

Risk Management Practice During Crisis and its Relationship with Performance: The Moderating Role of Governance

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ABSTRACT

Every organization is bound to encounter different issues during a crisis. Risks that arise during the crisis need to be managed effectively to support the business decisions made by the management. Hence, effective management through the corporate governance role is essential to ensure that the company can sustain its performance during a crisis. This study examined the level of risk management practiced by companies during a crisis, its relationship with performance, and the moderating role of governance between risk management practices and performance. This study utilised secondary data from 60 annual Public Listed Companies (PLCs) reports for two consecutive years, 2020 and 2021. The sample consisted of the PLCs from three business sectors, i.e., manufacturing, retail, and service. The data were analysed and regressed using the SPSS software package. The results revealed an insignificant influence on risk management and performance. However, the moderating roles of governance in risk management practices and performance were significant. It indicates that effective risk management practice alone is insufficient to sustain the performance of the governance role and is ineffective in using the risk management information in making business decisions. Effective risk management leads to better decisions on the board and company growth.

Keywords: Risk Management, Governance Role, Crisis, Risk Management, Performance

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INTRODUCTION

Risk management has been an essential point for finance enthusiasts since the day of the industrial revolution (Dima & Orzea, 2014). Establishing risk management affects the decision-making process and corporate governance of the organisation. Every organization is bound to encounter different types of issues during its operations. Some of these can be foreseen, and organizations can trigger such issues in their planning stages. However, a few events are not foreseen, which means the event is not predictable and may be experienced by the organization without any pre-prediction, which creates a crisis like a COVID-19 pandemic. As stated by the COVID-19 Dashboard of the Centre for Systems Science and Engineering (CSSE) of Johns Hopkins University (JHU), so far, the USA, India, and Brazil with the highest number of confirmed cases and deaths were the three hard-hit countries around the world. Moreover, an estimated number of almost 10 thousand deaths and about 500 thousand cases were reported daily in the world (JHU, 2014).

It is clear that many aspects of human life have been disrupted under these circumstances. The COVID-19 pandemic has imposed massive health, economic, environmental, and social difficulties worldwide (Chakraborty & Maity, 2020). Meanwhile, long-term lockdowns and restrictions, known as effective measures to limit the spread of the virus, have intensified some of the consequences of the pandemic (Brady & Wilder-Smith 2021; Mofijur et al., 2020). Risk management is an important stage in crisis management.

Management should develop the organization's culture to adjust to the risk during a crisis. To realise this, the role of corporate governance through its risk management committee must be effective to ensure companies can maintain their performance. The main role of the risk management committee is to review their risk management policy regularly (Van Daelen & Van der Elst, 2010). If they detect any deficiency in their policy, they upgrade and change it according to the requirement. Management should decide wisely about the risk management policy in their annual meeting. The management must protect the organization from risk, especially during a crisis (Vieira, 2018). Based on the agency theory, top management is responsible for protecting the shareholders' interests, especially during critical situations.

Managing risk during a crisis is crucial to ensure minimum implication to performance for business continuity. The governance role in this process is critical as it will determine the success of risk management. Considering this, this study examined if the risk management activities performed by the companies during the COVID-19 crisis related to performance, and how the roles of governance, through a risk management committee, mediated this relationship. Various studies have been conducted relating to risk management during the COVID-19 crisis. However, so far, none had focused on the relationship between risk management activities and performance and the role of governance. This study was carried out to examine the risk management practice of organizations during the COVID-19 crisis and the role of governance, through its risk management committee, in managing the risk to sustain performance. The data was collected by analysing 120 annual reports of Public Listed Companies (PLCs) in Malaysia.

The remaining structure includes a Section on literature review, which reviews the existing literature on risk during a crisis, risk management practices, role of governance and company performance. The next section details the methodology, followed by the results and discussions section. The conclusion is provided in the final section.

LITERATURE REVIEW

Each public entity, such as a publicly listed company, is obliged to systematically overview the risks related to its activities at least once a year, draw up appropriate plans to limit the possible consequences of these risks, and appoint responsible persons to apply those plans. From a corporate governance perspective, risk management is necessary because there are uncertainties about threats and opportunities in achieving its objectives (Caraiman & Mates, 2020).

Risk is a core objective of every organization. Hence, risk management, treated as a mechanism to prevent or minimize financial losses and enhance the services provided, takes on a new meaning considering the impact of unforeseen factors (Grondys & Ślusarczyk, 2021). To manage the risk appropriately, the management and employer of the companies involve their employees in identifying the specific risks related to the nature of the business and training them to mitigate and handle the risks that arise.

A crisis can have a big hit on everyone. Crises can include epidemics, natural disasters, technology, poor management, terrorism, warfare, and scarcity (Hertati, Widiyanti, Desfitriana, Syafarudin, & Safkaur, 2020). Risk management is necessary for crisis prevention and management. It requires years of experience to execute effectively and efficiently. Continually identifying potential vulnerabilities within an organisation can reduce the possibility of a crisis. Different organisations and industries will face different risks, and knowing which are relevant to the organizations is vital (OECD, 2020). New risks are constantly appearing, often related to and generated by the now-pervasive use of digital technology. Risk experts have dubbed climate change a “threat multiplier”. (Bouslah, 2018). In addition, the COVID-19 health crisis has created new risks and made organizations more vulnerable. Thus, organizations must have effective risk management activities during a crisis as it negatively impacts performance and ensures business continuity.

The Board of directors should activate the crisis management team and set their roles and responsibilities to overcome business risks. The crisis management team increases communication internally and externally. They plan a strategy towards excellent health for the employees and their families. They work according to the plan for the crisis, as they review the existing plan and make some changes according to the situation. They design and implement a methodology to tackle the business risks during a crisis. The crisis management team should identify the potential points of failure and design strategies to minimize or eliminate the effects of risks. They should effectively plan for the supply chain. Mitigation strategies play a crucial role in eliminating business risk during a COVID-19 crisis (Walker, 2020). The management or corporate governance (through its risk management committee) should effectively manage the risks to ensure smooth business operation and the company’s ability to perform well.

A risk mitigation strategy is to monitor the business risk throughout the year. However, during a pandemic, management should revisit the existing strategy and communicate with the crisis management team about all relevant information. The team should connect with the key stakeholders and make decisions according to the relevant data collected from different organizations (Abdullah, 2019). Previous studies have shown that a company with poor risk management would perform poorly.

Over the past two decades, companies have implemented Enterprise Risk Management (ERM). The implementation was more of a compliance requirement due to various legislations across countries. As organisations and risk management practices mature, a need was felt to integrate the business strategy and objective with the ERM practice. Taking this lead, ERM frameworks are being updated to suit the business requirements.

Risks arising during a crisis have a significant impact on the performance of the business. For example, during the COVID-19 crisis, business activities closed, and the organization could not continue its operational activities as the non-availability of raw materials shut down the organization's production process. The survival of the organization was in danger. Travel restrictions and quarantines reduced the workforce. Natural disasters such as floods and heavy storms had also affected the performance of the business. All the business risks that arise from a crisis badly affect organizational performance (Shad, 2019).

Organizations faced various risks during the crisis, including financial risks, which have always been harmful to businesses and investors. Furthermore, operational risks, like IT security and privacy, supply chain, labour issues, and natural disasters, mostly hurt the organization's performance. In addition, operational risks cause potential losses resulting from the entity's inadequate or defective logistic system, including processes and resources (Grondys & Ślusarczyk, 2021). Management of the company should take adequate measures to identify, analyze, control, mitigate, and monitor these risks for the company's better performance. Therefore, risk assessment strategies are essential for the company's growth (Durst, 2019).

Companies in various sectors also face business risks during a crisis. As business activities become increasingly dependent on technology, the financial service industry faces many risks. Nowadays, cyber risk is more dangerous for the financial service industry. One successful hack can destroy the company's data. It might harm the privacy of the customers, employees, and others (ICAEW, 2016). It is a biological fact that such accidents are unfortunate for the organization. They create insecurity in the organization. A successful cyber-attack can cause major damage to the organization, hence affecting the bottom line of the organization, as well as the business's standing and consumer trust. Different equipment

breakdowns can disturb the business's operational activities, increasing costs and lost profit. Organizations may face significant losses during the claim of the services. Therefore, management should control the organization's internal environment and provide workers with healthy and safe working conditions (Tarigan, 2021).

Creating a sound control environment in an organization is the responsibility of the top management through the function of its corporate governance. To achieve good governance practice, the involvement of various parties, especially those within the organization, is crucial. The board of directors (BOD) and its sub-committee, including the risk management committee, are among the major internal mechanisms contributing to good governance practice. According to ISO 31000:2009, risk is the effect of uncertainty on objectives. Risk management coordinate activity to direct and control an organization regarding the risk. More excellent corporate governance will lead to greater corporate performance by avoiding the controlling owner's expropriation, thus guaranteeing more dependable decision-making (Kafidipe, 2021). The organisation's valuation could react instantaneously to the information, signaling improved corporate governance in expectation of such change (Kafidipe, 2021). Poorly governed businesses are predicted to be less profitable, to have more significant bankruptcy risks, to have lower valuations, and to distribute less money to their shareholders. In contrast, well-governed businesses are predicted to be more profitable, have lower bankruptcy risks, have higher valuations, and distribute more money to their shareholders (Alabdullah, 2023).

Risk Management Committees are formed by the Board in accordance with the rules and regulations. They are constituted to enable the Board to perform its function better and to facilitate decision-making (Van Daelen & Van der Elst, 2010). Risk management committees' general roles and responsibilities cover risk identification, assessments, reviews, and deciding on a risk mitigation strategy. Risk management committees are necessary as they facilitate the Board to take informed decisions so that risk taking is balanced with the benefits to be reaped out of those risks. These committees are also necessary because they consist of members of the board and other senior executives who notice the company or corporation well and know the internal workings of the corporation. Furthermore, since the committee consists of people with expertise in handling, managing, and controlling

risk to maximise benefits, these committees are well-versed in and informed about the different types of risks that could be faced by that particular corporation. Better risk management leads to better corporate governance, which means better growth and investment. In addition, improving corporate governance is crucial for boosting investor trust and market liquidity (Alabdullah, 2023).

Thus, the role of risk management committees is not negligible and cannot be ignored in the economic development of the corporation. The better a firm or corporation manages risk the better chances it has to increase its goodwill in the market. Risk Management Committees are important for the better functioning of the corporation or organisation and for better corporate governance. The responsibility of the top management (Board of Directors) in managing the risk can be explained using the agency theory (van Daelen & Van der Elst, 2010). Lastly, top managers and responsible executives of the firms are advised to investigate the practices deeply to spur environmental performance (Al-Nimer & Abbadi, 2021).

The role of governance in managing the risk and performance of the company can be explained by the agency theory. The Theory explains the problems and solutions linked to the delegation of tasks from principals to agents in the context of conflicting interests between the parties. The Theory starts from precise predictions about rational, contracting, and informational conditions. It then addresses problems of ex-ante (hidden characteristics) as well as ex-post information asymmetry (hidden action) and examines situations under which various kinds of incentive instruments and monitoring arrangements can be deployed to minimize the welfare loss (Murthy et al., 2016).

Risk management reduces organizational surprises and losses by allowing managers to identify events that cause such surprises and volatilities. Hence, it effectively enables the organization to stabilize its earnings and enhance its performance. Besides, profit stability results in reduced business risk, positively affecting the business's growing concern. It will also promote a favourable outcome by reducing the cost of capital by encouraging investors to invest in the company at a lesser required rate of return. Moreover, existing shareholders would benefit from an enhancement in dividends, hence capital gains due to a reduction in the probability of bankruptcy risk (Hoyt & Liebenberg, 2008).

Risk management practices are essential for improving a firm's performance and reducing different types of risk exposure (Florio & Leoni, 2017). Successful risk management practices enable firms to enhance their values and manage risk effectively (Lechner & Gatzert, 2018). It maximizes an organization's profitability by minimizing dissimilar operational and marginal costs and reducing the uncertainty of stock market returns (Eckles et al., 2014). An organization with a formal implementation of Enterprise Risk Management practices can face high operational performance and earn over those who lack Enterprise Risk Management practices (Callahan & Soileau, 2017). Hence, managers are strongly welcomed, recommended, and advised to work in the implementation of Enterprise Risk Management practices to improve the firm values and performance (Lajili, 2009; Liu et al., 2017). In conclusion, there is a significant positive association between ERM practices and firm performance (Callahan & Soileau, 2017; Florio & Leoni, 2017; Zou & Hassan, 2017).

A Risk Management Committee (RMC) is a subset under a committee of the Board of Directors. The Board of Directors of a company is supposed to have various types of committees that help the Board and the Company at large function better. A Board Committee is a small working group identified by the board, consisting of board members, to support the board's work. Committees are generally formed to perform some expertise work. Committee members must have expertise in the specified field (Davies, 2000).

A RMC is formed by the Board in accordance with the rules and regulations. They are constituted to enable the Board to perform its function better and to facilitate its decision-making. Several studies have been carried out in Malaysia to examine the role of RMC in Malaysia's corporate setting. Those studies provide a better understanding of the effectiveness of risk management practices in corporate sustainability.

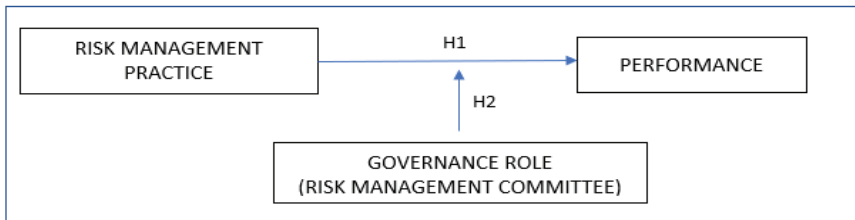
Yatim (2010) studied the association between board characteristics and the existence of a RMC. Based on 690 publicly listed companies in 2003, she found that establishing an RMC is motivated by a high-quality board structure. She disclosed that companies with a high percentage of non-executive directors, which separates the role of CEO and chairman, have a high tendency to set up separate RMC. Other factors associated with

the establishment of RMC, according to her study, are the board's expertise and activity. Another study on establishing an RMC was conducted by Mohd Ghazali (2012). Using a questionnaire survey, the study revealed that MCGG (2007) impacted the establishment of separate RMCs, especially for big-size companies. In addition, credit risk is an important element in corporate disclosure among companies' managers.

Thus, this study predicted that governance moderated the relationship between risk management practice and performance, and the following hypotheses was proposed:

- H₁:** There is a relationship between the company's risk management practices during a crisis and performance.
- H₂:** The risk management committee moderates the relationship between risk management practices and performance.

Conceptual Framework



METHODOLOGY

This study adopted a quantitative method by utilizing secondary data from 120 annual reports of PLCs in Malaysia. Data from annual reports was used as they serve as an official document comprising a company's crucial message and information to be delivered to its stakeholders, including financial information, risk management report, and corporate governance report, as required by the regulatory body (Gray et al., 1995; Tilt, 2001).

Sampling

Sixty annual reports of PLCs' in Malaysia from 2020-2021 (two years) were selected, consisting of 20 companies from each of three sectors, i.e., manufacturing, retail and service. The total of 120 annual reports were downloaded from the official website of the Bursa Malaysia main board. The three sectors were chosen to examine the potential different reactions of the business during the COVID-19 crisis period. The data from the samples were normally distributed. For multivariate analysis, the rule of thumb is to obtain at least 10 observations per variable with a minimum of 30 observations to allow for accurate representation of the population and helps the Central Limit Theorem to hold (Pannel, 2023). Thus 120 sample annual reports from 60 companies were considered enough for analysis.

A list of companies listed on the main board of Bursa Malaysia was chosen as a sampling frame. A probability sampling method was used. This method is appropriate when elements in a population have a known nonzero possibility of being chosen as subjects in a sample (Uma & Roger, 2003). The companies were classified into three clusters based on the retail, manufacturing, and financial service sectors. Twenty (20) companies were randomly selected in each sector.

A random sampling method was used to choose the companies in each cluster for the study because it is the most straightforward technique compared to others. Therefore, the risk management for a manufacturing process can be successfully achieved if risk factors which have a negative impact on project cost, quality of delivery, lead cycle and takt time and health and safety of workers can be identified using Bayesian Belief Network (BBN) and minimised using the framework developed in this study (Oduoza, 2020).

The cluster random sampling method involves segregating samples into a cluster, followed by a random selection of subjects from each cluster (Uma & Roger, 2003). Thus, every sector listed in the main board – Bursa Malaysia had a chance to be chosen as a sample.

A thorough content analysis was conducted to identify the risk management practices of the companies and the risk management committee

function (as a proxy to governance role) to examine the companies' performance (the three variables in this study: risk management practices, roles of the risk management committee and performance).

Measurement of Variables

The annual report identified the risk management practices from the risk report and classified them according to the risk management process in the COSO framework. The roles of the risk management committee were also identified from the report and classified based on the guidelines in the Malaysia Code of Corporate Governance (MCCG 2021). The items to calculate the profit margin for performance were identified from the financial report.

Risk management practices were measured based on the risk management activities reported in the annual report. Risk management practice is an effort by companies to inform the stakeholders about threats and possible risks to use this information for decision-making (Amran, 2009; Anindyarta & Cahyonowati, 2013). This report classified the risk management activities following the COSO Framework. In this study, risk management was measured by classifying the activities reported by the companies in annual reports according to risk management categories classified by the COSO model risk management framework, namely risk identification, risk assessment and risk mitigating strategies (Rashid et al., 2018).

This study identified the risk management committee (a proxy for the governance roles) as a moderating variable in the relationship between risk management practice and performance. The Risk Management Level checklists were developed following a previous study that measured the effectiveness of governance (Akhtaruddin et al., 2009). The annual report was analysed to measure if there was an effective risk management committee role in the companies. The 15-item checklist is presented in Table 1 above. The score for the items was then categorised into three categories: 0 (score 1 to 5) = general roles of the risk management committee, 1 (score 6 to 10) = moderate roles of the risk management committee, and 2 (score 11 to 15) = effective role of the risk management committee.

Table 1: Summary of Variable Measurement

Variables	Scale	Measurement Items
Performance	Ratio	Profit Margin = (Net Profit/Total Sales) *100
Risk Management Practices	Categorical	0 - No specific risk identified (only general practice) 1 - Risks are identified but not measured 2 - Risks are identified and measured 3 - Risks are identified, measured and mitigated
Roles of the Risk Management Committee	Categorical	0 - General roles of the risk management committee 1 - Moderate role of the risk management committee 2 - Effective role of the risk management committee

RESULTS

The results were obtained using descriptive analysis of the variables. The Microsoft Excel spreadsheet software calculated the frequency (mode) and median to describe risk management practice and governance. The hypotheses were tested using multiple linear regression.

Level of Risk Management Practices and Roles of Governance

A descriptive analysis was conducted to identify the risk management practised by the PLCs during the pandemic crisis. The independent variables (risk management) and moderating variables were measured using a categorical scale based on the ranking level. The frequency (mode) and median were calculated to describe these variables. The mode function in a Microsoft Excel spreadsheet was used to measure the rank score. Table 2 shows the risk management level for three (3) sectors.

Table 2: Descriptive of Risk Management

Ranking	Retail		Manufacturing		Service		Total	
	Frequency	(%)	Frequency	(%)	Frequency	(%)	Frequency	(%)
0	2	5	6	5	2	5	10	8
1	14	35	8	20	8	20	30	25
2	10	25	16	40	12	30	38	31
3	14	35	10	25	18	45	42	33
Median	2.00		1.00		1.00		2.00	
N	40		40		40		120	

Based on the result tabulated above, companies in the service sector showed the highest risk management practice (45%) compared to the two other sectors, retail (35%) and manufacturing (25%). Most of the service companies (95%) had managed their crisis during risk (levels 1-3), with 45% of them having effective risk planning identified, measured and mitigated (level 3). Only 5% of the companies had at least no risk management practice in their annual report, and 20% of the companies at least identified the risk but did not measure the risk during the COVID-19 crisis. The average profit margin of 18.33% showed that the risk management strategies these companies adopted were effective and contributed to positive company performance. However, it might have resulted from the nature of the service companies, as they were not directly impacted by the movement control order (MCO) during the pandemic (Wan et al., 2021). They could still offer service to their customers through an online platform. Moreover, most of the samples for this sector were service companies. The COVID-19 pandemic crisis had created an opportunity for them, as the public needed financial assistance due to the financial difficulties they faced during the pandemic.

For retail companies, most of them (95%) had managed their risk during the crisis (levels 1-3), with 35% of them having effective risk planning identified, measured and mitigated (level 3) or at least assessed the severity of the risk faced by the company during the crisis (level 2). Only 5% of the companies did not have risk management in their annual report. The average profit margin of 3.45% showed that the risk management strategies these companies adopted were adequate and contributed to positive company performance. During the pandemic, retail companies were directly impacted by the movement control order (MCO). However, with their ability to adequately manage the risk, for example, through online sales and delivery service, they could still obtain positive performance even though it was relatively low, as most retail products are necessities for the people.

Most manufacturing companies were at level 2 of the risk management level (40%), which showed that they had at least identified and measured the risks faced by the company during the COVID-19 crisis. However, only 25% of the companies had effective risk planning, which was identified, measured and mitigated, whereas another 20% had only identified but had not measured and created a mitigation strategy. During the pandemic, the MCO dramatically affected the manufacturing sector, where they had

to stop production due to the lockdown and difficulties obtaining stock for production. As manufacturing requires physical work, it was almost impossible for them to work from home. This situation had created difficulties for the company to develop proper mitigation strategies. The risk was tough to manage and beyond the company's control, so it had dramatically affected its performance. The average profit margin of -42% showed that risk from the pandemic crisis had negatively affected the company's performance. A detailed analysis using regression analysis was used to explain this relationship further.

Previous studies explained how the company's management prepares strategies to avoid, mitigate, and accept risks and resolve them in the best interest of the organizational operations. For example, natural disasters and unexpected litigation against the company fall under the unexpected risks that may be faced by the organization during its business operations. Strong governance frameworks establish clear roles, responsibilities, and monitoring systems, contributing to improved operational performance in businesses (Alzahrani et al., 2020). Enhanced operational performance allows companies to increase productivity, reduce costs, and enhance overall competitiveness.

Based on the result tabulated above, the median for the retail sector was 2, followed by service at 1, and finally, manufacturing at level 1. Furthermore, the service sector had effective risk planning that was identified, measured, and mitigated, with 18 frequencies, whereas the retail sector (14) had a frequency of 10, followed by manufacturing (10).

Table 3 shows a descriptive analysis of the results for the roles of governance. The effectiveness of the governance as the moderator in risk management and performance was measured based on the effectiveness of the roles of the board's risk management committee. Based on the level of risk management committee roles checklist, the ranking was classified into three (0 - General roles of the risk management committee, 1 - Moderate role of the risk management committee, 2 - Effective role of the risk management committee).

Table 3: Descriptive Analysis for Risk Management Committee

Ranking	Retail		Manufacturing		Service		Total	
	Frequency	(%)	Frequency	(%)	Frequency	(%)	Frequency	(%)
0	2	5	6	15	2	5	10	8
1	24	60	22	55	20	50	66	5
2	14	10	12	30	18	45	44	36
Median	1.00		1.00		1.00		1.00	
N	40		40		40		120	

Based on the result tabulated above, the service sector had the specific role of the risk management committee (0.45%) in more than two sectors, manufacturing (0.30%) and retail (0.10%). Based on previous studies, strategies were wisely prepared and communicated to the management team responsible for implementing these strategies to prevent the organization from losing during a crisis (Knight, 2013). These were the plans for the pre-crisis situation. When the crisis arose the management had a wise plan to respond. In the initial stage of the response, the organization's management focused on the three main points: be quick, accurate, and consistent. The risk management team quickly worked and took adequate measures to prevent the organization from the crisis and consistently worked for the organization during a crisis. This team identified the nature of the crisis and its impact on the business organization and took adequate measures to minimize its impact on the business organization (Jedynak, 2021).

Based on the results tabulated above, the median for the service sector was 1.00, followed by retail at 1.00 and last but not least was manufacturing at 100. Furthermore, the financial service sector had a specific role for the risk management committee, which was 18. Meanwhile, the retail sector had 24 frequencies on the general role of the risk management committee. Besides, the manufacturing sector had no specific roles for the risk management committees (6). Appropriate risk management and internal control are critical aspects of a company's governance, management, and operations that can affect a business's performance. The empirical verification and evidence contribute to the knowledge of corporate governance within a risk management committee's role in monitoring a company's risk management framework, policies, and implementation. Forming a separate risk management committee as a board committee will help to enhance the effectiveness of the risk oversight of the board of directors (Rimin et al., 2020).

Relationship between Risk Management Practices with Performance and the Moderating Effect of Governance

Three hypotheses were developed to test these relationships. The hypotheses were analyzed using a multiple linear regression (MLR). All the assumptions to conduct MLR (normality and multicollinearity tests) were tested to ensure the data were fit for the analysis. The skewness of the data was distributed between -0.232 and -0.445, which was considered normally distributed according to Tabachnick and Fidell (2007).

The Pearson Correlation test for performance and risk management was .147, and governance was .095, respectively. Accordingly, the result showed that the strength of the relationship was significant. (Hinkle, Wiersma & Jurs, 2003). Furthermore, the reported correlation results indicated that all variables could be retained as the correlation coefficient was still below 1. Low normality and high correlation are common in research using secondary data, and it is acceptable as the secondary data analysis is based on published data that has been used effectively (Church, 2002). Thus, MLR was conducted for hypothesis testing.

The hypotheses were analyzed based on the following regression model:

$$Y = \alpha + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_1X_2 + \epsilon$$

Where:

Performance: $\alpha + \beta_1$ (Risk Management) + β_2 (RC) + β_3 (Risk Management) (RC) + ϵ

α = constant; β_i = regression coefficient, $i = 1, i = 2, i = 3$; ϵ = error

The regression result explained a relationship between risk management and company performance. In this model summary (see Table 4), the value of the correlation coefficient 'R' was 0.171, which is approximately equal to 1, which indicated that there was a positive variation relationship between the dependent variable and independent variables. Furthermore, a positive coefficient indicated that as the independent variable's value increased, the dependent variable's value also increased

since the value of R-square was 0.29, which showed that the input variable explained the variation in the output variable.

Therefore, (H1) suggested that risk management influences the company's performance, and (H2) the relationship between risk management practice and performance. Besides, the result showed that risk management had a significant value with governance (.040) due to a significant p value=0.05. Thus, there was a positive relation between corporate governance and risk management as better risk management leads to better decisions of the board, which in turn leads to the growth of the company, which in turn leads to the availability of more capital and investors, which in turn leads to further growth and stability of a corporation. Therefore, businesses that successfully manage sustainability risks and opportunities via the RMC can develop a competitive advantage and performance, resulting in financial benefits, such as a higher profit margin and a more significant market share (Ngu & Amran, 2020).

Meanwhile, risk management and role of the risk committee had no significance values, 0.120 and 0.335. It was the COVID-19 crisis, and the risk that occurred was still new, and no risk prevention strategies had yet been used by the companies. Most companies relied heavily on government incentives to sustain their business. Previous studies have shown that governance was positively related to performance and risk management (Cumming et al., 2017; Van Essen, Engelen, & Carney, 2013). For example, Cumming et al. (2017), studying companies from 48 countries between 1996 and 2008, reported that valuation presented a strong relationship with the governance within each country. Similarly, Shi, Magnan, and Kim (2012) reported a positive association between country governance and the risk level of 1,005 foreign companies in the US from 1996 to 2005.

Table 4: Multiple Regression Analysis Results

Variables	Performance		
	B	t	Sig.
Constant	-.424	-1.299	.197
Risk management	.520	1.566	.120
Risk Committee (RC)	.508	-.968	.335
Risk management*RC	.264	-1.515	.040*
R ²		.171 ^a	
Adjusted R ²		.29	

*Significance at p-value < 0.05

DISCUSSION

Risk management practices ensure business operation performance and continuity, which has many advantages for businesses and the economy. Risk management practices also help achieve success in the organization and significantly in the daily work routine. Management aims to map and manage all potential risks to protect the organization. It also brings financial benefits to the organization. Risk management practices also save the time and effort of the organization's employees. It also improves the organisation's communication system (Crispim, 2019). They promote the culture of upward and downward communication effectively. Effective risk management practices increase the culture of effective communication (Crispim, 2019).

Performance is the most important gauge for profitable firms. Generally, the results of an assembled framework or organization are evaluated using financial measures. Nowadays, especially after the monetary emergency, investors are gradually becoming more anxious about the financial performance of the manufacturing concerns. Besides, policymakers are considered to evaluate an association's execution, especially its productivity, before decisions or exercises are made from the perspective of certain execution estimations. Thus, having information about an organization's execution engages pioneers to substantiate managerial decisions to meet potential changes in money-related resources (Willumsen, 2019).

This study found no significant relationship between risk management and performance but a significant moderating effect of the role of governance between the risk management practice and performance. Also, there was a positive relationship between corporate governance and risk management. It indicated that better risk management leads to better decisions on the board, which in turn leads to the growth of the company, which in turn leads to the availability of more capital and investors, which in turn leads to further growth and stability of a corporation. Businesses that successfully manage the sustainability risks and opportunities via the RMC can develop a competitive advantage and performance, resulting in financial benefits, such as a higher profit margin and a greater market share (Ngu & Amran, 2020).

Management should be better and more efficient in compliance with regulations and rules. It might improve the operational activities of the organization. It might be helpful to improve the workplace safety and security of the employees and customers. These practices overall increase the performance of the organization. The main impact of the risk management practice is to ensure the performance and continuity of the business. The main objective of the organization is to grow larger. These business risk management practices help the organization grow long-term (Willumsen, 2019).

The board of directors is a link between the shareholders and management in ensuring both parties' interests are met. The agency theory is better suited for a larger corporation because it reduces the domination and power of the CEO on the board and provides better oversight of the manager workforce in the firm (Singh & Harianto, 1989). The board frequently meets to monitor the management and the workforce and has the power to mitigate agency costs, resulting in higher performance in the firm (Singh & Harianto, 1989). It can be said that the agency theory can be used in this research because the risk management committee has a relationship between sound risk management practice and better organisational sustainability performance.

CONCLUSIONS

This study is helpful for business organizations that face a crisis. Hence, the strategic leadership in an organization and strategic thinking and planning contribute to the development of its products and services and the achievement of quality (Hanelt et al., 2021). Ateş et al. (2020) stated that the strategic leadership is an obligatory factor in the development of business which has sometimes positive or negative impacts on business. Furthermore, based on the analysis and findings of this research, this study also gave significant results which showed that the role of risk management committee moderates the relationship between the risk management activities and performance. Moreover, based on the analysis and findings of this research, the decisions of the board which in turn leads to the availability of more capital and investors which in turn leads to further growth and stability of a corporation. This result is impactful for the future research contribution related to risk management practice and governance.

The risk management committee is directly involved in managing business risks and is essential in overseeing the threat during a crisis. This notion is supported by Sheehan (2019), who concluded that the risk management committee within the organization is responsible for the company's business risk management. The risk management committee makes the policies and procedures for identifying, analyzing, and mitigating risk to protect the organization from business risk. The board of directors reviews the risk management committee's policies and procedures and gives the necessary recommendations to the committee. The risk management committee performs the four main types of duties during risk management in the organization. These four procedures are detection of risk, analysis of risk, mitigation of risk, and making policies to protect the organization from such risks faced during the business operations of the organizations. To achieve good governance practice, the involvement of various parties especially those within the organization, is crucial. Among major internal mechanisms that contribute towards good governance practice are the Board of Directors and its sub-committee including risk management committee. According to ISO 31000:2009, risk is the effect of uncertainty on objectives. Risk management is a coordinated activity to direct and control an organization with regards to the risk (Leitch, 2024)

Based on the updated MCG 2021, effective board leadership and oversight also need the integration of considerations in corporate strategy, governance and decision-making, as continuity and its underlying environmental, social as well as governance (ESG) issues become increasingly material to the ability of organization to create durable and sustainable value and maintain the confidence of their stakeholders. For organizations to be resilient, boards need to take a much more holistic view of the business coupled with proactive and effective measures to anticipate and address material ESG risks and opportunities (Boffo & Patalano, 2020).

This study provided a better view of understanding the effectiveness of risk management practices towards performance and the role of governance (through its risk management committees), which is not negligible and cannot be ignored in the economic development of the corporation. The better a firm or corporation manages risks, the better its chances of increasing its goodwill in the market. So, RMC are important for the better functioning of the corporation or organisations and better corporate governance. The

responsibility of the top management (Board of Directors) in managing the risk can be explained using the agency theory (van Daelen & Van der Elst, 2010). Furthermore, this study also provides significant results on the moderation role of the risk management committee with risk management practices and performance. It concludes that the board's role in making business decisions during a crisis will lead to the company's growth, which in turn leads to the availability of more capital and investors, leading to further growth and stability of a corporation. Additionally, management should be better and more efficient in compliance with regulations and rules. It might improve the operational activities of the organization. It might be helpful to improve workplace safety and security of the employees and customers. These practices overall increase the performance of the organization. The main impact of the practice of risk management is to ensure the performance and continuity of the business. The main objective of the organization is to grow longer. (Willumsen, 2019). This result impacts future research contributions related to risk management practice and governance.

However, the findings in this study are limited to the information provided in the annual report. An in-depth survey or case study can be conducted to gauge a better understanding of this issue. The findings from this study need also to be carefully generalized due to small sample size. Furthermore, based on the study done for this research, business risks of every type create problems for organizations. Therefore, organizations should take adequate measures to control these business risks for the longer growth of their business operations. In conclusion, this study recommended the active involvement of the board of directors in managing business risks, especially during a crisis. Robust policies and procedures for risk management are crucial. The risk management committee needs to play a role in managing risks effectively. The Board of Directors should also regularly review the policies and provide practical recommendations to maintain a sound control environment for the company. Adequate resources must be allocated; in some cases, the company's management should have alternative resources to support the risk management strategy. These actions are essential to ensure the company can perform and sustain itself, especially in a crisis (Parast, 2019).

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REFERENCES

- [OECD] Organisation for Economic Cooperation and Development. (2020). The Territorial Impact of COVID-19: Managing the Crisis Across Levels of Government. Organization for Economic Cooperation and Development, (April), 2–44. Retrieved from <https://www.oecd.org/coronavirus/policy-responses/the-territorial-impact-of-covid-19-managing-the-crisis-across-levels-of-government-d3e314e1>.
- Al-Nimer, M., Abbadi, S. S., Al-Omush, A., & Ahmad, H. (2021). Risk Management Practices and Firm Performance with a Mediating Role of Business Model Innovation. Observations from Jordan. *Journal of Risk and Financial Management*, 14(3). <https://doi.org/10.3390/jrfm14030113>.
- Alabdullah, T. T. Y., & Abdel Hussein, Z. A. (2023). Risk Management, Female Leadership and Project Management Performance: A study in Oman. *International Journal of Scientific and Management Research*, 06(06), 77–94. <https://doi.org/10.37502/ijsmr.2023.6606>.
- Alzahrani, A. A., Zairi, M., & Al-Abbasi, N. H. (2020). The Effect of Corporate Governance on Corporate Performance: Evidence from Saudi Arabia. *Journal of Business Ethics*, 165, 401–415.
- Abdullah, B. M. (2019). Fourth generation biofuel: A review on risks and mitigation strategies. *Renewable and Sustainable Energy Reviews*, 107, 37–50.
- Ahmad, E. M. (2018). Theoretical framework development for supply chain risk management for Malaysian manufacturing. *International Journal of Supply Chain Management*, 7(6), 325–338.

- Amran, A., Manaf Rosli Bin, A., & Che Haat Mohd Hassan, B. (2009). Risk Reporting: An Exploratory Study on Risk Management Disclosure in Malaysian Annual Report. *Managerial Auditing Journal*, 24(1), 39-57.
- Ateş, N. Y., Tarakci, M., Porck, J. P., van Knippenberg, D., & Groenen, P. J. (2020). The dark side of visionary leadership in strategy implementation: Strategic alignment, strategic consensus, and commitment. *Journal of Management*, 46(5), 637-665. <https://doi.org/10.1177/0149206318811567>.
- Brady O, & Wilder-Smith A (2021) What Is the Impact of Lockdowns on Dengue? *Current Infectious Disease Reports*, 23(2), 1–8.
- Boffo, R., & Patalano R. (2020). ESG Investing: Practices, Progress and Challenges. OECD Paris. Retrieved from <https://www.oecd.org/finance/ESG-Investing-Practices-Progress-Challenges.pdf>.
- Bouslah, K. K. (2018). Social performance and firm risk: Impact of the financial crisis. 643-669.
- Bundy, J., Pfarrer, M. D., Short, C. E., & Coombs, W. T. (2017). Crises and Crisis Management: Integration, Interpretation, and Research Development. *Journal of Management*, 43(6), 1661-1692. <https://doi.org/10.1177/0149206316680030>.
- Caraiman, A.-C., & Mates, D. (2020). Risk management in corporate governance. In *Proceedings of the International Conference on Business Excellence* (Vol. 14, No. 1, pp. 182-201). Sciendo. <https://doi.org/10.2478/picbe-2020-0018>.
- Chains, G. V., & Covid-, E. C. O. F. (2021). Global Value Chains: Efficiency and Risks in the Context of COVID-19. (February), 1–17.
- Chakraborty I, & Maity P (2020) COVID-19 outbreak: Migration, effects on society, global environment and prevention. *Science of the Total Environment*, 728, 138882.
- Callahan, C., & Soileau, J. (2017), Does Enterprise risk management enhance operating performance? *Advances in Accounting*, 37, 122-139.

- Church, R. M. (2002). The effective use of secondary data. *Learning and Motivation*, 33(1), 32–45. <https://doi.org/10.1006/lmot.2001.1098>.
- Crispim, J., Silva, L. H., & Rego, N. (2019). Project risk management practices: The organizational maturity influence. *International Journal of Managing Projects in Business*, 12(1), 187-210.
- Cumming, D., Hou, W., & Wu, E. (2017). The value of home-country governance for cross-listed stocks. *The European Journal of Finance*, 23(7-9), 674-706. <https://doi.org/10.1080/1351847X.2014.917120>.
- Davies, P. L. (2000). The Board of Directors: Composition, Structure, Duties and Powers, Commercial Law London School of Economics and Political Science Company Law Reform in OECD Countries A Comparative Outlook of Current Trends. (December).
- Dima, A.M. & Orzea, I. (2014). Risk Management in Banking. *Risk Assessment and Management*, 107-122.
- Durst, S., Hinteregger, C., & Zieba, M. (2019). The linkage between knowledge risk management and organizational performance. *Journal of Business Research*, 105, 1-10.
- Eckles, David, L., Hoyt, Robert, E., Miller, Steve, M., (2014), Reprint of: The impact of enterprise risk management on the marginal cost of reducing risk: Evidence from the insurance industry. *Journal of Banking & Finance*, 49, 409-423.
- Florio, C., & Leoni, G. (2017). Enterprise risk management and firm performance: The Italian case. *The British Accounting Review*, 49(1), 56-74.
- Foss, N. J. (2020). The impact of the COVID-19 pandemic on firms' organizational designs. *Journal of Management Studies*, ahead of print (ahead of print) <https://doi.org/10.1111/joms.12643>.
- Grondys, K., Ślusarczyk, O., Hussain, H. I., & Androniceanu, A. (2021). Risk assessment of the SME sector operations during the COVID-19

- pandemic. *International Journal of Environmental Research and Public Health*, 18(8), 4183. <https://doi.org/10.3390/ijerph18084183>.
- Hanelt, A., Bohnsack, R., Marz, D., & Antunes Marante, C. (2021). A systematic review of the literature on digital transformation: Insights and implications for strategy and organizational change. *Journal of Management Studies*, 58(5), 1159-1197. <https://doi.org/10.1111/joms.12639>.
- Hoyt, R.E., Moore D.L & Liebenberg A. P. (2008). The Value of Enterprise Risk Management: Evidence from the U.S. Insurance Industry. Working Paper: University of Mississippi.
- ICAEW. (2016). Top five cyber risks. ICAEW Business Advice Service, 1–6. Retrieved from <https://www.icaew.com/-/media/corporate/files/technical/business-and-financial-management/smes/bas-files/top-five-cyber-risks.ashx>.
- Hertati, L., Widiyanti, M., Desfitrina, D., Syafarudin, A., & Safkaur, O. (2020). the Effects of Economic Crisis on Business Finance. *International Journal of Economics and Financial Issues*, 10(3), 236–244. <https://doi.org/10.32479/ijefi.9928>.
- Jedynak, P., & Bąk, S. (2021). *Risk management in crisis: Winners and losers during the COVID-19 pandemic* (p. 252). Taylor & Francis.
- JHU (2021) The COVID-19 Dashboard by the Center for Systems Science and Engineering (CSSE) of Johns Hopkins University. Johns Hopkins University. <https://coronavirus.jhu.edu/map.html>.
- Kafidipe, A., Uwalomwa, U., Dahunsi, O., & Okeme, F. O. (2021). Corporate governance, risk management and financial performance of listed deposit money bank in Nigeria. *Cogent Business and Management*, 8(1), 1888679. <https://doi.org/10.1080/23311975.2021.1888679>.
- Leitch, M. (2010). ISO 31000: 2009-The new international standard on risk management. *Risk analysis*, 30(6), 887.

- McAleer, M. (2020). Prevention is better than the cure: Risk management of COVID-19. *Journal of Risk and Financial Management*, 13(3), 46.
- Malaysia Code of Corporate Governance, MCCG. (2021). Malaysian Code on. Malaysian Code on Corporate Governance, 1–23.
- Mofijur, M., Fattah, I. R., Alam, M. A., Islam, A. S., Ong, H. C., Rahman, S. A., ... & Mahlia, T. M. I. (2020). Impact of COVID-19 on the social, economic, environmental and energy domains: Lessons learnt from a global pandemic. *Sustainable Production and Consumption*, 26, 343–359.
- Murthy, D. N. P., Kurvinen, M., & Töyrylä, I. (2016). Agency Theory. In Warranty Fraud Management: Reducing Fraud and Other Excess Costs in Warranty and Service Operations. <https://doi.org/10.1002/9781119277576.app02>.
- Ngu, S. B., & Amran, A. (2020). The Moderating Effect of Risk Management Committee on Corporate Governance and Financial Performance. 106–119. <https://doi.org/10.15405/epsbs.2020.10.10>.
- Oduoza, C. F. (2020). Framework for sustainable risk management in the manufacturing sector. *Procedia Manufacturing*, 51(2019), 1290–1297. <https://doi.org/10.1016/j.promfg.2020.10.180>
- Pannell, R. (2023), The Importance of Identifying the Right Sample Size for Business Improvement, Leanscape, 5 April 2023, <https://leanscape.io/the-importance-of-identifying-the-right-sample-size-for-business-improvement/#:~:text=Why%20is%2030%20the%20minimum,as%20the%20sample%20size%20increases>. Accessed 16 March 2025.
- Pantano, E., Pizzi, G., Scarpi, D., & Dennis, C. (2020). Competing during a pandemic? Retailers' ups and downs during the COVID-19 outbreak. *Journal of Business Research*, 116(May), 209–213. <https://doi.org/10.1016/j.jbusres.2020.05.036>.
- Rashid, N., Muhmad, S. N., Haat, M. H. C., Muhmad, S. N., Hashim, H. A., & Afthanorhan, A. (2018). Risk Management Effectiveness Index

- Score for Pre and Post Malaysian Code on Corporate Governance 2012. *International Journal of Academic Research in Business and Social Sciences*, 8(12), 729–741. <https://doi.org/10.6007/ijarbss/v8-i12/5068>.
- Rimin, F., Bujang, I., Wong Su Chu, A., & Said, J. (2020). The effect of a separate risk management committee (RMC) towards firms' performances on consumer goods sector in Malaysia. *Business Process Management Journal*, 27(4), 1200–1216. <https://doi.org/10.1108/BPMJ-06-2020-0265>.
- Sobel, P. J., Prawitt, D. F., Dohrer, R. D. D., Murdock, D. C., Thomson, J. C., & Miller, P. K. (2020). Compliance Risk Management: Applying the COSO ERM Framework. Coso, 48. Retrieved from [https://www.wlrk.com/docs/Compliance-Risk-Management-Applying-the-COSO-ERM-Framework_\(1\).pdf](https://www.wlrk.com/docs/Compliance-Risk-Management-Applying-the-COSO-ERM-Framework_(1).pdf).
- van Daelen, M., & Van der Elst, C. (Eds.). (2010). *Risk management and corporate governance: Interconnections in law, accounting and tax*. Edward Elgar Publishing. <https://doi.org/10.4337/9781849807999>.
- Wan Mohd Yunus, W. M. A., Badri, S. K. Z., Panatik, S. A., & Mukhtar, F. (2021). The Unprecedented Movement Control Order (Lockdown) and Factors Associated with the Negative Emotional Symptoms, Happiness, and Work-Life Balance of Malaysian University Students During the Coronavirus Disease (COVID-19) Pandemic. *Frontiers in Psychiatry*, 11(February). <https://doi.org/10.3389/fpsy.2020.566221>.
- 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>.
- Singh, H., & Harianto, F. (1989). Management-board relationships, takeover risk, and the adoption of golden parachutes. *Academy of Management Journal*, 32(1), 7-24.
- Vieira, E. S. (2018). Board of directors' characteristics and performance in family firms and under the crisis. *Corporate Governance: The International Journal of Business in Society*, 18(1), 119-142.

Walker, P. W. (2020). The impact of COVID-19 and strategies for mitigation and suppression in low-and middle-income countries. *Science*, 369(6502), 413-422.

Willumsen, P. O. (2019). Value creation through project risk management. *International Journal of Project Management*, 37(5), 731-749.