4 RESEARCH RESULTS AND ANALYSIS

4.1 Research Results

The samples from all six countries which are Indonesia, Singapore, Malaysia, Thailand, Vietnam, and Philippines will be tested and analyzed together at the same time using WarpPLS software. This was done because if the data were being run separately, the number of samples of pharmaceutical companies which fulfills the criteria above are small which might make this study considered invalid due to lack of samples. Another issue was that some countries had very small samples, and might not be able to represent the results. Therefore, the samples from all countries had to be combined. After following all the steps of using the WarpPLS software, the results of the SEM analysis will be compared with the goodness-of-fit test. After that, resampling would be performed when there are some of the criteria of goodness-of-fit test do not fit. The resampling process involves removing some outliers of the data which will be discussed in the following paragraph.

The number of samples used to run the data was initially n=252. These samples are used to test the research model in WarpPLS software. When the results of the SEM analysis are compared to the goodness-of-fit test criteria, some of the criteria were not fulfilled. In order to fulfill all of the criteria of goodness-of-fit test, some samples which have either negative beta value or extremely high amount of net profit or loss after tax compared to total revenue were removed. The range of acceptable net profit margin and return on equity ratio is between loss of 10% and profit of 100%.

With the new sample of n=218, all criteria of the goodness-of-fit test have passed. From that result, the significance of the relationship between CSR (Corporate Social Responsibility) and CFP (Corporate Financial Performance) is showing 0.41 which indicates an insignificant relationship. Meanwhile, there are strong significance relationship for the relationship between CSR and KM (Knowledge Management), CSR and MarkRisk (Market Risk), as well as MarkRisk and CFP, which shows $P<0.01$. At the same time, the significance between KM and CFP shows P value of exactly 0.01, which shows a significant result. Despite this, it can still be used on this paper as all of the goodness-of-fit criteria are fulfilled.

4.1.1 Sample Overview

The sample used in this study would cover pharmaceutical companies in Indonesia, Singapore, Malaysia, Thailand, Vietnam, and Philippines. The period covered in this study would be between 2015 and 2021 which is a 7-year period. The sample criteria would include companies which are based or operating in at least one of the six countries mentioned above and have a complete annual report.

There are 11 companies in Indonesia which fit the criteria resulting in a total of 77 (11 x 7) annual reports. However, there are 3 reports which have negative beta value. Thus, the total sample for Indonesia is 74 reports. There are 7 companies in Singapore which fit the criteria resulting in a total of 49 (7 x 7) annual reports. However, 16 reports have to be removed because they contain either negative beta value or net profit margin and/or return on equity ratio which are outside of the range mentioned earlier. Thus, the total sample for Singapore is 33 reports. There are 9 companies in Malaysia which fit the criteria resulting in a total of 63 (9 x 7) annual reports. However, 11 reports have to be removed because they contain net profit margin and/or return on equity ratio which are outside of the range. Thus, the total sample for Malaysia is 52 reports. There is 1 company in Thailand which fit the criteria resulting in a total of 7 (1 x 7) annual reports. No reports have to be removed as all beta value are positive, and all net profit margin and return on equity ratio are within the range. Thus, the total sample for Thailand is 7 reports. There are 6 companies in Vietnam which fit the criteria resulting in a total of 42 (6 x 7) annual reports. However, 3 reports have to be removed because they contain either negative beta value or net profit margin and/or return on equity ratio which are outside of the range. Thus, the total sample for Vietnam is 39 reports. There are 2 companies in Philippines which fit the criteria resulting in a total of 14 (2 x 7) annual reports. However, 1 report have to be removed because it contains return on equity ratio which is outside of the range. Thus, the total sample for Philippines is 13 reports. The details of the samples are stated in Tables 4.1.

Table 4.1

Observation Details

Country	Number of Annual Reports	Outliers Removed	Total Samples
Indonesia	77	3	74
Singapore	49	16	33
Malaysia	63	11	52
Thailand	7	0	7
Vietnam	42	3	39
Philippines	14	1	13

Source: Author's Compilation

4.1.2 Descriptive Statistics

The descriptive data for the variables and their indicators of all pharmaceutical companies in Indonesia, Singapore, Malaysia, Thailand, Vietnam, and Philippines are shown in table 4.2.

Table 4.2

Descriptive Analysis of Indicators

Indicators	Min	Max	Mean	Standard Deviation
CSR	0.47	0.81	0.68	0.07
KM	0.33	1.00	0.58	0.14
Beta	0.02	2.84	0.81	0.57
NPM	-0.10	0.78	0.10	0.13
ROE	-0.09	0.59	0.14	0.10

Source: Authors' Compilation

Based on the data on table 4.2, the CSR shows maximum value of 0.81 and minimum value of 0.47. The mean is 0.68 and the standard deviation is 0.07. The indicator for CSR variable is only CSR index of the company based on GRI indicators as the CSR index is based on the analysis of Corporate Social Responsibility activities which the company had performed during a period of year.

The knowledge management variable shows a range of 0.33 to 1.00. The mean is 0.58, and the standard deviation is 0.14. The indicator of knowledge management is only the 9 knowledge management tools that the company had used.

The market risk variable shows a range of 0.02 to 2.84. The mean is 0.81 and the standard deviation is 0.57. The indicator of market risk is beta value and negative beta values are not included in the sample, as they are not related to the market.

The CFP variable has two indicators which are NPM and ROE. The minimum of NPM is -0.10 and the maximum is 0.78. The minimum of ROE is -0.09 and the maximum is 0.59. Between those two indicators, the minimum for NPM is lower than ROE by a very small gap, while the maximum for NPM is higher than ROE by a reasonable gap, which makes the range of NPM is higher than ROE.

4.1.3 Goodness-of-fit Test – Inner Model

The table following shows the result of the model fit and quality indices from Indonesian, Singapore, Malaysian, Thailand, Vietnamese, and Filipino pharmaceutical companies combined.

Table 4.3

Model Fit and Quality Indices

No	Model Fit & Quality Indices	Fit Criteria	Result
1	Average Path Coefficient (APC)	P < 0.05	0.23, P<0.01
2	Average R-squared (ARS)	P < 0.05	0.13, P=0.02
3	Average Adjusted R-squared (AARS)	P < 0.05	0.12, P=0.02
4	Average Block VIF (AVIF)	Acceptable if ≤ 5, ideally ≤ 3.3	1.03
5	Average full collinearity VIF (AFVIF)	Acceptable if ≤ 5, ideally ≤ 3.3	1.19
6	Tenenhaus GoF (GoF)	Small ≥ 0.1, Medium ≥ 0.25, Large ≥ 0.36	0.34
7	Sympson's paradox ratio (SPR)	Acceptable if ≥ 0.7, ideally = 1	1
8	R-squared contribution ratio (RSCR)	Acceptable if ≥ 0.9, ideally = 1	1
9	Statistical suppression ratio (SSR)	Acceptable if ≥ 0.7	1
10	Nonlinear bivariate causality direction ratio (NLBCDR)	Acceptable if ≥ 0.7	0.80

Source: Authors' compilation

There are correlations in the first three criteria which are APC, ARS and AARS. Usually, the ARS can be increased by adding a latent variable. However, at the same time, this can decrease the APC. The three criteria are representing the overall predictive and explanatory quality of the model. The p value for all of the three criteria is 5% in which all of the three criteria pass the model fit.

The assessment of the model's predictive and explanatory power can be enhanced by the criteria called AVIF and AFVIF. Those two criteria are dealing with the multi-collinearity of the variables. Any model which does not pass those criteria would have a greater chance that

they have different latent variables in the same model that measure the underlying construct (Kock, 2020). The ideal criteria are lower than or equal to 3.3. Both of the criteria in this model have the value of lower than 3.3 which indicates that there is no multi-collinearity problem in this model.

The GoF index also measures the explanatory power of the model. The GoF index is 0.34 which is considered as medium. This indicates that the model is acceptable and has a moderate amount of power of explanatory.

Sympson's paradox can be an instance of a causality problem which suggests that the path of the hypothesis is not plausible or possibly reserved (Kock, 2020). To make sure that the model is not influenced by Sympson's paradox, the SPR is used to measure it. For this model, the SPR shows the index of 1 which is in the ideal index. Therefore, this model passed this criterion.

RSCR index measures whether the model does not have negative R-squared contributions. This occurs for most of the time together with Sympson's paradox. This model is showing the index of 1 which is in the ideal index. Therefore, this model passed this criterion.

SSR index measures that the model does not have any statistical suppression which can indicate a causality problem. This is similar to Sympson's paradox and this model passed the criteria showing the index of 0.8 in which it is acceptable if the index is at least 0.7.

NLBCDR index would measure that the bivariate nonlinear coefficients of association provide support for the hypothesized directions of the causal link of the model. The model would be acceptable if the value is greater than or equal to 0.7. The index shows 0.80 which is acceptable.

Overall, this model has passed all the criteria including all of the ideal indexes. Therefore, this model can be used for this study.

4.1.4 The Profile of Variable

The weight indicator shows the importance of forming its respective latent variables. Higher factor loading indicates the forming of its variable is stronger. The empirical condition of the indicator can be indicated by the mean and can be used to examine the performance of the sample in that particular aspect. The following table will show the values of weight indicator of

each variable. Weight of 1 means they are absolute discretionary accrual which is caused by the only indicator of that variable and therefore should not be included.

Table 4.4

Indicator Weights of Corporate Financial Performance

No.	Indicator	Weight Indicator	Mean
1	NPM	0.58	0.10
2	ROE	0.58	0.14

Source: Authors' Compilation

In the variable Corporate Financial Performance, there are 2 indicators which are net profit margin and return on equity. Both of the variables have the weight indicator of 0.58. Therefore, it can be concluded that both indicators are equally important to form the variable Corporate Financial Performance.

4.1.5 Hypothesis Test

The hypothesis test will evaluate the direct effect between two variables, indirect effect to examine the ability of intervening variable to influence the independent and dependent variable and also the total effect of independent to dependent variable in this research model.

4.1.5.1 Direct Effect

The following table shows the direct effect of the relationship between variables, including path coefficients, which determines the positive and negative relationship, and P value, which determines the significance of the relationship whether they are significant or insignificant.

Table 4.5

Path Coefficients and P Values

	CSR		KM		MarkRisk	
	Coefficient	P Values	Coefficient	P Values	Coefficient	P Values
KM	0.42**	<0.01	-	-	-	-
MarkRisk	0.19**	<0.01	-	-	-	-
CFP	0.02	0.41	0.15*	0.01	-0.36**	<0.01

Source: Authors' Compilation

Coefficients with (*) shows significance at 5% level, (**) shows significance at 1%

H_1: Corporate Social Responsibility has a positive effect on Corporate Financial Performance

The relationship between Corporate Social Responsibility and Corporate Financial Performance shows a path coefficient of 0.02 and P value of 0.41. As the P value is 0.41, this can indicate that the relationship between Corporate Social Responsibility and Corporate Financial Performance is insignificant. P values can only be significant if they are at the highest 10% while P value of 0.41 is 41% which is higher than 10%. Despite the positive sign of the path coefficient, which indicates a positive relationship, it can be concluded that in this model, Corporate Social Responsibility activities do not have significant impact on the results of Corporate Financial Performance. Therefore, H_1 is rejected as Corporate Social Responsibility does not give a significant relationship on Corporate Financial Performance. This would indicate whatever the type of Corporate Social Responsibility activities performed by the company, the result of Corporate Financial Performance would not show significant difference compared to not performing them.

H_2: Corporate Social Responsibility has a positive effect on Knowledge Management

The path coefficient of the relationship between Corporate Social Responsibility and Knowledge Management shows the value 0.42 and P value of less than 0.01. This can indicate that the relationship is significant at 1%, which indicates a strong relationship between Corporate Social Responsibility and Knowledge Management. The positive sign of the path coefficient indicates that the relationship between Corporate Social Responsibility and Knowledge Management is positive. Therefore, H_2 is accepted as Corporate Social Responsibility

would improve Knowledge Management. This would indicate that the Corporate Social Responsibility activities performed can be stored as a knowledge, in particular as a reference for other companies at selecting Corporate Social Responsibility activities in the future.

H_3: Corporate Social Responsibility has a negative effect on market risks

The path coefficient of the relationship between Corporate Social Responsibility and Market Risks shows the value 0.19 and P value of less than 0.01. The P value is at significance level of 1% and the relationship between Corporate Social Responsibility and Market Risks is strongly significant. The positive value on the path coefficient shows that the relationship between Corporate Social Responsibility and Market Risks is positive which indicates that performing Corporate Social Responsibility activity is still risky, although the context of the activity is aimed to give a good impact to all stakeholders. In this case, performing Corporate Social Responsibility activities would require extra risks to be taken. Therefore, H_3 is rejected as Corporate Social Responsibility would give a positive impact towards Market Risks.

4.1.5.2 Indirect Effect

This chapter will discuss whether Knowledge Management and Market Risk can be the intervening variable to the relationship between Corporate Social Responsibility and Corporate Financial Performance. This could be examined by the P value of the indirect effect.

Table 4.6

Indirect Effects and P Value

	CSR	
	Coefficient	P Value
CFP	-(<0.01)	0.48

Source: Authors' Compilation

H_4: Knowledge Management can intervene the relationship between Corporate Social Responsibility and Corporate Financial Performance

The path coefficient shows value of less than 0.01, and shows a negative sign. However, the P value would determine whether the intervention role of Knowledge Management gives a

significant impact on the relationship between Corporate Social Responsibility and Corporate Financial Performance. The P value shows 0.48 which can indicate that there is no significant impact of the intervention from Knowledge Management. Therefore, this can indicate that H_4 is rejected, as Knowledge Management cannot intervene the relationship between Corporate Social Responsibility and Corporate Financial Performance. This can be cause that there is no significant relationship between Corporate Social Responsibility and Corporate Financial Performance in the first place, which eventually disables any role of intervention from any other variables.

H_5: Market Risks can intervene the relationship between Corporate Social Responsibility and Corporate Financial Performance

Since the relationship between Corporate Social Responsibility and Corporate Financial Performance is insignificant, this automatically makes the role of intervention from Market Risks insignificant. Based on the findings from the role of intervention from Knowledge Management, insignificant relationship between independent and dependent variable, in this case Corporate Social Responsibility and Corporate Financial Performance respectively, would disable any intervention roles from any other variables. Previously, it was found that Knowledge Management cannot intervene the relationship between Corporate Social Responsibility and Corporate Financial Performance. Therefore, Market Risks also cannot give any intervention role. This can make the conclusion that H_5 is rejected.

4.1.5.3 Total Effect

The following table shows the total effect and P values between all variables, combining both direct and indirect effects.

Table 4.7

Total Effect and P Values

	CSR		KM		MarkRisk	
	Coefficient	P Values	Coefficient	P Values	Coefficient	P Values
KM	0.42	<0.01	-	-	-	-
MarkRisk	0.19	<0.01	-	-	-	-
CFP	0.01	0.43	0.15	0.01	-0.36	<0.01

Source: Authors' Compilation

The following shows the calculation of the absolute contribution between variables in sample from Indonesian, Singapore, Malaysian, Thailand, Vietnamese, and Filipino pharmaceutical companies. The values were taken from the coefficient in table 4.7.

CSR to CFP: $(0.01)^2$ x 100% = 0.01%

CSR to KM: $(0.42)^2$ x 100% = 17.64%

CSR to MarkRisk: $(0.19)^2$ x 100% = 3.61%

KM to CFP: $(0.15)^2$ x 100% = 2.25%

MarkRisk to CFP: $(-0.36)^2$ x 100% = 12.96%

The total effect takes account for both direct and indirect effect between the variables. The total effect of Corporate Social Responsibility to Corporate Financial Performance shows the value of 0.01% in which this can be caused by the insignificant relationship between the two variables. The total effect of Corporate Social Responsibility to Knowledge Management is 17.64% due to the relationship is significant at 1%. At the same time, this particular total effect is the biggest. The total effect of Corporate Social Responsibility to Market Risks shows the value of 3.61% in which this can be caused by the significance is at 1% level. Knowledge Management and Market Risks might not have successfully intervened the relationship between Corporate Social Responsibility and Corporate Financial Performance. However, the total effect between both intervening variables towards Corporate Financial Performance revealed logic findings, and also both are significant at 1%. Knowledge Management on Corporate Financial Performance showed a positive coefficient, which indicates Knowledge Management can improve Corporate

Financial Performance. Meanwhile, Market Risks on Corporate Financial Performance showed a negative coefficient, which indicates Market Risks can give adverse impacts on Corporate Financial Performance. The logic findings indicate that the two intervening variables could have given interventions on the relationship between Corporate Social Responsibility and Corporate Financial Performance. Since the relationship between the two variables is insignificant in the first place, the intervening variables cannot give interventions, thus making the total effect between the independent and dependent variables extremely low.

4.2 Discussion and Analysis

This subchapter will discuss the results from the data processing process in detail, including with some references from past research papers.

4.2.1 Descriptive Statistics

It can be implied that the United Nations recommendations which request all companies around the world to perform Corporate Social Responsibility activity makes all countries have to do the same thing supported by the local governments make a regulation of mandatory Corporate Social Responsibility (ElAlfy et al., 2020). This statement would eventually be one of the reasons why the data in six countries were run together at the same time instead of performing it individually. Another reason for performing the data processing of the six countries together was some countries did not have to produce an annual report to disclose the Corporate Social Responsibility activities performed (Lu & Wang, 2021), which made finding the evidence that the company had performed the Corporate Social Responsibility activity difficult. That led to extremely low sample for some countries, such as Thailand and Philippines.

The Corporate Social Responsibility index has a mean of 0.68 with the maximum value of 0.81. The mean of 0.68 shows that the company is quite good despite some of the GRI indicators were not fulfilled. This could indicate that most of the companies have been aware about their stakeholders around them. It is also found that some companies in the sample had to comply with the government's regulations regarding to Corporate Social Responsibility. In this case, the government had intervened the fact that the nature of Corporate Social Responsibility is voluntary, by turning it around to mandatory (Min et al., 2017).

Some companies in the sample are low in the Corporate Social Responsibility index with the minimum of 0.47 which can be caused either the Corporate Social Responsibility activities are not really disclosed in detail, in which some activities might not be reported, or the activities are not meaningful to the targeted stakeholder. However, there is a past research which indicates that some of the employees are not willing to participate on the Corporate Social Responsibility activities because they do not have the awareness about the issues which have happened on their surroundings (Liao et al., 2021). The demotivation of the employees to take part in Corporate Social Responsibility activities can be one of the factors which make companies feel that investment on Corporate Social Responsibility is not worthy (Zou et al., 2021). Companies would only make investments if they are necessary and can give impact to them and if companies think that those investments would not give a big impact to them, they would opt to not invest their money on that item.

Knowledge Management can be measured by the Knowledge Management tools that the company had used. It can be found that the mean score of Knowledge Management is 0.58, which indicates that pharmaceutical companies in the six countries had adequately used the knowledge management tools on the list of 9 tools of knowledge management. There was an interesting finding, which was the maximum score in the sample was 1.00, which indicates that the company had used all of the 9 knowledge management tools in a certain year. Meanwhile, the minimum was 0.33, which indicates that the company had only used basic knowledge management tools, such as computer, internet, and system. The reason behind the low score of Knowledge Management is that many companies did not disclose the knowledge management tools that they used, as they had the fear of other companies replicate their strategies, which might make them vulnerable in the competition of pharmaceutical industry (Oliva & Kotabe, 2019).

Market Risks can be measured by the beta value of the company. The mean of the beta value in the sample is 0.81 which indicates that the amount of risk taken by pharmaceutical companies in the six countries of the sample is lower than the market. Despite the mean is lower than the market, there are some companies which take more risks than the others in which the maximum value is 2.84. Companies which take higher risks tend to be risk averse due to the stability of the business (Andries et al., 2020). If the business of the company is stable, it would not be really worthy to take too much risks as many companies are trying to maintain the

stability of the business and taking too much risks can also make the business of that company becoming unstable (Fairlie, 2020).

There are two indicators for Corporate Financial Performance. The first indicator is net profit margin in which the mean is 0.10 with maximum of 0.78 and minimum of -0.10. It is understood that some companies might incur losses due to taking too much unnecessary risks. Companies taking too much risks in decision making in an operation can be one of the factors of incurring losses as many of the risks might have been unnecessary to be taken and companies are not aware with that situation. In many situations, there are uncertainties in every decision-making process. The uncertain nature would make companies need to think about what the certain profit would be and many companies would take the option of being risk averse in order to get some profit due to uncertainties (Bekaert et al., 2022). It is also possible that companies might not be aware of any hidden costs that they might have incurred which can also be one of the factors which make companies suffer from losses. Companies would definitely aware that they cannot figure out what would be the hidden cost in their operations as the nature of hidden cost is that they are normally not included and they have to pay for it. Hidden costs cannot be avoided and can only be reduced (Damgaard & Gravert, 2018), in which in this case, companies with negative net profit margin could have failed to reduce hidden costs incurred as most likely, hidden costs are found in the operations of the company.

The second indicator for Corporate Financial Performance is return on equity. The mean shows the result of 0.14 with the maximum of 0.59 and the minimum of -0.09. This repeats the explanation for the net profit margin section, in which the negative value on the minimum is caused by the loss that the company had incurred, as the net profit or loss after tax would be the key to determine the ratio for both of them. The basic concept of return on equity is that the company could gain more profit based on the share capital owned by the company (Sharabati, 2018). This can be achieved by using the resources that companies have invested optimally in order to gain the profit. The mean for return on equity is higher than net profit margin in which this can be interpreted that in average, pharmaceutical companies in the six countries of the sample are able to generate profit using the capital owned better than generate profit based on total revenue that they have achieved despite the maximum of net profit margin is higher than return on equity.

4.2.2 The Profile of Variable

From table 4.4, it was found that the weight indicator for both net profit margin and return on equity are 0.58 in which they are equally important in order to determine Corporate Financial Performance. The importance of net profit margin is that the net profit margin measures the efficiency of the company and also the ability of the company to control the costs incurred. Higher net profit margin indicates the company is more profitable and also able to control the costs incurred (Sekhon & Kathuria, 2020). In order to improve net profit margin, one of the strategies is to reduce operating expenses especially minimizing hidden costs. Operating expenses can also be reduced if the company is able to generate more revenue in order to cover up the expenses that the company have to pay. Pharmaceutical companies could provide customers with many different variants of products as different type of illnesses would require different type of product.

The importance of return on equity is that companies would like to attract investors to invest on their company. If the company is able to be profitable by using lesser amount of capital, then investors would be more interested to invest to the company as the company is able to make money well. The higher the return on equity, more investors would invest to the company as higher return on equity can be achieved by generating more profit using lesser amount of capital (Sharabati, 2018). Pharmaceutical companies could gather materials and equipment as needed based on what type of product that they would like to produce as different type of illnesses would require different product and definitely different materials are needed. It is important to gather only materials and equipment that are needed to produce a particular product so that there would not be any materials and equipment remained unused and the resources that the company have might not be used optimally.

4.2.3 Discussion of Hypothesis Result

The following table summarizes the result for each hypothesis, as well as the final result of each of them. Whether the hypothesis is accepted or rejected, the result of that particular hypothesis would be shown.

Table 4.8

Summary of Hypothesis Testing Result

Independent Variable	Intervening Variable	Dependent Variable	Hypothesis	Direction	Conclusion
CSR	-	CFP	H1	Insignificant	Rejected
CSR	-	KM	H2	Positive	Accepted
CSR	-	MarkRisk	H3	Positive	Rejected
CSR	KM	CFP	H4	Insignificant	Rejected
CSR	MarkRisk	CFP	H5	Insignificant	Rejected

Source: Authors' Compilation

4.2.3.1 The impact of Corporate Social Responsibility to Corporate Financial Performance

The relationship between Corporate Social Responsibility and Corporate Financial Performance in pharmaceutical industry of six countries in Southeast Asia is insignificant. This would indicate that if pharmaceutical companies perform more Corporate Social Responsibility activities, the Corporate Financial Performance of the company would not really show improvements or even worse, the Corporate Financial Performance would underperform. This could indicate that if companies are performing Corporate Social Responsibility activities, that would not make many differences, compared to if they did not do it. However, it should be noted that if the government had made Corporate Social Responsibility mandatory, companies should still do it. It is understood that the relationship between Corporate Social Responsibility and Corporate Financial Performance is complex (P et al., 2020), in which there are a lot of factors that can affect the relationship.

This situation could happen because the relationship between Corporate Social Responsibility and Corporate Financial Performance is depending on the reaction of the market whether they would react to the Corporate Social Responsibility activities positively or negatively (Shen et al., 2021). The reaction of the market of course could not be controlled by companies as the reaction of the market would be depending on the behavior of the market as some of them might aware about the issues surrounding them and some of them might not really do so. This also depends on whether the market who reacted to the Corporate Social

Responsibility activities are educated about issues regarding to Corporate Social Responsibility or not as this also would be based on the education quality of every country (Velte, 2020). However, it is not acceptable to just label all people in a country are all the same as different age group would have different level of education and companies should also aware about the audience of the Corporate Social Responsibility that they desired to perform. Therefore, companies should be careful that there are still some threats that at some time. This explains well that the relationship between Corporate Social Responsibility and Corporate Financial Performance can sometimes be positive or sometimes negative.

There are also some arguments that the relationship between Corporate Social Responsibility and Corporate Financial Performance is insignificant because many of the companies might have just started the Corporate Social Responsibility activities in which the effort from the companies is still relatively low, due to the perception that Corporate Social Responsibility is not always effective (Fukuda & Ouchida, 2020). This could be caused by the employees might not be educated enough about the Corporate Social Responsibility that the company is performing or some companies are new to Corporate Social Responsibility activities (Velte, 2020). From earlier studies, it is found that some companies are relatively new to Corporate Social Responsibility after the mandatory Corporate Social Responsibility regulation had been imposed (Gatti et al., 2019). The claims that Corporate Social Responsibility activities could make companies gain long-term advantages (Kim et al., 2020) should be acknowledged that there are still some opportunities to achieve them and if a company turned out to achieve a negative relationship between Corporate Social Responsibility and Corporate Financial Performance, companies should never give up at performing Corporate Social Responsibility and what companies can do is to evaluate what went wrong and looking for solutions in order to improve it as performing Corporate Social Responsibility activities could give a direct impact on the Corporate Financial Performance at the end of financial year, despite the results suggest that there is no significant impact of Corporate Social Responsibility towards Corporate Financial Performance.

Although earlier in the literature review explained that there had been many Corporate Social Responsibility activities performed during the pandemic (Carroll, 2021), there are still some reasons for some companies are reluctant to perform Corporate Social Responsibility activities because there are no clear instructions (Mi et al., 2018). However, there might be some indications that those companies have tried to perform Corporate Social Responsibility activities

in the past, but they suffered from loss and they thought that Corporate Social Responsibility is not a good strategy. The result of Corporate Social Responsibility would give a negative impact to Corporate Financial Performance based on not only this study but also from some past studies blended with experience might also resulting in those companies have psychological issues about performing Corporate Social Responsibility activities. Again, many companies are giving up when they did not achieve the expected results and that is not the correct way to deal with this problem. Just like the previous example, companies should do some evaluation on the Corporate Social Responsibility activities that they have performed and find out what went wrong and make some improvements in order to be able to achieve positive relationship between Corporate Social Responsibility and Corporate Financial Performance.

In the other hand, it is most likely that companies have perform Corporate Social Responsibilities due to the regulations of mandatory Corporate Social Responsibility (Gatti et al., 2019). However, despite the relationship between Corporate Social Responsibility and Corporate Financial Performance is proven to be insignificant, this could suddenly change to be either positive or negative because of the behavior of the market might influence it, as the targeted stakeholders have different level of awareness about the current issues happening in the world which could be the contribution of the outcome of Corporate Financial Performance (Velte, 2020). Many companies would perform the same Corporate Social Responsibility annually in which this might be caused by the companies found out that that particular Corporate Social Responsibility activity could make their Corporate Financial Performance improve. However, companies should be aware that repeated Corporate Social Responsibility might not be a good strategy because the issues which the world is facing could change and the issue that those companies are focusing on might not be a major issue in the future due to other issues may be much more concerning. To add to that point, the market tends to forget the purpose of that particular Corporate Social Responsibility activity, and this require more effort to remind them about the purpose, which is time consuming and more funding required (Ramesh et al., 2019). Therefore, companies should seek for useful information from any types of news which are trustworthy in order to be able to catch up with the current issue which might influence the company's decision at type of Corporate Social Responsibility activity to be performed.

4.2.3.2 The impact of Corporate Social Responsibility to Knowledge Management

The relationship between Corporate Social Responsibility and Knowledge Management is positive, which agrees with past research (González-Ramos et al., 2022). From the basic concept of knowledge management, it is clear that knowledge management is able to store some knowledge from the past. In this case, the outcome from past Corporate Social Responsibility activities can be stored, and can be a useful information for the future.

Many companies performed similar Corporate Social Responsibility activities in recent years, in particular environmental sustainability (Shahzad et al., 2020). The reason why many companies performed environmental Corporate Social Responsibility activities is mainly because many stakeholders are involved in this matter, as the environment has been a huge issue in recent years. In addition, this particular issue to address through Corporate Social Responsibility has been a common trend, and many companies had successfully performed Corporate Social Responsibility activities in the environment sector, which leads to other companies replicate that strategy (Malik et al., 2021).

Corporate Social Responsibility is not only about performing activities to help to improve environmental sustainability. Some companies also provide education (Azam et al., 2019) for people who do not have financial ability to afford the deserved education, in which this particular activity also had successful past. The success in the past leads to many companies adopting similar strategies for their Corporate Social Responsibility activities to perform.

Although many companies reported success on those examples of Corporate Social Responsibility activities, not all companies could have the same success. Sometimes, failure can occur on a Corporate Social Responsibility, due to several reasons, which might have been caused by internal or external factors. From the failure in the past, other companies can learn from the mistakes that have occurred in the past, and make sure that the same failure would not happen to them (Abubakar et al., 2019).

The examples above show a clear indication that Corporate Social Responsibility gives a positive impact to Knowledge Management (González-Ramos et al., 2022). The successful past of Corporate Social Responsibilities would be recorded, and then stored as a knowledge that other companies can benefit. This also applies to the case of any failure on a particular Corporate Social Responsibility activity, in which companies can learn from in order to improvise that particular Corporate Social Responsibility activity, so that same failure would not be encountered. In general, no matter the outcome of a Corporate Social Responsibility activity,

Knowledge Management would always record that information, which will be available for other companies to learn from (Schniederjans et al., 2020).

4.2.3.3 The impact of Corporate Social Responsibility to Market Risks

The relationship between Corporate Social Responsibility and Market Risks shows that there is a positive relationship between them, in which this can be interpreted that any Corporate Social Responsibility activities would increase market risks that pharmaceutical companies incurred in their operations. Therefore, the application of positive relationship between Corporate Social Responsibility and Market Risks would be whenever the company performed Corporate Social Responsibility activities, the risks that they incur would increase, due to the fact that every decision made would incur some risks. This also can be caused by pharmaceutical companies are operating at a huge pressure from multiple stakeholders (Lakdawalla, 2018), and the pressure forced them to make quick decisions, which most of them are risky (Cho et al., 2019), because they did not have enough time to make considerations of different alternatives.

Pharmaceutical industry is one of the most controversial industries that are existing in the market. The possibility of positive relationship between Corporate Social Responsibility and Market Risks could be caused by the fact that pharmaceutical industry being one of the most controversial industries in which pharmaceutical companies are using animals to test their products (Bailey & Balls, 2019). This issue would also have the risk of killing those animals if their product failed and this kind of action is hurting animal species which could raise concern from animal conservation communities. Also, the issue of using animals to test medical products remains as a big issue which there is no alternatives yet regarding to the methodology of testing medical products. Therefore, despite pharmaceutical companies have performed Corporate Social Responsibility activities, there are still some risks in their operation which could not be reduced by Corporate Social Responsibility activities.

Another study suggested that the relationship between Corporate Social Responsibility and Market Risks is significant but negative relationship (Demir & Min, 2019). This makes the conclusion of this particular relationship uncertain (Gillan et al., 2021), as sometimes a certain risk can be reduced, while others can even increase. There is also a possibility that the Corporate Social Responsibility activity that have been performed could either fail to reduce the risks incurred or it is successfully reduce only a type of risk but increase the other type of risk. This

concept is similar to returning money to a bank by borrowing them from another bank in which the debt in a bank has been paid but there is another debt that is unpaid caused by borrowing money to pay a debt from borrowing the money. In the case of risks in pharmaceutical industry, this could be caused by when the company is trying to clean the water from waste chemicals, this would reduce the risk of producing water pollution. However, the equipment to clean the water might produce another type of pollution such as noise or air pollution. Therefore, when pharmaceutical companies are trying to reduce the risk of polluting the environment, at the same time they are increasing the risk of polluting the environment by producing a different type of pollution. This concept and example would explain why the relationship between Corporate Social Responsibility and Market Risks is positive, due to the outcome of their actions resulted with more risks are increased compared to those which had been reduced (Bhattacharya et al., 2021).

4.2.3.4 Role of Knowledge Management

The following two subchapters will discuss the role of Knowledge Management as an impact on Corporate Financial Performance and as intervening variable to Corporate Social Responsibility on Corporate Financial Performance.

4.2.3.4.1 The impact of Knowledge Management to Corporate Financial Performance

The relationship between Knowledge Management and Corporate Financial Performance is proven to be positive. This would indicate that companies with more knowledge possessed are able to make use of those knowledge in order to improve their Corporate Financial Performance, as past information about past successes, which they can replicate, and past information about past failures, which they can learn from in order to avoid the same mistake, can be used to create their own success (Abubakar et al., 2019).

Information that companies can obtain is not only about past successes or failures. Companies can also use Knowledge Management to collect information about current issues that happen around them. This can help companies to detect potential opportunities and threats, which can help them to generate strategies that can grab the opportunities, as well as prevent the threats from affecting them (Santoro et al., 2021).

In general, companies that are able to make use of a variety of Knowledge Management tools would have the benefit of obtaining as many information as possible. The more knowledge that the company can mine, the greater chance for the company to improve their Corporate Financial Performance (Abualoush et al., 2018). In order to achieve the best Corporate Financial Performance, companies need to do the best that they can, and of course with the support of knowledge that they possess.

However, companies should be aware that possessing a lot of knowledge through Knowledge Management can also have an adverse impact on Corporate Financial Performance. One of the issues of possessing too much knowledge is that strategies that they generate can sometimes conflict with each other. Conflicting strategies can be a problem, because this would prevent the company from operating efficiently, and therefore can give an impact to Corporate Financial Performance. In this case, companies should be careful when they are collecting information, as companies should only collect useful information relevant to what they want to do, and also in line with their vision and missions (Oliva & Kotabe, 2019).

4.2.3.4.2 Knowledge Management as Intervening Variable in Corporate Social Responsibility on Corporate Financial Performance

Despite Knowledge Management has a positive impact to Corporate Financial Performance, unfortunately Knowledge Management cannot be a significant intervening variable for the relationship between Corporate Social Responsibility and Corporate Financial Performance. From the model, it is clearly demonstrated that in order for Knowledge Management to give an impact on the relationship between Corporate Social Responsibility and Corporate Financial Performance, there should be a relationship between Corporate Social Responsibility and Corporate Financial Performance, as Corporate Social Responsibility gives impact to Knowledge Management (González-Ramos et al., 2022), and Knowledge Management influence the company's Corporate Financial Performance (Abubakar et al., 2019). From the results shown in the model, there is no significant relationship between Corporate Social Responsibility and Corporate Financial Performance, which makes Knowledge Management unable to intervene their relationship.

Although Knowledge Management cannot intervene the relationship between Corporate Social Responsibility and Corporate Financial Performance in this study, it is still possible for Knowledge Management to be an intervening variable in different studies. This can

cover either different industries, or still within the scope of pharmaceutical industry but with different samples, which can be outside the six countries in Southeast Asia. Another alternative is that Knowledge Management can be a different type of variable, such as an independent variable to Corporate Financial Performance (Abualoush et al., 2018; Abubakar et al., 2019; Santoro et al., 2021). This can happen as most industries are starting to use Knowledge Management to collect some information and formulating the best strategies. Knowledge Management has been a useful tool for nearly all industries in order to perform better in the market.

4.2.3.5 Role of Market Risks

The following two subchapters will discuss the role of Market Risks as an impact on Corporate Financial Performance and as intervening variable to Corporate Social Responsibility on Corporate Financial Performance.

4.2.3.5.1 The impact of Market Risks to Corporate Financial Performance

The relationship between Risks and Corporate Financial Performance is found to be negative. This would indicate that if the company is taking more risks, the corporate financial performance would get worse. Many similar researches had proven that this particular relationship is true (Devie et al., 2020).

The possibility for this to happen is that many companies are starting to make use of financial risk management and any other types of risk management technique in order to control the risks that the company should take (Mihaylov & Zurbruegg, 2020). Risk management is important so that companies would know the limit of risks that they should take in order to avoid taking too much risks which could indeed make the corporate financial performance much worse. Elsewhere, investors are not interested at companies which take too much risks as investors are looking for companies with a better Corporate Financial Performance. This relationship would suggest the reason why investors do not like too much risks which eventually could make the Corporate Financial Performance much worse.

4.2.3.5.2 Market Risks as Intervening Variable in Corporate Social Responsibility on Corporate Financial Performance

It could be found that Market Risks have failed to be the intervening variable to the relationship between Corporate Financial Performance and Corporate Social Responsibility. The model has demonstrated that the arrows in the model suggested that in order for Market Risks to influence the relationship between Corporate Social Responsibility and Corporate Financial Performance, there should be a relationship between Corporate Social Responsibility and Corporate Financial Performance, since Corporate Social Responsibility can influence Market Risks incurred by the company (Demir & Min, 2019), and Market Risks influence Corporate Financial Performance (Mihaylov & Zurbruegg, 2020). As the relationship between Corporate Social Responsibility and Corporate Financial Performance is insignificant, Market Risks would fail to influence the relationship of the independent and dependent variables.

It can be concluded that Market Risks cannot be the intervening variable for the relationship between Corporate Social Responsibility and Corporate Financial Performance in pharmaceutical industries of six countries in Southeast Asia. Instead, Market Risks can be a different type of variable in this case independent variable to Corporate Financial Performance. This could happen because of the fact that pharmaceutical industry in one of the most controversial industries (Bailey & Balls, 2019) and despite pharmaceutical companies have performed Corporate Social Responsibility activities, the risk would still be there as a particular risk can be reduced while more risks are incurred based on the background of the industry. However, there are still some possibilities that Market Risks can be an intervening variable for the relationship between Corporate Social Responsibility and Corporate Financial Performance in other industries (Devie et al., 2020) or in pharmaceutical industry outside from the six countries in the sample. It is also possible if the independent and dependent variable is different and the results of the experiment would definitely depend on the sample of data collected which every study would have different type of data collected.

4.2.4 Discussion of Research Model Result

This paper attempts to study the impact of Corporate Social Responsibility to Corporate Financial Performance with Knowledge Management and Market Risks as the intervening variable in pharmaceutical companies in Indonesia, Singapore, Malaysia, Thailand, Vietnam, and

Philippines. Below examines the contribution of the independent variable towards the dependent variable.

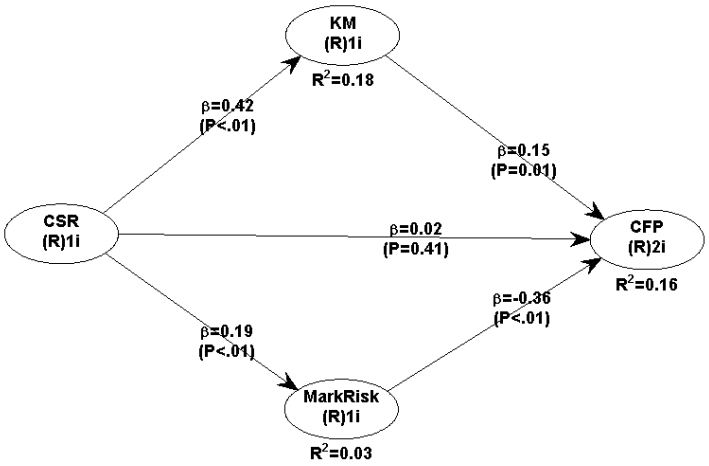

Figure 4.1 Research Model Result

Source: WarpPLS software version 8.0

Total effect of absolute contribution:

CSR to CFP: $(0.01)^2$ x 100% = 0.01%

4.2.4.1 Pragmatic contribution

Based on the absolute contribution of the total effect, it can be seen that Corporate Social Responsibility has an extremely low impact towards Corporate Financial Performance showing a figure of 0.01%. This total effect takes count of both direct effect between Corporate Social Responsibility and Corporate Financial Performance and indirect effect which involves Knowledge Management and Market Risks as intervening variable to the relationship between Corporate Social Responsibility and Corporate Financial Performance. This implies that Corporate Social Responsibility activities cannot give a significant impact to Corporate Financial Performance, in which if companies are performing Corporate Social Responsibility activities, they would have no significant difference in terms of result of Corporate Financial Performance compared to when they did not perform Corporate Social Responsibility activities.

4.2.4.2 Theoretical contribution

As it was found that Corporate Social Responsibility does not give significant difference on Corporate Financial Performance, other variables can give more impact towards Corporate Financial Performance. Despite the result showed an insignificant relationship between Corporate Social Responsibility and Corporate Financial Performance, it is still in line with the stakeholder theory, as many companies have performed Corporate Social Responsibility activities. It can be understood that it is not an easy matter to prioritize which stakeholder for each Corporate Social Responsibility, as different stakeholders have different priority (Raub & Martin-Rios, 2019).

There are several factors which can influence Corporate Financial Performance. Some of the examples from past researches would include ownership of the company (Paniagua et al., 2018), board size (Assenga et al., 2018), debt ratio (Cho et al., 2019), liquidity (Egbunike & Okerekeoti, 2018), leverage (Hasanudin et al., 2020), asset utilization (Barauskaite & Streimikiene, 2021), market share position (Alshehhi et al., 2018) and many more. The ownership of company could have different types such as family, sole proprietorship, partnership, limited liability Company, corporation, cooperative, government-owned, non-profit organization and many more. The board size can also be different and the financial ratio is the vital contribution towards Corporate Financial Performance. This research might have covered some of the financial ratio. However, there are different types of ratios that can be covered in this research including the ratio that have been mentioned in the literature review or any other financial ratios which might not be mentioned in this paper. Asset utilization is also important as some of the financial ratios are covering how the company make use of the capital and resources that are available for them and this has been covered partly in the return on equity ratio. Market share position is one of the macro perspectives which can influence Corporate Financial Performance. The condition of the market and also the economy of the country can also influence the Corporate Financial Performance as the operations of companies are also being influenced by factors which are out of control and companies cannot do anything to change them and can only react to them.

The variable Corporate Social Responsibility only covered Corporate Social Responsibility index as the indicator. One of the past research papers might have use Corporate Social Responsibility spending as the indicator (Odeh et al., 2020). Corporate Social Responsibility

spending is the amount of funds which companies are spending on Corporate Social Responsibility. However, many companies opted not to disclose the amount of money spent on Corporate Social Responsibility on annual reports which this indicator can be a challenge for researchers in order to find the data needed. Another indicator of Corporate Social Responsibility can be Corporate Social Responsibility disclosure using different types of indicators (Kamaliah, 2020). This would involve the disclosure of the information of what type of Corporate Social Responsibility activities that the company had performed in the annual report. However, this indicator would require further studies whether they are better than GRI indicators or not in which many researchers opted for using GRI as the indicators of Corporate Social Responsibility disclosures. Initially, this paper had considered the use of Refinitiv as the data for Corporate Social Responsibility index. However, this measure is not used, as many companies do not have the data of Corporate Social Responsibility score available. Despite this issue, this can be one of the measures that can be used to explore. There may be not a lot of indicators for Corporate Social Responsibility and therefore, further researches about finding a different type of indicator for Corporate Social Responsibility as either a different indicator or as an additional indicator is required.

The indicator of Knowledge Management only covered the usage of Knowledge Management tools that the company had used (Oliva & Kotabe, 2019). The indicator of Knowledge Management has not been a clear indicator in the past, in which many past research papers used different types of measures. In order to be able to give the big picture of how Knowledge Management can be measured, this issue should be addressed more often, especially the use of secondary data, in order to accommodate the collecting data process for research with international samples.