

THE IMPACT OF RISK MANAGEMENT ON FIRM PERFORMANCE: CORPORATE GOVERNANCE AS MODERATING VARIABLE

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Abstract

This research aims to examine the impact of risk management, especially operational risk, credit risk, and liquidity risk on firm performance with corporate governance as a moderating variable. The research was conducted using secondary data from 48 companies in the Southeast Asia region which are included in the Consumer Durable and Apparel, Consumer Service, and Consumer Staples industry categories at S&P Capital IQ during the 2017-2021 period. The sample collection technique in this study used a purposive random sampling method. The result of this study finds that operational risk and credit risk do not affect firm performance, while credit risk has a negative effect on firm performance. This study also found that corporate governance can reduce the negative effect of liquidity risk on firm performance but strengthen the relationship between operational risk and credit risk on firm performance. The result found in this study has implications and contribution for the company to develop a good corporate governance in order to maximize the risk management and also for investor to assess the company risks.

Keywords: Operational risk; credit risk; liquidity risk; firm performance; corporate governance.

JEL Classification: G30, M21, M41

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INTRODUCTION

Risk management is becoming an important issue for companies these days. This also affects how the public react towards how the companies manage their risk. Based on that development for risk management is being made (Tiwari & Suresha, 2021). Considering how companies faced many challenging conditions and risks that can't be avoided, which will make companies have to develop strategies related to good risk management (Osuszek & Ledzianowski, 2020).

In the current era, companies are facing VUCA (Volatility, Uncertainty, Complexity, and Ambiguity) conditions, where this phenomenon is caused by an increasing number of "disruptive innovations" (Millar et al., 2018). One of the disruptive innovation is the development of technology and digital transformation, which is very significant at the present time, this also certainly affects the company's business situation in making decisions, including in facing unexpected challenges. Where this includes company

decisions in carrying out risk management to deal with economic changes that occur (Zachosova & Koval, 2022). Other than that, now, the company is now not only facing the VUCA condition, but also the challenges and risks caused by the COVID-19 pandemic.

By looking at the current condition of the COVID-19 pandemic, which is affecting all countries in the world including all industrial lines. Where this phenomenon becomes a risk that cannot be avoided and must be faced by all companies, including also causing higher operational risks, credit risks, and liquidity risk to occur. Governments from various countries were forced to impose lockdowns which disrupted the company's operational activities, both from the supplier and distributor positions. As a result, many companies record operational losses in their financial statements for the last few years.

The IMF (International Monetary Fund) initially issued a prediction that the COVID-19 pandemic would only cause a decline of 0.1%, but later that was revised back to negative 3.3% as the realization in 2020. Where there are also predictions issued by the IMF regarding the possibility of a recession in the economy global. Based on data in 2020 from ADB (Asia Development Bank) showing that the COVID-19 pandemic prevented companies in Asian countries from achieving their revenue targets, where in 2021 there is a decrease from the prediction of 3.7% to the realization of 3.3% (ADO, 2021).

Referring to the data above and data from the ASEAN Policy Brief published by ASEAN organizations, it can be seen how the COVID-19 pandemic has affected the economies of various countries, including in ASEAN. This is also supported because China, which became the first country to spread COVID-19, is the largest external trading partner and investor for countries in ASEAN. Data from 2018 shows that China has a share of 17.1% of total trade in the ASEAN market

and contributes 6.5% to FDI (Foreign Direct Investment) inflows in ASEAN. Not only that, most of the supply chains of manufacturing companies spread across ASEAN have cooperative relationships with the manufacturing sector in China (ASEAN, 2020).

The concept of risk that is a challenge for the company can mean a condition where the company knows and can determine objectively the possibility of an unexpected event occurring (Sakai, 2019). This includes risk management of operational risk, credit risk and liquidity risk which are internal risks of the business activities carried out by the company (Settembre-Blundo et al., 2021). In relation to firm performance, risk management is very influential, but not only because corporate governance is also an issue that is carried over to this topic. Where risk management in relation to company performance is also influenced by corporate governance. Information related to corporate governance is also used to be shared with the public which makes it a factor that can have an influence that can play a moderating role between operational risk, credit risk, and liquidity risk on firm performance.

Referring to previous studies, found that there is a significant impact of operational risk, credit risk and liquidity risk on company performance (Al-Yatama et al., 2020). Meanwhile, research that has been carried out previously by Mardiana et al. (2018) and Sondakh et al. (2021) found the same results where credit risk did not find a significant effect on company performance, but operational risk showed a significant influence on company performance. However, research by Suryaningsih & Sudirman (2020) succeeded in proving that credit risk and operational risk can have a negative impact and contrast with financial performance, while liquidity risk shows a positive impact on company performance. Another study by Hunjra et al. (2022) showed the results that credit risk has been shown to show a negative

relationship with the company's financial performance, while liquidity risk and operational risk show a positive relationship with company performance. Based on previous studies above, there are various outputs that found. These differences occurred considering the different sample that was used in the study, where each of the companies in different industries and country faced different levels of risk that can affect their performance.

Apart from the impact between operational risk, credit risk and liquidity risk on company performance, corporate governance also shows indications of having a moderating role in this correlation. Where this is evidenced from previous research conducted by Paniagua et al. (2018) shows that corporate governance has a negative impact on company performance. Referring to previous research by Ko et al. (2019) and Bastomi et al. (2017) managed to find evidence that the negative impact of credit risk on firm performance can be reduced by having a good corporate governance, and the impact of operational risk on company performance can also be moderated by the corporate governance implemented by the company. This showed that corporate governance has a moderating role to help companies to reduce the risk. Other than that, the influence of corporate governance can be found in the association between risks and the firm's performance. Where the presence of higher level and good corporate governance can reduce operational risk and credit risk which causes increased firm performance.

Considering that it is risk management and corporate governance are important issues that faced by many companies in this era, especially considering the current conditions amid the pandemic recovery. Based on previous research, most of it was conducted in the financial sector and there was still few research conducted in the non-financial sector. Therefore, this study

was conducted on the non-financial sector because this sector also experiences those risks, which from operational risk that many of the company in non-financial sector will be faced due to various factor that can affect the company's operationalization. Other than that, non-financial companies also need to maintain their credit risk which are based on two perspectives. First, the company's perspective as a lender to their customer that chooses to pay in receivable, this can lead to credit risk because the customer has the possibility not to fulfill their obligation. Second, the perspective as investor in bonds because a default may also occur. Liquidity risk also becomes relevant to non-financial firms due to the needs of the company to meet their current obligation. Other than those statements, the condition of pandemic COVID-19 exacerbates the impact of these risks.

LITERATURE REVIEW

Based on agency theory, agents have an obligation to carry out business operational activities from principal capital and make decisions (Paniagua et al., 2018). In agency theory, in addition to the existence of an agreement made between the principal and the agent, there is also the possibility of irregularities that occur. This is related to personal interests which will lead to conflicts of interest, and no longer prioritize the main goals that are the responsibility of the agent (Li et al., 2019). This difference in interests can lead to credit risk because debtors who are third parties often ignore the interests of creditors, giving rise to conflicts of interest (Erzha et al., 2019). In addition to credit risk, agency theory can be used in elaborating the relationship between corporate governance and company performance, where the top management position must be able to meet the interests of stakeholders (Mardnly et al., 2018).

Operational Risk

Operational risk can be defined as the possibility that a company will incur a loss resulting from human error, process errors, inadequate technology, and the emergence of an unexpected event (Settembre-Blundo et al., 2021). In addition, Sondakh et al. (2021) define operational risk as a risk that is the result of a failure or inadequate condition of the internal processes carried out by the company, employees, systems and other external factors.

Referring to previous research by Ko et al. (2019) companies with high operational risk have a tendency to experience higher losses, which has led the government to ask the banking industry to handle their operations so as not to suffer losses. Seeing how operational risk can cause significant losses in the financial industry, there is still little research conducted to examine the impact of operational risk on company performance for non-financial companies.

Credit Risk

Credit risk can be defined as the risk that arises due to the inability to pay the loan or loan interest from the borrower (Yu et al., 2019). In addition, according to Maulidar & Majid (2020) credit risk can occur due to changes in the value of net assets as a result of the ability of third parties to fulfill their obligations.

Credit risk itself has the possibility of causing financial problems that can affect company performance, one of which is caused by a lack of liquidity and the possibility of a credit score that cannot be recovered (Settembre-Blundo et al., 2021). Credit risk is relevant in the non-financial firms because these firms will also experience credit risk. In this study the most applicable perspective of credit risk is from the perspective of the lender to the customer. This risk can occur due to the customer ending up being opportunistic and neglecting the obligation to pay. Other than the perspective as the lender, there is also another perspective for credit risk in non-financial firms which as investor that invest in bonds from other companies.

(Mushafiq et al., 2021). However, this study will be more focused from the first perspective to reflect credit risk faced by the company. Where this credit risk can have an impact on the company's financial performance. In previous research Accornero et al. (2018) succeeded in proving that credit risk from banks has an influence on non-financial companies. In addition, credit risk is proven to have a role in the relationship between capital structure and company performance for SMEs (small-and-medium-size enterprises) (Li et al., 2019). Credit risk also has an influence on capital structure with observational data in the form of non-financial companies located in Pakistan (Ali et al., 2020).

Liquidity Risk

Liquidity risk can arise when a company is unable to pay off its short-term obligations, which requires good liquidity risk management for the long-term sustainability of the company (Hunjra et al., 2022). In addition, liquidity risk can be caused by a company's asset and debt structures that are incompatible with the inflows and outflows of company funds (Al-Yatama et al., 2020).

According to Diallo et al. (2021) interpret liquidity risk as the possibility of loss as a result of a company's inability to carry out its maturing obligations or fund additional assets without incurring unexpected costs or larger losses. Liquidity risk can also prevent a company from fulfilling its obligations to third parties, so that it can raise internal financial problems because it is related to the company's liquidity level and this will affect company performance (Settembre-Blundo et al., 2021).

Firm Performance

Company performance can be interpreted as a form of achievement from the company in financial aspects related to income, costs, debt structure, assets, and return on investment (Devi et al., 2020). Company performance is also a reflection

of the financial condition of the company where this information is usually used by investors to make decisions (Nuraz et al., 2020). According to Maulidar & Majid (2020) the performance of a company can show the company's ability to allocate and manage existing resources in order to improve performance and compete with its competitors.

In previous research, one of which was carried out by (Ko et al., 2019) described the company's performance as the financial performance of the company, where there are four criteria in its measurement, namely liquidity, solvency, profitability, and company's market value. Where this makes the company's performance also influenced by operational risk, credit risk, and liquidity risk because in the process of determining risk management carried out by the company, it is necessary to evaluate the consequences that might arise as a result of these factors on the company's performance in the future.

Corporate Governance

Corporate governance can have a definition of a system of laws, regulations, and factors that control company operations (Madanoglu et al., 2018). Corporate governance also has a definition as the function, structure, and role of the board of directors as management in making decisions (Naciti, 2019). According to Wang et al. (2020) the company is developing corporate governance which is used with several different mechanisms, including the size of directors, executive compensation, debt, and markets for company control in order to ensure the company can run effectively and protect stakeholders.

Corporate governance can also guarantee that the company's business environment has been carried out in a fair and transparent manner, so that the company has accountability for the actions taken (Arayssi & Jizi, 2019). In previous research, many have examined the relationship between corporate governance and company performance and have had

results that tend to vary (Bhagat & Bolton, 2019; Madanoglu et al., 2018; Tanjung, 2020).

Hypothesis Development

Based on previous research found evidence regarding the negative effect of operational risk on company performance with research conducted for financial companies. (Adiatmayani & Panji, 2021; Al-Yatama et al., 2020; Sondakh et al., 2021; Suryaningsih & Sudirman, 2020). Meanwhile, another study by Ko et al. (2019) with observational data of non-financial companies, has found evidence that operational risk has a negative impact on company performance. In addition, from previous research by Singh & Hong (2020) which examined the relationship between operational risk management and company performance in non-financial companies using a supply chain network driver (SCND) approach, it was successful to prove that SCND had a negative relationship with the company's financial performance. Departing from this, by considering the relationship between operational risk and company performance, the authors develop the following hypothesis:

H1: Operational risk has a negative influence on company performance.

Referring to previous researchers including Al-Yatama et al. (2020) and Mushafiq et al. (2021) show that credit risk has an impact on company financial performance for financial sector companies. Meanwhile, Sondakh et al. (2021) found that there is no significant impact of credit risk on the profitability of banks. Other than that, previous research found evidence that credit risk has a negative effect on financial performance by using profitability as a proxy (Adiatmayani & Panji, 2021; Ko et al., 2019; Suryaningsih & Sudirman, 2020). Based on this elaboration, the authors develop a second hypothesis, which is as follows:

H2: Credit risk has a negative influence on company performance.

Based on previous studies by Effiong & Ejabu (2020) and Saleh & Afifa (2020) managed to find a significant effect between liquidity risk and the company's financial performance. While in another study, stated that liquidity risk has a negative impact on the stability of a company's financial performance (Ghenimi et al., 2017). In addition, there is also research by Chen et al (2018) who also found that credit risk has a negative effect on company performance, where companies can reduce liquidity risk and improve their company performance by having more current assets. Referring to previous studies regarding the effect of liquidity risk on company performance, the authors develop the following hypothesis:

H3: Liquidity risk has a negative influence on company performance.

Previous research has shown a lot of evidence regarding the relationship between corporate governance and company performance (Madanoglu et al., 2018; Paniagua et al., 2018; Tsafack & Guo, 2021; Wang et al., 2020) The relationship between corporate governance and company performance can be explained by referring to agency theory. Where multiple ownership of the company is a challenge for the company to control its management and affect the performance of the company where corporate governance through its board of directors can be used as one of the solutions to overcome this challenge. This is an agency problem experienced between owners and managers (Aryssi & Jizi, 2019; Madanoglu et al., 2018; Paniagua et al., 2018). Meanwhile, in their research Ko et al. (2019) and Mardiana et al. (2018) have results where corporate governance has a role in moderating the impact of operational risk, credit risk, and liquidity risk on company performance. Where corporate governance goes hand in hand with credit risk, because weak corporate governance has an

indication that the company has an unhealthy financial condition and makes debt holders vulnerable to losses which make the company have to pay more for it.

Based on the previous study found that corporate governance has a moderating role to reduce the impact of risk to firm performance. The research from Ko et al. (2019) and Mardiana et al. (2018) showed how corporate governance can moderate the negative influence of risks on firm performance. Besides, the impact of corporate governance can also be found in the relationship between risks and the firm's performance. Where the higher the level of corporate governance in the company can help in risk management to reduce the negative impact of the risk, this will lead to an increase in firm performance.

Where the better the level of corporate governance will decrease the operational risk, credit risk, and liquidity risk faced by the company so that it can increase the company's performance. Referring to this elaboration, the authors develop hypotheses, as follows:

H4: Corporate Governance can weaken the negative influence of operational risk on company performance.

H5: Corporate Governance can weaken the negative effect of credit risk on company performance.

H6: Corporate Governance can weaken the negative effect of liquidity risk on company performance.

Based on literature review and hypothesis development, the conceptual framework can be describe in [Figure 1](#).

RESEARCH METHOD

Sample Selection and Data Collection

This study uses a purposive sampling method with a population of companies that are included in the consumer discretionary industry under consumer durable and apparel at S&P Capital IQ for companies in the Southeast Asia Region in the 2017-2021 period. With this method, the authors select the sample to exclude

samples that do not meet the criteria of this study, where the criteria in question are: 1) Companies in the Southeast Asian region that are included in the Consumer Durable and Apparel, Consumer Service, and Consumer industry categories Staples on S&P Capital IQ, 2) Companies that do not carry out listing and delisting activities in the 2017-2021 period, 3) Issuance of complete financial reports for the 2017-2021 period by companies, 4) Companies that publish complete annual reports in the 2017 period -2021 in English translation.

Variable Operationalization

The dependent variable in this study is company performance. Independent variables include operational risk, credit risk and liquidity risk. The moderating variable in this study will use corporate governance. Meanwhile, the control variables that will be used include book to market ratio, liquidity, leverage, company size, profitability, and COVID-19. The measurement of variables are presented in [Table 1](#).

Research Method

Below is the research model that will be used in this study to describe the relationship between operational risk, credit risk, and liquidity risk with company performance:

$$FPERF_{it} = \alpha_0 + \beta_1 OPRISK_{it} + \beta_2 CRISK_{it} + \beta_3 LRISK_{it} + \beta_4 BTM_{it} + \beta_5 DAR_{it} + \beta_6 CR_{it} + \beta_7 SIZE_{it} + \beta_8 ROA_{it} + \beta_9 COVID_{it} + e_{it} \dots \dots \dots (1)$$

Meanwhile, the following is the research model that will be used in this study to describe the moderating role of corporate governance in the relationship between operational risk, credit risk, and liquidity risk with company performance:

$$FPERF_{it} = \alpha_0 + \beta_1 OPRISK_{it} + \beta_2 CRISK_{it} + \beta_3 LRISK_{it} + \beta_4 FO_{it} + \beta_5 OPRISK*FO_{it} + \beta_6 CRISK*FO_{it} + \beta_7 LRISK*FO_{it} + \beta_8 BTM_{it} + \beta_9 DAR_{it} + \beta_{10} CR_{it} + \beta_{11} SIZE_{it} + \beta_{12} ROA_{it} + \beta_{13} COVID_{it} + e_{it} \dots \dots \dots (2)$$

Where:

- FPERF = Firm Performance
- OPRISK = Operational Risk
- CRISK = Credit Risk
- LRISK = Liquidity Risk
- FO = Foreign Ownership
- OPRISK*FO = Interaction Variable between Operational Risk and Foreign Ownership
- CRISK*FO = Interaction Variable between Credit Risk and Foreign Ownership
- LRISK*FO = Interaction Variable between Liquidity Risk and Foreign Ownership
- BTM = Book to Market Ratio
- DAR = Debt to Assets Ratio
- CR = Current Ratio
- SIZE = Company Size
- ROA = Return on Assets
- COVID = Dummy variable for COVID-19

Analysis Method

The regression test will use panel data analysis regression combines cross-section and time-series data. This research will select the estimation model by using the common effect model, fixed-effect model and random effect model. The selection will be made by going through the Chow test and the Lagrange Multiplier test.

This study uses 4 methods of analysis based on the selected model before, which are as follows: 1) descriptive statistical analysis, 2) correlation analysis, 3) Classical assumption test, including normality test, multicollinearity test, heteroscedasticity test, and autocorrelation test, 4) Hypothesis test, including F test and t test.

RESULTS AND DISCUSSION

Result

Descriptive Analysis

[Table 2](#) shows that the average value of company performance (FPERF) is -0.009. This could have an understanding where the company's performance from the sample taken tends to be low because it is still at a negative average value, where the minimum value is -0.492 and the maximum value is 0.403. With a standard deviation value of 0.1.

Based on the above analysis of operational risk (OPRISK) shows an average value of 5,636 which describes the operational risk of the sample companies in a moderate position, with a minimum value of -1,027 and a maximum value of 9,645 and a standard deviation of 1.42.

Next for credit risk (CRISK) has a result of 0.305 which can be interpreted that the average of the research sample data has a high level of credit risk, where the standard deviation is 0.913 with a minimum value of -2.422 and a maximum value of 2.522.

The results of the analysis of liquidity risk (LRISK) with an average value of 0.346. Where this can be interpreted that the companies used as samples have a fairly low level of liquidity because the value of current assets does not exceed half of the total asset value, with a minimum value of 0.006 and a maximum value of 0.999 and a standard deviation value of 0.264.

The corporate governance variable with foreign ownership (FO) proxies has an average value of 0.114 which means that the average object of research in the ownership structure is foreign ownership which is quite low compared to total ownership, so it can be concluded that the level of corporate governance is quite low. With a minimum value of 0.0001 and a maximum value of 0.944, and a standard deviation of 0.202.

Correlation Analysis

[Table 3](#) shows the results of the Pairwise Correlations analysis between the variables in this study. Referring to the results of this analysis, the correlation coefficient value of operational risk (OPRISK) on company performance (FPERF) is -0.1666 which is significant at the 0.01 level (1%). In addition, credit risk (CRISK) has a correlation coefficient of 0.1001 and liquidity risk (LRISK) has a correlation coefficient of -0.0241 on company performance (FPERF) but does not show any significance at the 0.10 level (10%).

Based on the results of pairwise correlation analysis, it indicates that there is no multicollinearity problem, because there is no correlation coefficient value that exceeds 0.8 (> 0.8) among the independent variables involved in this study.

Model Selection

The model selection test for panel data analysis was carried out using two methods for models 1 and 2, namely the Chow test and the Lagrange Multiplier test. The Chow test carried out for model 1 yielded $(\text{Prob} > F) = -0.0708$, while for model 2 has result of $(\text{Prob} > F) = -0.0984$ which both models had a significance level of > 0.05 . Based on this result, the research model determined for model 1 and model 2 will use the common effect model.

Next, the Lagrange Multiplier test shows that model 1 and model 2 have a result $(\text{Prob} > \chi^2) = 1.0000$ which is > 0.05 . Thus, testing for model 1 and the model from this study will be carried out according to the common effect model.

Regression

The normality test was carried out for the two regression models in the study using the Shapiro-Wilk normality test shows that $(\text{Prob} > z) = 0.00000$ which indicates that the data used is not normally distributed, so a Box-Cox treatment is carried out on the dependent variable firm performance (FPERF) with the aim of obtaining skewness of 0. After the Box-Cox treatment of the dependent variable firm performance (FPERF) it was found that the value $(\text{Prob} > z) = 0.507$ $p > 0.05$ which has an interpretation that the data is normally distributed.

The multicollinearity test was carried out based on the results of the average VIF value, where the test results shown for model 1 have an average VIF value of 1.66 < 10 which can be said there is no multicollinearity problem for model 1. Meanwhile, the multicollinearity test multicollinearity for model 2 shows the average VIF value for all variables is 6.35 < 10 , which indicates that there is no multicollinearity problem in model 2.

Heteroscedasticity testing was carried out according to White's test for both regression models in this study. Based on the results of the White test from model 1, it indicated that there was no heteroscedasticity problem ($P = 0.00643 > 0.05$). Meanwhile, the heteroscedasticity test for model 2 found that there was no heteroscedasticity problem ($\text{Prob} = 0.0639 > 0.05$).

The autocorrelation test was carried out in accordance with the Breusch-Godfrey test referring to the results of the Lagrange Multiplier test to detect autocorrelation problems that might be experienced by the research model. Based on the data from the autocorrelation test results for model 1, the results show that there is no autocorrelation problem ($\text{Prob} > \text{chi}^2 = 0.549$) which is more than 0.05 (5%). The autocorrelation test for model 2 according to the Breusch-Godfrey test showed no autocorrelation problems ($\text{Prob} > \text{chi}^2 = 0.378$) which was greater than 0.05 (5%).

Hypothesis Testing

The hypothesis test results (F test) conducted for models 1 and 2 according to [Table 4](#) produce a probability value of 0.0000 which indicate that all independent variable that involves in this research has simultaneously effect on the dependent variable which is Firm Performance (FPERF). As with the significance value limit $F < 0.05$ set for this study, it shows that all independent variables simultaneously affect the dependent variable.

Referring to [Table 4](#) for the results of model 1 it has a coefficient of determination (Adj R-squared) of 0.2567, which means that the independent variable has the ability of 25.67% to explain the dependent variable. While for testing model 2, where the value of the coefficient of determination (Adj R-squared) is 0.2963 which illustrates that in this research model the variables involved have the ability of 29.63% to explain the dependent variable.

Based on the regression results for models 1 and 2 in [Table 4](#), the operational risk results (OPRISK) show a probability value of 0.955 which is then divided in half because it is a one-way hypothesis to 0.478 which means it is not significant with a significance level of 0.10 (10%) and produces a coefficient of 0.0003. Where operational risk has no effect on company performance, then H1 is rejected.

Credit risk (CRISK) shows a probability value of 0.050 which is then divided by two because it is a one-way hypothesis to 0.025 and is significant at the 5% level (0.05) and produces a coefficient of -0.015. So, it can be concluded that credit risk has

a negative effect on company performance, then H2 is accepted.

Liquidity risk (LRISK) shows a probability value of 0.232 which is then divided by two because it is a one-way hypothesis to 0.116 and means it is not significant at a significance level of 0.10 (10%) and has a coefficient of 0.034. Which implies that liquidity risk has no effect on company performance, then H3 is rejected.

Operational risk with corporate governance proxied by foreign ownership (OPRISKFO) as a moderating variable shows a probability value of 0.842 which is not significant at a significance level of 0.10 (10%) and produces a coefficient of 0.003. Where it means that corporate governance weakens the positive influence of operational risk on company performance, then H4 is rejected.

Credit risk with corporate governance proxied by foreign ownership (CRISKFO) as a moderating variable shows a probability value of 0.008 which is significant at a significance level of 0.01 (1%) and produces a coefficient of 0.117. Where means that corporate governance strengthens the positive influence of credit risk on company performance, then H5 is rejected.

Liquidity risk with corporate governance proxied by foreign ownership (LRISKFO) as a moderating variable shows a probability value of 0.136 which is not significant at a significance level of 0.10 (10%) and produces a coefficient of -0.325. Where it means that corporate governance weakens the negative effect of liquidity risk on company performance, then H6 is accepted.

Discussion

Operational Risk Has No Effect on Firm Performance

Test results regarding the effect of operational risk on company performance, it was found that operational risk did not have a significant effect on company performance. This means that operational risk using the natural logarithm measurement of operational losses experienced by

a company is not proven to have a significant effect on the performance of a company. Where the results of this test illustrate that there is no evidence that the operational risks faced by companies in the sector that are used as research samples will have an impact on company performance. With the first hypothesis (H1) which proposes that operational risk has a negative effect on company performance is not proven, then H1 is rejected.

The results of this study are contrary to and different from previous research by Adiatmayani & Panji (2021), Al-Yatama et al. (2020), Ko et al. (2019), Sondakh et al., (2021), and Suryaningsih & Sudirman (2020) who succeeded in showing evidence that operational risk has a negative effect on company performance. However, the results of the research are consistent with the research conducted by Diallo et al. (2021) who found that operational risk has no significant effect on company performance.

Credit Risk Has a Negative Effect on Firm Performance

As the results of the study found that credit risk has a negative influence on company performance. This result means that the higher the level of a company's credit risk, the lower the company's performance, which illustrates the level of financial soundness by using the Altman Z-Score proxy to assess the credit risk of a company, which can reduce the performance of a company. This is in line with the credit risk perspective for non-financial companies as a research sample, namely the position of companies that have receivables and invest in bonds makes the company more exposed to credit risk which can affect changes in company profits from year to year. With the second hypothesis (H2), which proposes that credit risk has a negative effect on company performance, it has been proven that H2 is accepted.

The research has results that are in accordance with previous research by Adiatmayani & Panji (2021), Al-Yatama et al. (2020), Ko et al. (2019), Mushafiq et al. (2021), and Suryaningsih & Sudirman (2020) found that credit risk has a negative effect on company performance. While these results show a difference from what was found by Sondakh et al. (2021) that

there is no significant impact from credit risk on company performance.

Liquidity Risk Has No Effect on Firm Performance

Based on the results of the study it was found that liquidity risk has no effect on company performance. These results can be interpreted that the liquidity risk faced by the company has not been proven to have an influence on company performance, where the level of liquidity of a company seen from the comparison of current assets and total assets has no influence on changes in profitability that occur in a company in a period. Companies that have a good level of liquidity still have the possibility to have low company performance, and vice versa. With the third hypothesis (H3) which proposes that liquidity risk has a negative effect on company performance is not proven, then H3 is rejected.

The results of this test are supported by research by Al-Yatama et al. (2020) and Diallo et al. (2021) found that liquidity risk has no effect on company performance. However, this is not in accordance with the results of research by Effiong & Ejabu (2020) and Saleh & Afifa (2020) who found that liquidity risk has a significant impact on a company's financial performance, as well as research by Chen et al. (2018) and Ghenimi et al. (2017) found that liquidity risk has a negative impact on the stability of a company's financial performance.

The Role of Corporate Governance in Moderating the Relationship between Operational Risk, Credit Risk, and Liquidity Risk with Company Performance

The research that has been done shows that corporate governance weakens the positive influence of operational risk on company performance. The results of this study can be interpreted that the level of foreign ownership (foreign ownership) as a proxy of higher corporate governance can make the operational risks faced by companies lower, but at the same time also make the company's performance decrease. With the fourth hypothesis (H4) which proposes that corporate governance can weaken the negative effect of operational risk on company performance is not

proven, then H4 is rejected which is not suitable and has differences from the study of Ko et al. (2019) and Mardiana et al. (2018)

The results of the study have found that corporate governance can strengthen the positive influence of credit risk on company performance. Where this reflects the high proportion of foreign ownership which is a proxy for corporate governance that can increase credit risk in a company, with more foreign ownership of a company making it more likely for a company to have more receivables, causing an increase in credit risk. However, these results can be interpreted as increasing credit risk will also increase company performance, this is not in accordance with the development of the author's hypothesis. With the fifth hypothesis (H5) which proposes that corporate governance can weaken the negative effect of credit risk on company performance is not proven, then H5 is rejected which is contrary to the research from Ko et al. (2019) and Mardiana et al. (2018).

This study also found that corporate governance can weaken the negative influence of liquidity risk on company performance. Which can be explained by the increasing number of levels of foreign ownership as a proxy for corporate governance can reduce the negative influence of liquidity risk faced by companies, where this will play a role in further improving the performance of these companies. With better corporate governance, companies can further increase their profitability and lead to company performance that continues to increase every year. This is also supported by the lower liquidity risk, the better the company's ability to meet its current obligations and increase the value of the company's profit for the year. With the fifth hypothesis (H6), which proposes that corporate governance can weaken the negative effect of liquidity risk on company performance, it is proven that H6 is accepted, which is in accordance with the panel, according to Mardiana et al. (2018).

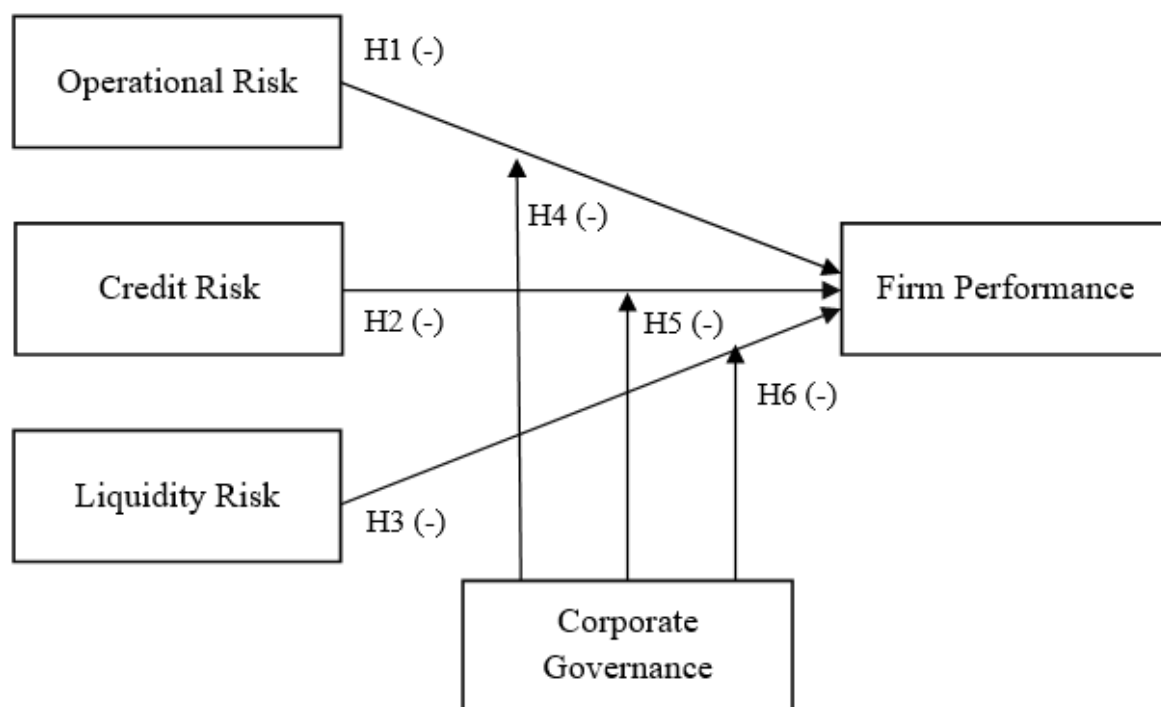


Figure 1. Conceptual Framework

Table 1. Variable Operationalization

Variable	Formula	Reference
Dependent Variable		
Firm Performance	$FPERF = \frac{(Earningst - Earnings_{t-1})}{Book\ Value\ of\ Assets}$	Ko et al. (2019)
Independent Variabel		
Operational Risk	$OPRISK = Ln (Operating\ Loss)$	Eckert et al. (2020) Ko et al. (2019)
Credit Risk	<i>Altman Z-Score:</i> $CRISK = 1.2X_1 + 1.4X_2 + 3.3X_3 + 0.6X_4 + + 0.99X_5$	Hunjra et al. (2022) Mushafiq et al. (2021)
Liquidity Risk	$LRISK = \frac{Liquid\ Assets}{Total\ Assets}$	Abbas et al. (2019), Kim & Sohn (2017) Saleh & Afifa (2020)
Moderation Variable		
Corporate Governance	$Foreign\ Ownership\ (FO) = \frac{Foreign\ Ownership}{Total\ Ownership}$	Ko et al. (2019)
Control Variable		
Book to Market Ratio	$BTM = \frac{Book\ Value\ of\ Common\ Equity}{Market\ Capitalization}$	Ko et al. (2019)
Liquidity	$Current\ Ratio\ (CR) = \frac{Current\ Assets}{Current\ Liabilities}$	Mushafiq et al. (2021)
Leverage	$Debt\ to\ Asset\ Ratio\ (DAR) = \frac{Total\ Liabilities}{Total\ Assets}$	Ko et al. (2019)
Firm Size	$SIZE = Ln (Total\ Assets)$	Mushafiq et al. (2021)
Profitability	$Return\ on\ Assets\ (ROA) = \frac{Net\ Income}{Total\ Assets}$	Mushafiq et al. (2021)
COVID-19	Periods of financial statements that are included during the period of COVID-19 (2020-2021) will be given a value of 1, while for periods of financial reports that are not included in the period of COVID-19 (2017-2019) will be given a value of 0.	

Table 2. Descriptive Analysis

Variable	Obs.	Mean	Std. Dev	Min.	Max.
FPERF	240	-0.009	0.1	-0.492	0.403
OPRISK	240	5.635	1.42	-1.027	9.645
CRISK	240	0.305	0.913	-2.422	2.522
LRISK	240	0.346	0.264	0.006	0.999
FO	240	0.114	0.202	0.0001	0.944
OPRISK*FO	240	0.685	1.306	-0.11	7.59
CRISK*FO	240	0.011	0.169	-0.863	0.689
LRISK*FO	240	0.043	0.106	1.46e-06	0.606
BTM	240	0.870	1.2	-4.33	5.216
CR	240	2.867	3.813	0.013	21.218
DAR	240	0.385	0.255	0.035	0.991
SIZE	240	13.754	1.174	11.168	16.176
ROA	240	-0.058	0.11	-0.537	0.44
COVID	240	0.4	0.491	0	1

Table 3. Correlation Analysis

Var.	FPERF	OPRISK	CRISK	LRISK	FO	BTM
FPERF	1.0000					
OPRISK	-0.1666***	1.0000				
CRISK	0.1001	-0.2421***	1.0000			
LRISK	-0.0241	-0.2852***	0.2359***	1.0000		
FO	-0.0436	0.1439**	-0.1277**	0.0749	1.0000	
BTM	0.0063	-0.1792***	0.3655***	0.1764***	-0.1897***	1.0000
CR	0.0627	-0.2847***	0.3159***	0.3856***	-0.1626**	0.1594**
DAR	-0.1106*	0.3403***	-0.2508***	-0.1506**	0.0615	-0.1416**
SIZE	0.0242	0.5401***	0.0287	-0.5551***	0.1729***	-0.0090
ROA	0.5052***	-0.2852***	0.4224***	-0.1390**	-0.0278	0.1782**
COVID	0.0001	-0.0002	-0.1795***	-0.0494	0.0017	-0.0858
Var.	CR	DAR	SIZE	ROA	COVID	
CR	1.0000					
DAR	-0.5484***	1.0000				
SIZE	-0.3056***	0.3002***	1.0000			
ROA	0.1516**	-0.2288***	0.1860***	1.0000		
COVID	-0.0098	-0.0109	-0.0021	-0.0993	1.0000	

***, **, *, significant at the 0.01 (1%), 0.05 (5%), and 0.10 (10%) levels respectively.

Table 4. Regression Result

	1 st Model		2 nd Model	
Number of obs	240		240	
F (13, 226)	10.17		4.02	
Prob > F	0.0000		0.0000	
R-squared	0.2847		0.3346	
Adj R-squared	0.2567		0.2963	
Root MSE	0.0864		0.08404	
	Coeff.	P > t 	Coeff.	P > t
OPRISK	0.0003	0.955		
CRISK	-0.015	0.050**		
LRISK	0.0343	0.232		
_CONS	0.0676	0.467		
FO			0.0602	0.598
OPRISKFO			0.0038	0.842
CRISKFO			0.1173	0.008***
LRISKFO			-0.3249	0.136
_CONS			0.05546	0.569

***, **, *, significant at the 0.01 (1%), 0.05 (5%), and 0.10 (10%) levels respectively.

CONCLUSION AND RECOMENDATION

This research was conducted to fulfill the objective of examining the influence of operational risk, credit risk, and liquidation risk on the performance of companies with corporate governance with foreign ownership proxies as a moderating variable. With research samples coming from 48 companies in the Southeast Asia region including Indonesia, Malaysia, Thailand, and Philippines which are included in the Consumer Durable and Apparel, Consumer Service, and Consumer Staples industry categories at S&P Capital IQ during the 2017-2021 period. Based on the research conducted, it shows that operational risk and liquidity risk have no effect on company performance, credit risk has a negative effect on company performance, corporate governance strengthens the relationship between operational risk and company performance, corporate governance strengthens the relationship between credit risk and company performance, and corporate governance weakens the negative influence of liquidity risk on company performance.

The implications of the research that has been conducted are aimed at companies, it is hoped that this result can help companies to see the importance of risk management and good corporate governance applied to maintain the firm's performance. Because these risks can lead to a pervasive problem in the firm's financial condition. With good corporate governance, companies can overcome the risks by doing risk assessment for the company's operationalization, so they can detect any lack of corporate governance that needs to be improved to maintain their risk management. It also applies for credit risk and liquidity risk, that the company needs to have a proper corporate governance to control about their credit decision making. Moreover, this research is also beneficial for the investors, as knowing the risks, corporate governance and firm performance relationship will make the

investor become more confident in making the investment in the company.

There are several limitations in this study, such as there are many companies in Southeast Asia that are included in the Consumer Durable and Apparel, Consumer Service, and Consumer Staples industries at S&P Capital IQ during the 2017-2021 period which do not meet the research criteria and research data is limited to only companies who bear losses within 5 consecutive years to adjust the research variable proxies used. In addition, the corporate governance moderating variable that uses foreign ownership proxies cannot be considered to describe the actual corporate governance of the company.

REFERENCES

- Abbas, F., Iqbal, S., & Aziz, B. (2019). The impact of bank capital, bank liquidity and credit risk on profitability in postcrisis period: A comparative study of US and Asia. *Cogent Economics and Finance*, 7(1), 1–18. <https://doi.org/10.1080/23322039.2019.1605683>
- Accornero, M., Cascarino, G., Felici, R., Parlapiano, F., & Sorrentino, A. M. (2018). Credit risk in banks' exposures to non-financial firms. *European Financial Management*, 24(5), 775–791. <https://doi.org/10.1111/eufm.12138>
- Adiatmayani, I. A. A., & Panji, I. B. P. (2021). The Effect of Credit Risk and Operational Risk on Profitability With Capital Adequacy Variables As a Mediating Variable: a Study on Indonesian State-Owned Banks for the Period of 2015-2019. *Russian Journal of Agricultural and Socio-Economic Sciences*, 115(7), 14–27. <https://doi.org/10.18551/rjoas.2021-07.02>
- ADO. (2021). *Asian Development Outlook (ADO) 2021 Supplement: Recovery Continues*. December, 11.

- Ali, S., Yousaf, I., & Naveed, M. (2020). Role of credit rating in determining capital structure: Evidence from non-financial sector of Pakistan. *Estudios de Economia Aplicada*, 38(3). <https://doi.org/10.25115/eea.v38i3.3066>
- Al-Yatama, S. K., Ali, M. S. al, Awadhi, K. M. al, & Shamali, N. M. al. (2020). The Effects of Credit Risk , Operational Risk and Liquidity Risk on the Financial Performance of Insurance Companies Listed at Kuwait Stock Exchange. *European Journal of Economic and Financial Research*, 3(6), 182–193. <https://doi.org/10.5281/zenodo.3605378>
- Arayssi, M., & Jizi, M. I. (2019). Does corporate governance spillover firm performance? A study of valuation of MENA companies. *Social Responsibility Journal*, 15(5), 597–620. <https://doi.org/10.1108/SRJ-06-2018-0157>
- Association of Southeast Asian Nations (ASEAN). (2020). Economic Impact of Covid-19 Outbreak on ASEAN. *Association of Southeast Asian Nations (ASEAN)*, 1(April), 1–17. https://asean.org/storage/2020/04/ASEAN-Policy-Brief-April-2020_FINAL.pdf
- Bastomi, M., Salim, U., & Aisjah, S. (2017). The Role of Corporate Governance and Risk Management on Banking Financial Performance in Indonesia. *Jurnal Keuangan Dan Perbankan*, 21(4), 589–599. <https://doi.org/10.26905/jkdp.v21i4.1285>
- Bhagat, S., & Bolton, B. (2019). Corporate governance and firm performance: The sequel. *Journal of Corporate Finance*, 58(November 2018), 142–168. <https://doi.org/10.1016/j.jcorpfin.2019.04.006>
- Chen, Y. K., Shen, C. H., Kao, L., & Yeh, C. Y. (2018). Bank Liquidity Risk and Performance. *Review of Pacific Basin Financial Markets and Policies*, 21(1). <https://doi.org/10.1142/S0219091518500078>
- Devi, S., Warasniasih, N. M. S., & Masdiantini, P. R. (2020). The Impact of COVID-19 Pandemic on the Financial Performance of Firms on the Indonesia Stock Exchange. *Journal of Economics, Business, & Accountancy Ventura*, 23(2). <https://doi.org/10.14414/jebav.v23i2.2313>
- Diallo, O., Fitrijanti, T., & Tanzil, N. D. (2021). Analysis of the influence of liquidity, credit and operational risk, in Indonesian islamic bank's financing for the period 2007-2013. *Gadjah Mada International Journal of Business*, 17(3), 279–294. <https://doi.org/10.22146/gamaijb.8507>
- Eckert, C., Gatzert, N., & Heidinger, D. (2020). Empirically assessing and modeling spillover effects from operational risk events in the insurance industry. *Insurance: Mathematics and Economics*, 93, 72–83. <https://doi.org/10.1016/j.insmatheco.2020.04.003>
- Effiong, S. A., & Ejabu, F. E. (2020). Liquidity Risk Management and Financial Performance: Are Consumer Goods Companies Involved? *International Journal of Recent Technology and Engineering (IJRTE)*, 9(1), 580–589. <https://doi.org/10.35940/ijrte.a1692.059120>
- Erzha, E. L., Sudarma, M., & Rahman, A. F. (2019). Pengaruh Pinjaman dan Modal Intelektual Terhadap Profitabilitas dengan Risiko Kredit sebagai Pemoderasi The Effect of Loan and Intellectual Capital on Profitability with Credit Risk as Moderating. *Jurnal Economia*, 15(2), 159–169.

- Ghenimi, A., Chaibi, H., & Omri, M. A. B. (2017). The effects of liquidity risk and credit risk on bank stability: Evidence from the MENA region. *Borsa Istanbul Review*, 17(4), 238–248. <https://doi.org/10.1016/j.bir.2017.05.002>
- Hunjra, A. I., Mehmood, A., Nguyen, H. P., & Tayachi, T. (2022). Do firm-specific risks affect bank performance? *International Journal of Emerging Markets*, 17(3), 664–682. <https://doi.org/10.1108/IJOEM-04-2020-0329>
- Kim, D., & Sohn, W. (2017). The effect of bank capital on lending: Does liquidity matter? *Journal of Banking and Finance*, 77, 95–107. <https://doi.org/10.1016/j.jbankfin.2017.01.011>
- Ko, C., Lee, P., & Anandarajan, A. (2019). The impact of operational risk incidents and moderating influence of corporate governance on credit risk and firm performance. *International Journal of Accounting and Information Management*, 27(1), 96–110. <https://doi.org/10.1108/IJAIM-05-2017-0070>
- Li, K., Niskanen, J., & Niskanen, M. (2019). Capital structure and firm performance in European SMEs: Does credit risk make a difference? *Managerial Finance*, 45(5), 582–601. <https://doi.org/10.1108/MF-01-2017-0018>
- Madanoglu, M., Kizildag, M., & Ozdemir, O. (2018). Which bundles of corporate governance provisions lead to high firm performance among restaurant firms? *International Journal of Hospitality Management*, 72(April 2017), 98–108. <https://doi.org/10.1016/j.ijhm.2018.01.006>
- Mardiana, Endah, P., & Dianata, A. W. M. (2018). The Effect of Risk Management on Financial Performance with Good Corporate Governance as a Moderation Variable. *Management and Economics Journal E-ISSN:*, 2(3), 9818–9827.
- Mardnly, Z., Mouselli, S., & Riad, A. (2018). International Journal of Islamic and Middle Eastern Finance and Management. *International Journal of Islamic and Middle Eastern Finance and Management*, 11(4), 591–607. <https://doi.org/10.1108/mf.2008.00934jaa.001>
- Maulidar, A., & Majid, M. S. Abd. (2020). Do Good Corporate Governance and Financing Risk Management Matter for Islamic Banks' Performance in Indonesia? *Etikonomi*, 19(2). <https://doi.org/10.15408/etk.v19i2.15080>
- Millar, C. C. J. M., Groth, O., & Mahon, J. F. (2018). Management innovation in a VUCA world: Challenges and recommendations. *California Management Review*, 61(1), 5–14. <https://doi.org/10.1177/0008125618805111>
- Mushafiq, M., Sindhu, M. I., & Sohail, M. K. (2021). Financial performance under influence of credit risk in non-financial firms: evidence from Pakistan. *Journal of Economic and Administrative Sciences*, September. <https://doi.org/10.1108/jeas-02-2021-0018>
- Naciti, V. (2019). Corporate governance and board of directors: The effect of a board composition on firm sustainability performance. *Journal of Cleaner Production*, 237, 117727. <https://doi.org/10.1016/j.jclepro.2019.117727>
- Nuraz, R., Zoraya, I., & Wiard, A. (2020). The Influence of the Mechanism of Good Corporate Governance and Capital Structure on Value of Firm in Banking Sub. *Media Ekonomi Dan Manajemen*, 35(2), 230–242.

- Osuszek, L., & Ledzianowski, J. (2020). Decision support and risk management in business context. *Journal of Decision Systems*, 00(00), 1–12. <https://doi.org/10.1080/12460125.2020.1780781>
- Paniagua, J., Rivelles, R., & Sapena, J. (2018). Corporate governance and financial performance: The role of ownership and board structure. *Journal of Business Research*, 89(February), 229–234. <https://doi.org/10.1016/j.jbusres.2018.01.060>
- Sakai, Y. (2019). *J.M. Keynes Versus F.H. Knight: Risk, Probability, and Uncertainty* (18th ed.). Springer Singapore.
- Saleh, I., & Afifa, M. A. (2020). The effect of credit risk, liquidity risk and bank capital on bank profitability: Evidence from an emerging market. *Cogent Economics and Finance*, 8(1). <https://doi.org/10.1080/23322039.2020.1814509>
- Settembre-Blundo, D., González-Sánchez, R., Medina-Salgado, S., & García-Muiña, F. E. (2021). Flexibility and Resilience in Corporate Decision Making: A New Sustainability-Based Risk Management System in Uncertain Times. *Global Journal of Flexible Systems Management*, 22(December), 107–132. <https://doi.org/10.1007/s40171-021-00277-7>
- Singh, N. P., & Hong, P. C. (2020). Impact of strategic and operational risk management practices on firm performance: An empirical investigation. *European Management Journal*, 38(5), 723–735. <https://doi.org/10.1016/j.emj.2020.03.003>
- Sondakh, J. J., Tulung, J. E., & Karamoy, H. (2021). The effect of third-party funds, credit risk, market risk, and operational risk on profitability in banking. *Journal of Governance and Regulation*, 10(2), 179–185. <https://doi.org/10.22495/jgrv10i2art15>
- Suryaningsih, N. P. R., & Sudirman, I. M. S. N. (2020). The influence of credit risk, liquidity risk, and operational risk on profitability in rural banks in Bali province. *American Journal of Humanities and Social Sciences Research*, 4(3), 258–265. www.ajhssr.com
- Tanjung, M. (2020). A cross-firm analysis of corporate governance compliance and performance in Indonesia. *Managerial Auditing Journal*, 35(5), 621–643. <https://doi.org/10.1108/MAJ-06-2019-2328>
- Tiwari, P., & Suresha, B. (2021). Moderating Role of Project Innovativeness on Project Flexibility, Project Risk, Project Performance, and Business Success in Financial Services. *Global Journal of Flexible Systems Management*, 22(3), 179–196. <https://doi.org/10.1007/s40171-021-00270-0>
- Tsafack, G., & Guo, L. (2021). Foreign shareholding, corporate governance and firm performance: Evidence from Chinese companies. *Journal of Behavioral and Experimental Finance*, 31, 100516. <https://doi.org/10.1016/j.jbef.2021.10.0516>
- Wang, Y., Abbasi, K., Babajide, B., & Yekini, K. C. (2020). Corporate governance mechanisms and firm performance: evidence from the emerging market following the revised CG code. *Corporate Governance (Bingley)*, 20(1), 158–174. <https://doi.org/10.1108/CG-07-2018-0244>
- Yu, A., Shao, Y., You, J., Wu, M., & Xu, T. (2019). Estimations of operational efficiencies and potential income gains considering the credit risk for China's banks. *Journal of the Operational Research Society*, 70(12), 2153–2168.

<https://doi.org/10.1080/01605682.2018.1510808>

Zachosova, N., & Koval, O. (2022).
Strategic Management in Ensuring
Economic Security in the Digital
Economy and the Vuca World. *MEST
Journal*, 10(2), 217–224.
<https://doi.org/10.12709/mest.10.10.02.21>