.*, 2015). Environmental performance is measured using a rating PROPER by the Ministry of Environment and Forestry of the Republic of Indonesia (Purnomo *et al.*, 2012; Iqbal *et al.*, 2013). While the firm performance is measured by using two measurements, ie based accounting and market value. For accounting basis is measured by ROA, while the market value based on Tobins Q (Farooque *et al.*, 2010; Warrad *et al.*, 2013; Al-Saidi and Al-Shammari, 2015).

This study tries to prove that the corporate has a good environmental performance can create economic value and can mediate disparity's previous

studies of the relationship between ownership concentration and firm performance. Study will be conducted on corporate listed on the Indonesia Stock Exchange is focused on the mining sector and the manufacturing sector because the sector is considered to be highly vulnerable to environmental issues (Post *et al.*, 2015; Zou *et al.*, 2015). This paper composed of five sections. The next section provides literature review and hypothesis development. The third section describes the methodology to the study. Part four presents, the empirical results and the last section conclude and limitation for future research.

2. Literature Review and Hypothesis Development

Studies on the effect of ownership concentration and firm performance referred to reference agency theory (Berle and Means, 1932; Jensen and Meckling, 1976) . Agency theory shows how agency conflict from the perspective of a narrower, which is related to the relationship between owners and management corporate (Parkinson, 1994). Stakeholder theory the wider view that companies are not only related to the management and shareholders, but also needs to take over the interests of other parties that influence and are influenced corporation (Freeman, 1984). In perspective on the legitimacy theory, the company strategically can take action to adapt the corporate values of social and environmental (Aerts and Cormier, 2009). Legitimacy is important for businesses because the legitimacy with the public about the company becoming a strategic factor in the development of the company's future (Epstein, 1972). Stakeholder theory underlying the relationship of corporate ownership and environmental performance, while legitimacy theory against the background to the relationship between environmental performance and firm performance.

2.1 Ownership Concentration and Firm Performance

Ownership concentration is a phenomenon that dominates in Asian countries, and be effective mechanism for monitoring agents, because the corporate governance implementation and investor protection is still weak (Farooque *et al.*, 2010; Nguyen *et al.*, 2015). A company can be defined to have concentrated ownership structures if there is a dominant shareholder of the other, controlled from a group or individual and the controlling shareholder (Dallas, 2004).

Agency theory argues that concentrated ownership can be an incentive for shareholders to direct the manager to improve performance and shareholder value (Jensen and Meckling, 1976). The greater of concentrated ownership and fewer investors are then more easily owners to control corporation (Shleifer and Vishny, 1997). Several previous studies indicate that the mechanism ownership concentration is effective and efficient in monitoring the management

to act according to desire of shareholders. Research by Anwar and Tabassum (2011) argues that there is a positive correlation between ownership concentration with return on assets (ROA), these results empirically proved that ownership concentration leads to better operating performance. Concentrated ownership encourages the company's cash holdings to increase the firm value (Ameer, 2012). Celenza and Rossi (2013) found that ownership concentration a positive impact on financial performance is measured by return on assets (ROA). Gaur et al. (2015) argue that concentrated ownership can improve performance and reduce the agency problems. In the light of the above results, the following hypothesis can be formulated:

H1a. There is a significant relationship between ownership concentration and firm performance (ROA)

H1b. There is a significant relationship between ownership concentration and firm performance (Tobins Q)

2.2 Ownership Concentration and Environmental Performance

Generally corporate presence had a positive impact to economic progress and development of nation. However, production activity's corporation that does not take from the environment as a factor to the production process only considers a gift of nature that should be utilized as much as possible without thinking about sustainable business. Consequently, a major impact of the environment that affects the balance of nature like; global warming, climate change, natural disasters, pollution of water, air and soil, it is a price one that costs society from its activities. It generates conflict between communities with the company. This condition induces awareness that the environment as one of the factors of production that should be rewarded with airings "Environmental Impact Assesment (EIA)" was introduced in America in the 1970s. EIA requires that environmental impact assessment for any plan of action than expected to have a major impact (adverse effects) on the environment (Djajadiningrat *et al.*, 2014).

Since the issues of environmental damage caused by production activity corporation, increasing is discussed, it's encouraging companies not only to measure the performance of the size of the economy but also of other sizes associated with environmental and social issues. As the Emergence of the concept the Triple Bottom Line which measures the performance corporation holistically with three performance measures, namely; economic, in the form of the acquisition of profit; environmental, form of environmental concerns; and social, such as social care (Elkington, 1997).

The concern of corporate for the environment and social can be explained through stakeholder theory, that the corporate success to maximize the economic performance not only from the perspective

relationships between shareholders and corporate, but also noticed corporate relationships with stakeholders an overall (Ullmann, 1985; Jensen, 2001). Firms that have a strong concern on environmental issues and social, motivate the shareholders to influence the management to improve the environmental performance corporation (Ullmann, 1985; Henriques and Sadorsky, 1996).

Shareholders which dominate the ownership will be different from other shareholders, mainly from two aspects ie the interests of long-term survival of corporation, and their own reputation related with the corporate (Anderson *et al.*, 2003). Accordingly dominant shareholder (ownership concentration) would be more likely to take a decision to maximize the company's objectives related to economic, social and environmental. Previous research stated a strong association between ownership concentration and efforts to increase the corporation environmental and social performance.

Earnhart and Lizal (2006) found companies in the Czech Republic, which has a concentrated ownership structure affects the corporation to improve its environmental performance. Where the first largest shareholder as proxy ownership concentration affecting firms to take steps to reduce the impact of air pollution that polluted (CO, SO₂, and NO_x) from the operating corporate. Environmental performance is measured by the number of main pollutants (CO, SO₂, and NO_x) produced corporate activity and the most regulated in the Czech Republic. Crisostomo and Freire (2015) argued that firms whose ownership is concentrated in Brazil attempt to keep the name and the reputation, they involve the firms more on social and environmental activities (Corporate Social Responsibility). Effort to increase the environmental and social performance is done to maintain the image and corporate reputation which increased the legitimacy of corporation. Moreover, Chang and Zhang (2015) finding that corporation whose ownership is concentrated tends to increase the controlling and monitoring of operating costs related to the environment.

Based on theoretical studies and empirical studies above, the following hypothesis can be formulated:

H2. There is a significant relationship between ownership concentration and environmental performance

2.3 Environmental Performance and Firm Performance

Environmental management within the firm aims to obtain a excellent environmental performance, that is by managing natural resources to generate maximum benefits without sacrifice the environment itself. In order to obtain a excellent environmental performance corporation running responsible business

practices in environments with outcomes such as pollution prevention activities, the use of renewable energy and has a good environmental reputation (Walls *et al.*, 2012). Environmental performance can also be interpreted as measures of protection of air, water, soil and ecosystems as well as a pattern in any economic activity (Bran *et al.*, 2011).

Legitimacy theory explains the relationship of the social contract between the corporate and the community in which corporate must have integrity implementation of business ethics and to improve social and environmental responsibility so that the corporate can be accepted the presence in the community (Deegan, 2002). In order to derive legitimacy from the public, the firm must perform corporate actions that adapt to the values of social and environmental (Aerts and Cormier, 2009). Companies that implement responsible corporate action on the environment contribute to the legitimacy and will derive easy access to the resources, create better employees, and have a relationship of synergy with partners (Pfeffer and Salancik, 1978; DiMaggio and Powell, 1983; Aldrich and Fiol, 1994 ; Turban and Greening, 1997).

Maintaining legitimacy to the public through improved environmental performance can be the corporate strategy to improve firm performance. Previous studies on the relationship of environmental performance and the firm performance, found that improvements of environmental performance will be a positive effect on firm performance (Al-Tuwaijri *et al.*, 2003; Moneva and Ortas, 2010; Purnomo *et al.*, 2012; Muhammad *et al.*, 2015). Accordingly, the following hypothesis can be suggested:

H3a. There is a significant relationship between ownership environmental performance and firm performance (ROA).

H3b. There is a significant relationship between ownership environmental performance and firm performance (Tobins Q).

Based on the development of hypotheses, summary of hypotheses as shown in the following figure 1.

3. Research method

3.1 Data Sample

The sample in this study is a mining and manufacturing corporation listed in Indonesia Stock Exchange in 2010-2014. Selection of mining and manufacturing industries because it is considered as the most vulnerable to environmental issues. The manufacturing sector is the sector that generates a lot of pollution, while the mining sector is the sector that many explore natural resources (Post *et al.*, 2015; Zou *et al.*, 2015).

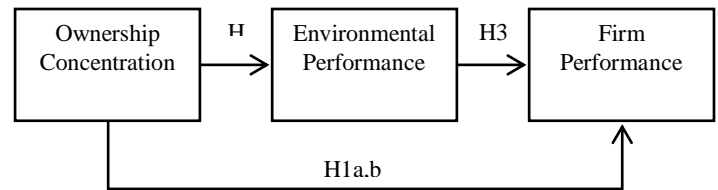


Figure : Summary of hypothesis

The criterion used in the selection into the sample is as follows: (1) Mining and manufacturing company that has published annual report for 2010-2014. (2) Companies that follow the Program of Environmental Management Performance Rating (PROPER) since 2010-2014. Based on the selection criteria selected sample of 37 companies consisting of the six mining companies and 31 manufacturing companies. The study used pooled data. Data analysis was performed during the study period 2010-2014 (five years) with 37 sample company, so that total as much data as 185. The data collected for this study to take a secondary data provided in the financial statements, annual reports, reports of rating PROPER issued either by Capital Market Reference Center (PRPM), internet, Indonesian Capital Market Directory (ICMD), and IDX statistics as well as through media of relevant publications. Data collection technique used for this study is documentation.

3.2 Measurement variable

3.2.1 Firm Performance

Firm performance is measured using two base measurement ie the basis of accounting and market value basis. For accounting-based performance measured by ROA, while the market value based performance measured by Tobins Q (Farooque *et al.*, 2010; Warrad *et al.*, 2013; Al-Saidi and Al-Shammari, 2015). ROA is calculated by dividing the net profit and total assets. While Tobins Q is a calculation on the stock market value plus the value of total debt divided by total assets.

3.2.2 Environmental Performance

The environmental performance can be defined as efforts how to manage natural resources to produce maximum benefits for humans, without sacrificing the sustainability of natural resources itself. Firm that have good environmental performance is practicing environmentally responsible businesses with outcomes; pollution prevention activities, using renewable energy and implement high-quality environmental disclosure (Walls *et al.*, 2012).

Environmental performance is measured by the company's achievements in the PROPER program which is one of the efforts made by the Ministry of Environment and Forests to encourage the company to restructure the management of the environment through information instruments (Purnomo *et al.*, 2012; Iqbal *et al.*, 2013; Angeliia and Suryaningsih, 2015).

The rating system's environmental performance PROPER measured using rating in five colors: (1) Gold Rating: score = 5, (2) Green Rating: Score = 4, (3) Blue Rating: score = 3, (4) Red rating: score = 2; and (5) Black rating: score = 1.

3.2.3 Ownership Concentration

Ownership concentration can be defined as a condition where there is a dominant shareholder of the other shareholders controlled from either group or individual, and the controlling shareholder (Dallas, 2004). Ownership concentration is measured by the percentage of ownership largest shareholder the first three (minimal 5 percent) of the total shares outstanding (Desoky and Mousa, 2013; Nguyen *et al.*, 2015).

3.2.4 Size Of The Firm

This study used control variables, that are the size of the firm has been widely used by researchers of previous. With controlled by size of the firm, it will enhance the relationship between ownership concentration and environment performance and firm performance. There is strong relationship between size of the firm with environmental performance and the firm performance, the size of the organization is an important variable for controlling the empirical study of the environmental management (Henriques and Sadorsky, 1996; Earnhart and Lizal, 2006; Cong and Freedman, 2011; Zou *et al.*, 2015) and firm performance (Krivogorsky and Grudnitski, 2010; Desoky and Mousa, 2013). Size of the firm is calculated by the natural logarithm of total assets.

3.3 Model Analysis

This study uses variance-based SEM or partial least squares (PLS-SEM) due to several reasons (Sholihin and Ratmono, 2013) : First, our model is relatively complex with more than one dependent variable. Second, the theory in this research is still relatively new so the test is more appropriate to use SEM-PLS. Third, SEM-PLS can work efficiently with small sample sizes and complex models. This study uses a software WarpPLS 3.0 in testing models of SEM-PLS.

To test H1, H2 and H3 can be made the model equation as the following:

$$EP = \alpha_1 + \beta_1 OC + \beta_2 SZ + \epsilon_1 \quad (1)$$

$$FP = \alpha_2 + \beta_3 OC + \beta_4 EP + \beta_5 SZ + \epsilon_2 \quad (2)$$

Where, EP is environmental performance. OC is an ownership concentration. FP is firm performance, and while the SZ is the company of size.

4. Result.

4.1 Descriptive Statistics and Corelation Matrix

This section describes the results of the study for descriptive statistics and correlation matrix of the research variables from 37 companies or 185 panel data shown in Table 1 and Table 2. We use the data collected from the Indonesia Stock Exchange (IDX) for the period 2010 to 2014. All the firm-level data collected from the hands of the company's annual report for the year concerned. For the environmental performance data collected from reports of the rating company's performance in environmental management (PROPER) issued by the Ministry of Environment and Forestry of the Republic of Indonesia.

Based on Table 1 can be viewed ownership concentration has the largest ownership rate of 100%, which means there are companies whose shares are held in the majority by one investor controller and in that period the company has not listed on a stock exchange. While the average concentrated ownership is 73.4%, while the rest are scattered in public ownership or below 5% For the environmental performance of a sample of companies selected to have a PROPER ranked lowest with a score of 2 or ranking in red while the highest ranking with a score of 5 or gold color. On average the company has ranked with a score of 3 or green rating, showing the average company in the sample had had a good environmental performance and has implemented a management system that is environmentally responsible. For the performance of companies with ROA measurements, an average of 8.9% and the lowest -61.85% mean that the company is experiencing a loss, while for the measurement of Tobins Q average of 2.56. Size companies in this study were measured by the natural log of the assets had an average of 29,23.

Table 1. Descriptive statistics

	N	Min	Max	Mean	Standar Deviation
Ownership Concentration	185	0,2775	1,0000	0,7341	0,1787
Environmental Performance	185	2	5	3,2300	0,6650
Return On Asset	185	-0,6185	0,4268	0,0896	0,1174
Tobins Q	185	0,3822	18,921	2,5632	3,3376
Size	185	26,347	32,057	29,230	1,3791

In Table 2, correlation matrix results demonstrate that Return On Asset, Tobins Q and Size have significant positive correlations with Environmental Performance (significant at the 0,05 level and 0,001 level). Return On Asset has significantly positive correlation with firm size (significant at the 0,001 level). Among explanatory variables, no strong correlation is presented, so multicollinearity is not a concern.

4.2 Results Of Model Estimation

Tables 3 and 4 presents the results of the overall model in terms of path coefficients, proportion of variance (R^2), and goodness-of-fit indices using partial least squares (PLS-SEM). Table 3 shows the results of the overall model for measuring the firm performance by ROA, while table 4 for measuring the firm performance with Tobins Q.

Goodness of fit and P values indicate the results of the three indicators fit that average path coefficient (APC), average R-squared (ARS), and the average variance inflation factor (AVIF). The p-value was given for the APC and ARS indicators are calculated by resampling estimation and Bon-FERRONI like corrections. This is necessary because both are calculated as the average parameters. Evaluate whether the model fit (appropriate or supported) by the data is as follows: The p-value for the APC and ARS should be less than 0,05 or a significant meaning. In addition, as an indicator AVIF multikolinearitas must be less than 5. The output of the model to measure the firm performance with ROA shows a model of goodness of fit criteria have been

met for the APC that is equal to 0,198, and ARS at 0.157 and significant with p-value less than 0,001. AVIF value of 1,005 has met the criteria that is below a limit of 5. While, the output of the model to measure the firm performance with Tobins Q shows a model of goodness of fit criteria have been met for the APC that is equal to 0,180, and ARS at 0.122 and significant with p-value less than 0,001. AVIF value of 1,054 has met the criteria that is below a limit of 5. Overall, the results show evidence of model fit the model according to the theory supported by the data.

Proportion of variance (R^2) indicates what percentage of the variance of the endogenous constructs can be explained by exogenous constructs that influence as a hypothesis. Results of the proportion of variance (R^2) for measuring the firm performance with ROA in the model equations (1), $R^2 = 0.142$ indicates that the environmental performance variance can be explained by the variance of 14.2% Ownership concentration and size, whereas in the model equations (2), $R^2 = 0.173$ shows firm performance that variance can be explained by the variance of 17.3% ownership concentration, environmental performance and size. Results of the proportion of variance (R^2) for measuring the firm performance with Tobins Q in the model equations (1), $R^2 = 0.142$ indicates that the environmental performance variance can be explained by the variance of 14.2% ownership concentration and size, whereas in the model equations (2), $R^2 = 0.103$ shows firm performance that variance can be explained by the variance of 10.3% ownership concentration, environmental performance and size.

Table 2. Correlation matrix of the main constructs

	Ownership Concentration	Environmental Performance	ROA	Tobins Q	Size
Ownership Concentration	1				
Environmental Performance	-0,019	1			
Return On Asset	0,045	0,165*	1		
Tobins Q	0,135	0,153*	--	1	
Size	-0,084	0,376**	0,236**	0,135	1

* Significant at the 0.05 level.

** Significant at the 0.001 level.

-- in a different model equations

Table 3. Results of Model Estimation with Firm Performance measurement by ROA

Decription Path	Path Coefficient	R ²
Ownership Concentration → Environmental Performance	0,013	0,142
Size → Environmental Performance	0,377**	
Ownership Concentration → Firm Performance	0,175	0,173
Environmental Performance → Firm Performance	0,075	
Size → Firm Performanve	0,350**	

Goodness OF Fit Indices : APC = 0,198 P = <0,001, ARS = 0,157 P = <0,001, AVIF=1,055 Good If < 5
* Significant at the 0.05 level.
** Significant at the 0.001 level.

Table 4. Results of Model Estimation with Firm Performance measurement by Tobins Q

Decription Path	Path Coefficient	R ²
Ownership Concentration → Environmental Performance	0,013	0,142
Size → Environmental Performance	0,377**	
Ownership Concentration → Firm Performance	0,218*	0,103
Size → Firm Performanve	0,168*	
Environmental Performance → Firm Performance	0,124*	

Goodness OF Fit Indices : APC = 0,180 P = <0,001, ARS = 0,122 P = <0,001, AVIF=1,054 Good If < 5
* Significant at the 0.05 level.
** Significant at the 0.01 level.

Results of testing the hypothesis of relationships between variables (structural models) for measuring the firm performance with ROA in Table 3, show that ownership concentration no significant effect on firm performance (ROA) These results do not support Hypothesis 1a. Ownership concentration no significant effect on environmental performance results do not support the hypothesis 2. Additionally, the environmental performance no significant effect on firm performance (ROA), these results do not support the hypothesis 3a. In this model, only the control variables (size) which is a significant positive effect both on firm performance (ROA) and environmental performance.

Results of testing the hypothesis of relationships between variables (structural models) for measuring the firm performance with Tobins Q in Table 4, show that ownership concentration significant positive effect on firm performance (Tobins Q) with path coefisien of 0.218, these results support the hypothesis 1b. Ownership concentration no significant effect on environmental performance results do not support the hypothesis 2. Additionally environmental performance significant positive effect on firm performance (Tobins Q) with the path coefisien of 0.124, these results support the hypothesis 3b. The control variables (size) both significant positive effect on firm performance and environmental performance.

Generally the test results showed that no effect is an indirect relationship between ownership concentration on firm performance through environmental performance.

Based on data analysis using PLS Warp 3.0, the study suggests two hypotheses are supported ie a significant positive relationship between ownership concentration and Tobins Q (H1b), and a significant positive relationship between environmental performance and Tobins Q (H3b). Furthermore, it is necessary to know whether the plot of the relationship between these variables is linear or non-linear. Warp PLS 3.0 could provide the analysis results plots the relationship between the variables in Linear and Nonlinear (carved) output . The output plot the relationship between variables is presented in Figure 2 and 3.

Based on Figure 2 plots the relationship can be demonstrated ownership concentration and Tobins Q is non linear (warped) by the shape of the curve U. These results show that ownership concentration will initially degrade the firm performance (Tobins Q). However, at the point of -0.5 ownership concentration could improve the firm performance to the point 1.5.

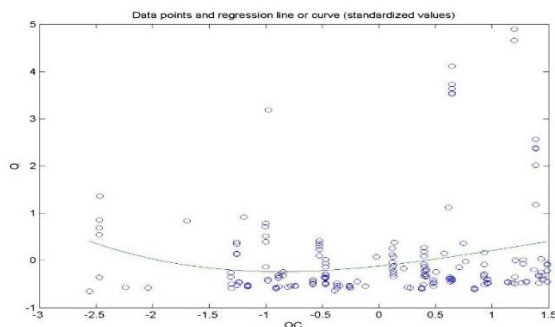


Figure 2. output plot the relationship between OC and Tobins Q

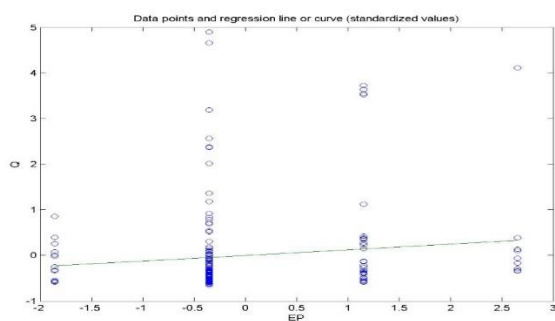


Figure 3. output plot the relationship between EP and Tobins Q

Based on Figure 3 plots the relationship can be demonstrated environmental performance and Tobins Q is linear. These results demonstrate improved environmental performance followed linearly by improving firm performance (Tobins Q).

5. Conclusion

This study aims to test empirically the relationship between concentrated ownership and environmental performance and corporate performance. Testing of this study in the background the research gap on the relationship of ownership concentration and firm performance. Five hypothesis was developed based on agency theory, stakeholder theory, and the theory of legitimacy as well as some previous empirical research results that support.

The main findings of this study indicate that there is a positive relationship between ownership concentration and firm performance (Tobins Q), these results support the agency theory, which states that ownership concentration can be an incentive to monitor management to increase the value of companies (Jensen and Meckling, 1976; Shleifer and Vishny, 1997). The results showed plot the relationship between ownership concentration and firm performance is nonlinear (curve U). This may imply that the initial concentration of ownership, the principal not yet play a strong role in monitoring the manager, but the increasing percentage of ownership, the principal began to tighten in supervising and

controlling operational managers to improve performance.

Other major findings indicate that the environmental performance positive effect on firm performance (Tobins Q). These results support the theory of legitimacy, which states that companies that perform corporate actions by adapting to the values of social and environmental impact on the increase of legitimacy. It making easier for companies to access resources in improving performance (Aerts and Cormier, 2009). Plot the relationship between environmental performance and firm performance is linear, interprets the results that increasing environmental performance increasingly impact on improving the firm performance. So that the environmental performance can be a strategy to enhance corporate value through improvements in corporate activity that is friendly to the environment such as energy efficiency, emissions reduction, implementation 3R (Reuse, Reduce, Recycle) for andgerous waste, bio-diversity protection and community development.

This study also confirmed that ownership concentration is not related to environmental performance. The company implements activities that are environmentally friendly, are not caused by pressure from the controlling shareholder, but is more affected than other incentives such as government regulations, and the achievement of environmental performance rating (PROPER) better to gain legitimacy.

6. Limitation

This study has several limitations. The research sample is only done on the manufacturing and mining sectors. Variable ownership concentration is not sorted into the identity of the owner, who is the controlling shareholder. Owner identity may come from individuals, families, financial institutions, corporate, government or foreign ownership. Differences in the owner's identity can lead to differences in the interests of the company's strategic decisions. Future research may use the samples in other sectors and include a variable owner identity in their influence on environmental performance.

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