

Does COVID-19 Pandemic Crisis Affect CSR Costs? Case of Indonesia

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Abstract: *The outbreak of COVID-19 that has been happening all around the world since early 2020 was a tough challenge for business entities. What was let down to keep the business alive was none other than sustainability performance, which is funded by CSR cost. This study examines the potential moderation effect of the COVID-19 Pandemic crisis on the relationship between the company size and the current ratio of CSR costs, especially for developing countries. The data was collected from public companies listed on Indonesia Stock Exchange from 2019-2020. This study shows that regarding the size of the company, the commitment to fund CSR activities increases as the COVID-19 crisis hit. On the contrary, companies with high liquidity do not necessarily active in environmental action when the pandemic hit. This study's novelty is examining the COVID-19 Pandemic crisis as a moderating variable in studying business entity behaviour towards their CSR. Besides, this study gives elaboration on what happened in Indonesia, one of the developing countries that suffered from the COVID-19 Pandemic crisis.*

Keywords: *COVID-19 Pandemic Crisis, CSR Cost, Company Size, Current Ratio*

Introduction

The COVID-19 Pandemic is a real-life example of how human activities can jeopardize the harmony of ecology, economics, and social aspects. Recent studies show that the trade of wild animals in the traditional Wuhan, China market is the starting point of the COVID-19 outbreak (Gao et al., 2022; Worobey et al., 2022). It is not a surprise that the disease transmission from animals to humans, like COVID-19, is not a coincidence (Cho et al., 2022). Human activities have been interfering with the ecology and ecosystem of our nature, making the border between humans and animals becomes thinner. With this way of life, disease transmission that once happened only in wild animals can

eventually be transmitted to humans (Donthu & Gustafsson, 2020). The importance of economics and the wealth of humans has been undertaken in an unsustainable way that gives rise to problems that threaten the sustainability of humans.

The sustainability issue is not a span-new matter, both in academics and in the business world. All shareholders and stakeholders demand that business entities run their business activities ethically by putting concern over sustainability issues. The business entities respond to the issue by carrying out Corporate Social Responsibility (CSR) activity. CSR activity is a form of company responsibility to the community. One of the main concerns in CSR is to sustain environmental sustainability, which is funded by business entities.

CSR cost by business entities is affected by several factors, such as company age, type of industry, company size (Ningrum et al., 2020), business strategy (Maury, 2022), CEOs' gender (Nguyen & Thai, 2022), government regulation (Chen et al., 2018), to the capability of the business to pay its debts (Anggraini & Widati, 2021). Previous studies show that company size and current ratio can increase CSR costs (Anggraini & Widati, 2021; Ningrum et al., 2020). Big corporations tend to be close to certain political interests, so they will try to accommodate those interests by funding them. Besides, they can use their big capacity to deliver great responsibility to the community. Still, is this ideal condition always happening no matter their condition?

Our endeavours to solve the sustainability issue are at stake amidst the COVID-19 Pandemic crisis (Cho et al., 2022). Based on a recent survey, as much as 62% of Chief Financial Officers decided to cut off the CSR costs (Gaul, 2020), non-operational costs that are chosen to be deducted to make savings in times of pandemic (Setyahuni & Widiar, 2022a). This action shows irony because the cost to fund CSR activities is the effort to cope with sustainability issues. The COVID-19 Pandemic is a sustainability issue that is real and exists among humans. Thus, the CSR costs of a business entity that is budgeted and used amidst a crisis can be considered as the real test of its commitment to the community (Carroll, 2021; Wu & Kong, 2021). However, the companies do not pass the real test.

Nevertheless, we need to understand that the COVID-19 Pandemic crisis is not an easy obstacle to beat. The business is greatly affected by it. They are faced with the risk of losing customers and the quantity decreasing from the suppliers when the fixed cost does not change. Meanwhile, the public demands that business entities become more active in their CSR activities as a response to the pandemic (Manuel & Herron, 2020). While balancing between the need to have healthy workers to run the business, the risk of losing business, and the demand from the public, the business entities are expected to

still run their activities despite future uncertainties. Did big and strong financial corporations manage to still fund their CSR activities as high as pre-pandemic? To answer this question, we need a deeper understanding of the business entities' decisions on CSR costs in the middle of the COVID-19 Pandemic crisis.

This study aims to deliver empirical results of the COVID-19 Pandemic crisis's moderation effect in affecting the relationship between company size and current ratio on CSR. Recent studies show that there will be a decrease in CSR performance during the COVID-19 Pandemic crisis due to business uncertainties (Bahadar & Zaman, 2022) due to the efficiency of the non-operational cost, including CSR cost (Setyahuni & Widiar, 2022). Previous studies also highlight that the pandemic makes an effort to solve sustainability issues suffer a stepback (Bahadar & Zaman, 2022; Cho et al., 2022; Hoang et al., 2022; Setyahuni & Widiar, 2022). Moreover, this study focuses on developing countries that are considered to have obstacles in dealing with sustainability issues (Pelikánová et al., 2021).

Our study contributes to several novelties. First, we provide a more understanding of the moderation effect of the COVID-19 Pandemic crisis in running CSR activities. Even though the CSR topic has been extensively studied for the past three decades, it is still sparse to find studies that carry out empirical evidence on CSR amidst a crisis or financial pressure, as happened during COVID-19 (Bahadar & Zaman, 2022; Setyahuni & Widiar, 2022; Wu & Kong, 2021). Moreover, research on CSR and COVID-19 has been done a lot in developed countries, but rare in developing countries (Koutoupis et al., 2021). Therefore, this study fills the gap by showing the empirical evidence of COVID-19 in one of the developing countries. Last, we use the Environmental Risk Score produced by S&P Global as a new method of measuring the CSR cost. Previous studies have extensively used CSR costs in currency units (Malik et al., 2019; Setyahuni & Widiar, 2022b).

Literature Review and Hypothesis Development

The COVID-19 Pandemic and Business

We know that COVID-19 was not the first disease transmitted amongst humans that started from wild animals. From bubonic plague in the 14th century, with 25 million deaths, to COVID-19 in the 21st century, with 6.6 million deaths, humans have never learned to live a sustainable life. This lifestyle leads us to a catastrophic loss. During COVID-19 Pandemic, the costliest measure was shutting down citizens' activities to limit the spread of the virus, which created demand and supply shocks in the economy (Nguyen et al., 2021).

In fact, it is the same old story that the flu and the business do not get along well. Normal flu becomes a health disruption that causes output to fall for a little, only to rise quickly after the flu is gone. People call it macroeconomic flu (Baldwin et al., 2020). However, COVID-19 was a different kind of flu. It is an infectious disease caused by the SARS-COV-2 Virus (World Health Organization, 2022), which can cause death. The patient can suffer symptoms that influenza patients' symptoms suffer. However, if the flu cannot be healed in the first five days, the virus can turn the patient's body into a critical condition.

WHO declared COVID-19 a global pandemic on March 11th, 2020. The pandemic was affecting lots of lives, including business organizations (Wenzel et al., 2021). While it is nothing new that the economic impacts of any pandemic would significantly disrupt the economy, this pandemic is different in every way than anything before (Baldwin et al., 2020). Considering how strongly connected we are to one another, the COVID-19 Pandemic crisis' effects significantly shock the business and the economy. Even though the symptoms are much more likely to be flu, the amount of the health disruption was large, causing the output to fall big and possibly persistent in the long run. What worsened most was the fact that we all suffered together, and thus the government took some

actions to slow down the spread of the virus. This leads to bitter consequences for our economy (Kraus et al., 2020).

The declaration of COVID-19 as a global pandemic was followed by several lockdowns all around the world, as happened in Australia, Denmark, Singapore, the United Kingdom, and the United States of America. Even though Indonesia was not in total lockdowns like other countries, the effects were stressful enough for the business to endure. When so many people were sick and died, the business and the economy also struggled to survive. As much as 41.3% of the businesses from the sample tested closed their activities temporarily, while 1.8% decided to close permanently (Donthu & Gustafsson, 2020).

Despite the scarcity of restaurants and hotels, the manufacturing sector became the backbone of our daily needs and was surely not fine at all. As mentioned by (Baldwin et al., 2020), the manufacturing sector got a triple hit: the interference of the production process due to a direct supply disruption, the multiple effects of the direct supply disruption due to supply-chain contagion, and demand disruptions. It shows how weak our global supply chain is. It is easy to be broken only by a health shock.

Company Size, Current Ratio, and CSR

CSR activities are a way for business entities to take responsibility for their business activities in front of all stakeholders. Their participation in CSR activities is affected by several factors, like company size and their ability to pay their debts (Anggraini & Widati, 2021). Both financial reports and previous studies conclude that CSR is effective mostly in cases of big budgets (Zbucha & Pinzaru, 2017). It is understandable since their operational activities impact the people and the environment on a bigger scale (Nurulizzah et al., 2021). Their great financial resources make them able to host considerable CSR activities.

Besides the company size, another characteristic of a company that has a strong possibility of raising the CSR cost is the current ratio. The current ratio, which indicates a company's liquidity, is often related to the

financial capability of a business entity. When a company can pay its debts on the due date, it can be said that the company is liquid. The ability to pay debts shows that a company's financial ability is good. The freedom of having strong financial capability makes the company think about fulfilling stakeholders' demands by running CSR activities. On the other hand, companies with a low ability to pay debts show that their financial ability is also low. Thus the attention towards sustainability is less compared to companies with a high current ratio. It is supported by studies that firms with massive CSR activities have a better current ratio compared to firms that do not (Naseem et al., 2019).

Slack resources theory explains this phenomenon best. This theory has been the main theoretical grounding for learning how companies respond to stakeholders' pressures. It is developed based on the argument that the companies' resources enable them to carry out their activities. Therefore, corporations with proper financial resources have enough resources for second-concern activities, like CSR. They can be more responsible in accommodating the demand of all stakeholders. Moreover, by being such an immense size and having a good current ratio, these types of corporations strive to enhance their competitive advantage through social and environmental-focused activities. This theory is often used to see the causality between the companies' financial performance and CSR activities funded by CSR costs.

H1: *The company size has a positive impact on CSR cost*

H2: *The current ratio has a positive impact on CSR cost*

The COVID-19 Pandemic and CSR

There are several environmental consequences due to the advanced human civilization and the rapid development of technology and industrialization. What it takes out the most is the quality of life of living things, including humans themselves. The more intimate the life between

humans and nature, the more endangered the existence of humans. The COVID-19 Pandemic is just one example of how close we are to unsustainability, not to mention Acquired Immune Deficiency Syndrome (AIDS), Ebola, SARS, MERS, COVID-19, and the newest case that have been declared a Public Health Emergency of International Concern, Monkeypox (WHO, 2022). In times of crisis like the COVID-19 Pandemic, business entities decide that the first and utmost thing to do is to survive the business. This applies to any type of company size and various capabilities in paying debts.

Their decision can be understandable through the coping strategies business applies. According to their recent work, (Wenzel et al., 2021) map the four coping strategies of the business amidst a crisis. They are retrenchment, persevering, innovating, and *exit*. The main and most frequently chosen strategy in facing a crisis is retrenchment, which decides to reduce the costs and others. The managers who use this strategy view the COVID-19 Pandemic crisis as a threat, not an opportunity, thus they react emotionally by reducing the cost to make the business survive (Kraus et al., 2020). This strategy is the most cliché way of managerial thinking.

We draw hypotheses based on the retrenchment strategy. Given the severity, widespread nature, duration, and newness of the COVID-19 Pandemic crisis, the business chooses this strategy especially when we talk about CSR costs. This non-operational type of cost will become one of the firsts to be cut. If operation costs and capital expenditures are cut, let alone the CSR costs that do not support the main operational activities. Also, the retrenchment strategy is dominantly taken by the managers during the crisis (Nguyen et al., 2021).

The crisis often compared to COVID-19 is the Great Recession in 2007-2008. In those years, companies decided to lessen their short-term investment in CSR due to weak profitability (Manuel & Herron, 2020). In times of economic difficulties, business entities allocate their funding to their priority first by cutting the cost that does not give added value to the operational,

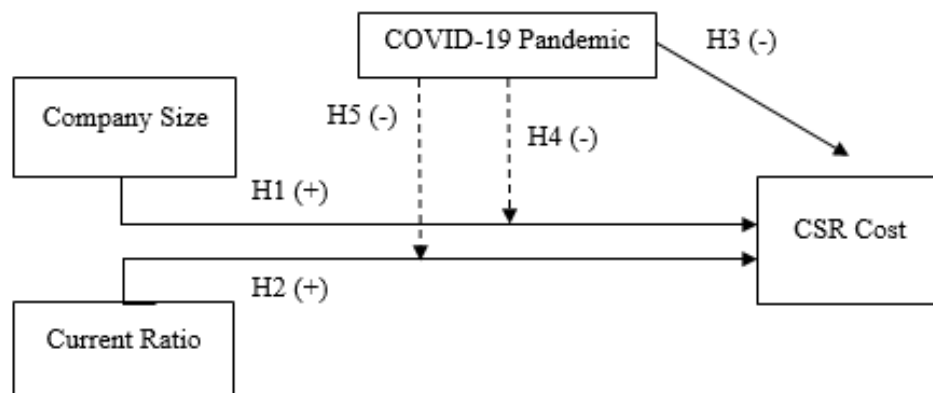
including CSR activities (Kraus et al., 2020; Nguyen et al., 2021; Setyahuni & Widiar, 2022; Wenzel et al., 2021).

H3: The COVID-19 Pandemic crisis has a negative impact on CSR cost

H4: The effect of company size on CSR cost will be lower during the COVID-19 Pandemic crisis

H5: The effect of the current ratio on CSR cost will be lower during the COVID-19 Pandemic crisis

Figure 1. Research Model



Research Method

To examine the hypotheses, our study uses secondary data that was generated from the OSIRIS database. This database gathers financial data of the companies. The sample of this study is public companies in the manufacturing industry that were listed on Indonesia Stock Exchange (IDX) from the year 2019-2020. This type of industry is considered to contribute to environmental pollution and high social cost (Handayani et al., 2017), which fits the best to be tested in this study. The year 2019 was chosen as the pre-pandemic period, while the year 2020 represents the period of the pandemic. The sample should meet these three criteria:

- All manufacturing companies listed on the Indonesia Stock Exchange (IDX);

- The company was consistently listed on the IDX over the analysis periods
- The company's financial statements used in the calculations are available completely and clearly for the reporting year over the analysis periods;

192 public companies' data were collected from the OSIRIS database in 2019-2020. Using purposive convenience sampling, the data was collected and run using EViews software, best suited for analyzing panel data regression. In this study, the interaction variable is COVID-19 as a moderator in strengthening or lessening the effect of the company size and current ratio on CSR cost. Hereby is the operational definition of the variables used in this study:

Table 1. Operational Definition Variable

Variable Name	The Symbol in Research Model	Definition	Measurement
CSR Cost	CSR COST	The total environmental cost in a company consists of six indicators below: 1. Greenhouse gases 2. Water 3. Waste 4. Air pollutants 5. Land & water pollutants 6. Natural resource use	TRUCOST Environmental Risk Score
Company Size	SIZE	The size of the company which is categorized as a big or small company	Log Total Company Asset
Current Ratio	CR	The ratio shows the ability of a company in paying its debts.	$\frac{\text{Total Asset}}{\text{Total Liability}}$
COVID-19 Pandemic	COVID-19	Period of the COVID-19 outbreak in Indonesia	Dummy 1 = COVID-19 Period 0 = Non COVID-19 Period

Results and Discussions

In light of the study, all 192 public companies' data is tested and analyzed. First, we test the model to see if the independent variables

proposed in this study can explain the dependent variable. In other words, this test will show how well the accuracy of the model. The closer the Adjusted R-Squared to 1, the better the model, and vice versa (Ghozali & Ratmono, 2017).

Table 2. Coefficient of Determination

Testing	Model	Value
Adjusted R-Squared	Model 1 (<i>CSR Cost</i>)	0.7458

The above result shows that all independent variables, which are company size, current ratio, and the COVID-19 Pandemic crisis, can explain the CSR costs of as much as 74.6%. Meanwhile,

25.4% is explained by other independent variables that are not tested in the model.

Table 3. Simultant Test

Effects Test	Model	Prob.	Hypothesis
Prob. (F-Statistic)	Model 1 (<i>CSR Cost</i>)	0.0000	Ha Supported

Based on the above test result, with sig. value $0.0000 < 0.05$, it shows that the company size, the

current ratio, and the COVID-19 Pandemic crisis, all affect the CSR costs simultaneously.

Next, we run the hypothesis testing to find out the causal relationship between company size,

current ratio, and the COVID-19 Pandemic in controlling CSR costs. Below is the result:

Table 4. Relationship Between Company Size, Current Ratio, COVID-19 Pandemic, and CSR Costs

Variables	Coefficient	Prob.	Prob. (One-Tailed)	Hypothesis
C	0.173795	0.9855		
Company Size	0.813219	0.0819	0.0409	Ha Supported
Current Ratio	-0.636111	0.0301	0.0150	Ha Rejected
Covid-19 Pandemic Crisis	-30.92972	0.0193	0.0092	Ha Supported
Company Size x Covid-19 Pandemic Crisis	1.538385	0.0157	0.0074	Ha Rejected
Current Ratio x Covid-19 Pandemic Crisis	0.483008	0.1031	0.0516	Ha Rejected

As depicted in Table 4, the sig. value on the effect of company size on CSR costs is $0.0409 < 0.050$, which means we reject H_0 and thus support H_1 . Based on the statistical test, it can be inferred that the company size positively affects CSR cost. The bigger the size, the more cost to fund CSR activities. Big corporations have better and more stable financial resources compared to smaller companies. Understandably, big corporations can fund CSR activities with big money, so the impact is wider and greater. On the other hand, small companies are still trying to build their financial resources. Hence, they put their concern mainly over the shareholders' interest. The previous study even noted that big CSR costs are a characteristic of a big corporation (Zbucheá & Pinzaru, 2017). This finding supports the slack resources theory that explains how powerful companies will be more responsive in accommodating the pressures from all stakeholders.

In addition to the good financial resources, the CSR behaviour of the big corporations is leveraged by the company's visibility. This is the giant companies' strategy for attracting the attention of various stakeholders. They will act more aggressively in funding CSR activities to improve their reputation in front of stakeholders. Meanwhile, small companies may have lesser attention from

the stakeholders; hence they are not eager enough to fund CSR activities as much as big corporations. A similar finding can be found in previous research, which mentioned that company size affects CSR costs (Nurulizzah et al., 2021; Swandari & Sadikin, 2016; Zbucheá & Pinzaru, 2017).

Regarding CSR cost, what is interesting to be analyzed further is the kind of CSR activity they fund. Big corporations tend to pivot their CSR activity in preventing and restoring the environment. On a high scale, CSR activity that is designed for the good of the environment can carry out economic benefits for the companies. Their reputation is mended, and customer trust is granted. On the contrary, for smaller companies, the environmental-oriented CSR activity may not carry the same economic benefit for them as much as for the big corporations (Soto-Acosta et al., 2016) due to the judgment that CSR activity hosted by smaller companies does not give any significant change for the environment (Zbucheá & Pinzaru, 2017). Previous findings also noted that small companies fund CSR activity in small amounts.

On the second hypothesis testing, as seen in Table 4, the sig value is $0.015 < 0.05$ with a negative coefficient; thus, H_2 is not supported. There is no significant and positive influence of the current ratio on CSR costs as expected in the

hypothesis; instead, there is a significant and negative influence of the relationship. This draws much attention in this study due to contradictory and unusual results. It shows an early contrary finding of what is posited by slack resources theory.

According to slack resource theory, companies with a higher current ratio can better pay their debts. Their liquidity characteristic indicates that they have enough funding to defray non-operational activities, including CSR. This attribute also supports them in fulfilling various stakeholders' interests compared to the companies that are not as liquid as them. On the contrary, the company with a lower current ratio will put their endeavour in building up their strong financial performance first, so their attention towards CSR activity is less. However, unlike previous studies, this study refutes the slack resources theory. Instead, this study finds that firms with better liquidity management are less likely to care environment and community. One of the possible reasons behind this finding is that the high liquidity companies will have more concern about repaying their debt first rather than funding CSR costs. Another possible rationale is that the company with good liquidity will assume that its financial performance is already well and satisfied enough to attract potential investors without having to try harder to host and fund CSR activities. This finding also can be observed through the lens of companies with high debt. This type of company will generally put its focus mainly on maintaining the business risk gain from the high debt rather than defraying CSR activity (Swandari & Sadikin, 2016), even though they have assets enough to pay the debt. It can be inferred that companies with a high level of liquidity do not act and behave environmentally acceptable by allocating high CSR costs (Hapsoro & Sulistyarini, 2019).

From this point forward, we can sum up that the bigger the size of the company, the more the CSR costs they put to fund CSR activity, yet the more liquid company, the less CSR costs they allocate. However, these findings should be taken concern over the outbreak of the COVID-19 Pandemic that happened in the year 2020, which

did much worse. Nearly 624 million confirmed cases all around the world, with more than 6,5 million people dying due to the outbreak (World Health Organization, 2022). For the good of the people, the Indonesia Government applies several policies to lessen the spread of the virus, such as Pembatasan Sosial Berskala Besar (PSBB) for the Java and Bali area, and Pemberlakuan Pembatasan Kegiatan Masyarakat (PPKM). The strict restrictions on human activities, including business activities, surely dragged down economic growth (Halimatussadiah et al., 2020). The crisis caused by the pandemic was predicted affected to a greater scale compared to the Global Financial Crisis in 2008. By watching these anecdotes only, the next question that pops out is, does the same behaviour of defraying CSR cost still apply?

Table 4 shows that statistically, the pandemic affected the CSR cost with sig. value at $0.009 < 0.005$ with a negative coefficient. This leads us to reject H_0 and support H_3 . With a negative coefficient, there was a significant decrease in CSR costs when the virus outbreak happened. This proves that in times of crisis, such as the COVID-19 Pandemic, business entities choose to put their focus on maintaining the business operational activity first rather than funding non-operational activity. They put aside the CSR activity because the business is already at stake. In the eye of the shareholders, the business must be saved first more than anything else.

This finding should warn us. The COVID-19 Pandemic was spread due to unsustainable ways of lifestyles and unawareness of environmental sustainability. Meanwhile, the pandemic results in less CSR costs and less CSR activity, thus our endeavour to build the sustainable world we have been attempting this far suffers a setback. Sustainable actions are not taken care of when the COVID-19 Pandemic stroke. This finding support previous studies that the retrenchment strategy is taken mostly by companies during the COVID-19 Pandemic crisis (Kraus et al., 2020; Nguyen et al., 2021; Setyahuni & Widiar, 2022). This unsound cycle needs to be stopped by setting up and committing

to sustainable actions amidst whatever crisis we are in. These actions prevent other pandemics that may happen in the future (Halimatussadiah et al., 2020).

However, unlike what is expected in the hypothesis, the result, as seen in Table 3, shows that the sig. value on the test of the effect of company size on CSR cost is $0.007 < 0.005$ with a positive coefficient. Hence, we do not support H4. Surprisingly, the pandemic crisis does not weaken the effect of the company size on CSR costs; instead, it strengthens the effect. The results show that big companies, which generally defray CSR activities on a big scale, chose to even escalate their CSR costs despite the bad impact of the pandemic. While this finding is good news, it shows that the companies did not use the retrenchment strategy when the crisis attacked. Rather, they saw the COVID-19 pandemic crisis as an opportunity to engage in more environmental activities and thus allocate a greater amount of funds for CSR activities. In the matter of CSR cost, both big and small companies take similar actions to increase their CSR cost during the pandemic while ignoring the damaging potential effect of the crisis on business that is claimed to be the worst since The Second Great War (Cho et al., 2022).

The last hypothesis is also in contrast with the hypothesis. Gathering the data from manufacturing companies, it is depicted in Table 3 that the effect of the current ratio on CSR costs is not affected by the moderation effect of the COVID-19 Pandemic crisis with sig. value at $0.051 > 0.050$, hence rejecting our fifth hypothesis. During the crisis, companies with high liquidity did not necessarily see this crisis as a great way to show interest and attention to environmental sustainability. They made sure that they could still fulfil their current obligation first amidst the bad impact of the crisis on their business. By noting the fact that the COVID-19 Pandemic crisis jeopardized the continuance of the business, thus, either company with high or low liquidity levels prioritized their financial capability to pay the debts, regardless of the possibility that CSR activities are also a type of obligation for companies that are useful for

maintaining the survival of the company in the long run.

We often hear that the restriction on human activities while in the COVID-19 Pandemic, in general, makes CO₂ emissions lower. However, the data says otherwise. According to the World Meteorological Organization of the United Nations (UN), CO₂ emissions are indeed lower during the pandemic but have no significant impact in lessening the global warming effect that is done by humans (Cho et al., 2022). Moreover, medical waste escalated during the pandemic since the obligation to wear a mask, and countless people were hospitalized. It concludes that the wider CSR activities hosted by the manufacturing companies during the pandemic crisis were purely their environmental action. They could choose to lessen their CSR costs, but instead, they expanded the costs. However, when it comes to their obligation to fulfil the debts, they choose to prioritize the obligation first. What was let down is that the companies with the high current ratio, which indicates good financial capabilities, chose to minimize their CSR costs. Hence, this finding should be taken into serious consideration. If we stay in the same way of life, that is, not prioritizing environmental sustainability, another pandemic is still possible to happen in the future. When it happens, the business will still stand on what they think is right: lessen its fund to CSR activities.

Conclusions

This study aims to examine whether the COVID-19 Pandemic crisis is a strong moderator in the relationship between company size on CSR costs and the current ratio of CSR costs. Previous studies show that the bigger the company, the more money it puts into defraying CSR activities. However, the COVID-19 Pandemic is non-arguably a tough challenge for business entities. We analyze how companies, regarding their size and their liquidity, allocated their CSR costs when the pandemic hit.

Contrary to the theory and the hypothesis, the finding in this study shows that

the COVID-19 Pandemic crisis can instead strengthen the effect of company size on CSR cost. The bigger the companies, the greater the amount of CSR costs they allocate during the crisis. Moreover, another contra is that the companies with high liquidity do not necessarily act or behave environmentally acceptable when the pandemic hits, despite their financial capability to fund the CSR activities. The sample gathered from manufacturing companies in Indonesia shows that the effect of the COVID-19 Pandemic on business in developing countries is bad.

This behaviour of the business entities, considering the size, is highly appreciated because they react purely to build a sustainable world. Nonetheless, in regard to liquidity, companies chose to reduce their CSR costs. It sets back our attempt to make a sustainable world. The previous study shows that the pandemic is a cycle that will be repeated every 5-10 years (Donthu & Gustafsson, 2020). It is unimaginable how severe the effect of the deterioration of CSR activities is in another crisis in the future.

Despite the novelty of this research, we note that this study has shortcomings. First, the use of the TRUCOST Environmental Risk Score captures CSR costs related to environmental preservation only. Therefore, this study only shows the effect of the COVID-19 Pandemic Crisis on CSR costs related to environmental preservation only, while the use of CSR costs varies. It is possible that the CSR costs amidst the pandemic were allocated to other social needs, such as the installation of handwashing facilities, the distribution of medical masks and hand sanitisers, or organizing mass vaccination, which is not captured well in this study. Second, this study offers two unique findings. First, companies with high liquidity tend to allocate CSR costs in a small amount. Second, the bigger the size of the companies, the greater the amount of CSR costs that are allocated during the crisis. These two findings contradict the general theory that is commonly used to explain corporate behavior, which then makes this study lack previous research with similar findings.

Based on the above limitation, opens up opportunities for future research. First, we need to further study other theoretical views that can explain these two phenomena better. Moreover, future research can expand the finding of this study by analyzing the effect of the companies' characteristics on other areas of CSR amidst the pandemic crisis, such as ethical responsibility, philanthropic responsibility, dan economic responsibility.

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Appendix 1

List of TRUCOST Scores for the Year 2019 and 2020

Companies	TRUCOST Score	
	Y 2019	Y 2020
PT Sekar Bumi TBK	9,34	9,63
PT Austindo Nusantara Jaya TBK	105,25	112,11
PT FAP Agri TBK	105,25	112,11
PT Alakasa Industrindo TBK	10,32	11,61
PT Indopoly Swakarsa Industry TBK	8,65	8,36
PT Budi Starch & Sweetener TBK	12,18	34,58
PT Nippon Indosari Corpindo TBK	15,98	16,18
PT Sumi Indo Kabel TBK	12,83	13,2
PT Tifico Fiber Indonesia TBK	23,48	23,15
PT Pelat Timah Nusantara TBK	16,28	16,59
PT Millennium Pharmacon International TBK	2,01	2
PT Hanjaya Mandala Sampoerna TBK	7,21	7,33
PT Dharma Polimetal TBK	3,37	3,37
PT Indofarma TBK	2,01	2
PT Tridomain Performance Materials TBK	12,18	34,58
PT Suparma TBK	10,32	10,46
PT Aneka GAS Industri TBK	9,11	9,12
PT Polychem Indonesia TBK	12,18	34,58
PT Unilever Indonesia TBK	5,30	5,44
PT Indospring TBK	3,37	3,37
PT Arwana Citramulia TBK	5,22	5,29
PT Panca Mitra Multiperdana TBK	9,34	9,63
PT Multi Bintang Indonesia TBK	11,73	12,12
PT Bakrie & Brothers TBK	7,85	5,11
PT Provident Agro TBK	105,25	112,11
PT SAT Nusapersada TBK	2,12	2,27
PT Kedawung Setia Industrial TBK	8,78	11,3
PT Impack Pratama Industri TBK	3,58	3,71
PT Organon Pharma Indonesia TBK	2,01	2
PT Goodyear Indonesia TBK	4,59	4,71
PT Toba Pulp Lestari TBK	13,27	13,44
PT Resource Alam Indonesia TBK	5,53	5,71
PT Chandra Asri Petrochemical TBK	8,65	8,36
PT Darya-Varia Laboratoria TBK	2,01	2
PT Saraswanti Anugerah Makmur TBK	17,86	18,4
PT Mandom Indonesia TBK	5,30	5,44

PT Surya Toto Indonesia TBK	3,28	3,06
PT Semen Baturaja (Persero) TBK	52,09	52,83
PT KMI Wire and Cable TBK	12,83	13,2
PT Jembo Cable Company TBK	12,83	13,2
PT Voksel Electric TBK	12,83	13,2
PT Kobexindo Tractors TBK	2,32	2,46
PT Asia Pacific Investama TBK	1,72	1,72
PT Gunawan Dianjaya Steel TBK	16,28	16,59
PT FKS Food Sejahtera TBK	53,80	53,25
PT Madusari Murni Indah TBK	12,18	34,58
PT Waskita Beton Precast TBK	52,09	52,83
PT Alumindo Light Metal Industry TBK	29,41	29,87
PT Semen Indonesia (Persero) TBK	53,35	53,35
PT Alkindo Naratama TBK	18,76	19,19
PT Indal Aluminium Industry TBK	10,32	11,61
PT Saranacentral Bajatama TBK	16,28	16,59
PT Ricky Putra Globalindo TBK	2,32	3,4
PT Sekar Laut TBK	53,80	53,25
PT Gudang Garam TBK	7,26	7,39
PT Eratex Djaja TBK	23,48	23,15
PT Kabelindo Murni TBK	12,83	13,2
PT Mark Dynamics Indonesia TBK	4,78	7,4
PT Morenzo Abadi Perkasa TBK	9,34	9,63
PT Gema Grahasarana TBK	3,12	3,2
PT Sariguna Primatirta TBK	10,73	9,57
PT Krakatau Steel (Persero) TBK	8,32	10,42
PT Jasuindo Tiga Perkasa TBK	3,37	3,41
PT Merck TBK	2,01	2
PT Berlina TBK	3,58	3,71
Phapros Tbk., PT	2,01	2
Mulia Boga Raya Tbk, PT	19,27	20,19
PT Mayora Indah TBK	19,67	20,17
PT SLJ Global TBK	14,44	14,94
PT Champion Pacific Indonesia TBK	4,77	4,9
PT Buyung Poetra Sembada TBK	53,80	53,25
PT Akasha Wira International TBK	10,73	9,57
PT Indo Acidatama TBK	12,18	34,58
PT Prasadha Aneka Niaga TBK	53,80	53,25
PT Kalbe Farma TBK	7,11	7,19

PT Jaya Agra Wattie TBK	105,25	112,11
PT Colopak Indonesia TBK	4,71	4,94
PT Indonesia Fibreboard Industry TBK	6,90	5,86
PT Delta Djakarta TBK	11,73	12,12
PT Pyridam Farma TBK	2,01	2
PT Zyrexindo Mandiri Buana TBK	1,73	1,71
PT Ekadharma International TBK	5,53	5,71
PT Langgeng Makmur Industri TBK	3,58	3,71
PT Keramik Indonesia Assosiasi TBK	5,22	5,29
PT Intanwijaya Internasional TBK	12,18	34,58
PT Indomobil Sukses Internasional TBK	2,68	2,62
PT Century Textile Industry TBK	23,48	23,15
PT Sepatu Bata TBK	4,49	4,51
PT Berkah Beton Sadaya TBK	11,29	8,76
PT Pelangi Indah Canindo TBK	6,20	6,3
PT Asiaplast Industries TBK	3,58	3,71
PT Communication Cable Systems Indonesia TBK	12,83	13,2
PT Emdeki Utama TBK	12,18	34,58
PT FKS Multi Agro TBK	53,80	53,25
PT Asia Sejahtera Mina TBK	9,34	9,63
PT HK Metals Utama TBK	17,86	18,4
PT Astra International TBK	38,71	50,24
PT TRI Banyan Tirta TBK	10,73	9,57
PT Indo Komoditi Korpora TBK	4,78	7,4
PT Andira Agro TBK	105,25	112,11
PT Tunas Baru Lampung TBK	105,25	112,11
PT Mustika Ratu TBK	5,30	5,44
PT Wahana Pronatural TBK	53,80	53,25
PT Jaya Swarasa Agung TBK	22,68	19,88
PT Chitose Internasional TBK	3,12	3,2
PT Gajah Tunggal TBK	4,59	4,71
PT Sriwahana Adityakarta TBK	10,32	10,46
PT Cahayaputra ASA Keramik TBK	5,22	5,29
PT Pratama Abadi Nusa Industri TBK	6,20	6,3
PT Indah Prakasa Sentosa TBK	4,44	4,7
PT Prima Alloy Steel Universal TBK	3,37	3,37
PT Astra Otoparts TBK	3,37	3,37
PT Arita Prima Indonesia TBK	2,45	2,58
PT Tira Austenite TBK	2,42	2,47

PT Kurniamitra Duta Sentosa TBK	53,80	53,25
PT Wahana Interfood Nusantara TBK	19,65	19,97
PT Martina Berto TBK	16,20	3,25
PT Indocement Tunggul Prakarsa TBK	50,43	50,83
PT Semacom Integrated TBK	1,53	1,55
PT Intikeramik Alamasri Industri TBK	5,22	5,29
PT Sepeda Bersama Indonesia TBK	2,82	2,89
PT DUA Putra Utama Makmur TBK	9,34	9,63
PT Pabrik Kertas Tjiwi Kimia TBK	18,76	19,19
PT Lionmesh Prima TBK	4,13	4,22
PT Multi Agro Gemilang Plantation TBK	105,25	112,11
PT Prima Cakrawala Abadi TBK	9,34	9,63
PT Kedaung Indah CAN TBK	6,20	6,3
PT Kimia Farma (Persero) TBK	2,01	2
PT Betonjaya Manunggal TBK	8,32	10,42
PT Berkah Prima Perkasa TBK	3,37	3,41
PT Sentral Mitra Informatika TBK	1,57	1,61
PT Sentra Food Indonesia Tbk.	2,17	2,19
PT Surya Biru Murni Acetylene TBK	9,93	10,3
PT Argo Pantas TBK	23,48	23,15
PT Formosa Ingredient Factory TBK	53,80	53,25
PT Mahaka Radio Integra TBK	1,68	1,76
PT Sigma Energy Compressindo TBK	1,29	1,39
PT Inter Delta TBK	2,03	2,1
PT Indofood Sukses Makmur TBK	53,80	53,25
PT Indo-Rama Synthetics TBK	23,48	23,15
Sinergi Inti Plastindo Tbk, PT	16,20	3,25
PT Fortune Mate Indonesia TBK	4,49	4,51
PT Nusantara Berkah TBK	2,68	2,62
PT Imago Mulia Persada TBK	4,32	4,26
PT Primarindo Asia Infrastructure TBK	4,49	4,51
PT Wahana Inti Makmur TBK	80,46	68,09
PT Kirana Megatara TBK	4,78	7,4
PT Optima Prima Metal Sinergi TBK	2,11	1,9
PT Akbar Indo Makmur Stimec TBK	2,01	2
PT Inti Agri Resources TBK	3,58	3,71
PT Jakarta Kyoei Steel Works TBK	8,32	10,42
PT Darmi Bersaudara TBK	6,29	6,25
PT Geoprime Solusi TBK	2,87	2,76

PT Leyand International TBK	3,58	3,71
PT Ratu Prabu Energi TBK	3,00	3,07
PT Anugerah Kagum Karya Utama TBK	3,58	3,71
Agro Yasa Lestari Tbk, PT	1,40	1,53
PT Fajar Surya Wisesa TBK	8,78	11,3
PT Wilton Makmur Indonesia TBK	38,71	50,24
PT Eterindo Wahanatama TBK	8,65	8,36
PT Solusi Bangun Indonesia TBK	49,88	53,81
PT Tempo Scan Pacific TBK	2,01	2
PT Multipolar TBK	1,57	1,61
PT Gunung Raja Paksi TBK	16,28	16,59
PT Tembaga Mulia Semanan TBK	16,21	14,91
PT PAN Brothers TBK	6,07	6,64
PT Garudafood Putra Putri Jaya TBK	22,68	19,88
PT Cemindo Gemilang TBK	52,09	52,83
PT Indofood CBP Sukses Makmur TBK	19,67	20,17
PT Mahkota Group TBK	105,25	112,11
PT Dharma Satya Nusantara TBK	6,29	6,25
PT Soho Global Health TBK	2,01	2
PT Ultrajaya Milk Industry & Trading Company TBK	22,14	22,49
PT Avia Avian TBK	5,13	5,22
PT Lautan Luas TBK	12,18	34,58
PT Multistrada Arah Sarana TBK	4,59	4,71
PT Lotte Chemical Titan TBK	3,58	3,71
PT Steel Pipe Industry of Indonesia TBK	8,32	10,42
PT Charoen Pokphand Indonesia TBK	49,17	43,99
PT Integra Indocabinet TBK	6,29	6,25
PT Wilmar Cahaya Indonesia TBK	78,05	84,19
PT Asia Pacific Fibers TBK	23,48	23,15
PT Unggul Indah Cahaya TBK	2,86	2,88
PT Bentoel Internasional Investama TBK	7,23	7,37
PT Supreme Cable Manufacturing & Commerce TBK	12,83	13,2
PT Asahimas Flat Glass TBK	6,02	6,26
PT Indah Kiat Pulp & Paper TBK	13,27	13,44
PT Cita Mineral Investindo TBK	3,00	3,07
PT Mulia Industrindo TBK	5,22	5,29
PT Siantar TOP TBK	19,67	20,17
PT Wijaya Karya Beton TBK	4,59	4,59
PT Selamat Sempurna TBK	3,37	3,37