CHAPTER IV

RESULT AND DISCUSSION

4.1 Data Description

4.1.1   Description of Research Object

Description of data is a description that will be used in testing research hypotheses, where this study aims to determine the influence of Corporate Social Responsibility Disclosures on Investment Efficiency in the Asia Emerging Markets. In this research, secondary data is used in the form of annual reports and sustainability reports from 2018 - 2020. The sampling technique used in this research is purposive sampling to obtain samples that meet predetermined criteria. The criteria used in determining the sample in this study are :

1. Companies that won the Asia sustainability report awards 2020.
2. Companies that have complete data on their annual report.
3. Companies that report their sustainability reporting using English.

4.2 Empirical Result

4.2.1 Descriptive Statistics

The descriptive statistical analysis describes the characteristics of the data that have been summarized and presented in a more informative form that can be seen from the minimum, maximum, mean, and standard deviation values of each variable in this research. The dependent variable in this study is investment efficiency. The independent variable in this study is CSR disclosure. The control variables in this study are leverage, ROA, size, tangibility, and slack. The following are the results of descriptive statistics in this study :

Table 1. Descriptive Statistics

Variable	Obs	Mean	Std. Dev.	Min	Max
INV	108	0.064	0.138	-0.622	0.890
CSR	108	0.562	0.155	0.333	0.893
Lev	108	0.505	0.260	0.126	0.975
ROA	108	0.042	0.075	-0.114	0.385
Size	108	22.463	3.235	17.912	27.972
Tang	108	0.464	0.302	0.003	0.994
Slack	108	0.841	2.147	0.007	17.373

Source : Data processed using STATA software.

Based on the table above, the data that can be interpreted are as follows:

The data observations were 108 and obtained in companies with three periods, specifically from 2018 - 2020. From the results of calculations that have been carried out, it is found that the dependent variable (INV) has a minimum value of -0.622 which is contained in the Industrial Development Bank of Turkey (TSKB) for the year 2019, it tells that TSKB in 2019 has deficient management that made the company's investment efficiency is less than optimal. The maximum value is 0.890 for Roma Group Limited in 2018, which the company's management considered good enough and capable to streamline the investment they have. The average is at a positive value of 0.064, which shows that on average all sample companies have fairly good management in processing investments to be efficient. These values are consistent with previous studies by Benlemlih and Bitar (2018) that state investment inefficiency has a mean value of 0. The standard deviation is 0.138, higher than the average value which shows that the data are varied. This value is in line with previous literature by Zamir (2020) that shows 0.13 as the SD result.

CSR disclosure is measured by a content analysis method based on the GRI G-4 Standard indicators. The number of disclosure indicators is 150. The CSR disclosure variable has a minimum value of 0.333 for Bintulu Port Holdings Berhad in 2020 and has a maximum value of 0.893 for POSCO in 2019. The average value of the CSR disclosure variable owned

by 36 companies shows a positive result of 0.562, which means that in general, the sample companies have made the maximum disclosure of corporate social responsibility. The standard deviation of the CSR disclosure variable is 0.155.

The table above also shows the variable leverage that has a minimum value of 0.126 in PT. Vale Indonesia TBK for the year 2019 and a maximum value of 0.975 for the year 2020 in Prudential Assurance Company Singapore. The average value for the leverage variable is 0.505 with a standard deviation of 0.260.

The table above shows the ROA variable that has a minimum value of -0.114 that contained in Roma Group Limited in 2020, the maximum value is 0.385 for the year 2015 in Gujarat Fluorochemicals Limited. The average value of the ROA variable is 0.045 and the standard deviation is 0.075.

The table above shows the variable size has a minimum value of 17.912 in Hrand Bank yatchs Ltd for 2018, the maximum value is 27.972 for the year 2020 in Ayala Corporation. The average value is 22.463 and the standard deviation is 3.235.

The table above shows the variable tangibility has a minimum value of 0.003 in Cathay Life Insurance Co. Ltd for 2020, the maximum value is 0.994 for the year 2019 in Sunway Real Estate Investment Trust. The average value is 0.464 and the standard deviation is 0.302.

The table above also shows the variable slack that has a minimum value of 0.007 in Sunway Real Estate Investment Trust for the year 2018 and a maximum value of 17.373 for the year 2020 in Cathay life Insurance Co. Ltd. The average value for the Slack variable is 0.841 with a standard deviation of 2.147.

4.2.1 Correlation Analysis

The correlation matrix in Table 2 shows that, at the 5% significance level, the variables ROA, Tangibility, and Slack are positively correlated, while CSR, Leverage, and Size variables are negatively correlated with investment efficiency. The maximum correlation among the variables does not exceed 0.60. Thus, no multicollinearity problem can affect the findings.

Table 2. The Correlation Matrix

	INV	CSR	Lev	ROA	Size	Tang	Slack
INV	1.000						
CSR	-0.170	1.000					
Lev	-0.315	-0.051	1.000				
ROA	0.055	0.028	-0.174	1.000			
Size	-0.230	-0.137	0.469	-0.157	1.000		
Tang	0.004	0.222	-0.242	0.245	-0.038	1.000	
Slack	0.001	-0.226	0.191	-0.108	0.168	-0.420	1.000

Source : Data processed using STATA software.

4.3 Discussion of Result

The central theme of this study was to answer the question of whether CSR disclosure affects investment efficiency. The correlation analysis was not able to determine the impact of the factors that can interact with other variables. Therefore, we conducted a regression analysis to examine the hypotheses in a more reliable manner. Table 3 below presents the regression results.

Table 3. Regression Result

Variables	OLS Robust inv	GLS inv
CSR	-0.173**	-0.118***
	[-2.00]	[-6.58]
Lev	-0.143**	-0.102***
	[-2.34]	[-7.13]
ROA	-0.003	0.115*
	[-0.02]	[1.65]
Size	-0.006	-0.007***
	[-0.88]	[-3.61]
Tang	-0.006	-0.012
	[-0.13]	[-1.25]

Slack	0.002	0.001*
	[0.62]	[1.76]
_cons	0.364*	0.341***
	[1.96]	[6.35]
N	108	108
R-sq	0.149	
Modified Wald test		0.000
Wooldridge test		0.3447

t statistics in brackets. * p<0.1, ** p<0.05, *** p<0.01
Source: Data processed using STATA software.

Hypothesis H_1 proposes that CSR disclosure has a positive effect on the company's investment efficiency. Based on the estimation result, we confirm this negative relationship (Table 3, column 1). Specifically, the coefficient of the CSR variable is negative but statistically significant (-0.175, $p < 0.05$), implying that the higher level of CSR disclosure, does not make them more efficient in investment. The results of this study are not in accordance with previous research conducted by Zhong and Gao (2017) which show a positive result for CSR disclosures (0.863) significant at the 1% level and states that companies who report their CSR have a higher level of investment efficiency compared to companies that do not issue CSR reports, this is due to the decreasing level of information asymmetry that occurs among stakeholders.

Huang and Watson (2015) argue that non-financial reporting disclosures are considered important to reduce the information asymmetry that exists between management and stakeholders, as well as it should enable investors to assess the company's performance better and more broadly. By issuing CSR reports, companies should be able to reduce the information asymmetry problem. As the author knows, companies make investment decisions based on circulating information. The reduced level of information asymmetry among stakeholders will greatly assist the management in making appropriate investment decisions.

Robustness Checks

Table 4. Robustness Result

Variables	GLS inv	GLS inv
hicsrdummy	-0.034***	
	[-9.70]	
lowcsrdummy		0.034***
		[9.70]
Lev	-0.133***	-0.133***
	[-15.53]	[-15.53]
ROA	0.019	0.019
	[0.39]	[0.39]
Size	-0.005***	-0.005***
	[-4.22]	[-4.22]
Tang	-0.019**	-0.019**
	[-2.39]	[-2.39]
Slack	0.002**	0.002**
	[2.05]	[2.05]
_cons	0.271***	0.237***
	[8.02]	[7.00]
N	108	108

t statistics in brackets. * p<0.1, ** p<0.05, *** p<0.01
Source: Data processed using STATA software.

The author divides the sample into sub-samples of firms with high and low CSR. Table 4 represents the influence of high CSR disclosures and low CSR disclosures on investment efficiency. I classify a firm into the high CSR group by creating a CSR dummy variable for above and below mean CSR (0.562). These results suggest that high CSR has a negative impact on investment efficiency and low CSR is the opposite, and it supports the result of Hypothesis 1.

Table 5. Regression Result for over and under investment scenario

Variables	GLS overinv	GLS underinv
CSR	-0.395**	0.395**
	[-2.24]	[2.24]
Lev	-0.552***	0.552***
	[-3.71]	[3.71]
ROA	0.9	-0.9
	[1.57]	[-1.57]
Size	-0.050***	0.050***
	[-3.25]	[3.25]
Tang	-0.419***	0.419***
	[-4.21]	[4.21]
Slack	-0.01	0.01
	[-1.20]	[1.20]
_CONS	2.102***	-1.102***
	[5.46]	[-2.86]
N	108	108

t statistics in brackets. * $p<0.1$, ** $p<0.05$, *** $p<0.01$
Source: Data processed using STATA software.

Hypothesis **H₂** suggests that there is a negative effect between CSR reporting on investment efficiency in the overinvestment scenario. Based on the estimation result, we confirm this negative relationship (Table 5, column 1). Specifically, the coefficient of the CSR variable is negative but statistically significant (-0.395, $p < 0.05$). The results of this study are not in accordance with previous research conducted by Zhong and Gao (2017) which show a positive and significant result for overinvestment and stated that the increase in investment efficiency associated with CSR disclosure was more significant in the overinvestment scenario. This is because the marginal effect of CSR disclosure may disappear due to the resource demand and competition that results from CSR disclosure leading to pressure from non-shareholders for more investment in CSR in the company.

Control Variables

Based on the hypothesis testing results, it is known that all of the control variables used in this research have a positive and negative significant influence on investment efficiency. These variables are as follows :

a. **Leverage**

Based on the results of the research, it was found that the leverage variable had a significant negative effect on investment efficiency. The results of this study are in line with research by Lenger et al (2011) which revealed that the leverage variable has a significant effect on investment efficiency. So, it can be concluded that leverage has a significant negative effect on investment efficiency. This illustrates show that the higher level of leverage of a company, the lower level of efficiency of the company's investment. Vice versa, the lower level of leverage, the higher level of efficiency of the company's investment.

b. **ROA**

Based on the results of the research, it was found that the ROA variable had a significant positive effect on investment efficiency. The results of this study are in line with research by Benlemih and Bitar (2015) which stated that the ROA variable has a significant effect on investment efficiency. This is because ROA is an indicator in measuring company performance that is useful for investors to assess the performance of a company, with the availability of financial information, it can reduce information asymmetry between companies and investors which will assist companies in making efficient investments decisions.

c. **Size**

Based on the results of the research, it was found that the size variable had a significant negative effect on investment efficiency. The results of this study are in line with research by Zhong and Gao (2017) which revealed that the size variable has a significant effect on investment efficiency.

d. Tangibility

Based on the results of the study, it was found that the tangibility variable had a significant positive effect on investment efficiency. This study is in line with research by Le and Liao (2014) which revealed that the tangibility variable has an influence on investment efficiency[31]. Based on the results of the study, it can be concluded that tangibility has a significant positive effect on investment efficiency. This illustrates say that the greater the tangibility of a company, the lower the level of efficiency of the company's investment. Vice versa, the less tangibility the company has, the higher the level of efficiency of the company's investment.

e. Slack

Based on the results of the study, it was found that the slack variable had a significant positive effect on investment efficiency. The results of this study are in line with previous research by Zhong and Gao (2017) which showed that the slack variable has a significant effect on investment efficiency.

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[31] Kuei Fu Li and Yi Ping Liao, 'Directors' and Officers' Liability Insurance and Investment Efficiency: Evidence from Taiwan', *Pacific Basin Finance Journal*, 29 (2014), 18–34 <https://doi.org/10.1016/j.pacfin.2014.03.001>.