INTEGRATED CSR TO STRENGTHEN INVESTMENT EFFICIENCY AMID COVID-19: IS IT SUCCESSFUL?

https://journal.unpas.ac.id/index.php/jrak/index

Mega Norsita ✉[1], Dayang Anna Anjelina[2]
[1,2]Department of Accounting, Faculty of Economics and Business,
Universitas Mulawarman, Indonesia
Corresponding Author: mega.norsita@feb.unmul.ac.id ✉[1]
Jalan Tanah Grogot No. 1 Kampus Gunung Kelua Samarinda, Indonesia

Abstract

This article contributed theoretically as the first research to look at the impact of CSR performance and investment efficiency on the role of business strategy in developing countries, especially the Southeast Asia Region during the period when COVID-19 and post-COVID-19 pandemics occurred. The primary issue of this research was to assess how the COVID-19 pandemic affected the investment activities of companies in developing nations within the Southeast Asia Region, which was geographically close to China where the COVID-19 outbreak originated. This quantitative research used unbalanced panel data from 210 non-financial enterprises with 381 observations. This research resulting the acceptance of all hypotheses, while CSR performance reduced underinvestment by minimizing information asymmetry, the Prospector strategy increased underinvestment, whereas the Defender strategy did the opposite. This research found that both the Prospector and Defender strategies had a pseudo-moderating impact on CSR performance and investment efficiency amid the COVID-19 pandemic.

INTRODUCTION

COVID-19 unquestionably has a significant global impact on a wide range of organizations in diverse industries. Since the pandemic, many business owners have had to decrease their expenses, with some making difficult decisions to downsize, reduce or discontinue operations, or even declare bankruptcy, according to GMO Research & AI, Inc. (2021). Before the COVID-19 outbreak, firms in affluent nations such as Germany frequently allocated money to fixed assets investment (Demary et al, 2021). However, with the occurrence of the COVID-19 pandemic, there had been a dramatic decline in the company's investment activity related to fixed assets. Demary et al. (2021) found that enterprises are likely to prioritize strengthening their balance sheets in the long run before embarking on new investment endeavours. Following the COVID-19 shock, it was quite probable that there would be a period of firms reducing their debt, known as deleveraging. This would result in lower investment and higher profits, leading to an increase in corporate savings. This corporate saving consequently resulted in fixed assets underinvestment or investment inefficiency.

Another developed nation that exhibited investment inefficiency was Switzerland. Seiler's (2021) research revealed a significant decline in corporations' investment plans due to the pandemic. As a result of the pandemic, companies decreased their gross fixed capital formation by 14 percentage points. The reason for this outcome was the reduction of up to a fifth in enterprises' investments in machinery and equipment. Seiler (2021) also discovered evidence that uncertainty and financial constraints were among the primary factors that influenced firms' investment changes. Due to the pandemic, enterprises that were unsure about implementing their irreversible investment plans reduced their 2020 investments by an additional 20 percentage points compared to those that were more confident about their planned investments. This supported the discovery made by Demary et al. (2021), who similarly observed that even companies in rich countries were unable to avoid underinvestment.

Both of the aforementioned examples were from developed nations. Only one research from a developing country investigated how the COVID-19 epidemic had impacted corporate investment in Malaysia. According to Wahab and Zainudin's (2024) research, Malaysian firms face financial difficulties as well, resulting in investment inefficiency in the form of underinvestment. Based on these three research findings, this concluded that financial constraints were the primary cause of a company's investment inefficiency or underinvestment. However, there was a lack of studies examining the extent to which COVID-19 was affecting the fixed assets investment activities of corporations in all developing nations in the Southeast Asia region, which was geographically closest to China, the epicentre of the COVID-19 outbreak. This information was supported by research conducted by Daly et al., (2020), which demonstrated that the COVID-19 pandemic had a substantial effect on emerging nations in Southeast Asia. This research was conducted with the urgency to assess the extent to which the COVID-19 pandemic had affected the fixed asset investment operations of corporations in the Southeast Asia Region.

When discussing the COVID-19 pandemic, became an excellent opportunity for businesses to actively contribute to their CSR initiatives and objectives (He & Harris 2020). Research by Rahmawardani & Muslichah (2020) stated that A good company must care about sustainability in the surrounding environment and, the welfare of the surrounding community because the company not only get a big profit but deep carried out its operational activities, the company would be involved in these activities. That was why in the COVID-19 situation it was becoming ever more crucial to comprehend the factors that motivate certain businesses to act more morally and socially conscious, especially in times of resource scarcity and potential threat to their survival (He & Harris 2020). In addition, García-sánchez (2020) found that during the COVID-19 pandemic, it was necessary for all firms to not only engage in their economic activities but also fulfil their obligation to address the triple bottom line element through their corporate social responsibility (CSR) initiatives (García-sánchez 2020). According to the article made by GMO Research & AI Inc. (2021), which was a market research institute from Japan, they explained how Sunway Group Bhd contributed to society with their CSR activities. Sunway Group stated in 2020 that they would be providing more than RM34 million (US$ 8.1 million) to assist Malaysians during the pandemic. Additionally, the conglomerate committed a sizeable sum of approximately RM12 million (US$ 2.86 million) to cover the cost of treatment for government patients. This CSR initiative during COVID-19 pertained to stakeholder theory by Freeman et al., (2010), which posited that companies were obligated to prioritize the well-being of their stakeholders when conducting their economic activities. Research by Lestiananda et al. (2023). Also, confirmed that the CSR activities of the company were based on stakeholder theory. Then, Elkington (1998) asserted that to achieve sustainability, a corporation must prioritize both social and environmental considerations. That was why CSR initiatives exploded when the COVID-19 pandemic happened since so many businesses took this momentum to rise and shine by showing good acts. However, based on the research conducted by Yi et al., (2022), it had been observed that during the COVID-19 pandemic, some firm managers were making efforts to capitalize on this opportunity by engaging in excessive CSR activities to enhance their image and avoid being replaced in their current positions. Yi et al.'s (2022) findings aligned better with the agency theory perspective by Jensen and Meckling (1976).

In general, in a perfect situation, businesses were supposed to accept all investment proposals with positive NPV (Gomariz & Ballesta 2014). A perfect market was a situation where there was no agency conflict and information asymmetry in the company, or when the company had enough resources to invest. However, market imperfections, such as information asymmetry between managers and owners, as well as agency costs (Firmansyah & Triastie 2020) had an impact on the inefficient use of firm resources. That was because the decision to invest or not would be made by the business' investment manager since they are the ones in a company who knew the condition of company resources and how to spend them concisely (Bodie et al., 2018). Because of the manager's interest in benefiting from the momentum of investment opportunities, there might be a conflict between the goals of the company and the managers, which could give rise to agency conflict (Biddle et al, 2009; Demary et al., 2021). The two outcomes of investment activities in fixed assets were widely recognized to be negative NPV and positive NPV. Managers employed extra resource allocation owned by the company to engage in initiatives with negative NPV for personal purposes (Lin et al. 2021). Alternatively put, there are instances in which managers had the option to fund a project with a positive net

present value (NPV), but they consciously decided to stay in the safe zone by ignoring the project (Rocca et al. 2007; Firmansyah and Triastie, 2020). Due to this, according to the agency theory view, the consequence was that organizations ended up facing two situations in their investment operations, namely the overinvestment scenario and the underinvestment scenario better known as investment inefficiency (Samet & Jarboui 2017).

Overinvestment was a condition where a company invested excessively by taking on projects that had a negative NPV (Biddle et al., 2009; Gomariz and Ballesta, 2014; Gao and Yu, 2020). This overinvestment condition could also occur when a company had high cash flow, or free cash flow so that it is used by company managers to invest in projects with negative NPV for their interests (Lara, et al., 2016; Fakhroni et al., 2018). Underinvestment, on the other hand, occurred when a business passed up a project with a positive net present value (NPV) due to information asymmetry between managers and shareholders (Biddle et al., 2009; Gomariz and Ballesta, 2014), or when the business was having financial difficulties (Samet & Jarboui 2017), in which case managers decided to forego risks that could jeopardize the sustainability of the business. Underinvestment situations also occurred when the environmental condition was full of uncertainty, like COVID-19 (Demary et al., 2021).

Previous research indicated that companies had experienced underinvestment in response to the COVID-19 situation, primarily due to financial constraints (Demary et al., 2021; Seiler, 2021; Wahab and Zainudin, 2024). Furthermore, another discovery revealed that the company's manager was utilizing their remaining resources to excessively invest in CSR activities for personal gain during this pandemic (Yi et al., 2022). This situation was perplexing since the corporation must simultaneously address the COVID-19 crisis through corporate social responsibility efforts and strive to make a profit by investing in fixed assets to produce returns for its shareholders. Consequently, this research concluded that, in light of contingency theory, companies were left with no option but to overinvest in CSR in order to appear impressive and suffer underinvestment for their fixed asset investment operations. Therefore, it can be concluded that the first hypotheses (H1) of this research was corporate social responsibility activities had a positive and significant impact on investment efficiency (underinvestment).

The first hypothesis or H1 was supported by the findings that companies who engaged in CSR activities were viewed positively due to their commitment to social and environmental responsibility, particularly during uncertain times like the financial crisis (García-sánchez 2020). A recent financial catastrophe that had affected every part of the world is the COVID-19 pandemic. A company would get interest from the public and develop a sustainable competitive advantage if it continued to engage in corporate social responsibility (CSR) during a crisis (Benlemlih & Bitar 2016). This was supported by the research conducted by Mgammal and Al-Matari (2022), who found that investor also considered company sustainability reports before making their decision. These benefits would make it possible for businesses that performed well in CSR to attract a large number of investors (Cheng et al., 2014). The company would employ external cash raised from investors to operate and invest in fixed assets, generating profits for both buyers of financial assets and shareholders. Those reasons become the justification of the first hypothesis (H_1) of this research, which was businesses that performed well in terms of corporate social responsibility would benefit from the increase in the company's underinvestment situation.

However, CSR activities that were not connected with a firm strategy, make it difficult to reach that goal (Lin et al. 2021). Companies must integrate their CSR efforts with their business strategy to make them strategic CSR if they hoped to see success from their CSR initiatives (García-sánchez 2020). Siddique and Rasheed (2023) conducted research which demonstrated that the Prospector strategy had a beneficial effect on underinvestment. The Prospector technique was the optimal approach to apply in contingency situations. The distinguishing features of this method lay in its exceptional adaptability to environmental uncertainty (Hejranijamil et al., 2020). As a result, underinvestment can be executed efficiently as they consistently seize every opportunity. Seiler (2021) also corroborated the finding that companies that prioritized innovation were effective in mitigating underinvestment. The research conducted by Chong and Duan (2022) suggested that companies should consider implementing a Prospector Strategy based on contingency theory. Thus, considering the contingency theory and the unknown circumstances such as COVID-19, it can be argued that the Prospector approach had a notable and beneficial effect on the issue of underinvestment. The Defender method, sometimes referred to as cost reduction, exacerbated the underinvestment scenario by accepting projects with positive NPV and avoiding risk. Research conducted by Buchheim et al. (2021) discovered that during the COVID-19 pandemic, some companies adopted a policy of downsizing their workforce and forgoing investment projects. Thus, it can be deduced that this strategy aligned more with the Defender type and adversely affected the company's investment efficiency. Therefore, the second and the third hypotheses of this research were the implementation of the Prospector Strategy which improved underinvestment (H_2), whereas the implementation of the Defender Strategy exacerbated underinvestment (H_3).

Based on the aforementioned data, it was evident that both Prospector and Defender strategies had distinct effects on investment efficiency. Still, it remained unclear which type either Prospector or Defender was more beneficial to deploy during the COVID-19 period for integrating CSR activities. However, research conducted by Lin et al. (2021) discovered a link between the company's CSR initiatives and the application of

the Prospector and Defender strategy. Their discovery indicated that both the Prospector and Defender had a significant influence on investment efficiency. More precisely, the integration of Corporate Social Responsibility (CSR) with Prospector strategy led to an increase in overinvestment. On the other hand, integrating CSR with the Defender strategy resulted in a reduction in overinvestment. Thus, according to these findings, since this research already found that companies experience underinvestment in COVID-19, the fourth and fifth hypotheses of this research were Prospector Strategy weakened the positive impact of CSR on underinvestment (H4), while the Defender Strategy enhanced the positive impact of CSR performance on underinvestment (H5).

Related to the object of this research, research by Benlemlih and Bitar (2016) used companies in the United States with a total of fifteen years of observation. The research by Samet and Jarboui (2017) followed, which employed European businesses as research subjects and observed them for a total of five years. Lastly was research from Lin et al. (2021) which employed a population and sample of public companies listed on the New York Stock Exchange with an observation span of thirty years. Future researchers should attempt to investigate these three characteristics on different objects, according to the research findings of Lin et al. (2021). Based on this recommendation, the research also decided to employ a different object, namely the Southeast Asian region. Consequently, it selected four countries in the Southeast Asia Region that had been categorized as emerging nations by Morgan Stanley Capital Investment (2022). The countries in question were Indonesia, Malaysia, the Philippines, and Thailand. This research aims at identifying the most effective business strategy for enterprises to align with their CSR activities during a financial crisis such as the COVID-19 pandemic. By doing so, companies might enhance their underinvestment situation and better prepare for similar events in the future. Therefore, this was the first research to look at the impact of CSR performance on underinvestment in public companies in developing countries in Southeast Asia during the period when the COVID-19 and post-COVID-19 pandemics occurred with the role of business strategy. Empirically, this research was conducted to provide organizations with insights into the various factors that might impact their investment efficiency. Theoretically, this research was anticipated to contribute to the field of accounting research in developing countries including corporate accounting, investment efficiency, and business strategy.

METHODS

This research framework was built on the current phenomenon of underinvestment and underinvestment, findings from previous research, and grand theory which investigated the influence of CSR performance on company investment efficiency, as well as the role of business strategy between them. Based on the description of the hypotheses development above, therefore this research had five purposes to be proven. The research framework was as follows:
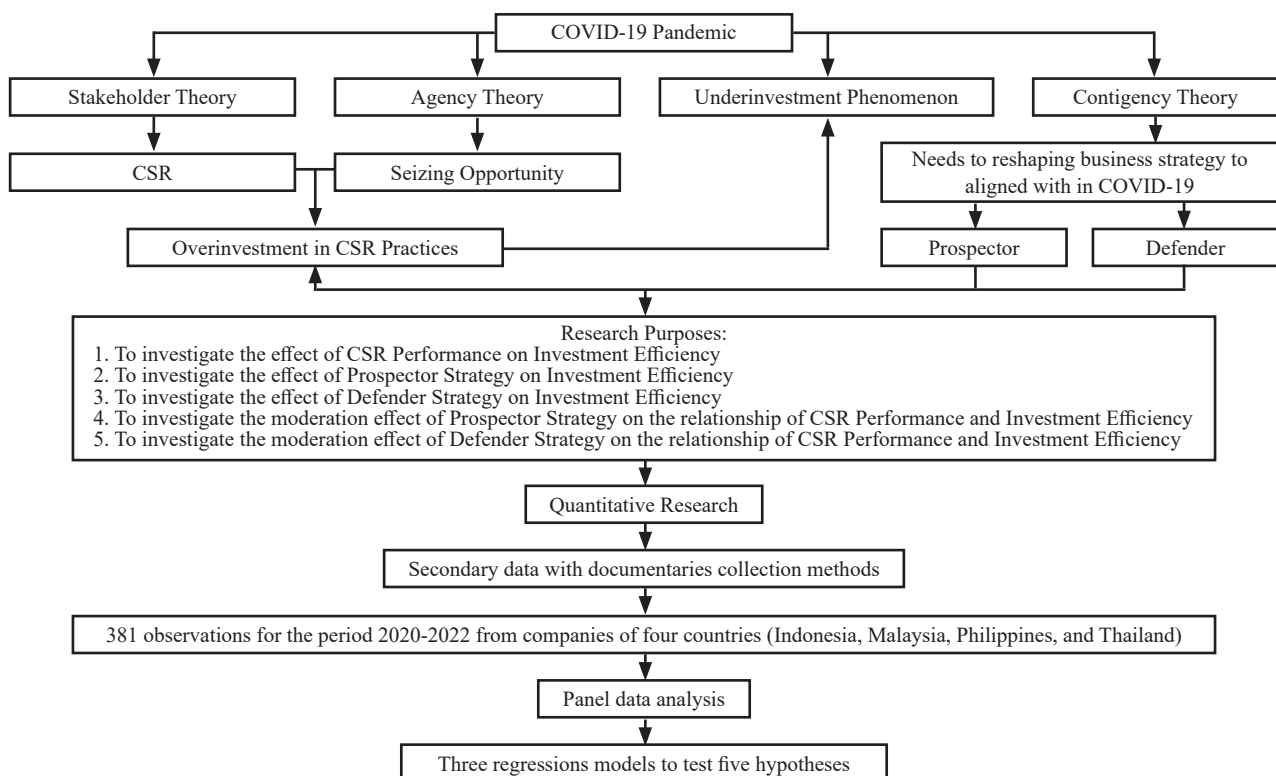

Figure 1. Research Framework

Non-financial sector companies listed on the stock exchanges of Indonesia, Malaysia, the Philippines, and Thailand that were indexed in the Thomson Reuters database comprised the population used in this research. The sectors in question were the health sector, the consumer non-cyclical sector, the consumer cyclical sector, the basic materials sector, and lastly the industrial sector. The sampling technique employed in this research was purposive sampling, which involved examining companies that met the requirements for being used as samples to summarize the research findings. The criteria were as follows; 1) ESG score observations that available in Thomson Reuters for the year 2020- 2022 period in developing countries in Southeast Asia, 2) observations whose financial reporting did not end on December 31. This was because the COVID-19 phenomenon started in March 2020, so it should be fair that all observations had the same starting and ending for their reporting, and 3) companies that did not have complete data for calculating all variables used (including control variables). This technique resulting firm-year observations with a total of 381 observations, representing more than 200 non-financial enterprises from the Southeast Asian Region.

Related to the measurement of all variables, here is the following table:

Table 1. Variable Measurement

Symbol	Type	Name	Measurement	Sources
INVEFF	Y	Investment Efficiency	$Invest_{i,t} = \beta_0 + \beta_1 SalesGrowth_{i,t-1} + \varepsilon_{i,t}$	Biddle et al., (2009)
CSR	X	CSR Performance	ESG Ratings from Refinitiv	Samet and Jarboui (2017)
PROSPECTOR	M1	Prospector Strategy	Ratio of	Higgins, et al., (2012);
DEFENDER	M2	Defender Strategy	1) efficient production capability and product distribution,	Bentley et al., (2013); and
			2) company growth rate,	Wardani and Khoiriyah
			3) marketing and sales, and lastly	(2018)
			4) capital intensity.	
LnSIZE	C1	Size	Natural logarithm of total assets	Benlemlih and Bitar, (2016)
LEV	C2	Leverage	Leverage ratio	Lin et al. (2021)

Investment Efficiency was the dependent variable in this research. Investment efficiency was defined as how much the company spent their resources on fixed assets, as well as its expenditure on Research and Development (R&D) activities. To know whether the investment was efficient or not, the company's investment needed to regress with the company's sales growth. This was to see the deviation of the company's expected investment and accrual investment. Therefore, the residual value derived from the regression between sales growth and the fixed asset investment value was known as investment efficiency. If the residual value was the same as zero, then it could be said that the company invested efficiently. But, if the residual value was above zero, then it was classified as an overinvestment. Finally, if the residual value was below zero or negative, then the company experienced underinvestment. A model from earlier research by Benlemlih and Bitar (2016), Biddle et al. (2009), Lin et al. (2021), Samet and Jarboui (2017), and Sari and Suaryana (2014) was used in this research to measure the investment efficiency. To measure the dependent variable this research used the following model:

$$Invest_{i,t} = \beta_0 + \beta_1 SalesGrowth_{i,t-1} + \varepsilon_{i,t} \dots\dots\dots\dots\dots\dots\dots(1)$$

Where Invest was the total receipts from the disposal of fixed assets were reduced by expenditure on the purchase of fixed assets, then scaled to total assets in year t, and SalesGrowth was the change in sales percentage from t-2 to t-1. The model was used separately for each company and each year in the research sample.

In this research, CSR performance was the independent variable. The CSR Performance was about knowing how effectively the company implemented their CSR Program into activities and how they reported it to the public. To measure the effectiveness, this research used the ESG score made by Refinitiv. If the company managed to get the score in range A until range B, it could be said that the company's CSR Performance was effective due to the transparency of reporting their CSR activities. Then, if the company got a score in the range C until E, it could be said that its CSR Performance was not effective since its report is not transparent to the public.

The MSCI ESG Ratings, formerly known as KLD Ratings, were ESG (Economic, Social, and Governance) scores that had been used as a substitute for CSR performance indicators in previous research by Benlemlih and Bitar (2016), Cook et al. (2019) and Lin et al. (2021). The Bloomberg Terminal database commonly was the source of this information. However, Samet and Jarboui (2017) use the ESG score which could be found in the Thomson Reuters-ASSET 4 database, one of the Refinitiv company's products. Consistent with Samet and Jarboui (2017), this research also employed Thomson Reuters' ESG score as a substitute for CSR performance indicators. Based on research conducted by Kaźmierczak (2022), this explained why CSR performance could

be proxied by ESG score. CSR was a strong management concept that transformed as an activity conducted by the company to show their stakeholders that they truly cared for another aspect of TBL, which was the environment and society to gain a reputation. Furthermore, an investor who planned to invest their money needed measurable and quantifiable tools for company CSR Performance. This was where ESG came and became the quantitative measurement of a company's qualitative CSR performance (Kaźmierczak 2022). Furthermore, this research also stated that if there was no CSR, then there would be no ESG since ESG came after the company doing their CSR activities. Based on this explanation, this research used the ESG score as a substitute for the company's CSR activities since this score was quantifiable and measurable.

According to Refinitiv's methodology, the ESG ratings were created in an open and objective approach to assess a firm's ESG performance as well as its efficacy and dedication, using data from annual reports that the company published. Ten topics about the Triple Bottom-Line indication were covered by this data. The first came from environmental factors like pollution, resource usage within the organization, and the development of ecologically friendly products. Next, from social dimensions like product responsibility, communities, workers, and human rights. Lastly, the company's CSR practice strategy, shareholders, and management were on the list of economic factors. Refinitiv regularly releases this score for all businesses that were indexed in their database each year. This score was expressed as a range from 1 to 100.

The next was business strategy. This research measured a company's business strategy using four proxies, and the result was a score that was thought to represent the company's business strategy. The three types of this technique were prospector, analyst, and defender, based on the total amount of scores that remained after computation. Several measurements/proxies were developed by Higgins et al., (2012) and Bentley et al., (2013) which were used to determine the value of this variable, namely: 1) efficient production capability and product distribution, 2) company growth rate, 3) marketing and sales, and lastly 4) capital intensity. The Business Strategy variable was measured based on the company's annual ratio calculation, it was based on how the four ratio formulations were mentioned. The next step in the calculation was to sort the values of each of the four variables by quintiles according to the type of company sector. For the first three measurements of business strategy variables (EMP/SALES, MtoB, and Market), the score of the company in the top quintile would get a score of 5, and then the score of the company in the lower order would get a score of 4, and so on until it got a number 1 as the lowest score. The score for the PPEINT proxy was the inverse of the first three proxies. Companies in the top quintile would get a score of 1, then companies below it would get a score of 2, and so on until they reached 5 as the lowest score. This was due to the higher the PPEINT score, the higher the intensity of a company. The score for each company sampled was added up for all proxies that had been given a score with a maximum score of 20 (prospector) and a minimum score of 4 (defender). In the end, this variable became a dummy variable. For the Prospector variable, it scored 1 for Prospector and 0 for Defender and vice versa for the Defender variable.

The control variable was expected to be able to control the influence of the independent variable on the dependent variable without any influence from other variables that were not included in the research. There were two control variables used in this research. The first was LN_SIZE, which stood for the natural logarithm of the total assets of the company. In line with earlier research, Benlemlih and Bitar (2016) hypothesized that this variable influenced the relationship between a company's investment efficiency and its CSR performance, meaning that the higher the company's asset size, the lower its investment efficiency. The second control variable was LEV or leverage ratio. This variable was measured by dividing the company's total debt by the company's total assets. The assumption was that the more debt a company had, the more efficient investment would be. Based on previous research by Lin et al. (2021), this research also included Leverage as a control variable.

Three regression models were used to test the effect of CSR Performance, Prospector Strategy and Defender Strategy on Investment Efficiency. The model was as follows:

$$INVEFF_{i,t} = \alpha + \beta_1 CSR_{i,t} + \beta_2 LnSIZE_{i,t} + \beta_3 LnLEV_{i,t} + \varepsilon_{i,t} \dots\dots\dots\dots\dots\dots\dots(2)$$

$$INVEFF_{i,t} = \alpha + \beta_1 CSR_{i,t} + \beta_2 PROSPECTOR_{i,t} + \beta_3 (CSR_{i,t} \times PROSPECTOR_{i,t}) + \beta_4 LnSIZE_{i,t} + \beta_5 LnLEV_{i,t} + \varepsilon_{i,t} \dots(3)$$

$$INVEFF_{i,t} = \alpha + \beta_1 CSR_{i,t} + \beta_2 DEFENDER_{i,t} + \beta_3 (CSR_{i,t} \times DEFENDER_{i,t}) + \beta_4 LnSIZE_{i,t} + \beta_5 LnLEV_{i,t} + \varepsilon_{i,t} \dots\dots\dots(4)$$

As presented in the first model, multivariate regression was used to test the first hypothesis, then the second model was a Moderated Regression Analysis (MRA) model which was used to test the second and fourth hypotheses, and the third model was to test the third and fifth hypotheses which were explained in the previous section.

RESULTS

This research used eight variables consisting of Investment Efficiency annotated with INVEFF, CSR Performance with the annotation CSR, Prospector Strategy with the annotation PROSPECTOR, Defender Strategy annotated with DEFENDER, control variables consisting of the natural logarithm of Company Size (LN_SIZE), then Leverage ratio which was annotated with LEV, as well as two interaction variables between Prospector Strategy and CSR Performance (CSR*PROS), and finally the interaction between Defender Strategy and CSR Performance which was annotated with CSR*DEF. Specifically for interaction variables, both were not included in descriptive statistics and were only created to see their influence on the relationship between CSR Performance and Investment Efficiency.

The following were descriptive statistics of research data after handling outlier data, and ending up leaving 381 observations:

Table 2. Descriptive Statistics

	INVEFF	CSR	PROSPECTOR	DEFENDER	LN_SIZE	LEV
Mean	-0.003298	47.49428	0.406824	0.593176	20.85486	0.465421
Max	0.064966	92.06000	1.000000	1.000000	24.51000	5.984291
Min	-0.061290	2.640000	0.000000	0.000000	16.78000	0.000251
Std. Dev.	0.024809	18.15390	0.491887	0.491887	1.704700	0.360215
N	381	381	381	381	381	381

The dependent variable Investment Efficiency which was annotated with INVEFF, this variable had a standard deviation of 0.024 which was greater than the average value -0.003. This meant that the distribution of INVEFF variable data was quite diverse and did not follow the average value. The lowest value for this variable was -0.06 and the highest value for this variable was 0.06. This variable had a mean value of -0.003 and a standard deviation of 0.02, indicating that the data did not deviate too much from the mean value. The second variable in this research was the independent variable, namely CSR performance whose values were obtained from the Thomson Reuters database with Refinitiv Eikon software. This variable has the lowest value of 2.64, which according to the score classification by Refinitiv, this score was classified as very low and companies are not transparent in presenting ESG material in their Sustainability Reports. Meanwhile, the highest score for this variable was 92.06. This score was classified as very high with an A+ predicate by Refinitiv's scoring methodology, which meant that this company had a very good performance and the information regarding their ESG score is credible for the general public. The standard deviation of this variable was 18.15 and was smaller than the mean value of 47.49, indicating that the overall variable value was close to the mean.

After that were the moderating variables of this research, namely the Prospector Strategy and Defender Strategy variables. Both were not proper variables, which only had two value classifications, namely 1 or 0. The score classification is obtained from the Business Strategy formulas created by Bentley et al. (2013) and Higgins et al., (2012). From Table 2, it could be seen that non-financial companies in Southeast Asian countries in the COVID-19 phase used more of the Defender Strategy with a percentage of 59%, followed by the Prospector Strategy at 41%. The number of observations that adopted the Prospector Strategy was 155, while the number of observations that adopted the Defender Strategy was 226 observations. Then, this research used two control variables. The first control variable was the natural logarithm of Company Size (LN_SIZE). The highest value of this variable was 24.51, and the lowest value of this variable was 16.78. The standard deviation of this variable was 1.70, indicating that the data distribution followed the average. Lastly was the second control variable, namely Leverage (LEV) which was the ratio of the company's total debt to the company's total assets. The highest value of this variable was 5.98 and indicated that one company as a sample had a very bad leverage ratio since the number was above 1. Meanwhile, the lowest value of this variable was 0.0000251. It could be said that one of the companies as a sample had a very good leverage ratio because their ratio result was below 0. With a standard deviation of 0.36 and smaller than the variable average of 0.46, it could be said that the data distribution for the Leverage variable was close to the average value.

According to Gujarati and Porter (2009), in determining a regression model, the data must be able to meet the Best Linear Unbiased Estimator (BLUE) criteria. To determine whether the testing model in use did not violate the statistical requirements that must be met, the classical assumption test was performed. After the estimation selection test was carried out and the selected model was the Random Effect Model (REM), then there was no need to test the classic assumptions of heteroscedasticity and autocorrelation because it was considered to have fulfilled the BLUE assumption (Gujarati & Porter 2009). However, if the model chosen was Pooled Least Square (PLS) or Fixed Effect Model (FEM), then the classical assumption test must still be carried out as usual.

The first stage in selecting an estimation model for panel data processing was to ascertain which estimation model was most appropriate for this research (Baltagi, 2005). Then, testing on the three types of panel data procedures that were previously described must be conducted. These tests include the Chow Test, Lagrange Multiplier Test, and Hausman Test. Therefore, the result is:

Table 3. Panel Data Estimation Model

Test Name	Result	Chosen Model
Chow Test	0.000	FEM
Lagrange Multiplier Test	0.000	FEM
Hausman Test	0.098	REM

Because the result of the Hausman Test was 0.098 and above 0.05, therefore REM was the chosen model for this research and this research assumed that heteroscedasticity and autocorrelation were already passed.

For the multicollinearity issue, this research used the Pearson Correlation Matrix to see the collinearity between variables. Here is the result:

Table 4. Multicollinearity Test

	INVEFF	CSR	PROSPECTOR	LN_SIZE	LEV
INVEFF	1.000000	0.126990	-0.148029	-0.065131	0.179323
CSR	0.126990	1.000000	-0.019418	0.337479	0.164685
PROSPECTOR	-0.148029	-0.019418	1.000000	-0.219944	0.094114
LN_SIZE	-0.065131	0.337479	-0.219944	1.000000	0.017820
LEV	0.179323	0.164685	0.094114	0.017820	1.000000

According to Ghozali and Ratmono (2017), multicollinearity did not occur if the value between variables did not exceed 0.90. However, because Prospector Strategy and Defender Strategy were not proper variables, to avoid the improper variable trap, Defender Strategy became an excluded group and was not included in the Multicollinearity test (Gujarati & Porter 2009).

The next is the normality test. According to Gujarati and Porter (2009), this test was mandatory before carrying out the F-test and t-test. The following are the results of the Jarque-Bera test of this research:

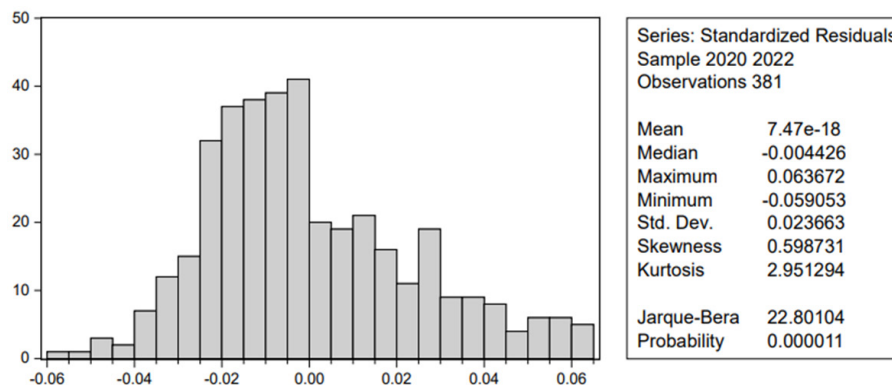| Series: Standardized Residuals | |
Sample 2020 2022	
Observations 381	
Mean	7.47e-18
Median	-0.004426
Maximum	0.063672
Minimum	-0.059053
Std. Dev.	0.023663
Skewness	0.598731
Kurtosis	2.951294
Jarque-Bera	22.80104
Probability	0.000011

Figure 2. Normality Test

Even though the trim and winsorize procedures were used to resolve the outlier data, it was evident from the histogram and the Prob test score that the residual data for this research was not normally distributed. Additionally, because the dependent variable in this research had a negative score and fell between 0 and 1, it cannot be transformed. Therefore, the Central Limit Theorem—a theory that held that in large samples, the residual data was deemed to have met the assumption of normality (Gujarati & Porter 2009) and this test can be ignored—was chosen by this research to be used for the normality test (Ghozali & Ratmono 2017).

After performing the classical assumption test, the next step was performing a regression test of all models. This first regression model aims at seeing the influence of the independent variable on the dependent variable and the control variable without any influence from the moderating variable. Then, in the second and third regression models, there was Moderated Regression Analysis (MRA) with the Prospector Strategy and Defender Strategy variable acting as the independent variable, as well as the interaction of the Prospector Strategy and Defender Strategy variable with CSR variable as the moderating variable.

Table 5. Result of the Regression

Variables	(1)		(2)		(3)	
	Coefficient	p-Value	Coefficient	p-Value	Coefficient	p-Value
CSR	0.000191	0.0100***	0.000399	0.000***	-0.000119	0.285
PROSPECTOR	-	-	0.014	0.037**	-	-
DEFENDER	-	-	-	-	-0.014	0.037**
CSR*PROSPECTOR	-	-	-0.001	0.000***	-	-
CSR*DEFENDER	-	-	-	-	0.001	0.000***
LN_SIZE	-0.001675	0.0313**	-0.002	0.002***	-0.002	0.002***
LEV	0.010906	0.0020***	0.013	0.000***	0.013	0.000***
Adjusted R^2	0.046		0.112		0.112	
F-Statistic	7.123		10.605		10.605	
Prob F-Statistic	0.000		0.000		0.000	

The table above showed the results of the first, second, and third regression models, which were the regression of the CSR, the efficiency of the company's investment, the improper variables of business strategy, both as independent and moderator, and all control variables that include in this research. The symbols *, **, *** denoted significance at the respective 1%, 5%, and 10% levels.

DISCUSSION

The initial hypothesis postulates that non-financial enterprises in Southeast Asia that engaged in corporate social responsibility (CSR) and achieved favourable outcomes would have the capacity to enhance their investment efficiency (underinvestment) throughout the financial crisis. The results of the first model regression with a p-value less than 0.05 demonstrated that investing in CSR was useful amid a financial crisis, or in other words, H_1 is accepted. Research by Benlemlih and Bitar (2016), Samet and Jarboui (2017), Lin et al. (2021), Cook et al. (2019) and Khediri (2021) was consistent with the findings of this study. Research by Chen et al., (2011) stated that the underinvestment phenomenon was discovered in developing nations companies that year. Since this research used the same object—non-financial enterprises in developing nations—it turned out that this pattern was still present in this decade. The only difference was that this research simply looked at Southeast Asia and employed a different observation year range, which is the COVID-19 period. The novelty of this research was Chen et al. (2011) found underinvestment in emerging countries happened because of low accounting information quality, while this research found that underinvestment happened in developing countries of the Southeast Asia Region because the manager of the company decided to overinvest in CSR and neglect the investment in fixed assets. This finding aligned with findings from Yi et al. (2022) who also concluded the same from companies in China.

The regression results revealed that CSR performance had a positive influence on a company's investment efficiency, the better a company's CSR performance, the higher its investment efficiency, particularly in companies experiencing underinvestment. Two common explanations for underinvestment conditions were information asymmetry in the form of managers purposefully missing opportunities to invest to minimize risks (Rocca et al., 2007) and financial crises that the company was going through (Benlemlih & Bitar 2016; Samet & Jarboui 2017). These two rationales made sense as the primary drivers of underinvestment circumstances during the COVID-19 pandemic. The COVID-19 pandemic at the time created an uncertain environment, requiring careful decision-making, particularly regarding the utilization of firm resources such as assets (Altig et al. 2020). As a result, even though there were many investment opportunities with favourable NPV results at the time, management passed them up in favour of maintaining the stability of the company's resources to survive and avoid failure. In the meantime, all businesses were required by the global COVID-19 pandemic situation to engage in CSR initiatives as a way of demonstrating concern for the local community and the environment that was impacted by the pandemic Manuel and Herron (2020). Among these CSR initiatives included the distribution of food, masks, vaccines, and other supplies. Some businesses viewed CSR efforts as an obligation to look good, while others saw them as an investment (Manuel & Herron 2020).

Organizations that considered corporate social responsibility as an investment seemed to achieve positive outcomes. This was because the firm was perceived as a responsible entity that was also concerned with three areas of sustainability (Navickas et al. 2021), hence the ultimate result of this CSR investment was the company's reputation. The reputation built through CSR investments was what gave the company credibility and attracted new investors to invest funds, as well as captivating financial institutions to lend them money (Cheng et al., 2014). Companies employed the money they got from outside sources to augment their underfunded fixed-asset investment efforts. This was because managers would be more daring in pursuing investment opportunities due to more funding sources, provided that it did not have a significant influence on the company's sustainability, such as if the investment had a negative NPV in the future. Aside from the financial component, this research

demonstrated that the greater a company's CSR performance, the less information asymmetry there was due to the increased performance of the company's CG mechanisms. As CG had risen, corporation management was facing stricter and demanding monitoring (Benlemlih & Bitar 2016). Managers in underinvested organizations found it challenging to put their interests ahead of risks as a result. As a result of less information asymmetry, businesses can invest in fixed assets at a level that is both optimal and efficient.

The next was the second regression model. In this model, Adjusted R^2 had increased to 0.112 or 11.2, which was previously 4.6%. This meant that the presence of the Prospector Strategy variable which was annotated with PROSPECTOR and the interaction variable CSR*PROSPECTOR increased the strength of the CSR variables and control variables in explaining the INVEFF variable by 6.6%. In the first regression model, the F test produces an F-statistic value of 7.12 with a Prob value of 0.00. In this MRA model involving the Prospector Strategy and its interaction with the CSR variable, the two additional variables succeeded in increasing the simultaneous influence on the dependent variable to 10.605 with a Prob value of 0.00. This meant that the presence of these two variables increased the F-statistic value by 3.485. In this second regression model, there was Moderated Regression Analysis (MRA) with the Prospector Strategy variable acting as the independent variable, as well as the interaction of the Prospector Strategy variable and the CSR variable as the moderating variable.

A positive coefficient of 0.014 was owned by the PROSPECTOR variable. With a Prob value of 0.037, this variable succeeded as an independent variable for investment efficiency (underinvestment). So, it can be said that the second hypothesis (H_2) in this research was accepted. In the third regression model, The DEFENDER variable had a negative coefficient with a Prob value of 0.037, the same as the PROSPECTOR variable. This meant that the Defender Strategy harmed the company's Investment Efficiency, or in other words, companies that were in a state of underinvestment would be made worse by the presence of the Defender Strategy which focused on the efficient use of company resources. Thus, the third hypothesis (H_3) in this research was accepted.

The interaction variable between CSR performance and Prospector Strategy which was annotated with CSR*PROSPECTOR had a negative coefficient with a Prob value of 0.000 and was smaller than 0.05, so it can be said that the CSR*PROSPECTOR variable was successful in moderating the relationship between CSR performance and investment efficiency in the form weakened the relationship. So, the fourth hypothesis (H_4) of this research was accepted, namely that CSR performance integrated with the Prospector strategy would reduce the company's investment efficiency. The second was because the PROSPECTOR variable influences INVEFF, and the CSR*PROSPECTOR interaction variable also influenced INVEFF, the result of the MRA regression model for the two studies was the Prospector Strategy as a pseudo-moderator variable.

Lastly, in Table 5, the MRA coefficient of determination is 0.112 or 11.2%. Just like the previous MRA model, the results obtained are the same considering that the Prospector Strategy and Defender Strategy variables were improper. So, after adding the Defender Strategy variable and the interaction between Defender Strategy and CSR Performance, the coefficient of determination increased by 6.6% from previously 4.6% to 11.2%. This model involved the Defender Strategy and the interaction between the Defender Strategy and CSR Performance as a moderating variable. The F test results in the first regression model were 7.12 with a Prob value of 0.00. Meanwhile, in the third regression model, it was found that the F-statistic value had increased to 10,605 with a Prob value of 0.00. The interpretation is that the presence of the Defender Strategy and its interaction with CSR Performance can increase the simultaneous influence on the INVEFF variable by 3,485. In this model, the Defender Strategy variable which was annotated with DEFENDER acts as another independent variable, while the interaction variable between Defender Strategy and CSR Performance which was annotated with CSR*DEFENDER acts as a moderating variable.

A positive coefficient of 0.001 was owned by the CSR*DEFENDER interaction variable. With a Prob value of 0.00, this variable succeeded in moderating the relationship between CSR Performance and Investment Efficiency by strengthening it. So, it can be said that the fifth hypothesis (H_5) in this research was accepted. Lastly, because the DEFENDER variable as an independent variable had a significant effect on INVEFF, and the CSR*DEFENDER moderation variable also had a significant effect on INVEFF, the Defender Strategy was classified as a pseudo-moderator, same with the Prospector strategy.

This study used the following two control variables: the leverage ratio (LEV), which was calculated by dividing total business debt by total company assets, and the natural logarithm of company size (LN_SIZE). The findings indicated that the company's size and leverage had an impact on how well it invested. This influence took the shape of leverage increasing under-investment conditions, while the firm's size made them worse. According to the findings of this research, corporations might have intentionally saved their assets and refrained from using them during the financial crisis, which could explain the negative influence of the LN_SIZE variable. In truth, some of these assets can be utilized to invest, but risk-averse management preferred not to. Consequently, as a corporation grows in size, its investments became more inefficient and deviate from optimality. Lastly, the interpretation of the leverage ratio, also known as the LEV variable, was

that a company's investment efficiency improved when its leverage increased. This was because underinvested enterprises required more funds to expand their investment, and the usage of these funds did not affect the company's activities. It is hoped that raising the leverage ratio would lessen information asymmetry by preventing managers from passing up opportunities to invest in profitable ventures because outside funding is available. Leverage therefore had a favorable impact on underinvestment situations for this reason.

Miles et al. (1978) classified methods into four categories, including the Prospector and Defender types. The prospector type had other benefits of its own, one of which was that it constantly sought to seize possibilities as they presented themselves. This was not the same as the Defender type, which constantly exercised caution and upheld the effective use of corporate resources. Naturally, the features of these two approaches also had an impact on the company's fixed asset investment operations (Lin et al. 2021). The type of Prospector who seized chances as they arose would undoubtedly invest without careful consideration. Using this method in companies that were experiencing overinvestment would exacerbate the problem. Therefore, the Defender strategy would be more profitable for businesses that were going through overinvestment since it would optimize and employ the extra resources of the business so that they were used more fairly across all parts. Research by Lin et al. (2021) demonstrated that overinvestment was made worse by the Prospector approach, but it was made better by the Defender strategy.

Prospector strategy implementation was more beneficial than Defender strategy implementation for enterprises facing underinvestment. This was because underinvestment conditions result from managers purposefully passing up the chance to invest in initiatives with a positive net present value (NPV) as a result of information asymmetry. Thus, adopting the Prospector approach—which was renowned for always seizing opportunities—would significantly contribute to raising investment in underinvestment scenarios. However, putting into practice a Defender strategy that emphasizes efficiency and fair use of corporate resources would exacerbate the underinvestment situation. The COVID-19 pandemic's unpredictable circumstances would make managers cautious while making investments. The Prospector strategy, on the other hand, had the benefit of flexibility in handling environmental uncertainty, making its implementation more appropriate for carrying on with development in the face of uncertain circumstances in the event of a financial crisis (Hejranijamil et al., 2020; Siddique and Rasheed, 2023). As previously stated, this research was dominated by underinvestment conditions. Thus, it would be more appropriate to employ the Prospector strategy rather than the Defender strategy. It can be seen from the results of the second model regression test that the Prospector strategy has a positive coefficient on investment efficiency while the Defender strategy had a negative coefficient. The research's findings were expected to help non-financial businesses in Southeast Asian developing nations identify the kind of strategy that would be best for them to employ, particularly if they encountered circumstances akin to the COVID-19 pandemic in the future. Aside from that, this study is the first to discover that businesses in Southeast Asian developing nations were more likely to use the Defender strategy as a business strategy.

The findings of this study also demonstrate that information asymmetry had an impact on how a corporation implemented its business strategy. Company conditions that were full of uncertainty were more appropriate for implementing the Prospector strategy; however, due to information asymmetry in the form of managers' actions, the Defender strategy was implemented to avoid the risk of the company but at the same time company also falling into a state of underinvestment. Therefore, it was envisaged that by strengthening their CG mechanisms, businesses can lessen the information asymmetry that arises. Lastly, similar to research by Lin et al. (2021), this research also raised the possibility that there was a connection between the company's CSR initiatives and its business strategy. There was a worry that the integration of CSR initiatives with the Prospector strategy may diminish the efficiency of the company's fixed asset investment. The second premise was that the company's investment efficiency would rise if its CSR initiatives were incorporated with the Defender strategy. Evidence for this might be found in the second and third models' regression results, which indicated that the relationship between CSR performance and investment efficiency was well moderated by the Prospector and Defender strategies. The distinction is that the CSR-integrated Prospector approach had a negative coefficient, whereas the CSR-integrated Defender method has a positive coefficient.

Our research findings also aim at assessing the extent to which COVID-19 was influencing corporations' investment actions. The COVID-19 pandemic had led enterprises in developing countries in the Southeast Asia region, as well as other regions, to delay their investment plans, leading to underinvestment and inefficiency in the allocation of investments. This situation necessitates companies to restructure their business strategy, as they must allocate resources to generate higher profits while simultaneously fulfilling their obligations towards corporate social responsibility (CSR) efforts to cater to the needs of stakeholders. It can be inferred that the CSR activities that occurred during the COVID-19 pandemic were influenced by both stakeholder theory and agency theory. This was because many managers took advantage of the situation to enhance their public image by excessively investing in CSR. Finally, we might determine that contingency theory served as the foundational theory for business strategy during the COVID-19 period.

It was advised to employ the Prospector strategy to maximize investment activities and increase their efficiency in underinvested enterprises. Regardless of the company's financial situation, the COVID-19 pandemic's conditions had compelled all businesses to engage in CSR (Manuel & Herron 2020). As a result, businesses were left with little option but to engage in CSR more than they would have under normal circumstances. Consequently, the corporation's fixed asset investment activities became inefficient if the Prospector approach was combined with the CSR initiatives of the organization. This was because the Prospector strategy would capitalize on this momentum to expand and enhance CSR, placing it above the company's primary operations (Lin et al. 2021). Excessive investment in CSR activities would improve the company's reputation in society, but it would have a negative influence on fixed asset investment because the company's focus is on CSR activities. Unlike the Defender strategy, which concentrated on allocating corporate resources equally across funding, investment, and operational operations, if this strategy was combined with the company's CSR initiatives, the company would seize the chance to invest appropriately. Therefore, even in the event that there was a chance to invest in CSR, the Defender approach would pass on it since it believes that the current level of CSR activity was adequate. This Defender strategy feature would eventually balance the company's investments in fixed assets and corporate social responsibility amid the financial crisis and boost the investment's efficiency.

The findings of this research had relevance for businesses in that it was critical to align corporate social responsibility (CSR) initiatives with business strategy, particularly in unusual circumstances like the COVID-19 pandemic. To ensure that the amount invested in corporate social responsibility (CSR) was reasonable, it was recommended that organizations that were facing overinvestment conditions during the financial crisis adopted the Defender strategy and include it in their CSR initiatives. However, to thrive in an unpredictable climate and seize every chance, it was strongly advised that the company adopt the Prospector approach if it was underinvested during a financial crisis. To maximize the return on their fixed asset investment, businesses must exercise caution when putting this planned into practice to avoid going overboard when investing in CSR components. Companies can also try to implement different strategies related to CSR and company investment activities. Non-financial companies in developing countries in the Southeast Asia region had always been found to be consistently underinvested. Consequently, the recommendation for underinvested enterprises was to apply the Prospector method to capitalize on investment opportunities with a positive net present value (NPV). In case it pertained to the firm's corporate social responsibility endeavours, it ought to be included with an alternative approach like the Defender strategy or other appropriate tactics that did not impede the efficiency of the fixed asset investment operations of the organization.

CONCLUSIONS

This research aims at determining the effect of CSR performance on company investment efficiency, the partial effect of business strategy on company investment efficiency, as well as the moderating effect of business strategy on the relationship between CSR performance and investment efficiency. The results of this research were CSR Performance successes in enhancing underinvestment. This was because high CSR performance improves the company's CG mechanisms, and helped reduce information asymmetry which was the main factor causing investment inefficiency. The results of this research were similar to Benlemlih and Bitar (2016), Samet and Jarboui (2017), as well as Lin et al. (2021). The second finding was a business strategy based on typology from Miles et al. (1978) implemented by the company that had an influence on the company's investment efficiency, both the Prospector strategy and the Defender strategy. This effect was that the Prospector strategy increased underinvestment conditions, while the Defender strategy made these conditions worse. This was due to the characteristics of the two strategies, namely the Prospector strategy tried to take advantage of all opportunities that arose, while the Defender strategy focused on efficiency and prudence in the use of company resources. The results of this research were similar to those of Siddique & Rasheed (2023) and Lin et al. (2021).

The next Prospector strategy and Defender strategy in this research were found to have a pseudo-moderating effect, they also influenced investment efficiency and on the other hand, interacted with the company's CSR performance. This effect was that CSR activities integrated with the Prospector strategy would weaken the positive influence of CSR on underinvestment, while the Defender strategy integrated with CSR activities would be successful in improving the company's underinvestment conditions to a more optimal point. The results of this research were similar to those of Lin et al. (2021). Lastly, the dominant strategy used by non-financial companies in developing countries in the Southeast Asia region during the COVID-19 pandemic was the Defender strategy.

This research had several limitations and suggestions. The first was this research relied on CSR data available on the Thomson Reuters database and not all non-financial companies in Southeast Asia had ESG scores in the 2020-2022 period, so it was suspected that this would affect the research results. A suggestion for future research was to try different ESG scores, such as scores from Bloomberg, S&P Global, and other databases. The second was since the Southeast Asia Region in this research was known to have an underinvestment phenomenon because

of COVID-19, this research discussion only focused on how CSR performance and business strategy affected the underinvestment condition in the financial crisis. Suggestions for future research were to see how the COVID-19 phenomenon affected the overinvestment condition and what factors caused it. The third limitation was this research also found that in COVID-19, most strategy utilized by non-financial companies in the Southeast Asia Region is the Defender Strategy. Since this research did not try to compare the difference between Prospector and Defender but was more likely to see as an overall, therefore the suggestion for future research was to compare those strategies to see the advantages and disadvantages when utilized in a financial crisis.

The fourth was each research variable only used one measurement as a proxy for the variable, namely, CSR performance was an ESG score from the Thomson Reuters database, investment efficiency was based on the formula from Biddle et al. (2009), as well as business strategies based on measurements from Higgins et al. (2012) so it was suspected that this also affected the research results. For robustness check, future research could use different proxies to see if the results remained consistent or different. The fifth was the research period from 2020 to 2022 focused on the COVID-19 phenomenon. This was because Southeast Asia was affected badly since this region was near China, the origin of COVID-19. Therefore, future research was expected to conduct this research again with different regions, to see how COVID-19 impacted the other place. Lastly, this research only used two control variables, namely the natural logarithm of total assets which was annotated with LN_SIZE, and the company's leverage ratio which was annotated with LEV so it was thought to affect the research results. It was hoped that future research could use additional independent variables, as well as additional control variables so that the research results coulds be more accurate.

REFERENCES

Altig, D, Baker, SR, Barrero, JM, Bloom, N, Bunn, P, Chen, S, … Thwaites, G. 2020. Economic Uncertainty Before and During the COVID-19 Pandemic. National Bureau Of Economic Research, no. 27418, <http://www.nber.org/papers/w27418>.

Baltagi, B. H. 2005. Econometrics Analysis of Panel Data. 3rd edn, John Wiley & Sons, Ltd, Chichester.

Benlemlih, M & Bitar, M. 2016. Corporate Social Responsibility snd Investment Efficiency. Journal of Business Ethics, vol. 148, no. 3, pp. 647–671.

Bentley, KA, Omer, TC & Sharp, N. Y. 2013. Business Strategy, Financial Reporting Irregularities, and Audit Effort. Contemporary Accounting Research, vol. 30, no. 2, pp. 780–817.

Biddle, GC, Hilary, G & Verdi, R. S. 2009. How Does Financial Reporting Quality Relate to Investment Efficiency?. Journal of Accounting and Economics, vol. 48, no. 2–3, pp. 112–131.

Bodie, Z, Kane, A & Marcus, A. 2018. Investments, 11th edn, McGraw-Hill Education, New York.

Buchheim, L, Dovern, J, Krolage, C & Link, S. 2021. Firm-Level Expectations and Behavior in Response to the COVID-19 Crisis. SSRN Electronic Journal, no. 13253.

Chen, F, Hope, OK, Li, Q & Wang, X. 2011. Financial Reporting Quality and Investment Efficiency of Private Firms In Emerging Markets. Accounting Review, vol. 86, no. 4, pp. 1255–1288.

Cheng, B, Ioannou, I & Serafeim, G. 2014. Corporate Social Responsibility and Access to Finance. Strategic Management Journal, vol. 35, no. 1, pp. 1–23.

Chong, J & Duan, S. X. 2022. Riding on the Waves of the COVID-19 Pandemic In Re-Thinking Organizational Design: A Contingency-Based Approach. Journal of Strategy and Management, vol. 15, no. 4, pp. 628–646.

Cook, KA, Romi, AM, Sánchez, D & Sánchez, J. M. 2019. The Influence of Corporate Social Responsibility on Investment Efficiency and Innovation. Journal of Business Finance and Accounting, vol. 46, no. 3–4, pp. 494–537.

Daly, E, Das, K & Yeoh, R. 2020. Reimagining Emerging ASEAN in the Wake of COVID-19. McKinsey & Company, no. August.

Demary, M, Hasenclever, S & Hüther, M. 2021. Why the COVID-19 Pandemic Could Increase the Corporate Saving Trend in the Long Run', Intereconomics, vol. 56, no. 1, pp. 40–44.

Elkington, J. 1998. Accounting for the Triple Bottom Line. Measuring Business Excellence, vol. 2, no. 3, pp. 18–22.

Fakhroni, Z, Ghozali, I, Harto, P & Yuyetta, ENA. 2018. Free Cash Flow, Investment Inefficiency, And Earnings Management: Evidence From Manufacturing Firms Listed on the Indonesia Stock Exchange. Investment Management and Financial Innovations, vol. 15, no. 1, pp. 299–310.

Firmansyah, A & Triastie, G. A. 2020. The Role Of Corporate Governance In Emerging Market: Tax Avoidance, Corporate Social Responsibility Disclosures, Risk Disclosures, And Investment Efficiency. Journal of Governance and Regulation, vol. 9, no. 3, pp. 8–26.

Freeman, RE, Harrison, JS, Wicks, AC, Parmar, BL & Colle, S De. 2010. Stakeholder Theory: The State of The Art. 1st edn, Cambridge University Press, New York.

Gao, R & Yu, X. 2020. How To Measure Capital Investment Efficiency: A Literature Synthesis. Accounting and Finance, vol. 60, no. 1, pp. 299–334.

García-sánchez, A. 2020. Corporate Social Responsibility During Covid-19 Pandemic. Journal of Open Innovation: Technology, Market, and Complexity, vol. 6, no. 4, p. 126.

Ghozali, I & Ratmono, D. 2017. *Analisis multivariat dan ekonometrika: Teori, konsep, dan aplikasi dengan EViews 10.* A Tejokusumo (ed.), Edisi 2, Fakultas Ekonomika dan Bisnis Universitas Diponegoro Semarang, Semarang.

GMO Research & A. I. 2021. Has COVID-19 Impacted Corporate Social Responsibility in Asia?. GMO Research & AI, p. 1, viewed 10 July 2024.

Gomariz, MFC & Ballesta, J. P. S. 2014. Financial Reporting Quality, Debt Maturity and Investment Efficiency. Journal of Banking and Finance, vol. 40, no. 1, pp. 494–506.

Gujarati, DN & Porter, D. C. 2009. Basic Econometrics, in AE Hilbert (ed.), The McGraw-Hill Series Economics, Fifth Edit, McGraw-Hill/Irwin, New York.

He, H & Harris, L. 2020. The Impact of Covid-19 Pandemic on Corporate Social Responsibility and Marketing Philosophy. Journal of Business Research, vol. 116, no. January, pp. 176–182.

Hejranijamil, M, Hejranijamil, A & Shekarkhah, J. 2020. Accounting Conservatism and Uncertainty in Business Environments; Using Financial Data of Listed Companies in The Tehran Stock Exchange. Asian Journal of Accounting Research, vol. 5, no. 2, pp. 179–194.

Higgins, D, Omer, TC & Phillips, J. D. 2012. Does A Firm's Business Strategy Influence Its Level of Tax Avoidance?. SSRN Electronic Journal.

Jensen, C & Meckling, H. 1976. Theory Of The Firm : Managerial Behavior, Agency Costs and Ownership Structure. Journal of Financial Economics 3, vol. 3, no. 4, pp. 305–360.

Kaźmierczak, M. 2022. A Literature Review on the Difference Between CSR and ESG. Scientific Papers of Silesian University of Technology. Organization and Management Series, vol. 2022, no. 162, pp. 275–289.

Khediri, K Ben. 2021. CSR and Investment Efficiency in Western European Countries. Corporate Social Responsibility and Environmental Management, vol. 28, no. 6, pp. 1769–1784.

Lara, JMG, Osma, BG & Penalva, F. 2016. Accounting Conservatism and Firm Investment Efficiency. Journal of Accounting and Economics, vol. 6, no. 1, pp. 221–238.

Lestiananda, LR, Nugrahanti, YW & Theotama, G. 2023. Board Diversity and Corporate Social Responsibility Disclosures. Jurnal Riset Akuntansi Kontemporer, vol. 15, no. 2, pp. 186–197.

Lin, YE, Li, YW, Cheng, TY & Lam, K. 2021. Corporate Social Responsibility and Investment Efficiency: Does Business Strategy Matter?. International Review of Financial Analysis, vol. 73, p. 101585.

Manuel, T & Herron, T. L. 2020. An Ethical Perspective of Business CSR and the COVID-19 Pandemic. Society and Business Review, vol. 15, no. 3, pp. 235–253.

Mgammal, MH & Al-Matari, E. M. 2022. Sustainability Report Disclosure Moderating Effect on Investment Decision, Financial Accounting Variables and Share Price Relationship: A Case of Saudi Arabia. Contaduria y Administracion, vol. 67, no. 3, pp. 210–237.

Miles, RE, Snow, CC, Meyer, AD & Coleman, H. J. J. 1978. Organizational Strategy, Structure, and Process. Academy of Management Review, vol. 3, no. 3, pp. 546–562.

Morgan Stanley Capital Investment. 2022. MSCI Country Classification Standard. pp. 1–3.

Navickas, V, Kontautiene, R, Stravinskiene, J & Bilan, Y. 2021. Paradigm Shift in the Concept of Corporate Social Responsibility: COVID-19. Green Finance, vol. 3, no. 2, pp. 138–152.

Rahmawardani, DD & Muslichah, M. 2020. *Corporate Social Responsibility Terhadap Manajemen Laba Dan Kinerja Perusahaan.* Jurnal Riset Akuntansi Kontemporer, vol. 12, no. 2, pp. 52–59.

Rocca, M La, Rocca, T La & Cariola, A. 2007. Overinvestment and Underinvestment Problems: Determining Factors, Consequences And Solutions. vol. 5, no. 1, pp. 79–95.

Samet, M & Jarboui, A. 2017. How Does Corporate Social Responsibility Contribute to Investment Efficiency?. Journal of Multinational Financial Management, vol. 40, pp. 33–46.

Sari, NIN & Suaryana, IGNA. 2014. *Pengaruh Kualitas Laporan Keuangan Pada Efisiensi Investasi Perusahaan Pertambangan.* E-Jurnal Akuntansi Universitas Udayana, vol. 3, pp. 524–537.

Seiler, P. 2021. Firms' Investment Decisions on Response to the COVID-19 Pandemic: Causal Evidence from Switzerland. Covid Economics, no. 73, pp. 81–136.

Siddique, M & Rasheed, A. 2023. The Impact of Business Strategy Between Corporate Ownership and Investment Efficiency. Central European Management Journal, vol. 31, pp. 420–431.

Wahab, AA & Zainudin, R. 2024. Why Do Firms Hedge? A Revisit for An Emerging Market Perspective. Jurnal Pengurusan, vol. 70.

Wardani, DK & Khoiriyah, D. 2018. *Pengaruh Strategi Bisnis dan Karakteristik Perusahaan Dalam Penghindaran Pajak.* Jurnal Riset Akuntansi Dan Keuangan, vol. 13, no. 2, pp. 25–36.

Yi, Y, Zhang, Z & Xiang, C. 2022. The Value of CSR During the COVID-19 Crisis: Evidence from Chinese firms. Pacific-Basin Finance Journal, vol. 74, no. 101795, pp. 1–17.