

# Investigating Risk Management Toward Sustainable Performance: Evidence from Emerging Market

Amiril Azizah<sup>1\*</sup>, Wayan Edi Arsawan<sup>2</sup> and Ahyar M Diah<sup>2</sup>

<sup>1</sup>*Business Administration, Polytechnic State of Samarinda, Samarinda, Indonesia*

<sup>2</sup>*Business Administration, Polytechnic State of Bali, Bali, Indonesia*

## ABSTRACT

The Covid-19 turbulence challenges organizations to build sustainable performance. However, research linking risk management and sustainable performance has not been explored in the literature. The study examined how risk management helps firms handle this unexpected situation and maintain performance especially in Covid-19 turbulence. The study surveyed pandemic risk management-implementing enterprises across industries using multiple regression analysis. This study revealed that risk-management companies perform better, include proactive risk assessment, contingency planning, and financial and operational resilience. Further, risk management did not significantly affect company performance during Covid-19. The current study suggests that risk management may boost performance but not solve pandemic issues. Understanding the intricate relationship between risk management and crisis-related organizational performance requires more investigation.

**Keywords:** Firm Performance, Risk Management Disclosure, Leverage, Company Size, Board of Directors Size

---

## ARTICLE INFO

### Article History:

*Received: 30 October 2023*

*Accepted: 02 February 2024*

*Available online: 01 April 2024*

---

\* Corresponding Author: Amiril Azizah; Business Administration, Polytechnic State of Samarinda, Samarinda, Indonesia; Email: accpolnes@gmail.com; Tel: +6281349379962

## INTRODUCTION

The COVID-19 pandemic has prompted significant transformations within the realm of business. The current pandemic poses a dual threat to both public health and global economic stability. Numerous multinational corporations across the globe are currently confronted with unparalleled difficulties that necessitate prompt and effective resolution (Vadasi et al., 2020). In the present scenario, the significance of risk management has escalated as a crucial determinant of organizational performance and viability. The objective of this study was to examine the influence of risk management on organizational performance in the context of the COVID-19 pandemic.

The COVID-19 pandemic has presented numerous challenges for businesses (Abdullah Al-Dubai & M Abdelhalim, 2021). The COVID-19 pandemic has led to a decline in demand, interruptions in supply chains, a fall in revenues, and a notable level of economic instability. Organizations spanning several industries are currently confronted with the imperative to address these difficulties and sustain their operating capabilities (Saeidi et al., 2021). In the present setting, the implementation of efficient risk management practices plays a crucial role in the identification, anticipation, and mitigation of risks that emerge as a result of the ongoing epidemic. The current global pandemic has resulted in the emergence of a multitude of dangers that organizations are compelled to confront. Several significant risks can be identified, namely economic instability, weaknesses in the supply chain, shifts in customer behavior, escalated operational expenses, and potential threats to staff health and safety (Eckert, 2017). The practice of effective risk management entails the identification and evaluation of potential hazards, followed by the formulation of suitable measures to mitigate them.

Effective risk management plays a vital role in enabling firms to make informed and prudent strategic choices when confronted with a crisis (Kamalul Ariffin et al., 2018). Within the framework of the COVID-19 pandemic, it is imperative for enterprises to engage in scenario analysis, stress testing, and contingency planning in order to foresee a range of potential outcomes and devise proactive strategies. Strategic decisions have the potential to mitigate losses and capitalize on emerging opportunities that manifest in times of crisis. The maintenance of financial resilience

and continuity of firm operations during a crisis is heavily reliant on the implementation of effective risk management strategies (Abdul Khalik & Md. Sum, 2020). Companies that have adopted risk management methods, such as the diversification of income streams, the maintenance of sufficient cash reserves, and the implementation of cost-saving measures, are more likely to possess the capacity to withstand the financial disruption resulting from the pandemic (Eckert, 2017). Moreover, the use of risk management techniques, such as the utilization of insurance and hedging strategies, can serve as a means of safeguarding financial assets in the face of unforeseen circumstances (Malik et al., 2020).

The implementation of effective risk management strategies is crucial for firms as it enables them to uphold stakeholder trust and safeguard their brand, particularly in times of crisis (Bai & Ho, 2022). By promptly addressing potential hazards and developing clear communication strategies, organizations can effectively showcase their dedication to the welfare of their employees, customers, and the broader society. The establishment of trust and enhancement of a company's reputation might yield favorable consequences for its long-term performance (Crovini et al., 2022). Against the aforementioned context, it becomes evident that risk management assumes a significant function in ascertaining organizational performance amidst the COVID-19 epidemic. The implementation of efficient risk management practices empowers organizations to identify potential risks, make informed strategic choices, uphold financial stability, guarantee uninterrupted operations, and preserve the trust of stakeholders (A Khatib & Ibrahim Nour, 2021). Organizations that have effectively adopted robust risk management methods are more inclined to navigate the crisis with resilience and emerge in a strengthened state during the post-pandemic era.

## LITERATURE REVIEW

### Agency Theory

A contract exists between capital management (agent) and capital owner (principal) in a corporation, according to the Agency Theory. Each faction will pursue its own objectives. While the agent focuses on his health in administering the business, capital owners will be concerned with his

desire to enter the business for himself (Vargas-Hernández and Teodoro Cruz, 2018). To get what he desires, the agent may engage in conduct that is detrimental to the business, such as making false statements or committing fraud. This is owing to the moral hazard presented by self-agents (Zogning, 2017).

According to some studies, an agency relationship is a contractual partnership in which one or more principals choose another party (the agent) to act on their behalf and give the agent discretion over certain matters (Kultys, 2016). Even if a corporation's primary objective is to maximize the welfare of its capital proprietors, agency problems can arise as a result of an agency relationship. In such a circumstance, the agent will seek to maximize his or her own interests while disregarding those of the principal. Thus, exercising control over the agent's actions necessitates some form of control (Panda and Leepsa, 2017).

The Agency Theory is widely recognized as the primary theoretical framework in the field of business, specifically addressing the separation of ownership and management. This theoretical perspective highlights the existence of conflicts, sometimes referred to as "agency problems", that arise due to divergent interests between managers and shareholders (Saeidi et al., 2021). The issues represent financial burdens for a firm, implemented with the intention of fostering optimal performance among managers. It is imperative to closely oversee and mitigate these challenges to safeguard the company from potential insolvency. The Theory provides managers with a significant degree of discretion, enabling them to utilize surplus funds and obtain greater returns for their own constituents (Naseem et al., 2020). The examination of this relationship is crucial, with a focus on the potential for managing and mitigating concerns that may result in adverse circumstances for the organization and the potential displacement of management (Callahan & Soileau, 2017). An effective monitoring system is necessary to ensure equitable dissemination of information to shareholders, enabling them to monitor performance appropriately and mitigate agency conflicts. If the occurrence of fraud was observed in the financial report, one potential course of action that might be pursued involves the implementation of disclosures that are deemed significant in promoting the achievement of effective corporate governance.

The notion of the Agency Theory is employed to examine the dynamic between owners, referred to as principals, and agents, known as managers, within an organization. This theoretical framework elucidates the way conflicts of interest arising between owners and managers can exert an influence on the activities undertaken by managers. Additionally, it explores how owners can effectively provide incentives that align the behavior of managers with the best interests of the organization. The correlation between the Agency Theory and risk management can be elucidated as follows: The concept of risk control is underscored by the Theory, which places significant emphasis on the role of owners in effectively managing and regulating the behavior of managers. Within the realm of risk management, it is imperative for owners to ascertain that managers refrain from undertaking risks that do not align with the best interests of the organization. One potential strategy for mitigating this risk involves the implementation of a robust risk management framework.

The utilization of incentives and remuneration is emphasized in the Agency Theory as a means to motivate managers to act in alignment with the company's objectives. Under the field of risk management, it is possible for owners to devise incentive systems that encompass the attainment of specific risk management objectives. These objectives may involve the minimization of risk or the maximization of profits under conditions when risk is well managed. The concept of responsibility is emphasized by the Agency Theory, which underscores the significance of transparency and accountability within the owner-manager relationship. In the context of risk management, it is imperative for managers to assume responsibility for their risk management choices, while owners must possess adequate access to information pertaining to the risks confronting the organization.

The evaluation of performance is an integral component of the Agency Theory, encompassing the assessment of managerial effectiveness. In the context of risk management, it is imperative for owners to possess the capability to assess the degree of managerial effectiveness in mitigating organizational risks. The utilization of suitable risk performance metrics and measures is of utmost importance in this context. The phenomenon of strategic change can be elucidated by the Agency Theory, which offers insights into how owners can effectively guide managers in undertaking suitable risks during the process of implementing strategic changes

inside a company. This encompasses scenarios wherein a corporation necessitates altering its business model or undertaking a more expansive business prospect. The Theory offers a valuable conceptual framework for comprehending the collaborative efforts between owners and management in effectively mitigating company risk. The implementation of suitable incentives and controls is crucial to attain effective risk management objectives, thereby enhancing both the performance and stability of the firm.

## **Corporate Governance**

Corporate governance is a system that directs and governs a company (Vargas-Hernández & Teodoro Cruz, 2018). The board of directors oversees the operation of the company. The board of directors sets the company's strategic goals, provides the direction necessary to attain them, oversees management, and reports to shareholders (Nasution, 2019). The decisions of the council are governed by laws, rules, and regulations, as well as the ballots of shareholders at the annual general meeting (Azizah, 2020).

## **Risk Management**

In an effort to increase the business's value, the corporation was established with the goal of enhancing owner and shareholder prosperity. For a corporation to have a certain amount of firm value, the operations of the preceding company must have generated a certain amount of public trust. Achieving growth in the company's value is a success for the business and aligns with the objectives of the owner or investor, as it will better their standard of living. Risk management is an essential topic for the business. Risk management is an indication of a company's openness, which will influence investors' decisions and improve business performance (Azizah, 2022). Good company value is one of the factors considered by investors, including those in the financial industry, when deciding to invest in a company. Therefore, proprietors and shareholders want banks, one of Indonesia's financial institutions, to consistently perform well so as to increase the company's value. If businesses want to perform better, they must be able to assess prospective risks. Risk management implementation is one option.

All potential threats to a bank's day-to-day operations must be identified, measured, monitored, and controlled, which is what risk management is all about (Butt, 2022). The term "risk management" refers to the steps used to locate, assess, and eliminate a potential threat. It's both a continuing procedure and a useful tool for making choices (Fan and Stevenson, 2018).

## **Board of Directors**

Businesses' internal mechanisms depend heavily on the board of directors, which takes significant decisions on the company's behalf. There are multiple, sometimes contradictory, theoretical justifications for the impact of large and small board sizes on corporate performance (Merendino and Melville, 2019). In corporations, the board of directors is recognized as an essential internal mechanism and a crucial decision-making body, acting on behalf of shareholders (Clampit, 2021). It is viewed as a structure to limit the impact of problems with agencies between owners and management (Ismanu, 2021). There are several theoretical justifications for the impact of both big and small board sizes on corporate performance, some of which conflict with one another.

## **Leverage**

Leverage is a metric that measures the amount of money debtors receive from shareholders or the amount of debt a company uses (Kao et al., 2019). As a company's total leverage rises, it will disclose more information regarding risk management. This is because the greater a company's debt, the greater its risk. When debt levels are low, increases in leverage are followed by improvements in firm performance, as measured by Tobin's Q (Størdal, 2021). There is no evidence that high levels of leverage effect the success of a company (Ramos Meza, 2021) . When a company is sold, its scale is determined by the price at which buyers are willing to purchase it. The value of the company may be reflected in its assets, such as securities (Settembre-Blundo, 2021). The market will have faith in both the company's current performance and its future potential due to its high market value (Bhatt and Bhatt, 2017). Firm Performance is the evaluation and assessment of company performance. The financial stability of a business is described by its performance (Bhagat and Bolton, 2019).

## **Firm Performance**

Investors use a company's success as a gauge of their interest when deciding where to invest. The company's performance indicates that its objectives were met promptly and efficiently (Naseem et al., 2020). Quality enhancement and company quality enhancement are inextricably linked to enhanced business performance (Ibhagui and Olokoyo, 2018). Operational and market performance are indicators of a company's ability to achieve excellent performance. Operational performance is a measure of a company's profitability and resource management (Bennouri, 2018). Investors are expected to use financial reports as a basis for evaluating a company's finances in order to evaluate its performance (Brahma, 2021). Strong financial performance encourages shareholders to purchase a company's stock (Mardnly, 2018). Performance refers to a company's success in attaining its previously defined objectives (Fariha, 2022).

## **HYPOTHESIS DEVELOPMENT**

### **Risk Management Disclosure on Firm Performance**

Examining risk disclosure methods can be complicated by the definition of risk, as different risk definitions can result in different perceptions and forms of risk being reported (Abdullah Al-Dubai & M Abdelhalim, 2021). In earlier publications, diverse perspectives on the definition of risk disclosure and the risk concept have been described (Anton, 2018). In order to attain transparency and credibility in reporting, it is necessary to assess the company's exposure to risk and any potential negative effects such risks may have on financial performance (Rezaee, 2017). Risk information plays a crucial dual function in assisting businesses in managing threats and uncertainties and reducing their cost of capital, while also assisting investors in evaluating a company's risk profile, market value, and the precision of security price projections. (Habtoor, 2018). According to (Laisasikorn and Rompho, 2014), the correlation between the efficacy of the risk management system and the performance evaluation system is weakly positive. There is abundant evidence that risk management procedures and business performance are correlated significantly. The correlation between enhanced operational performance and the level of

maturity of risk management procedures was confirmed by (Jia & Bradbury, 2021). Prior research conducted by (Capelli, 2021) has shown a correlation between risk management disclosure and company performance, but this does not rule out the possibility that risk management disclosure may also have a negative impact on the company on occasion. Consequently, the researchers developed the following hypothesis:

*H1: Risk Management Disclosure has a negative effect on company Performance.*

### **Number of Directors and Firm Performance**

Companies in Indonesia also have a board of managers, which serves a similar purpose to an audit committee in other legal systems. These watchdogs have the power to investigate and supervise the actions of the board of directors, audit the organization's financial records, and keep a close eye on the business at all times. Contrary to popular belief, independent directors do not have the same power as independent supervisors, as stated in the Company Act. Listed Indonesian companies with a two-tiered board structure have not been the subject of extensive study. We expect organizations with a two-tier board structure to outperform those with a single-tier board structure because, like independent directors, supervisors play a critical role in overseeing the company (Yendrawati, 2023). The board of directors is seen as a mechanism for reducing shareholder and management power struggles (Kao et al., 2019). The research undertaken by (Abdullah AlSaif et al., 2022), showed that there is an inverse relationship between board size and firm performance. However, it is worth noting that board meetings have a major positive impact on firm performance, as evidenced by statistical analysis. To further the conversation, the researchers proposed the following hypothesis:

*H2: The number of Directors has no bearing on the performance of the company.*

### **Leverage on Firm Performance**

Our literature evaluation centered on previous research that has attempted to empirically assess the connection between leverage and

business performance. The connection between leverage and company success has been the subject of numerous empirical research. The findings from these probes are, at best, erratic. Findings from Iqbal & Usman, (2018) suggested that financial leverage had a negative or substantial impact on a company's performance. Nonetheless, Tripathy and Shaik (2019) stated that even while there is evidence to suggest that leverage improves business outcomes, this doesn't rule out the possibility that it has no effect at all. As a result, the researchers proposed the following hypothesis:

*H3: The impact of leverage on business performance is negligible.*

The COVID-19 pandemic has hampered enterprises globally. Risk management has become vital to firms' profitability and survival during this extraordinary crisis. This literature review summarizes research on risk management and company performance during the COVID-19 pandemic.

**Risk Identification and Assessment:** Effective risk management entails detecting and assessing crisis risks. Studies have shown the necessity of companies identifying and analyzing pandemic risks such supply chain disruptions, financial instability, and customer behavior changes. Recognizing hazards early lets firms build proactive mitigation techniques.

**Strategic Decision Making:** Research reveals that organizations with strong risk management practices can make effective strategic decisions during uncertainty. Companies can predict crisis outcomes and establish crisis management plans through scenario analyses, stress testing, and contingency planning. This proactive approach helps organizations reduce losses and grasp opportunities.

Risk management is essential to financial resiliency during crises. Risk management practices including diversifying revenue streams, preserving cash reserves, and minimizing costs help companies weather pandemic financial shocks. Risk management measures like insurance and hedging can also safeguard against unexpected events.

**Operational Continuity:** COVID-19 has interrupted operations across industry. Companies with strong risk management policies are more likely to retain operations. This covers remote employment, cybersecurity, and

alternate supply chain networks. These methods help organizations adjust swiftly and avoid operational disruptions.

**Stakeholder Credibility:** Companies may sustain stakeholder trust and reputation amid crises with good risk management. Companies can show their concern for employees, customers, and the community by swiftly addressing hazards and communicating openly. This builds trust and improves the company's reputation, which can boost performance.

Risk management was crucial to firms' success during the COVID-19 epidemic, according to the research. Effective risk management helps firms identify and assess risks, make strategic decisions, maintain financial resilience, operational continuity, and stakeholder confidence. Companies with good risk management procedures are more likely to survive the pandemic and recover.

## METHODOLOGY

### Research Design

This study utilized secondary data sourced from companies that were listed on the Indonesia Stock Exchange between the years 2019 and 2022, with a particular focus on the period coinciding with the Covid-19 pandemic. The sample was chosen via purposive sampling, specifically targeting enterprises that consistently and comprehensively provide annual financial reports. According to the established criteria, a total of 99 enterprises were acquired, comprising 32 entities operating in the financial sector and 67 entities operating in non-financial sectors. The relationship between ERM and corporate performance was analyzed through an examination of 396 sample of financial report Indonesian firms from the finance and non-finance sectors. In this investigation, an associative causal study design was utilized. Panel data regression is a statistical method employed in data analysis, whereby Stata, a software program, is utilized for processing. The provided model is an econometric model.

$$FV_{it} = \alpha + \beta_1 RD_{it} + \beta_2 BOD_{it} + \beta_3 LEV_{it} + \beta_4 SIZE_{it} + \beta_5 IND_{it} + U_{it}$$

The variable FV denotes firm performance measures such as Tobin’s Q. RD refers to Risk Management Disclosure, whereas LEV reflects for the Leverage. BOD denotes the numerical representation Number of Board Directors. In this study, the variable “SIZE” represents the business size measured by the logarithm of assets. The variable “IND” is a binary indicator that categorizes companies into two sectors: finance and non-finance. Lastly, the variable “U” denotes term error.

**The following table presents an overview of the samples collected by the researchers**

**Table 1: Sample Details**

Sample Details	Total Sample
Finance and Non-Finance Company	450
(-) Incomplete financial reports	(30)
(-) There is no risk management	(20)
(-) Inactive company	(4)

As shown in Table 1, the data was to be collected from 450 companies listed on the Indonesian Stock exchange. However, a total of 30 organizations were excluded from the research sample due to their non-compliance with the criteria of displaying RMD. Multiple regression analysis was employed to assess the association between a single dependent variable, representing the variable of interest for prediction, and two or more independent variables, which served as predictors for the dependent variable. The primary objective of doing multiple regression analysis was to ascertain the extent of influence exerted by the independent variable on the dependent variable, while also examining the nature of the interaction between these two variables (Stanley & Jarrell, 2005) . Multiple regression models employ intricate mathematical equations to assess the way many variables interact with one another. Multiple regression analysis is a statistical technique that seeks to determine the optimal linear equation for predicting the dependent variable by using a combination of independent variables (Stanley & Jarrell, 2005). The equation under consideration incorporates a coefficient that quantifies the magnitude of the impact exerted by the independent variable on the dependent variable. Furthermore, when doing multiple regression analysis, it is crucial to give due consideration to the significance testing of coefficients and the subsequent interpretation of the obtained results. This procedure is conducted to ascertain the extent to which the independent

variable exerts a substantial impact on the dependent variable (Beale et al., 2010). Hence, the utilization of basic multiple regression analysis was employed to investigate the interplay between the dependent variable and several independent variables.

In this study, a multiple regression model was employed to examine the relationship between the dependent variable “firm performance” and the independent variables “leverage” (measured by the debt ratio), “board of directors” (represented by the composition and characteristics of the board of directors), and “company size” (measured by the size of the company). The multiple regression equation can be utilized to analyze this relationship. The equation for firm performance can be represented as follows in an academic context: Firm Performance =  $\beta_0 + \beta_1 * \text{Leverage} + \beta_2 * \text{Board of Directors} + \beta_3 * \text{Company Size} + \varepsilon$ .

The given equation consists of several components. Firstly,  $\beta_0$  is a constant term, commonly referred to as the intercept. Secondly,  $\beta_1$ ,  $\beta_2$ , and  $\beta_3$  are regression coefficients that quantify the extent of impact exerted by each independent variable on the dependent variable, which in this case is firm performance. Lastly,  $\varepsilon$  denotes the random error component. During the step of multiple regression analysis, numerical estimates of the regression coefficients ( $\beta_0$ ,  $\beta_1$ ,  $\beta_2$ , and  $\beta_3$ ) will be obtained using empirical data. The task at hand can be accomplished using the OLS (ordinary least squares) technique or alternative regression estimation methodologies.

Once the estimated regression coefficients have been obtained, the subsequent step involves assessing the statistical significance of each coefficient. The statistical analysis can be conducted using either the t-test or the F-test. This significant test aids in ascertaining the statistical significance of the independent factors, namely leverage, board of directors, and company size, on the dependent variable, firm performance.

In addition, it is crucial to consider the R-squared value, also known as the coefficient of determination, while evaluating the regression model. The coefficient of determination, commonly referred to as R-squared, quantifies the proportion of variability in the dependent variable that can be accounted for by the independent variables included in the regression model. A higher R-squared value indicates a stronger ability of the regression model to account for the variances observed in firm performance.

## Measurement of The Variable

In the investigation, the dependent variable was risk management. In addition, the F-score was employed to assess the correlation between risk management and firm performance. The accompanying Table details the units of measurement.

**Table 2: Research Operations**

Variable	Variable measurement	Scale
Risk Management Disclosure	The number of items disclosed: The maximum total of items disclosed	Ratio
Tobin's Q	Total Market Value: Total Asset Value	Ratio
Leverage	total Amount of debt: Total Assets	Ratio
Board of Director	Total members of the board of commissioners	Ratio
Company Size	Total Assets	Ratio

## RESULTS AND DISCUSSION

### Results

The results as presented in Table 3 indicated that risk disclosure (RD) received the highest VIF score of 1.13, while 1/VIF is 0.887054. The leverage whose VIF value was 1.01 and whose 1/VIF value was 0.986051 had the lowest value. The Board of Directors had a set VIF at 1.08, and 1/VIF was 0.922734, and for Company Size, the VIF and 1/VIF values were 1.07 and 0.937208.

**Table 3: Data Variables**

Variable	VIF	1/VIF
RD	1.13	0.887054
BOD	1.08	0.922734
SIZE	1.07	0.937208
LEV	1.01	0.986051
IND	1.00	0.997855

Table 4 displays the descriptive statistics for the dependent, independent, and control variables utilized in this study. The range of TQ scores was from 0.0035 to 19.6208, with a mean of 2.091946.

**Table 4: Data Statistic (n=396)**

Variables	Min	Mean	Max	Std. Deviation
TQ	.0035	2.091946	19.6208	2.73035
RD	.15	.1791919	.22	.0161435
BOD	1	3.313131	6	1.144245
SIZE	2.43297	3.858403	5.4192	.6659371
LEV	0.527	.6732162	1.15296	.2057372
IND	0	.6767677	1	.4683022

The results of the Model Regression Analysis for the effect of risk management on firm performance are presented in Table 5.

**Table 5: Model Regression**

	Coef.	Std.Err	z	P>z
RD	-13.05396	13.34032	-0.98	0.328
BOD	-.015268	.1434853	-0.11	0.915
SIZE	.2392972	.212219	1.13	0.259
LEV	.4969456	.6400879	0.78	0.438
IND	2.004911	.4671702	0.000	1.089274

As shown in Table 5, all variables had insignificant effects on firm performance. Before performing the statistical analysis, a diagnostic test was conducted to identify the heteroscedasticity problem. The robustness standard error was also applied to the heteroscedasticity issue. A model fitness test known as the Hausman test was also conducted, and the results indicated that the model with random effects more closely matched the hypothesis.

### Test of Robustness

**Table 6: Pooled Test**

Variable	Pooled Effect			
	Coef	Std.Err	t	P>t
RD	0		(omitted)	
BOD	-.1902302	.1968584	-0.97	0.335
SIZE	.2508579	.2482586	1.01	0.313
LEV	-.1066623	.7424183	-0.14	0.886
IND	0		(omitted)	

**Table 7: Fixed Test**

Variable	Fixed Effect			
	Coef	Std.Err	t	P>t
RD	0		(Omitted)	
BOD	-.1902302	.2767236	-0.69	0.493
SIZE	.2508579	.2395004	1.05	0.297
LEV	-.1066623	1.006811	-0.11	0.916
IND	0		(Omitted)	

This study examined the dependability of random-effects (RE) results using aggregated OLS and fixed effects. Tables 6 and 7 present the results. On the basis of the study’s findings, it was determined that all hypotheses were supported. Hanafi Idris (2022) had shown that Tobin’s Q is preferable because it assesses the future value of investments and their impact on growth prospects. This study’s random effect (RE) estimation revealed that the variables disclosure of risks (RD), leverage (LEV), number of board members (BOD), firm size (SIZE), and industry sector (IND) were not statistically significant. The random effect (RE) outcomes, which were validated by pooled OLS, are shown in Table 6 and the fixed effect (FE) outcomes are shown in Table 7.

**Discussion**

The findings of this study indicated that there were no statistically significant disparities observed in the relationship between the adoption of risk management practices and organizational performance during the COVID-19 crisis. However, it is crucial to provide an explanation for certain aspects pertaining to these findings. Sample Size and Data Variability: This study faced constraints in terms of sample size limitations or substantial fluctuations in the acquired data. The aforementioned factor had the potential to impact our capacity to identify substantial disparities among the variables under investigation. Further investigation using bigger sample sizes or employing more stringent measurement techniques could potentially yield more definitive findings.

Context and External Factors: The success of companies during the COVID-19 epidemic is subject to the influence of diverse external factors, including alterations in market demand, governmental regulations, and overall economic uncertainty. This study acknowledges the potential

presence of uncontrolled or incompletely assessed variables, which may exert an influence on the outcomes of the research.

**Interpretation and Implications:** Despite the absence of statistical significance, it remains crucial to approach the interpretation of the study's findings in an objective manner. The application of effective risk management practices continues to be pertinent in addressing the adversities encountered by organizations within periods of turmoil. Despite the lack of compelling evidence in this study, it is crucial to prioritize the identification, measurement, and management of risks as integral measures for ensuring the long-term viability of an organization. In summary, despite the absence of statistically significant findings in this study, it is imperative to persist in doing research and enhancing our comprehension of the correlation between risk management and organizational performance within the COVID-19 crisis. By adopting this approach, we may enhance our ability to confront forthcoming issues and formulate more efficient methodologies for mitigating risk.

During the Covid-19 pandemic, various countries including Indonesia experienced economic uncertainty. Companies that had high levels of debt faced greater pressure. When revenues decrease or liquidity becomes limited, highly leveraged companies will have difficulty meeting financial obligations, such as paying interest on debt or obtaining additional funding. This can disrupt the company's performance thus, leverage did not have a significant effect on company performance. In addition, an increase in interest rates and a tighter monetary policy will result in a reduction in company profits therefore it will not have a positive effect on company performance. This finding was also supported by a previous study which stated that risk management did not have a positive influence on firm performance (Jia & Bradbury, 2021). In addition, the findings of this study contradict the findings of research conducted by (Florio & Leoni, 2017), which indicated that risk management positively impacts firm performance. During periods of peak demand, the availability of human resources becomes constrained, and it becomes imperative to utilize them effectively through the integration of various strategies aimed at enhancing firm performance (Clampit, 2021). In order to navigate the crisis successfully, organizations must employ more efficient strategies to leverage their current ties and mitigate the impact of unforeseen disruptions (Sri Sumardani & Sri Handayani, 2019).

Moreover, during the Covid-19 pandemic, companies faced unexpected challenges such as operational financing that was different from previous conditions, business strategies that had to be changed to adjust to conditions or maintain liquidity, this would be a limitation in dealing with rapid market changes. Furthermore, the existence of market uncertainty during the Covid-19 period created uncertainty and volatility on the stock market. This reduces investor interest thereby driving a decline in share prices, this becomes an influence on company performance which is limited to capital.

Risk disclosure is the company's transparency in providing information on matters that are being challenged by the company. The results of the hypothesis were rejected, risk disclosure did not affect company performance. Disclosure of risk is an important step to provide clear and transparent information about the risks faced by the company. However, such disclosure does not reduce the risk. Disclosure only serves as a tool to provide a better understanding of existing risks and assist stakeholders in making more informed decisions. This is important for building trust and maintaining transparency, especially during a time of pandemic full of uncertainty. However, a company's performance is affected by many factors, including management strategy, business adaptation, liquidity, and overall market conditions. Risk disclosure, although important, is only one aspect of a company's overall efforts to manage risk and maintain good performance. The findings of this study indicated that the disclosure of risk management did not yield a favorable influence on the performance of companies. These results align with the research conducted by Abdullah AlSaif et al., (2022) which similarly found no substantiating evidence linking risk disclosure and risk management disclosure to company performance.

Based on the results as shown in Table 7, the Board of Directors had no significant effect on improving company performance. The Board of Directors is responsible for providing strategic direction and oversight of the company's activities. However, they have limited control over external factors resulting from the Covid-19 pandemicsuch as market fluctuations, changes in consumer demand, or government policies. The company's performance during the pandemic was greatly influenced by these external factors which were beyond the direct control of the Board of Directors. Moreover, the Board of Directors is responsible for setting the company's strategy. However, strategy execution and day-to-day

operational management is more dependent on the executive management and management team of the company. The company's performance during the pandemic was greatly influenced by the decisions and actions taken by the management team who are directly responsible for the company's operations. The Covid-19 pandemic had caused rapid and complex changes in various aspects of business in Indonesia.

This declaration provides backing for the findings of a study conducted by Shen, (2020), which unveiled that the Covid-19 epidemic has had significant impacts on corporate operations. As a result, the inventory turnover exhibited a relatively low level, aligning with the findings of Bartik, (2020), which demonstrated the substantial influence of the COVID-19 epidemic on retail enterprises. The company saw a sustained decrease in revenue, leading to a comparatively low rate of inventory turnover. Hence, it should be noted that a company's ability to meet its maturing debts cannot be only ensured by its high liquidity (Tewari & Ramanlal, 2022). The influence of liquidity on business performance exhibits variability contingent upon the specific liquidity calculation employed and the unique characteristics of the company in question (Perwitasari, 2022)

The Board of Directors is faced with new challenges in managing the company during constant uncertainty and change. While they can provide strategic guidance and oversee implementation, the challenges of a pandemic require a rapid, adaptive, and collaborative response from across a company's management team (Sanan, 2019). Furthermore, the Board of Directors tends to have a long-term focus and is responsible for maintaining the company's sustainability. In a rapidly developing pandemic situation, they must compromise long-term plans with tactical decisions that must be made to maintain the company's business continuity (Kao et al., 2019). This can affect the company's performance in the short term but does not always reflect long-term performance.

## **CONCLUSION**

In the present study, despite the absence of statistically significant findings, it is possible to draw the following conclusions: In the context of the COVID-19 pandemic, the impact of risk management implementation

on firm performance was not shown to be statistically significant. This observation suggested that other variables may exert a more influential impact on the financial performance of companies within this crisis.

Despite lacking statistical significance, the relevance of risk management persisted in addressing the issues encountered by companies throughout the epidemic. The identification, measurement, and management of risks continue to be a crucial undertaking in order to uphold the sustainability and resilience of companies. The findings of this study suggested the necessity for more research to have a comprehensive understanding of additional variables that might exert a more substantial impact on organizational performance during the COVID-19 crisis. Future study endeavors may encompass the inclusion of supplementary factors or the exploration of more specific scenarios in order to acquire a more all-encompassing comprehension of the correlation between risk management and company success.

Despite the absence of noteworthy findings in the present study, it is imperative to persist in conducting research endeavors and enhancing our comprehension of this subject matter. By adopting this approach, we may enhance our ability to confront forthcoming issues and formulate more efficient methodologies for mitigating risk. The research on risk management within the framework of the COVID-19 pandemic has made a substantial impact on the performance of companies. The contributions encompass enhanced identification of risks associated with the pandemic, heightened levels of informed decision-making, adjustments to business strategies, improved operational efficiency, bolstered financial stability, enhanced reputation, identification of novel business opportunities, and proactive preparation for long-term sustainability.

Risk management research enables firms to effectively navigate the hurdles encountered within the pandemic. They possess an enhanced ability to anticipate potential dangers and implement efficient strategies to mitigate them. This study also aids organizations in enhancing decision-making processes through the utilization of existing data and analysis. Organizations have the capacity to promptly adapt their business plans, enhance operational effectiveness, uphold financial stability, and cultivate a more favorable reputation. Furthermore, this study aids organizations in

recognizing novel business prospects that have arisen amongst the epidemic and equipping them for forthcoming challenges. In general, the field of risk management research has significantly contributed to assisting organizations in addressing the various problems posed by the COVID-19 pandemic and enhancing their capacity to endure and prosper in adverse conditions.

## REFERENCE

- Abdul Khalik, Z., & Md. Sum, R. (2020). Enterprise Risk Management (ERM) Behaviour Matrix: Mapping ERM Implementations of Non-Financial Public Listed Companies in Malaysia. *Journal of Advanced Research in Business and Management Studies*, 19(1), 42–59. <https://doi.org/10.37934/arbms.19.1.4259>
- Abdullah Al-Dubai, S. A., & M Abdelhalim, A. M. (2021). The Relationship between Risk Disclosure and Firm Performance: Empirical Evidence from Saudi Arabia\*. *Journal of Asian Finance*, 8(6), 255–0266. <https://doi.org/10.13106/jafeb.2021.vol8.no6.0255>
- Abdullah AlSaif, A. S., AlRuwaishd, S. S. S., & Samontaray, D. P. (2022). Do the Board Characteristics influence the Firm Performance? An Experience with the Capital-Intensive Industries Listed in the Saudi Stock Exchange (TADAWUL). *International Business Research*, 15(9), 62. <https://doi.org/10.5539/ibr.v15n9p62>
- A Khatib, S. F., & Ibrahim NOUR, A.-N. (2021). *The Impact of Corporate Governance on Firm Performance During The COVID-19 Pandemic: Evidence from Malaysia*. <https://ssrn.com/abstract=3762393>
- Anton, S. G. (2018). The impact of enterprise risk management on firm value: Empirical evidence from romanian non-financial firms. *Engineering Economics*, 29(2), 151–157. <https://doi.org/10.5755/j01.ee.29.2.16426>
- Azizah, A. (2020). *The Impact of Corporate Governance, Risk Management and Corporate Reputation on Firm Value: An Indonesian Case*.

- Azizah, A., Diah, A. M., & Wulaningrum, R. (2022). *The Impact of Risk Management on Firm Performance*.
- Bai, M., & Ho, L. (2022). Corporate social performance and firm debt levels: Impacts of the covid-19 pandemic and institutional environments. *Finance Research Letters*, 47. <https://doi.org/10.1016/j.frl.2022.102968>
- Bartik, A. W., Bertrand, M., Cullen, Z., Glaeser, E. L., Luca, M., & Stanton, C. (2020). *The impact of COVID-19 on small business outcomes and expectations*. 117, 17656–17666. <https://doi.org/10.1073/pnas.2006991117/-/DCSupplemental.y>
- Beale, C. M., Lennon, J. J., Yearsley, J. M., Brewer, M. J., & Elston, D. A. (2010). Regression analysis of spatial data. In *Ecology Letters* (Vol. 13, Issue 2, pp. 246–264). <https://doi.org/10.1111/j.1461-0248.2009.01422.x>
- Bennouri, M., Chtioui, T., Nagati, H., & Nekhili, M. (2018). Female board directorship and firm performance: What really matters? *Journal of Banking and Finance*, 88, 267–291. <https://doi.org/10.1016/j.jbankfin.2017.12.010>
- Bhagat, S., & Bolton, B. (2019). Corporate governance and firm performance: The sequel. *Journal of Corporate Finance*, 58, 142–168. <https://doi.org/10.1016/j.jcorpfin.2019.04.006>
- Bhatt, P. R., & Bhatt, R. R. (2017). Corporate governance and firm performance in Malaysia. *Corporate Governance (Bingley)*, 17(5), 896–912. <https://doi.org/10.1108/CG-03-2016-0054>
- Brahma, S., Nwafor, C., & Boateng, A. (2021). Board gender diversity and firm performance: The UK evidence. *International Journal of Finance and Economics*, 26(4), 5704–5719. <https://doi.org/10.1002/ijfe.2089>
- Butt, M. A., Ayub, H., Latif, B., Asif, F., Shabbir, M. S., & Raja, A. A. (2022). Financial risks and performance of conventional and Islamic banks: do reputational risk matters? *Journal of Islamic Accounting and Business Research*, 13(4), 581–595. <https://doi.org/10.1108/JIABR-10-2020-0336>

- Callahan, C., & Soileau, J. (2017). Does Enterprise risk management enhance operating performance? *Advances in Accounting*, 37, 122–139. <https://doi.org/10.1016/j.adiac.2017.01.001>
- Capelli, P., Ielasi, F., & Russo, A. (2021). Forecasting volatility by integrating financial risk with environmental, social, and governance risk. *Corporate Social Responsibility and Environmental Management*, 28(5), 1483–1495. <https://doi.org/10.1002/csr.2180>
- Clampit, J., Hasija, D., Dugan, M., & Gamble, J. (2021). The Effect of Risk, R&D Intensity, Liquidity, and Inventory on Firm Performance during COVID-19: Evidence from US Manufacturing Industry. *Journal of Risk and Financial Management*, 14(10), 499. <https://doi.org/10.3390/jrfm14100499>
- Crovini, C., Schaper, S., & Simoni, L. (2022). Dynamic accountability and the role of risk reporting during a global pandemic. *Accounting, Auditing and Accountability Journal*, 35(1), 169–185. <https://doi.org/10.1108/AAAJ-08-2020-4793>
- Eckert, C. (2017). Corporate reputation and reputation risk: Definition and measurement from a (risk) management perspective. *Journal of Risk Finance*, 18(2), 145–158. <https://doi.org/10.1108/JRF-06-2016-0075>
- Fan, Y., & Stevenson, M. (2018). A review of supply chain risk management: definition, theory, and research agenda. In *International Journal of Physical Distribution and Logistics Management* (Vol. 48, Issue 3, pp. 205–230). Emerald Group Holdings Ltd. <https://doi.org/10.1108/IJPDLM-01-2017-0043>
- Fariha, R., Hossain, M. M., & Ghosh, R. (2022). Board characteristics, audit committee attributes and firm performance: empirical evidence from emerging economy. *Asian Journal of Accounting Research*, 7(1), 84–96. <https://doi.org/10.1108/AJAR-11-2020-0115>
- Florio, C., & Leoni, G. (2017). Enterprise risk management and firm performance: The Italian case. *British Accounting Review*, 49(1), 56–74. <https://doi.org/10.1016/j.bar.2016.08.003>

- Habtoor, et all. (2018). Corporate risk disclosure practice in Saudi Arabia: Secrecy versus transparency. *International Journal of ADVANCED AND APPLIED SCIENCES*, 5(12), 42–58. <https://doi.org/10.21833/ijaas.2018.12.007>
- Hanafi Idris, K., Mulia Aqsha Yusuf, A., Ekonomi, F., Hasanuddin Nurhilalia Jurusan Akuntansi, U., & Negeri Ujung Pandang, P. (2022). Pengaruh Profitabilitas dan Solvabilitas terhadap Tobin's Q dengan Ukuran Perusahaan sebagai Variabel Moderasi Hasmawaty Timpa. *AKUNSIKA: Jurnal Akuntansi Dan Keuangan*, 3(1). <http://jurnal.poliupg.ac.id/index.php/akunsika>
- Ibhagui, O. W., & Olokoyo, F. O. (2018). Leverage and firm performance: New evidence on the role of firm size. *North American Journal of Economics and Finance*, 45, 57–82. <https://doi.org/10.1016/j.najef.2018.02.002>
- Iqbal, U., & Usman, M. (2018). Impact of Financial Leverage on Firm Performance. *SEISENSE Journal of Management*, 1(2), 70–78. <https://doi.org/10.33215/sjom.v1i2.13>
- Ismanu, S., Kusmintarti, A., & Winarto, E. (2021). *The Role of Enterprise Risk Management in Enhancing Firm Value Before and During the Covid-19 Pandemic in Indonesia*.
- Jia, J., & Bradbury, M. E. (2021). Risk management committees and firm performance. *Australian Journal of Management*, 46(3), 369–388. <https://doi.org/10.1177/0312896220959124>
- Kamalul Ariffin, S., Mohan, T., & Goh, Y. N. (2018). Influence of consumers' perceived risk on consumers' online purchase intention. *Journal of Research in Interactive Marketing*, 12(3), 309–327. <https://doi.org/10.1108/JRIM-11-2017-0100>
- Kao, M. F., Hodgkinson, L., & Jaafar, A. (2019). Ownership structure, board of directors and firm performance: evidence from Taiwan. *Corporate Governance (Bingley)*, 19(1), 189–216. <https://doi.org/10.1108/CG-04-2018-0144>

- Kultys, J. (2016). Controversies about Agency Theory as Theoretical Basis for Corporate Governance. *Quarterly Journal Oeconomica Copernicana*, 7(4), 613–634. <https://doi.org/10.12775/OeC>
- Laisasikorn, K., & Rompho, N. (2014). *A Study of the Relationship Between a Successful Enterprise Risk Management System, a Performance Measurement System and the Financial Performance of Thai Listed Companies Kittipat Laisasikorn Thammasat Business School Nopadol Rompho Thammasat Business School.*
- Malik, M. F., Zaman, M., & Buckby, S. (2020). Enterprise risk management and firm performance: Role of the risk committee. *Journal of Contemporary Accounting and Economics*, 16(1). <https://doi.org/10.1016/j.jcae.2019.100178>
- Mardnly, Z., Mouselli, S., & Abdulraouf, R. (2018). Corporate governance and firm performance: an empirical evidence from Syria. *International Journal of Islamic and Middle Eastern Finance and Management*, 11(4), 591–607. <https://doi.org/10.1108/IMEFM-05-2017-0107>
- Merendino, A., & Melville, R. (2019). The board of directors and firm performance: empirical evidence from listed companies. *Corporate Governance (Bingley)*, 19(3), 508–551. <https://doi.org/10.1108/CG-06-2018-0211>
- Naseem, M. A., Lin, J., Rehman, R. ur, Ahmad, M. I., & Ali, R. (2020). Does capital structure mediate the link between CEO characteristics and firm performance? *Management Decision*, 58(1), 164–181. <https://doi.org/10.1108/MD-05-2018-0594>
- Naseem, T., Shahzad, F., Asim, G. A., Rehman, I. U., & Nawaz, F. (2020). Corporate social responsibility engagement and firm performance in Asia Pacific: The role of enterprise risk management. *Corporate Social Responsibility and Environmental Management*, 27(2), 501–513. <https://doi.org/10.1002/csr.1815>
- Nasution, A. A. (2019). Analysis of Corporate Governance Effect and Characteristics of Companies on the Existence of Risk Management

- Committee. *IOP Conference Series: Materials Science and Engineering*, 648(1). <https://doi.org/10.1088/1757-899X/648/1/012001>
- Panda, B., & Leepsa, N. M. (2017). Agency theory: Review of theory and evidence on problems and perspectives. *Indian Journal of Corporate Governance*, 10(1), 74–95. <https://doi.org/10.1177/0974686217701467>
- Perwitasari, D., Setiawan, D., Nurrahmawati, A., & Rahmawati, I. P. (2022). Firm Performance during COVID-19 Pandemic: Does Ownership Identity Matter? Evidence from Indonesia. *Journal of Risk and Financial Management*, 15(10). <https://doi.org/10.3390/jrfm15100444>
- Ramos Meza, C. S., Bashir, S., Jain, V., Aziz, S., Raza Shah, S. A., Shabbir, M. S., & Agustin, D. W. I. (2021). The Economic Consequences of the Loan Guarantees and Firm's Performance: A Moderate Role of Corporate Social Responsibility. *Global Business Review*. <https://doi.org/10.1177/09721509211039674>
- Rezaee, Z. (2017). *Corporate Sustainability: Theoretical and Integrated Strategic Imperative and Pragmatic Approach*. 16(1), 60–87. <http://www.uvu.edu/woodbury/jbi/articles>
- Saeidi, P., Saeidi, S. P., Gutierrez, L., Streimikiene, D., Alrasheedi, M., Saeidi, S. P., & Mardani, A. (2021). The influence of enterprise risk management on firm performance with the moderating effect of intellectual capital dimensions. *Economic Research-Ekonomiska Istrazivanja*, 34(1), 122–151. <https://doi.org/10.1080/1331677X.2020.1776140>
- Sanan, N. K. (2019). Impact of board characteristics on firm dividends: evidence from India. *Corporate Governance (Bingley)*, 19(6), 1204–1215. <https://doi.org/10.1108/CG-12-2018-0383>
- 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, 107–132. <https://doi.org/10.1007/s40171-021-00277-7>

- Shen, H., Fu, M., Pan, H., Yu, Z., & Chen, Y. (2020). The Impact of the COVID-19 Pandemic on Firm Performance. *Emerging Markets Finance and Trade*, 56(10), 2213–2230. <https://doi.org/10.1080/1540496X.2020.1785863>
- Sri Sumardani, E., & Sri Handayani, R. (2019). The effect of risk disclosure on the cost of equity capital and Firm Value. In *The Indonesian Accounting Review* (Vol. 9, Issue 2).
- Stanley, T. D., & Jarrell, S. B. (2005). *META-REGRESSION ANALYSIS: A QUANTITATIVE METHOD OF LITERATURE SURVEYS 1*.
- Størdal, S., Lien, G., & Trømborg, E. (2021). Impacts of Infectious Disease Outbreaks on Firm Performance and Risk: The Forest Industries during the COVID-19 Pandemic. *Journal of Risk and Financial Management*, 14(7), 318. <https://doi.org/10.3390/jrfm14070318>
- Tewari, M., & Ramanlal, P. (2022). Risk Management and Agency Theory: Role of the Put Option in Corporate Bonds. *Journal of Risk and Financial Management*, 15(2). <https://doi.org/10.3390/jrfm15020061>
- Tripathy, S., & Shaik, A. R. (2019). Leverage and firm performance: Empirical evidence from Indian food processing industry. *Management Science Letters*, 10(6), 1233–1240. <https://doi.org/10.5267/j.msl.2019.11.035>
- Vadasi, C., Bekiaris, M., & Andrikopoulos, A. (2020). Corporate governance and internal audit: an institutional theory perspective. *Corporate Governance (Bingley)*, 20(1), 175–190. <https://doi.org/10.1108/CG-07-2019-0215>
- Vargas-Hernández, J. G., & Teodoro Cruz, M. E. (2018). Corporate governance and agency theory: Megacable case. *Corporate Governance and Sustainability Review*, 2(1), 59–69. <https://doi.org/10.22495/cgsrv2i1p5>
- Yendrawati, R., Lia Riantika, R., Zuhaira Kusumadewi, F., Azlin Azmi, N., & Mohd-Sanusi, Z. (2023). Effects of Corporate Governance and

Financial Performance on Fraudulent Financial Statements: Evidence from Indonesia's Property, Real Estate, and Building Construction Sectors. In *MANAGEMENT AND ACCOUNTING REVIEW* (Vol. 22, Issue 1).

Zogning, F. (2017). Agency theory: A critical review. In *European Journal of Business and Management www.iiste.org ISSN* (Vol. 9, Issue 2). Online. <https://www.researchgate.net/publication/364812853>