

# A LONG WAY TO IMPLEMENT ENVIRONMENTAL REPORTING IN INDONESIAN MINING COMPANIES

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**Abstract:** This study aims to identify the antecedents of environmental reporting (ER) disclosure of mining companies in Indonesia. The population of this study was all mining companies listed in the Indonesia Stock Exchange (IDX). Using purposive sampling, the study collected 120 data from 30 companies. Correlation and path analyses identified four antecedents of ER i.e. length of listing in stock exchange (AGE), Company Size, Leverage, and Profitability. There were significant impacts of SIZE, AGE, Leverage, and Profitability on ER. SIZE significantly influences Leverage while AGE impacts on profitability. The practice of ER among mining companies is very much related to business strategies. ER would be widely reported by the companies when they have high leverage and unsatisfactory financial performance. Without tight supervision and hard enforcement from concerned parties, the implementation of appropriate ER disclosure in mining companies would have a long way to go.

**Keywords:** Environmental Reporting, Firm Size, Firm Age, Leverage, Profitability

## 1. INTRODUCTION

Currently, issues of environmental problems such as waste management, carbon emission, ozone layer depletion, hazardous-waste management, endangered animal trading, and climate change are becoming more important (Gamble, Hsu, Jackson, & Tollerson, 1996). All concerned parties such as UN, governments, industries, and law enforcement institutions should have high commitment to deal with these problems to curb further environmental degradation. In the area of business, all companies should employ Triple-Bottom Line framework. This framework offers a comprehensive approach for companies to consider the aspects of profit, people, and planet in seeking profit (Elkington, 1994; Slaper & Hall, 2011).

Related to such issues, besides preparing financial statements, go-public companies are required to report their responsibilities to environment and social through corporate social responsibility (CSR) (Setneg, 2007; Tanudjaja, 2009). It is clearly stated in law number 40 of 2007 that public company is

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obliged to provide budget to implement CSR (Setneg, 2007). Recently, CSR is not merely a form of responsibility report but also a strategy to combine philanthropy with business (Seow, Hillary, & Jamali, 2006).

Environmental reporting (ER) is a responsibility of an entity towards environment. Some developed countries have applied environmental reporting as a mandatory (Rankin, Stanton, McGowan, Ferlauto, & Tilling, 2012). Even though environmental reporting is mandatory and mentioned in an article 70 of Law number 40, 2007 (Setneg, 2007), the implementation of ER in Indonesia is still considered weak and it is conducted voluntarily (Djajadikerta & Trireksani, 2012). Weak ER implementation might be caused by the fact that the Supervisory Agency for Capital Market and Financial Institution (BAPEPAM-LK) does not include environmental reporting as one of the conditions for a company to be listed in the Indonesia Stock Exchange (Nurhayati, Brown, & Tower, 2006).

On the other hand, the operation of mining companies caused environmental disasters in Indonesia. For example, PT Lapindo Brantas-- an oil and gas company--caused mud flood in Sidoarjo, Grasberg's mining company polluted drinking water with arsenic substance in Papua (Setyorini & Ishak, 2012), and PT Newmont Minahasa Raya polluted Buyat Bay with heavy metal (Lutfillah, 2011). These cases indicate that the control over the operations of mining company is still unsatisfying. Also, these examples are valid evidences that mining company is an industry having direct impact on environment and has high possibility for damaging it.

Consequently, mining industries are required to run their companies in a more environmentally-friendly manner (Deegan & Gordon, 1996). The improvement of quality and quantity of environmental reporting of mining companies in Indonesia is a critical matter. Therefore, this research tries to identify antecedents of ER of mining companies listed in IDX. By knowing the antecedents of ER, the research is expected to offer solution to improve the implementtion of ER in Indonesian mining companies. This research is important as it has been reported by Djajadikerta and Trireksani (2012) that the implementation of ER in Indonesia is still considered weak.

In addition, mostly, the previous studies on ER employed regression analysis (Akbas, 2014; Burgwal & Vieira, 2014; Dibia & Onwuchekwa, 2015; Juhmani, 2004) by treating independent variables in parallel regardless their significant relationships among those variables. This study identifies the model by taking into account all theoretically-supported realtionships among variables.

## **2. THEORETICAL REVIEW**

### **2.1 Environmental Reporting**

The theory of legitimacy coined by Rankin et al. (2012) mentions that the value system of a company should be in line with the social values to ensure company will survive in that business environment. Thus, the company could convince the public that they do their business in accordance with the existing norms, regulations, and social contract/responsibilities (O'Donovan, 2002). The legitimacy theory also mentions that society could influence budget and economic resource allocation owned by the companies. Therefore, companies would use the environmental-based performance by disclosing environmental information to legitimate their business activities (Ghozali & Chariri, 2007).

Meanwhile, theory of stakeholder mentions that company is operating not only for its own interest, but also for providing benefits to related stakeholders (Gray, Kouhy, & Lavers, 1995). Supports from stakeholders influence the existence of companies (Ghozali & Chariri, 2007). Therefore, when stakeholders take control over important economic resources, company would try to fulfill stakeholders' needs (Ullmann, 1985). The power of stakeholders is determined by their ability to control resources (Ghozali & Chariri, 2007; Ullmann, 1985). As a result, the more power the stakeholders have, the disclosure of environmental reporting will increase.

### **2.2 Antecedents of Environmental Reporting**

Companies earning high profit means that the company has sound financial performance. Anggraini (2006) found that a company having higher profitability tends to have more detailed information provided by the manager to convince investors. Likewise, Suhardjanto and Miranti (2009) argued that company would provide more information when the profit is above industry's average to convince investors and creditors that the company has a strong competitive position and runs its business efficiently.

Research conducted by Lu and Abeysekera (2014) found that companies having high profitability tend to have better financial capability to disclose environmental information. Such firms are considered to be more competent in responding social and environmental problems (Cormier & Magnan, 1999). Meanwhile, Dibia and Onwuchekwa (2015) contended that profitability had no correlation with CSR disclosure in Nigerian oil and gas company. Moreover, O'Donovan (2002) concluded that if firms have good

financial performance, they would be likely to inform their economic performance. Conversely, those which have poor financial condition, they would provide broader ER to make investors feel secure.

There were three different findings about the relationship between profitability and ER. *First*, profitability has positive effect on ER (Anggraini, 2006; Cormier & Magnan, 1999; Liu & Anbumozhi, 2009; Suhardjanto & Miranti, 2009). *Second*, profitability has negative effect on ER (O'Donovan, 2002). *Third*, profitability has no effect on ER (Dibia & Onwuchekwa, 2015). Based on the above finding, the study concludes that there is positive effect of profitability on ER reporting. Moreover, enactment of law number 47/2007 that go-public firms have to report CSR including ER could corroborate the conclusion. Hence, this research suggests the following hypothesis:

***H<sub>1</sub>: Profitability has effect on Environmental Reporting***

The length of firms listed in IDX could be an indicator that companies have capability to solve problems and obstacles threatening their survival. The longer the companies listed in the stock exchange, the more experience the companies have in publishing information in their annual report to maintain their legitimacy (Soedaryono, 2007). Legitimacy theory contends that firms having longer existence would have better legitimacy and reputation because they have more experience in establishing communication with stakeholders through disclosing social and environmental information (Juhmani, 2004). The age of company is an indicator of firms' stability and maturity. The age of company has a positive influence on its involvement in environmental protection in order to increase company's value (Akbas, 2014; Liu & Anbumozhi, 2009). Thus, this study formulates the following hypothesis:

***H<sub>2</sub>: Age has effect on Environmental Reporting***

Previous studies employ leverage as a determinants of ER (Akbas, 2014; Dibia & Onwuchekwa, 2015). The higher dependence of firms on debt, the more environmental disclosure performed by the firms to inform other parties that the firms are in low-risk level (Elijido-Ten, 2004). Higher leverage means that the position of creditors as stakeholders would be more important for companies. Therefore, additional information is required to lessen the doubts of the bond holders about the capability of company in fulfilling their rights (Haryanto & Yunita, 2008; Jensen & Meckling, 1976). Moreover, the research of Haryanto and Yunita (2008) found that leverage had positive effect on voluntary disclosure of real estate financial report. This

result was confirmed by Mustika, Nurleli, and Lestari (2015) that the leverage of mining companies is considered high, but they have good environmental performance. In this case, environmental performance affects ER disclosure (Al-Tuwaijri, Christensen, & Hughes, 2004). Thus, leverage had positive effect on ER disclosure.

According to Belkaoui and Karpik (1989) information requires costs which would reduce income, so that companies having high leverage are expected to have a low level of information disclosure. In other words, there is a negative effect of leverage on ER disclosure. Nevertheless, previous studies found that leverage does not affect CSR disclosure (Akbas, 2014; Dibia & Onwuchekwa, 2015). Hence, there are three different views about the effect of leverage on ER. *First*, leverage had a positive effect on the disclosure of ER (Al-Tuwaijri et al., 2004; Elijido-Ten, 2004; Haryanto & Yunita, 2008; Mustika et al., 2015). *Second*, leverage had no effect on ER and CSR (Akbas, 2014; Dibia & Onwuchekwa, 2015). *Third*, Belkaoui and Karpik (1989) argued that leverage negatively affect ER. This study concludes that leverage has positive effect on ER disclosure, because the company would tend to disclose more ER to provide sense of security to bondholders. The feeling of being secure would create the stability of financial position. Thus, this study formulates hypothesis as follows:

### ***H<sub>3</sub>: Leverage affects Environmental Reporting Disclosure***

Generally, large firms get more attention from various parties, including environmentalists. ER disclosure is a firm's commitment to act responsibly towards environment and society in order to minimize political costs and penalties might arise from regulators (Sulaiman, Abdullah, & Fatima, 2014; Watts & Zimmerman, 1978). Moreover, larger firms tend to have greater potential for damaging environment and have more stakeholders. Therefore, disclosing broader environmental reporting is required to maintain the legitimacy of a larger firm (Burgwal & Vieira, 2014). Large-size companies are also predicted to have more ability to fulfill its responsibility in disclosing broader ER (Liu & Anbumozhi, 2009). In other words, there is a positive relationship between firm size and environmental reporting practices (Gray et al., 1995; Hackston & Milne, 1996). Therefore, the research proposes the following hypothesis:

### ***H<sub>4</sub>: Size affects environmental reporting***

Besides becoming a focus of public attention, company size is also reflecting company's values and prospects. A company having greater value-

-reflected by its assets--tends to have better prospects of economic performance (Beaver, Kettler, & Scholes, 1970). Moreover, large-size companies are relatively more stable, more able to generate profit, and more robust in facing economic uncertainty (Sunarto & Prasetyo, 2009). Economy of scale concept contends that large-size companies would have lower cost of production, so that they are predicted to have higher profit (Niresh & Thirunavukkarasu, 2014). Although their research conducted in the drinking water company, Sunarto and Prasetyo (2009) also found that company size had positive effect on profitability. In contrast, Niresh and Thirunavukkarasu (2014) found that there is no relationship between company size and profitability since management has less focus on maximizing profits. This is because managers pay more attention to their own interest. Therefore, based on the understanding that large companies tend to be more stable, better prospects, and greater economy of scale, this research formulates the following hypothesis:

***H<sub>5</sub>: Company Size affects profitability***

In running its business, a company could use debt as a source of financing to leverage profitability. To obtain loans to finance the business, large companies would have more advantages compared to small ones. According to Shuetrim, Lowe, and Morling (1993) large enterprises would have better cash flow that make them easy to obtain financing during financial distress.

In addition, large companies have lower information asymmetry making them easy to obtain additional debt (Brierley, 2005). Data also shows that bigger companies tend to have a better opportunity to get a larger investment compared to small companies (Ezeoha, 2008). A bigger company tends to have greater ability to obtain debt that would increase its leverage ratio easily. The study concludes that a bigger company tends to have higher leverage. Therefore, the study poses the following hypothesis:

***H<sub>6</sub>: Company Size affects Leverage***

As previously discussed, go-public companies tend to have more ability to obtain new sources of funding as they gain more access to banks and financial markets. In addition, banks and potential investors also could obtain financial information from companies which have longer period of listing in IDX. Therefore, old age could be an evidence that a company has ability to survive and has better flexibility (Soedaryono, 2007).

Conversely, Cooley and Quadrini (2001) confirmed that a company could increase its equity through retained earnings, so that the equity would increase as the company gets older. In this case, an older company would tend to have less dependence on debt or leverage. This is consistent with research results of Tamimi, Takhtaei, and Malchi (2013) that the age of the company has negative effect on leverage. In other words, the leverage ratio would get lower when a company is getting older (Huynh & Petrunia, 2010). Thus, this study formulates hypothesis as follows:

***H<sub>7</sub>: Age has negative effect on Leverage***

Quite old companies are assumed to have more experience in managing their businesses. Also, companies having been listed in the stock exchange longer are expected to have higher earnings and are more stable. Zen and Herman (2012) contended that older companies have more experience in running the business and in dealing with various problems. Moreover, Coad, Segarra, and Teruel (2013) found that older companies could have better performance in terms of stability, productivity, profit, size, and leverage ratios. Empirically, older companies could keep their sales growth has significant contribution on profitability growth and productivity gains (Coad et al., 2013).

Meanwhile, Loderer and Waelchli (2010) contended that company's profitability would decline as the company becomes older. This assumption is based on the proposition that when a firm is getting older, it would tend to be less flexible, has more unnecessary costs, slower growth, less investment and innovation, worse corporate governance, more members of board of director, and higher CEO salaries (Loderer & Waelchli, 2010). The results of this study indicate that age negatively affects the company's profitability. Although there are some views about the influence of age on company's profitability, the study assumes that older companies have more experience in managing businesses. This experience would lead to the increase of company's profitability.

***H<sub>8</sub>: Age significantly influence Profitability***

To run the business, a company could use debt or equity for financing its activities. However, a company should consider the optimum amount of debt for corporate funding. The unproportional debt to assets ratio could lead to unfavorable financial performance as the company has to pay significant amount of interest. On the one hand, debt could boost the company's growth faster compared to companies that only use their own capital. However, if

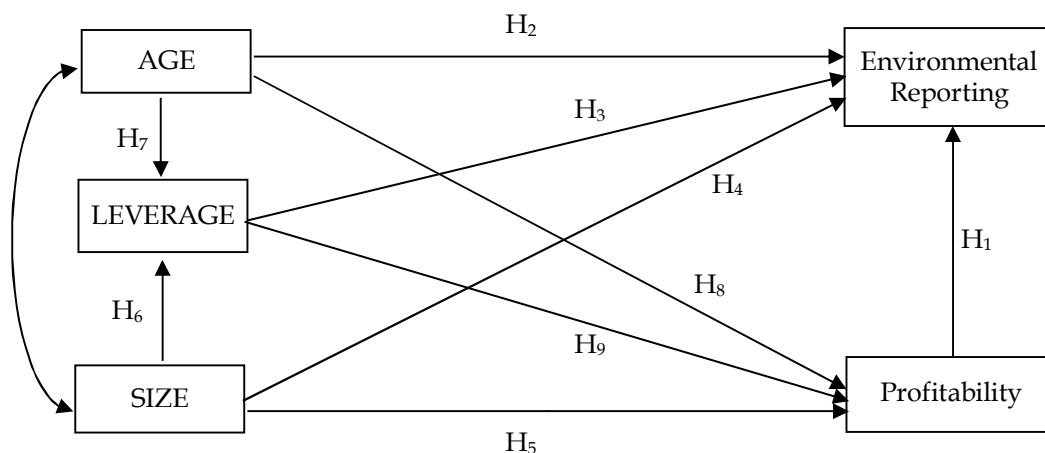
the value of the debt is too large, it would cause unhealthy financial position (Supianto, 2013).

Kebewar and Shah (2013) found that leverage did not affect profitability both linearly and non-linearly. While a research conducted by Baum, Schafer, and Talavera (2007) found that leverage correlates with profitability among German companies, while such correlation was not found among American firms. The relationship between leverage and profitability was inconsistent as there was a finding on the negative effect of leverage on profitability (Ahmad, Salman, & Shamsi, 2015). On the other hand, Abor (2005) found that debt to asset ratio positively correlated with profitability measured by ROE. The main objective of leverage is to boost company's profitability. Therefore, this research formulates the following hypthosis:

### *H<sub>9</sub>: Leverage significantly affects Profitability*

Based on the above theories, the study concludes that Age, Leverage, Size, and Profitability affect ER. In turn, Age, Size, and Leverage influence Profitability. Lastly, Age and Size were hypothesized having effect on leverage.

Figure 1. Theoretical Model and Summary of Hypothesis



## 3. RESEARCH METHOD

### 3.1 Population and Sampling

The population of this research was thirty one mining companies listed in IDX year 2010-2013. However, there were only thirty mining companies



disclosing their financial report consecutively in 2010-2013. This study used time series data from 2010 to 2013 and there were 120 data.

### **3.2 Research Variable**

Based on theoretical framework, this research employed five variables i.e. Environmental reporting (ER), profitability (ROA), leverage (LEV), age, and size. ER variable is the extent of environmental disclosure conducted by companies. The extent of ER disclosure was calculated by accumulating the score of three dimensions i.e. evidence, time frame, and specificity (Djajadikerta & Trireksani, 2012; Klaus, 1980; Trireksani & Djajadikerta, 2016).

The study used ROA for measuring profitability as used by previous studies such as Sulaiman et al. (2014), Burgwal and Vieira (2014), and Wahyudi, Khirom, and Subroto (2016). LEV variable is measured by debt to asset ratio (Liu & Anbumozhi, 2009) to determine the amount of asset financed by debt. AGE variable was the length of company being listed in Stock Exchange (Liu & Anbumozhi, 2009; Soedaryono, 2007). Lastly, the study used total asset for measuring SIZE variable as this measure was relatively stable (Burgwal & Vieira, 2014; Smith, Yahya, & Amiruddin, 2007). The total asset was then transformed by using Ln as conducted by Wahyudi et al. (2016).

### **3.3 Research Analysis**

This research employed correlation and path analyses. The first analysis aims at identifying the relationship between two variables without any interference from other variables. It functioned to confirm the results from path analysis. To test the theoretical model, the study employed path analysis for evaluating the influence of exogenous variables on endogenous ones.

Research on environmental reporting has been widely conducted, however, most of research used regression analysis. This analysis does not consider the relationship among independent variables except for multicollinearity test purpose. Path analysis considered the relationships among independent variables as well as sequential influence of variables based on theories.

To judge the validity of model, the study uses some goodness of fit test indices i.e. Chi Square, GFI, AGFI, CFI and RMSEA. A Fit Model should have insignificant Chi Square ( $p > 0.05$ ) as an indicator that the proposed model fits

to the observed data (Byrne, 2001; Ghozali, 2008). GFI is an index to measure the fit of the model to the covariance matrix with a minimum value of 0.90 for model to be considered fit (Ghozali, 2008). Meanwhile, CFI (Comparative Fit Index) measures the comparison between sample covariance with null model (Hopper, Coughlan, & Mullen, 2008) with the value of the fit of at least 0.9. Lastly, RMSEA (Root Mean Square Error of Approximation) is the tendency of Chi-Square to reject the model using a large sample. The Fit value of RMSEA is below or equal to 0.08 (Ghozali, 2008).

#### 4. RESULTS AND DISCUSSIONS

Correlation analysis shows that variable of Environmental Reporting (ER) has a positive relationship with Size (0.239,  $p < 0.01$ ) and Age (0.243,  $p < 0.01$ ). In this case, greater and older company tends to have more disclosure of ER. However, Leverage and ROA do not correlate with ER with coefficients of 0.113 ( $p > 0.05$ ) and -0.174 ( $p > 0.05$ ). Even though the correlation between ROA and ER is insignificant, but its direction is negative.

ROA has a negative and significant correlation with AGE (-0.231,  $p < 0.05$ ) meaning that longer listing in IDX would be followed by the decrease of company's profitability. ROA has insignificant relationship with Size (0.098,  $p > 0.05$ ) and Leverage (0.004,  $p > 0.05$ ). Size has a negative relationship with leverage (-0.543,  $p < 0.01$ ) and has no relationship with AGE (-0.172,  $p > 0.05$ ). The correlation coefficient between size and leverage shows that the larger the company, the smaller the leverage level. However, Age has positive and significant relationship with leverage (0.217,  $p < 0.05$ ). More detailed information is presented in following table.

Table 1.  
The Summary of Correlation

	ER	ROA	SIZE	LEVERAGE
ROA	-0.174	1		
SIZE	0.239**	0.098	1	
LEVERAGE	0.113	0.004	-0.543**	1
AGE	0.243**	-0.231*	-0.172	0.217*

\* Significant at the 0.05 confidence level

\*\* Significant at the 0.01 confidence level

Path analysis shows that the profitability measured by ROA has negative influence on environmental reporting (ER) (-0.171,  $p = 0.039$ ). This result indicates that the greater the company profitability, the smaller the

disclosure of ER. Variables of Leverage, age, and size significantly impact on ER disclosure. These results also show that the impacts of leverage, size, and age on ER are 0.319 ( $p=0.001$ ), 0.464 ( $p=0.001$ ), 0.213 ( $p=0.012$ ) respectively.

The influence of AGE upon profitability is -0.221 ( $p=0.015$ ), while the influence of SIZE upon profitability is statistically insignificant (0.061,  $p=0.503$ ). This research shows that SIZE has a negative influence on Leverage (-0.521,  $p=0.001$ ). Larger company tends to have lower level of leverage. The influence of age on leverage is insignificant (0.127,  $p=0.099$ ). Correlation analysis also shows that leverage has no relationship with profitability ( $r=0.004$ ). This relationship is excluded from path analysis to get a fit model.

**Table 2.**  
**The Summary of Path Analysis Results**

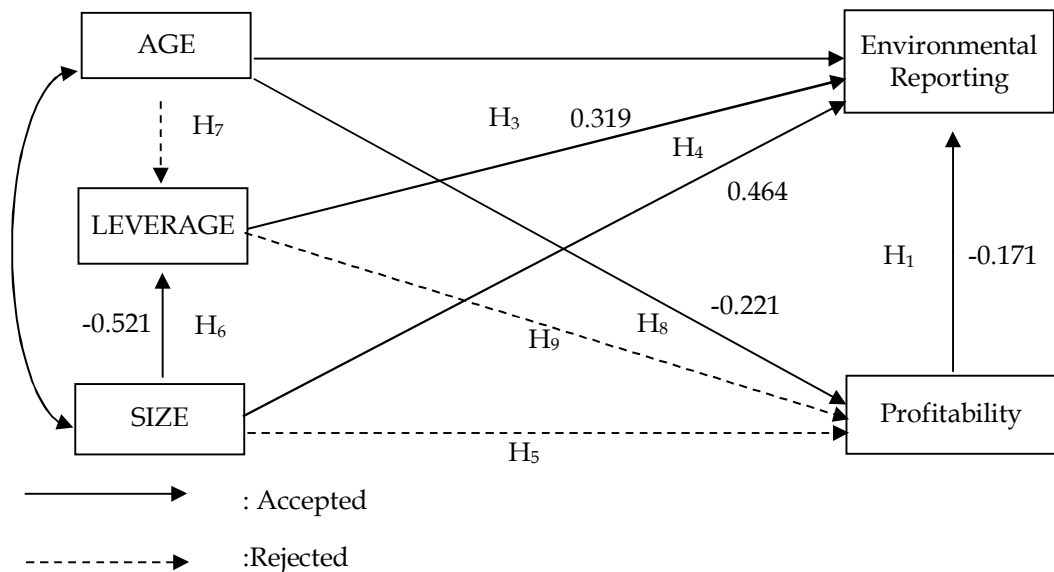
			Standardized Regression Weight	<i>p</i>
ROA	<---	SIZE	0.061	0.503
LEV	<---	SIZE	-0.521	***
LEV	<---	AGE	0.127	0.099
ROA	<---	AGE	-0.221	0.015
ER	<---	ROA	-0.171	0.039
ER	<---	AGE	0.213	0.012
ER	<---	LEV	0.319	0.001
ER	<---	SIZE	0.464	***

\*\*\* Significant at the 0.001 level

The study proposes nine hypotheses that six hypotheses are accepted while the other three hypotheses are rejected. Of the six accepted hypotheses, there are three hypotheses ( $H_1$ ,  $H_6$  and  $H_8$ ) having a negative relationships. Correlation analysis shows that  $H_9$  is rejected. Since including all hypotheses in path analysis leads to unfit model, the study excludes  $H_9$  from the model of path analysis.

To provide a clearer picture, the following figure presents the summary of hypothesis testing. Figure 2 shows that the environmental reporting (ER) variable is influenced by profitability, AGE, SIZE, and Leverage variables. Profitability is only influenced by AGE, since Leverage and Size do not influence Profitability. Consequently, Leverage is only influenced by Size, while Age variable insignificantly influences leverage.

Figure 2. The Hypothetical Testing Results



#### 4.1 Goodness of Fit

Path analysis shows that Chi Square is insignificant with value of 1.331 ( $p < 0.05$ ). It means that there is no difference between the actual and the predictive matrices. Likewise, RMSEA indicates a value of 0.053 meaning that this research model has met the criteria of RMSEA fit index. The results of analysis show the value of GFI, AGFI, and CFI are 0.996, 0.934, and 0.996 respectively. Thus, the study concludes that the theoretical model developed in this study is supported by the empirical data.

#### 5. DISCUSSIONS

A company is required to pay attention to community and environment to ensure it could survive (Ghozali & Chariri, 2007; Gray et al., 1995). Along with the implementation of ER in developed countries (Rankin et al., 2012) and the increase of international demands on environmental protection (Gamble et al., 1996), Government of Indonesia imposes a regulation governing the ER for go-public companies (Setneg, 2007). ER will be more pivotal for mining companies as these companies are directly in contact with the environment. However, the practice of ER among Indonesian mining companies is still voluntary and relatively low (Djajadikerta & Trireksani, 2012).

### **5.1 The influence of Profitability on ER**

The research results show that profitability has a negative influence on ER. It means that the higher the profitability of a mining company, it results in narrower disclosure of ER. In other words, lower profitability of mining company leads to broader ER. These results do not support the theory of legitimacy (Rankin et al., 2012). The theory contends that a company would disclose environmental information to legitimate its operation. Higher profit of mining companies means more extensive and intensive operation. In turn, the company operation has greater impacts on environment. In this case, the company should have broader ER. Stakeholder theory contends that the company should satisfy its stakeholders (Gray et al., 1995). Negative influence of profitability on ER means that mining companies do not pay attention to stakeholders' interests. The previous studies found that profitability has positive influence on ER (Anggraini, 2006; Cormier & Magnan, 1999; Lu & Abeysekera, 2014; Suhardjanto & Miranti, 2009).

The negative influence of profitability on ER may be caused by several reasons. *First*, in Indonesia ER is still considered to be voluntary (Djajadikerta & Trireksani, 2012). Moreover, Monitory Agency for Capital Market and Financial Institution (BAPEPAM-LK) does not use ER as one of the requirements for listing in IDX (Nurhayati et al., 2006) making mining company ignore ER. *Second*, Dibia and Onwuchekwa (2015) show that profitability does not influence environmental reporting in oil and gas company. Research results from these two countries may support the argument stated by O'Donovan (2002) that when a company has a higher profit, then the company does not need to extensively disclose the ER, because it may disturb their information of being successful. *Third*, the operation of mining company is to extract natural resources which is more likely to damage the environment, such as mud flood in East Java (Setyorini & Ishak, 2012) and heavy metal pollution (Lutfillah, 2011). As their activities have negative impacts on environment, mining companies might limit environmental information to be disclosed. This phenomenon may lead to low ER disclosed by the Indonesian mining companies as indicated by Djajadikerta and Trireksani (2012).

### **5.2 The Influence of Age on ER**

Correlation and path analyses show that length of listing in IDX (AGE) has positive influence on ER. In other words, the longer a company is listed in IDX it has more extensive environmental reporting disclosure. This result is consistent with research conducted by Soedaryono (2007) on listed

companies in Indonesia and research conducted by Juhmani (2004) on Bahrain companies. In other words, this study implies that ER disclosure is influenced by the company listing duration in the Stock Exchange.

### **5.3 The influence of Leverage upon ER**

Leverage has a significant impact on ER disclosure. This finding corresponds with research conducted by Mustika et al. (2015) that the leverage of Indonesian mining companies is categorized high and followed by good environmental performance. Better environmental performance tends to have broader ER disclosure (Al-Tuwaijri et al., 2004). The theory of Jensen and Meckling (1976), the research results of Eljido-Ten (2004), and those of (Haryanto & Yunita, 2008) state that companies with high leverage disclose ER more to convince shareholders and creditors that the company is in a good condition. This phenomenon happened in Indonesia, Turkey (Akbas, 2014) and Nigeria (Dibia & Onwuchekwa, 2015). Company with higher leverage tends to have more extensive environmental reporting. ER is most likely a company business strategy combined with philanthropic activities as concluded by Seow et al. (2006). This research concludes that ER is a company strategy in building their image in public when their debt is high.

### **5.4 The influence of Size on ER**

This research also shows that the company size positively influences ER. This result supports previous studies conducted by Gray et al. (1995) and Hackston and Milne (1996). It means that a larger company may disclose a broader ER. As previously mentioned that large companies could become a focus of public's attention that they should disclose ER broader to reduce political cost (Burgwal & Vieira, 2014; Sulaiman et al., 2014; Watts & Zimmerman, 1978). Positive influence of size on ER are based on a theory that a larger company is financially stronger to fulfill its social and environmental responsibilities (Liu & Anbumozhi, 2009). In this case, a larger company shows more responsibility to society and environment.

### **5.5 The Effect of Size On Profitability**

The results of data analysis indicate that there is no significant influence of company size on profitability. This finding is inconsistent with the earlier one that a larger company may generate better financial performance (Beaver et al., 1970) and there is an influence of company size upon its profitability (Sunarto & Prasetyo, 2009). This finding is in line with research results conducted by Niresh and Thirunavukkarasu (2014).

Insignificant effect of size on profitability might be caused by two possibilities. According to Loderer and Waelchli (2010) an older company tends to be inflexible and more costly that reduces its profitability. In a larger company managers might began losing their focus to maximize company profit as they pay much more attention to their own interests (Nireesh & Thirunavukkarasu, 2014).

## **5.6 The Influence of Size on Leverage**

The study found that size has significant negative effect on leverage. The larger the company, the smaller the leverage level owned. This is consistent with the research findings of Shuetrim et al. (1993) that a larger company tends to have smaller leverage, since a large company tends to use retained earnings to increase their assets. Findings of Ezeoha (2008) that larger company tends to have higher leverage seems to be inapplicable in Indonesian mining companies. It is based on the assumptions that large companies have lower asymmetric information and have better ability to access loans from financial institutions.

The above discussions conclude that Age, Size, and leverage have positive influences on ER. In other words, ER disclosure is partly determined by these three variables. In this case, the increase of companies' concern over environment depends on length of company listing in IDX, company assets, and leverage. When ER is left growing naturally, companies must first become larger and have longer listing in IDX to perform broader ER. Although the government has issued a regulation for go-public companies to disclose ER (Setneg, 2007), ER is still voluntary instead (Djajadikerta & Trireksani, 2012) and is not the requirement for company for listing in IDX (Nurhayati et al., 2006). Thus, without supervisory and enforcement from various parties (government, BAPEPAM-LK, public accountant organizations, and law enforcement officers) a way to implement ideal ER for mining companies becomes longer.

## **5.7 The Influence of Age upon Leverage**

Test of hypothesis shows that AGE (length of listing in IDX) does not influence LEV (company's leverage). Although a company has been listed in IDX for long time, they might still consider the use of debt as a source of funding. Bhaduri (2002) contended that a company which has been listed in stock exchange for long time could benefit from the lower asymmetric information that the company prefers the capital market more. In addition, the company is also considered more stable that they intentionally reduce the

use of debt (Upneja & Dalbor, 2001). Correlation analysis shows that there is a positive and significant correlation between AGE and leverage. However, the results of path analysis show that AGE insignificantly influences leverage. The difference results of analysis could be from slight distortion of path analysis. A total sample number of 120 may still need to be increased. This research found that SIZE has negative influence on leverage. Further studies are required to identify factors influencing the leverage level of those mining companies.

### **5.8 The Influence of Age upon profitability**

The analysis shows that AGE has significant negative influence on ROA. This result supports research conducted by Margaretha and Supartika (2015), that older companies may have limitations on innovation, information, knowledge and opportunities than young ones. The same opinion is also expressed by Loderer and Waelchli (2010). In other words, mining companies that have been listed in IDX longer tends to have lower profitability.

### **5.9 Leverage Influence on Profitability**

This study shows that the leverage level does not influence profitability. This result is consistent with research conducted by Kebewar and Shah (2013). The negative influence of leverage upon profitability was found by Ahmad et al. (2015), while the positive influence of leverage upon profitability was found in German companies (Baum et al., 2007). The inconsistency results of this research need to be clarified further to find the optimum point of leverage which would still generate profitability. It is based on the research results found by (Supianto, 2013) that too high level of leverage could increase cost of capital making company's financial condition become unhealthy. Mustika et al. (2015) found that mining companies in Indonesia highly depend on creditors. Thus, the leverage may no longer have a positive influence on profitability instead of burdening the company.

## **6. CONCLUSION**

The antecedent variables of environmental reporting (ER) disclosure are profitability, length (AGE) of listing in IDX, company size, and leverage. Age, leverage, and company size positively influence ER, while profitability negatively influences ER. Profitability of Indonesian mining company is influenced by length of listing in IDX, yet is not influenced by either leverage or size. The company size negatively influences leverage while AGE does not influence leverage.



The negative influence of profitability on ER may be caused by several factors (1) ER is still a voluntary and is not a requirement for the company for listing in IDX; (2) Intentionally the company does not disclose broad ER in order not to distract stakeholders in viewing good financial performance of company; (3) Mining companies in Indonesia may be less transparent in ER management.

ER disclosure of Indonesian mining companies tends to be strategies to pacify investors when they have high leverage or unfavorable financial performance. It seems to be a long way to implement ER disclosure among Indonesian mining companies since broad ER disclosure depends on listing duration at IDX, size, and leverage.

The government of Indonesia, law officers, Institute of Indonesian Chartered Accountants (IAI), and other stakeholders should immediately affirm those mining companies that they completely obey the Law number 40 of 2007, especially in article 74. Monitory Agency for Capital Market and Financial Institution (BAPEPAM-LK) should require ER as a mandatory requirement for the upcoming go-public companies. However, further research should be conducted to identify the optimum leverage for Indonesian mining companies that still have positive impacts on profitability.

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