

Ghofar, Abdul; Muhammad, Muhammad; Rasli, Amran; Narullia, Dwi;
Prestianawati, Silvi Asna

Article

An investigation into factors affecting corporate risk management in ASEAN-4 Countries

Cogent Business & Management

Provided in Cooperation with:

Taylor & Francis Group

Suggested Citation: Ghofar, Abdul; Muhammad, Muhammad; Rasli, Amran; Narullia, Dwi; Prestianawati, Silvi Asna (2022) : An investigation into factors affecting corporate risk management in ASEAN-4 Countries, Cogent Business & Management, ISSN 2331-1975, Taylor & Francis, Abingdon, Vol. 9, Iss. 1, pp. 1-20, <https://doi.org/10.1080/23311975.2022.2135204>

This Version is available at:

<https://hdl.handle.net/10419/289288>

Standard-Nutzungsbedingungen:

Die Dokumente auf EconStor dürfen zu eigenen wissenschaftlichen Zwecken und zum Privatgebrauch gespeichert und kopiert werden.

Sie dürfen die Dokumente nicht für öffentliche oder kommerzielle Zwecke vervielfältigen, öffentlich ausstellen, öffentlich zugänglich machen, vertreiben oder anderweitig nutzen.

Sofern die Verfasser die Dokumente unter Open-Content-Lizenzen (insbesondere CC-Lizenzen) zur Verfügung gestellt haben sollten, gelten abweichend von diesen Nutzungsbedingungen die in der dort genannten Lizenz gewährten Nutzungsrechte.

Terms of use:

Documents in EconStor may be saved and copied for your personal and scholarly purposes.

You are not to copy documents for public or commercial purposes, to exhibit the documents publicly, to make them publicly available on the internet, or to distribute or otherwise use the documents in public.

If the documents have been made available under an Open Content Licence (especially Creative Commons Licences), you may exercise further usage rights as specified in the indicated licence.



<https://creativecommons.org/licenses/by/4.0/>

An investigation into factors affecting corporate risk management in ASEAN-4 Countries

Abdul Ghofar, Muhammad Muhammad, Amran Rasli, Dwi Narullia & Silvi Asna Prestianawati

To cite this article: Abdul Ghofar, Muhammad Muhammad, Amran Rasli, Dwi Narullia & Silvi Asna Prestianawati (2022) An investigation into factors affecting corporate risk management in ASEAN-4 Countries, Cogent Business & Management, 9:1, 2135204, DOI: [10.1080/23311975.2022.2135204](https://doi.org/10.1080/23311975.2022.2135204)

To link to this article: <https://doi.org/10.1080/23311975.2022.2135204>



© 2022 The Author(s). This open access article is distributed under a Creative Commons Attribution (CC-BY) 4.0 license.



Published online: 08 Nov 2022.



Submit your article to this journal [↗](#)



Article views: 2249



View related articles [↗](#)



View Crossmark data [↗](#)



Citing articles: 1 View citing articles [↗](#)



Received: 19 August 2022
Accepted: 07 October 2022

*Corresponding author: Abdul Ghofar,
Universitas Brawijay
Email: ghofar@ub.ac.id

Reviewing editor:
Collins G. Ntim, Accounting,
University of Southampton, UNITED
KINGDOM

Additional information is available at
the end of the article

ACCOUNTING, CORPORATE GOVERNANCE & BUSINESS ETHICS | RESEARCH ARTICLE

An investigation into factors affecting corporate risk management in ASEAN-4 Countries

Abdul Ghofar^{1*}, Muhammad Muhammad², Amran Rasli¹, Dwi Narullia² and Silvi Asna Prestianawati³

Abstract: This study investigated the effect of corporate governance on corporate risk management. By using the regression analysis method, different results on the effects of the variables independent commissioners, female commissioners, meeting frequency, and audit committee members' expertise background on corporate risk management were obtained. In addition, companies in Singapore that had high levels of risk management activities were found to experience faster recovery after the crisis caused by the COVID-19 pandemic compared to other countries (Malaysia, Indonesia, and the Philippines). Overall, this study concludes that corporate governance has an important role in improving the risk management activities of a firm. This study may serve as a consideration for corporate governance implementation to improve corporate risk management.

Subjects: Business, Management and Accounting; Accounting; Government & Non-Profit Accounting

Keywords: Governance; Risk Management; COVID-19; Company Performance

1. Background

In March 2020, the Indonesian Government announced a global pandemic named COVID-19 that, as of April 2021, had killed 41,669 Indonesian people and counting (CNN, 2021). To keep coronavirus transmission in check, the Indonesian Government established rules on travel restrictions, whether they be domestic or international. The establishment of social restriction policies left impacts not only on a single sector—transportation, that is—but also on nearly all other sectors such as food and beverage services, entertainment and tourism, and retail trading (i.e., at malls).

The results of a joint survey by the Economic Research Institute for ASEAN and East Asia (ERIA) and the American Chamber of Commerce in Indonesia (AmCham) revealed that practically all firms within the ASEAN region suffered from the negative impacts of the COVID-19 pandemic (Amcham & Eria, 2020). According to the report, 75% of the firms experienced a significant slump in sales. Such a dramatic decline was caused by a drop in demand by 79%. The pandemic has also caused the capital market in Indonesia to be afflicted with significant adverse impacts. The IDX Composite (IHSG), for instance, plunged by over 14% in the period 16–20 March 2020.

Not only has it devastated world businesses, the COVID-19 pandemic has also increased uncertainties in corporate goals accomplishment. Moreover, the shift into a new normal could bring about emerging risks and increase the likelihood of existing risks coming into manifestation. According to Shivaani and Agarwal (2020) and Y.-C. Wu et al. (2016), risks are inevitable in running the company. It is for this reason that it becomes urgent for a company in such a crisis to pay

attention to risk management in its decision-making (J. Wu & Wu, 2014). Furthermore, it is also expected of the company to manage uncertainties in order to minimize the negative impacts of the risks and in order for it to achieve its desired performance target.

According to Liebenberg and Hoyt (2003), risk management is influenced by a number of variables: firm size, industry group, earnings volatility, stock price volatility, leverage, average market-to-book ratio, institutional ownership, and corporate origin. Yatim (2010) then explained that a firm that is proactive in risk management can not only detect fraud but also improve financial statement quality (Power, 2004; Wiseman & Bromiley, 1996). In addition, risk management can also boost firm performance (Aebi et al., 2012; COSO, 2015; Ghofar & Islam, 2015; Pagach & Warr, 2011; B. Simkins & Ramirez, 2008; Wiseman & Bromiley, 1996) as well as the value and self-confidence of shareholders (Jensen & Meckling, 1976; Nocco & Stulz, 2006; Rosli et al., 2017; Y.-C. Wu et al., 2016).

A firm's risk management policies are inseparable from its governance policies. This is because effective governance policies can reduce moral hazards and wrong decision-making due to information gaps between managers, shareholders, and prospective investors (Bushman et al., 2003). In this case, the board of commissioners in the firm plays a vital role as it is responsible for the risk management and governance policies in place in the firm (Baulkaran & Bhattarai, 2020; Moumen et al., 2016). In other words, to realize good governance, the firm is expected to disclose important information, be it mandatory or other sensitive information, including risk disclosure.

Prior studies on corporate risk management and governance disclosure can generally be mapped into two extremities. The first set of studies by Abdallah et al. (2015), Allini et al. (2016), and Elshandidy and Neri (2015) unveiled that corporate governance policies affect firm decision in disclosing sensitive information such as firm business risk. Firms with good governance tend to disclose their risk information openly. The role of the board of commissioners is of the utmost importance, given that risk disclosure policies depend on their discretion (Moumen et al., 2016).

Meanwhile, according to the other set of studies by Samaha et al. (2015) and Alsaifi et al. (2020), risk disclosure by a firm is not responded to in a positive way by shareholders, who believe that risks will increase the costs the firm will have to incur. Costs such as environmental impact litigation risks, compliance costs, and costs incurred to improve reputation will arise with the increase of risk disclosure. Krishnamurti and Velayutham (2018) stated that sensitive information disclosure may create an additional risk source for a firm. Firstly, the management could feed competitors with valuable information regarding the firm's weak points. Secondly, information of certain sorts potentially attract the attention of regulators. Thirdly, present and prospective investors may react negatively to such information because they feel insecure to invest their money to the firm due to too many a business risk..

This research deviates from earlier studies in using some ASEAN countries belonging to the ASEAN-4 group (Indonesia, Malaysia, Singapore, and the Philippines) as sample. Singapore was chosen to represent developed states, while Indonesia, Malaysia, and the Philippines were to represent developing economies. In addition, the four selected nations were adopters of the IFRS in financial reporting for the period 2015–2020 (as with the period used in this research).

Additionally, this research may contribute to the existing literature to broaden the knowledge on corporate risk management by comparing developed and developing countries in ASEAN. It may also serve as a consideration in the determination of activities involved in corporate risk management and firm performance.

2. Literature review

This research used the agency theory as grand theory. Jensen and Meckling (1976) defined this theory as a contractual relationship between some people (principals) who are employers of another group of people (agents). The agents acting as firm managers are given a mandate by shareholders to manage the resources available to improve the shareholder value. Eisenhardt (1989) explained that this agency theory arises out from the assumption that as humans', managers would tend to be egotistical in making decisions for their own benefit (self-interest). They would also develop a resistant attitude toward the existing risks (risk-aversion). The management, on the other hand, is also depicted as a group of individuals driven by a variety of interests that put them into susceptibility to internal conflicts. The next assumption is about information: in a firm, information is critical. Information that is reliable and relevant will be useful in decision-making. Therefore, information is often regarded as a tradeable commodity. With such underlying assumptions, and the separation between them, shareholders and the management will be bound for conflicts that arise between them. One of the mechanisms to overcome such agency conflicts, according to Barnhart and Rosenstein (1998), is to implement good governance.

As it evolves, the agency theory is not only taken to refer to principal-agent conflicts. Schleiver and Vishny (1986) described this theory as the problem that arises between majority and minority shareholders in a firm, in which case it is feared that the majority shareholders would overcontrol the firm policies, allowing them to do expropriation and leading to the making of policies that tend to be harmful to the minority shareholders. To protect the interests of the minority shareholders against those of the majority shareholders, the firm and the management within must own and implement a series of certain mechanisms named good corporate governance (Schleiver & Vishny, 1986).

Jensen and Meckling (1976) identified two ways in which the opportunity for managers to take measures that might harm investors can be reduced, one of which is to allow external investors to conduct supervision over the management. Oversight might be carried out by investors by setting the mechanisms of the board of commissioners' characteristics. Board of commissioners characteristics play a significant role in encouraging managers to implement risk management and internal control effectively (Gordon et al., 2009; Yatim, 2010; Zhang et al., 2007). It is expected that the independence of independent commissioners can serve as the most effective means to monitor and control managers' policies and activities. It takes expertise and objectivity for such external parties as independent commissioners to control and advise a manager. Therefore, independent commissioners are expected to have a greater degree of awareness and objectiveness to run a superior monitoring function against the corporate internal control and risk management (Yatim, 2010).

Independent commissioners are members of a board of commissioners external to the management. As independent members of a board of commissioners who are considered to be in no relationship with the management, they are hoped to be able to monitor the management more objectively. In the context of monitoring and separation of control and decision-making, the function performed by independent commissioners are essential to protect the interests of shareholders (Duchin et al., 2010) because they will permit a greater level of effectiveness in the minimization of managers' opportunistic behavior (Kiel & Nicholson, 2003). The supervisory role of the board of commissioners is hoped to be able to push down the agency issues between shareholders and the management, and it is for this reason that the market would be inclined to favoring the presence of independent commissioners (Lefort & Urzúa, 2008). Besides, independent commissioners will offer a counterbalance against managers as internals, preventing them from taking advantage of their positions by sacrificing shareholders' interests (Yunos, 2011). Seen from the relationship between majority and minority shareholders, the presence of independent commissioners constitutes a good corporate governance mechanism to protect the interests of minority shareholders from majority shareholders' expropriation. These independent commissioners are expected to be more objective in supervising the corporate internal control and risk management (Yatim, 2010).

Yatim (2010) stated that to guard the reputation of a board of commissioners against stakeholders, the board of commissioners, which is independent, is inclined to showing that they have sufficient competencies in performing their tasks. Therefore, one of the efforts the independent board of commissioners would undertake is to intensify risk management activities and to disclose what they have done in the implementation of corporate risk management. Not only by the independence factor, Ishak & Mohamad (2017) posited that the level of supervision by a board of commissioners is also extensively influenced by the quality of the board of commissioners and the educational backgrounds of the members of the board of commissioners that could improve the business risk management activities at the company. Based on the description above, the hypothesis proposed is as follows:

H1: Board of Commissioners Composition Has an Effect on Corporate Risk Management Disclosure (KI)

Female members of a board of commissioners are believed to be able to improve monitoring activities, demonstrate a greater level of care in decision-making, and tend to have disinterest in risk-taking (K. L. H. Khaw & Liao, 2018). By contrast, their male counterparts have been discovered to be bolder in taking risk in decision-making (Byrnes et al., 1999). Brammer et al. (2009) stated that the presence of women in a company alludes to two paradigms. From the moral perspective, it is said that every firm should embrace equality of women's and men's rights. Meanwhile, from the business perspective, it is considered that women are capable of improving firm performance. In contemporary days, the presence of women in a board also improves the firm reputation in the public's eye (Low et al., 2015). Female board members have also been found to attend meetings more diligently than those of the male gender (Adams & Funk, 2012). This indicates that women take their duties as members of a board of commissioners more seriously than men. Meanwhile, Chen et al. (2016) found that a firm with women in its board structure has lower volatility in future performance. In addition, it has also been proven that the presence of women in a board promotes effectiveness in risk management. Therefore, this study developed the following hypothesis:

H2: Female Commissioners Has an Effect on Corporate Risk Management Disclosure (KW)

Based on the agency theory, the effectiveness of meeting frequency held by a board of commissioners could improve the firm performance (Yakob & Hasan, 2021). In meetings, board members discuss and look for solutions to the existing agency problems. As reported by Correia and Lucena (2020), the increase in board meeting frequency could improve the coordination, communication, and relationship between board members.

Al-Najjar (2010) and Chou et al. (2013) argued that the meetings attended by board members could improve the firm performance. This is because these meetings could enhance the control mechanism against the management to maximize shareholder wealth. Additionally, Elamer et al. (2018) found that there was a negative correlation between board meetings and risk taking. This would mean that the higher the meeting frequency held by the board the lower the risk-taking behavior in decision-making. DeZoort et al. (2002) even indicated that meeting frequency was inversely proportional to financial reporting problems. Good-quality financial statements are found in companies that regularly hold board meetings.

The results of the study by Yatim (2010) unveiled that the meeting frequency and competencies of a board of commissioners were positively correlated with the formation of a risk management committee separately from the formation of an audit committee. A high meeting frequency could improve the board members' understanding of the existing risks and how to

manage such risks. The board of commissioners also make efforts to show good performance and reputation to shareholders. Therefore, to be answerable for the shareholders' trust in them, the frequency of the meetings held by the board would be disclosed in the firm's annual report. Based on the description above, the following hypothesis is proposed:

H3: Board of Commissioners Meeting Frequency Has an Effect on Corporate Risk Management Disclosure (FR)

An audit committee is a monitoring system largely contributing to the effectiveness of a firm's internal control and risk management systems. Dionne and Triki (2005) conducted research on a new corporate governance act called *Sarbanes-Oxley*, which sets an additional requirement of the composition and accounting and financial knowledge backgrounds of audit committee members. This research found that the requirement regarding the audit committee composition and independence was useful to shareholders. It is mandatory that the audit committee make the right decisions in order to be able to reinforce the firm internal control system. Therefore, expertise and educational backgrounds are extremely important to support the audit committee's decision-making abilities. Auditor independence was also identified to have a positive relationship with firm internal control and risk management (Dionne & Triki, 2005). Based on the description above, the following hypothesis is proposed:

H4: Independent Audit Committee Composition Has an Effect on Corporate Risk Management Disclosure (KAI)

Aside from independence, another audit committee factor that contributes to the sound running of an internal control system is the knowledge background of the audit committee members (Dionne & Triki, 2005). Zhang et al. (2007) identified weak internal control more with a firm that has an audit committee lacking in accounting and financial expertise. The research by Dionne and Triki (2005) also successfully proved that a financially knowledgeable audit committee would be able to improve a firm's risk management, thereby improving the firm's performance. Based on the description above, the following hypothesis is proposed:

H5: Audit Committee Members' Expertise Background Has an Effect on Corporate Risk Management Disclosure (KABF)

The presence of an external auditor is a crucial component in firm internal control and risk management. The quality of the external auditor employed by a firm would influence the effectiveness of the firm's internal control. Doyle et al. (2007) in their research stated that a firm's employment of a well-reputed external auditor would lower the likelihood of financial reporting and internal control problems. According to Cohen et al. (2004), the employment of big-four auditors would drive up the mechanism of internal control quality for the better. In general terms, big-four auditors have the ability to influence the internal control system of a client by making recommendations of system improvement and firm internal control design (Subramaniam et al., 2009).

A firm internal control system is part of the risk management mechanism undertaken by a firm. Subramaniam et al. (2009) stated that the risk management activities of a firm must be disclosed to improve the firm's reputation in the stakeholders' eyes. This is necessary to maintain the auditing quality and protect the firm reputation. Based on the description above, the following hypothesis is proposed:

H6: External Auditor Quality Has an Effect on Corporate Risk Management Disclosure (KAE)

3. Research methods

3.1. Research Population and Sample

This research is a quantitative study that used data from firm financial statements and annual reports. This research on the effect of corporate governance on corporate risk management disclosure used research objects of firms listed on Stock Exchanges (of Indonesia, Malaysia, Singapore, and the Philippines) and belonging to the Best 40 ASEAN Star index within the 5-year observation period 2015–2020, totaling 160 firms or 800 observations as sample. Data were collected from annual reports published on the websites of the Indonesia Stock Exchange, Singapore Stock Exchange, Malaysia Stock Exchange, and the Philippines Stock Exchange as well as from the websites of the companies selected as samples.

3.2. Measurement of the Variable Corporate Risk Management Disclosure

An adequate risk management system must meet certain requirements for it to be reliable to support the success of the firm's risk management implementations (Tjahjadi, 2011). COSO (2015) stated that a firm's risk management must possess an element—risk disclosure—as an indication that the firm has performed overall corporate risk management. Therefore, this research employed business risk disclosure as an indication of the management have practiced corporate risk management through disclosure in annual reports as a proxy. The criteria for a firm to be considered to have disclosed risk details as an indication that it has conducted risk management activities are as follows (Schleiver & Vishny, 1986):

- (1) Risk is anything adversely impactful or harmful to the firm and anything containing uncertainty.
- (2) Sentences or descriptions considered risk disclosure are if users of company report are provided with information about opportunities or prospect or about risk, dangers, losses, and obstacles or will impact the company in the future.
- (3) The risk disclosure must be explicit.
- (4) If the disclosure was too vague to be identified, it would not be considered as risk disclosure.

3.3. Measurement of Corporate Governance Variables

The corporate governance variables in this research used a proxy named Good Corporate Governance Scoring Index, that was represented by board of commissioners composition, audit committee composition and expertise background, external auditor quality, and board of commissioners meeting frequency. According to Gwenda and Juniarti (2013), the higher the Good Corporate Governance Scoring Index score the better the corporate governance implementation. Better corporate governance implementation itself, in turn, will result in higher firm values.

In this research, two components of corporate governance criteria—board of commissioners composition and board of commissioners meeting frequency—serve as a basis for assessing whether a firm has implemented good corporate governance. All information related to the composition of the board of commissioners and the frequency of meetings is obtained from disclosures made by the company through the published annual report. Firms with good governance assessment were to be assigned with index score 1. In contrast, those that did not implement good governance were to be assigned index score 0 in every component of corporate governance criteria. Afterward, in every variable, the degree to which the governance criteria had been fulfilled by the firms was quantified in percentage. Higher percentages indicated that the firms had been better in implementing corporate governance.

3.4. Data Analysis Techniques

This research used a regression analysis technique with the IBM SPSS statistical application version 20. The regression analysis carried out here went through two stages: (1) multiple regression analysis stage involving all ASEAN research data and (2) regression analysis stage involving each ASEAN country that was selected as this research's object. The results from the first-stage analysis were used to inform the research hypotheses decision-

making. Then the result of the second-stage analysis-regression of each country-were used to enrich the first-stage analysis.

In the first stage of analysis, this research examined how corporate governance affected the risk management implemented in a firm. Below is the regression equation formula employed in this research:

$$1) \text{ ManRisk}_{it} = \alpha + \beta_1.KI_{it} + \beta_2.KW_{it} + \beta_3.FR_{it} + \beta_4.KAI_{it} + \beta_5.KABF_{it} + \beta_6.KAE_{it} + \varepsilon$$

In the second-stage analysis, this research examined two points: (a) how corporate governance affected the risk management implemented in a firm in each country and (b) how risk management affected firm performance, as reflected by the natural logs of share price, earnings per share, book value per share, and operating cash flow per share. The analysis in stage 2a used the same regression model as in the analysis in stage 1, while the regression model for the analysis in stage 2b is shown in figure 1. Below are the regression equations used in the second stage of analysis in this research:

3.5. 2) Examination in each ASEAN country serving as an object in this research

$$a. \text{ ManRisk}_{it} = \alpha + \beta_1.KI_{it} + \beta_2.KW_{it} + \beta_3.FR_{it} + \beta_4.KAI_{it} + \beta_5.KABF_{it} + \beta_6.KAE_{it} + \varepsilon$$

$$b. \begin{aligned} \ln \text{ Price}_{it} &= \alpha + \beta. \text{ ManRisk}_{it} + \varepsilon \\ \ln \text{ EPS}_{it} &= \alpha + \beta. \text{ ManRisk}_{it} + \varepsilon \\ \ln \text{ BVS}_{it} &= \alpha + \beta. \text{ ManRisk}_{it} + \varepsilon \\ \ln \text{ CFOS}_{it} &= \alpha + \beta. \text{ ManRisk}_{it} + \varepsilon \end{aligned}$$

where

ManRisk_{it} = Risk management disclosure of firm i in period t

α = Constant

β = Regression coefficient

KI_{it} = Independent commissioners percentage at firm i in period t

KW_{it} = Female commissioners percentage at firm i in period t

FR_{it} = Meeting frequency at firm i in period t

KAI_{it} = Percentage of independent audit committee members at firm i in period t

$KABF_{it}$ = Percentage of audit committee members with accounting/financial background or expertise at firm i in period t

KAE_{it} = External auditor quality of firm i in period t

$\ln \text{ Price}_{it}$ = Natural log of share price of firm i in period t

$\ln \text{ EPS}_{it}$ = Natural log of earnings per share of firm i in period t

$\ln \text{ BVS}_{it}$ = Natural log of book value per share of firm i in period t

$\ln \text{ CFOS}_{it}$ = Natural log of operating cash flow per share of firm i in period t

ε = Error term

4. Research results and discussion

Hypothesis testing in this study was carried out in stage 1 analysis with multiple regression analysis on six independent variables and one dependent variable. Before interpreting the regression analysis result, the regression model was confirmed to have fulfilled all the required classical assumption tests. Therefore, based on the results of classical assumption testing, the model formed in this study has fulfilled all the assumptions as presented in Table 1 below.

After confirming that the regression model has met all the required classical assumption tests, the analysis is continued on the interpretation of the regression results. Stage 1 analysis will be used for research hypothesis decision-making. The following are the results of the regression of corporate governance variables on corporate risk management, summarized in Table 2. Based on the results in Table 2, from 6 (six) corporate governance variables, there are 4 (four) variables show a positive influence on corporate risk management.

This research developed a regression model to explain corporate governance variables' roles in risk management. Table 1 shows the results of the regression analysis of the relationships of governance variables to risk management in four ASEAN countries (Indonesia, Singapore, Malaysia, and the Philippines) as a whole. Based on those results, the four variables that had positive effects on corporate risk management were independent commissioners' composition with a coefficient of 0.059 (sig. 0.002), meeting frequency with a coefficient of 0.064 (sig. 0.031), audit committee members' expertise background with a coefficient of 0.456 (sig. 0.002), and external auditor quality with a coefficient of 0.136 (sig. 0.014). The R-squared value of this regression equation was 5.4% (0.054), reflecting that the research's governance variables made up only a small share of a large group of variables that affect corporate risk management.

Table 1. Summary of Classical Assumption Test Results

Test Type	Assumption	Test Result	
NormalityKolmogorov-Smirnov Test	Residual data is said to have a normal distribution if the value of <i>Asymptotic significance 2-tailed</i> higher than α 0.05	<i>Asymp. Sig 2-tailed</i> = 0.065	Meet the normality assumption
Multicollinearity	The regression model is said to have no collinearity between independent variables if the value of the variance inflation factor (VIF) is less than 10.	The VIF value for all variables in the model is < 10 so that it can be stated that there is no multicollinearity.	Meet the multicollinearity assumption

Table 2. Regression Analysis of the Effect of Corporate Governance on Risk Management

All Data Regression	ManRisk	Sig. 2 Tailed	Hypothesis Testing
KI	0.059**	0.002	H1 Accepted
KW	-0.041	0.703	H2 Not Accepted
FR	0.064*	0.031	H3 Accepted
KAI	0.350	0.108	H4 Not Accepted
KABF	0.456**	0.002	H5 Accepted
KAE	0.136*	0.014	H6 Accepted
Adjusted R Square	0.054	0.000	

** Correlation is significant at the 0.01 level

* Correlation is significant at the 0.05 level

Table 3. Pearson’s Correlation Test of Corporate Governance and Risk Management

Correlations		KI	KW	FR	KAI	KABF	BIG4	ManRisk
KI	Pearson Correlation	1.00	0.21	0.10	0.58	0.39	0.36	0.20
	Sig. (2-tailed)		0.00	0.01	0.00	0.00	0.00	0.00
	N	641	641	641	641	641	641	641
KW	Pearson Correlation	0.21	1.00	0.06	0.14	-0.10	-0.01	0.05
	Sig. (2-tailed)	0.00		0.13	0.00	0.01	0.88	0.19
	N	641	641	641	641	641	641	641
FR	Pearson Correlation	0.10	0.06	1.00	0.31	0.19	-0.20	0.08
	Sig. (2-tailed)	0.01	0.13		0.00	0.00	0.00	0.04
	N	641	641	641	641	641	641	641
KAI	Pearson Correlation	0.58	0.14	0.31	1.00	0.56	0.09	0.13
	Sig. (2-tailed)	0.00	0.00	0.00		0.00	0.02	0.00
	N	641	641	641	641	641	641	641
KABF	Pearson Correlation	0.39	-0.10	0.19	0.56	1.00	0.25	0.00
	Sig. (2-tailed)	0.00	0.01	0.00	0.00		0.00	0.93
	N	641	641	641	641	641	641	641
KAE	Pearson Correlation	0.36	-0.01	-0.20	0.09	0.25	1.00	0.12
	Sig. (2-tailed)	0.00	0.88	0.00	0.02	0.00		0.00
	N	641	641	641	641	641	641	641
ManRisk	Pearson Correlation	0.20	0.05	0.08	0.13	0.00	0.12	1.00
	Sig. (2-tailed)	0.00	0.19	0.04	0.00	0.93	0.00	
	N	641	641	641	641	641	641	641

This research also conducted a Pearson’s correlation test to strengthen the data analysis results. The results are presented in Table 3.

Pearson’s correlation test indicated that relationships existed between independent commissioners, meeting frequency, independent audit committee, and external auditor quality and corporate risk management. Two variables were found inconsistent: independent audit committee and audit committee members’ backgrounds in accounting or finance. This finding might be attributed to the R-squared value obtained as presented in Table 1, that is, 5.4% (0.054), which reflects that the governance variables in this research were only a small part of all the variables affecting corporate risk management. Such a small size of the effects of the governance variables on corporate risk management led to inconsistencies in the Pearson’s correlation testing, as is reflected in Table 2. Therefore, the discussion of each hypothesis in this research is to be based on the regression analysis results provided in Table 1.

4.1. The effect of corporate governance on corporate risk management in ASEAN

In business, risk management is crucial. By managing risks, a firm will be able to sustain its existence and generate profits as desired, thereby winning shareholders’ confidence (Ghofar & Islam, 2015). In today’s time, risks might be identified across a variety of fields, such as technologies, finance, and human resources, among others. Good risk management would maximize the firm’s competitive advantage and minimize the negative impacts of the existing risks. Meanwhile, risks might cause the firm to sustain significant losses if they are not well managed. Therefore, shareholders would pay greater attention to the management’s abilities to manage risks.

4.2. The effect of independent commissioners composition on corporate risk management in ASEAN

Overall, as revealed by the regression results, the corporate governance variables in this research had significant relationships with risk management. With regard to independent commissioners, the regression coefficient obtained was 0.059 (sig. 002), showing that the presence of independent commissioners in a firm played a critical role in promoting risk management activities. Firms that engaged in corporate governance activities were found to have better quality in risk disclosure than those that did not implement good corporate governance. Good-quality risk disclosure would reduce information asymmetry between majority and minority shareholders.

Of course, excellent risk disclosure policies are influenced by the existing board of commissioners. The board is demanded to improve risk disclosure by shareholders, who have the capacity to compel the board to do the job of supervising the management (Abdallah et al., 2015). Elshandidy and Neri (2015) opined that good governance is a vital factor in improving risk disclosure, both mandatory and voluntary.

Firms with good governance were also discovered to generate more informative risk statements than those with poor governance (Allini et al., 2016). Although their role in the technical, daily affairs of business is considered insignificant, their role of the board of commissioners in the appointment and dismissal of the existing board of directors is of utmost significance. The board of commissioners also determines the composition, expertise, and gender of the board of directors existing in a firm (Duchin et al., 2010). The effectiveness of risk management disclosure activities depends on the existing board composition. The variety of board composition in the firm is a significant consideration in risk disclosure. The variety of board composition in gender, educational background, and age was found to be able to improve the existing risk disclosure.

4.3. The effect of board of commissioners female composition on corporate risk management in ASEAN

A diverse board of commissioners is believed to promote the performance of a firm. It is believed that the presence of female members on a board of commissioners could improve the effectiveness of the board's performance as well as its accountability and transparency (Allini et al., 2016; Enofe et al., 2013). In addition, female composition could also enhance the mechanism of the supervisory function, which could prevent the firm from sustaining any losses and boost its overall performance (Campbell & Vera, 2008).

Board of commissioners' role effectiveness is required to minimize conflicts between stakeholders that carry with them complex interests. A governance mechanism that presents board of commissioners female composition, relevant competencies, and age diversity would invite good prospects and improve risk disclosure (Allini et al., 2016). Gul et al. (2011) stated that the presence female members on the board of commissioners would also sway the firm into disclosing private information.

However, the results of this study did not prove the proposition that the presence of female board members would upgrade control mechanism and risk management activities. The regression results depicted an insignificant, negative relationship with a coefficient of -0.041 (sig. 0.703). This indicates that the increased corporate governance activities with the presence of female members on the board of commissioners did not affect risk management disclosure.

An explanation to this finding is that there were fewer female members on the board of commissioners than their male counterparts in the firms observed. Therefore, the involvement of female members in the board could not influence the decision-making process significantly (Allini et al., 2016). This is because, when women are on the board, in most cases they are a small part of the board that is not significant enough to make influenced the decision-making (Allini, Macchioni, Rossi, 2014). This notion that female and male members of board of commissioners were divergent

in their competencies was rooted in the opportunity unbalance between men and women at the top level in a firm. This results in less experience on the women's part than men's and eventually a decline of women's role in decision-making (Nielsen & Huse, 2010).

Another explication for this finding would be that female members on the board of commissioners are psychologically not risk. This results in the firm's tendency to disclose less of its risk profile. Female board members would find it distasteful if the risk profile published would invite negative responses from shareholders. Moreover, it is also feared that excessive risk disclosure could expose confidential information to exploitation by other firms.

4.4. The Effect of Board Meeting Frequency on Corporate Risk Management in ASEAN

The board of commissioners behavior is an important concern to shareholders. Board meeting frequency, board preparation prior to a meeting, and dialog frequency between executive and non-executive boards are a reflection that the board of commissioners has run its supervisory function well (McNulty et al., 2013). Najjar (2010) posited that a firm with a good governance mechanism would tend to have a good control mechanism as well, and to realize good control, the board of commissioners would increase the meeting frequency for coordination relating to the existing issues and risks. This study supports for the argument that the higher the meeting frequency held by the board of commissioners the more intensive the risk management activities are, as shown by a coefficient of 0.064 (sig. 0.031). This suggests that without an appropriate and effective supervisory function of the board, managers would tend to make policies that put the firm at considerable risk without careful consideration (Elamer et al., 2018; Soi et al., 2021). In addition, a high meeting frequency would allow sufficient time for the members of the board of commissioners to review the risk profile of the policies made by the board of directors (Soi et al., 2021). Meanwhile, Yakob and Hasan (2021) stated that the interaction between information disclosure and board of commissioners meeting frequency indicates the effectiveness of the role of the board of commissioners and firm performance improvement. Therefore, it is concluded that the increase of the board of commissioners meeting frequency would increase the effectiveness of the board's monitoring role. In turn, the likelihood of the board to perform risk disclosure to show their performance to stakeholders would also increase.

4.5. The Effect of Independent Audit Committee on Corporate Risk Management in ASEAN

An independent audit committee refers to audit committee members who are unaffiliated to a firm. The presence of independent audit committee members is expected to enhance the independence and supervisory role as well as the internal control of a firm. With regard to risk management disclosure, the results of the study by Tao and Hutchinson (2013) unveiled that the effectiveness of audit committee role could increase the effectiveness of firm risk management communication. However, did not prove the notion that independent audit committee could increase risk management disclosure activities, as shown by a coefficient of 0.350 (sig. 0.108). These results supported the findings by Felo et al. (2003) findings. The governance guidance in ASEAN countries sets out that all audit committee members must be of a financial and accounting knowledge background so that they could assume the role of assistance for the board directors in ensuring that the financial statements presented are reasonable and in accordance with prevailing regulations (Ghofar & Islam, 2015).

For this reason, an audit committee, independent or non-independent, would be focused more on risks that are related to finance and financial statements. However, Fraser and Henry (2007) stated that the knowledge of finance and financial statements possessed by an audit committee is not enough for managing all risks faced by the firm. As conveyed by some directors, the business risks faced by a firm are complex and are not limited to financial terms; many risks are in fact non-financial. Fraser and Henry (2007) showed their support for the idea that risk management function is carried out by people of varied knowledge backgrounds.

The Effect of Audit Committee Members with Accounting or Financial Expertise Background on Corporate Risk Management in ASEAN

Empirical studies support that an audit committee member with an accounting or financial expertise background would tend to improve internal control and financial statement quality (Ghofar & Islam, 2015; Krishnan, 2005). The study by Dionne and Triki (2005) stated that corporate risk management must be handled by individuals with financial and accounting backgrounds, who were expected to be able to increase the effectiveness of risk management. Those findings agreed with the proposition that the presence of an audit committee member of financial or accounting background would increase firm risk disclosure activities, which here scored a coefficient value of 0.456 (sig. 0.002). Internal control, risk management, and governance are interconnected (Ghofar & Islam, 2015). The appointment of an audit committee as part of a supervisory system is perceived to contribute to the implementation of internal control and risk management. As stated by Zhang et al. (2007), most firms with poor internal control are identified to have audit committee members whose accounting and financial expertise is also poor.

4.6. The Effect of External Auditor Quality on Corporate Risk Management in ASEAN

External audit quality is inextricably linked to firm internal control and risk disclosure (Zhang et al., 2007). Internal control risk is part of the responsibility of an external auditor in identifying flaws within a firm (Arens et al., 2011). External auditor quality is often associated with big-four auditors (Ghofar & Islam, 2015). The results of this research support the argument that external audit quality reinforces risk management activity, with a coefficient of 0.136 (sig. 0.014). In addition, they also tend not to want to damage a good reputation in the eyes of the public, and then they will always maintain the quality of the work they produce. Therefore, the quality of external audits can guarantee internal control and risk management for better internal control of a company. Thus, external audit quality could ensure better internal control and risk management in a firm (Ghofar & Islam, 2015).

4.7. The Effect of Corporate Governance on Corporate Risk Management in Each ASEAN Country

In this advanced analysis stage, the research would examine two points: (a) how corporate governance affected the risk management performed by the firms in each country and (b) how risk management affected firm performance. This was intended to explore and analyze to a greater depth the effect of corporate governance on corporate risk management and its relationship to firm performance.

Based on the analysis results presented in Table 4, the effect of corporate governance on risk management in some states in ASEAN turned out to be varied.

Independent board of commissioners composition and external auditor quality in the firms in Malaysia, Indonesia, the Philippines, and Singapore had no effects on corporate risk management. Upon in-depth examination on the firms in each country, it is clear that independent board of commissioners composition and external audit quality did not affect corporate risk management. Such a diversion in results was attributable to the R-squared value of 5.4% (0.054) (see, Table 5), which reflected that the governance variables in the firms in the four ASEAN countries studied constituted a small part among the whole variables affecting corporate risk management. As a result, when testing is carried out in each country, the influence between variables is not visible and inconsistent with the overall regression test.

Board of commissioners female composition also showed differing results in the four countries studied. It demonstrated a negative effect on corporate risk management in Malaysia, but in the remaining three countries it showed no effect on corporate risk management. In the Malaysian context, female commissioners also demonstrated a negative effect in the relationship between governance and risk management with a coefficient of -0.615 (sig. 0.054). This finding confirmed

Table 4. Regression Testing on the Effect of Corporate Governance on Risk Management

	Malaysia	Indonesia	The Philippines	Singapore
	Risk Management—ManRisk (Sig.)			
KI	0.549 (0.216)	1.216 (0.418)	-1.125 (0.362)	-0.259 (0.699)
KW	-0.615* (0.054)	0.624 (0.746)	1.175 (0.480)	0.164 (0.607)
FR	0.038*** (0.000)	0.078*** (0.000)	0.066* (0.089)	0.909*** (0.000)
KAI	-0.463 (0.116)	2.141* (0.096)	5.103*** (0.000)	0.034 (0.956)
KABF	-0.708*** (0.000)	0.018 (0.983)	0.828 (0.790)	-1.592*** (0.002)
KAE	0.199 (0.149)	0.458 (0.464)	0.053 (0.901)	-
Adjusted R-Squared	0.173	0.171	0.163	0.136

Table 5. Regression Testing on the Effect of Risk Management on Firm Performance

REGRESSION 2	Ln_Price	Ln_EPS	Ln_BVS	Ln_CFOS
	Malaysia			
ManRisk	-0.095	-0.263	-0.226	-0.253*
Sig.	0.362	0.113	0.206	0.052
Adjusted R Square	0.000	0.010	0.003	0.018
	Indonesia			
ManRisk	0.003	-0.071	-0.108	-0.096
Sig.	0.926	0.511	0.291	0.361
Adjusted R Square	-0.006	-0.003	0.001	-0.001
	The Philippines			
ManRisk	0.039	0.220***	0.372**	0.186
Sig.	0.715	0.000	0.033	0.246
Adjusted R Square	-0.005	0.159	0.022	0.002
	Singapore			
ManRisk	0.023	0.045*	0.057	0.044
Sig.	0.301	0.095	0.115	0.354
Adjusted R Square	0.000	0.011	0.009	0.000

the argument that has its basis on the finding of Khaw & Liao (2018), who examined gender diversity in a board and the monitoring mechanism undertaken in the Malaysian context. According to that study, female board members were predisposed to be more active in performing supervision, but they were not risk-takers. They tended to put on a more careful behavior. Therefore, they were averse to taking risk to disclose risks openly. They would find it undesirable if the risks exposed would invite negative responses from shareholders and if the firm confidential information became open for exploitation by competitors. On the other hand, in support of the findings by Ong Yiu et al. (2017) and Firdaus and Adhariani (2017), the results in three other countries revealed that the female ratio in a board did not influence both firm policies and risk-taking behavior. Firms in the Philippines run on the basis of social and gender equality as well as

other moral and ethical reasons (Ong Yiu et al., 2017). Meanwhile, in the Indonesian case, the female ratio in the board was low, causing female board members to be unable to overtake their male counterparts in role (Firdaus & Adhariani, 2017).

As for board of directors meeting frequency, testing in each country yielded the same result, that is, it had a positive effect on corporate risk management. High meeting frequencies were proven to be able to improve corporate risk management in Malaysia, Indonesia, the Philippines, and Singapore with coefficients of 0.038 (sig. 0.000), 0.078 (sig. 0.000), 0.066 (0.000), and 0.909 (sig. 0.000), respectively. This finding confirms a number of previous studies, which also found that board meeting frequency had a positive effect on firm risk management disclosure. Well-organized board meeting frequency reflected board effectiveness and diligence and eventually boosted firm disclosure (Khan et al., 2020; Laksmana, 2008).

The independent audit committee, however, yielded varying results across the four countries studied. In Indonesia and the Philippines, independent audit committee showed a positive effect on corporate risk management, but in Malaysia and Singapore, this variable did not have any significant effect on corporate risk management. Audit committee independence had a role in firm information disclosure in terms of financial statements review and supervision as well as other firm disclosure (Utami et al., 2021). The test results for Malaysia and Singapore supported the findings by M. Abdullah et al. (2017), which showed that audit committee independence significantly affected firm risk management disclosure. This study revealed that the audit committee had an active contribution to the improvement of firm risk management disclosure in Malaysia, but in specific, the independence character of the audit committee did not influence the firm risk management disclosure. This is because the independent audit committee did not take any direct part in the firm business process, and neither did it have a sufficient information source for it to have any knowledge of the firm risk management activity (Ismail & Abdul Rahman, 2011).

The variable audit committee members with financial or accounting background also produced varying results in the four countries under study. In Malaysia and Singapore, this variable had a negative effect on corporate risk management, while in Indonesia and the Philippines it did not have any effect on corporate risk management. This agrees with the results of the study by Abdullah et al. (2017), who investigated into the effect of audit committee members' expertise background on voluntary risk management disclosure in the context of Malaysia. That study assumed that this might be because the competencies of the audit committee members were focused on finance and financial statements, whereas strategical and operational risk information tended to be overlooked since they were considered difficult to measure and report quantitatively (Cabedo & Tirado, 2004).

The testing on the data of each country was followed up by the testing of the effect of risk management on firm performance. This was conducted by measuring earnings per share, book value per share, and operating cash flow per share. Table 4 reveals that risk management had a negative effect on operating cash flow per share. This indicates that in the case of Malaysia, the higher the level of risk management the lower the firm performance. In Malaysia, although independent risk management committee could influence ROI, the activity and hard work of the board were not responded to too well by the market (S. N. Abdullah, 2016; Rosli et al., 2017). This finding apparently confirms the studies by Samaha (2015) and Alsaifi et al. (2020), which revealed that risk disclosure was negatively responded to by shareholders. They were of the view that advanced risk disclosure would increase the costs a firm had to incur instead. In Malaysia, policies related to risk management were still considered new, so the considerable costs incurred to manage risk had yet to produce significant benefits for the performance of firms in Malaysia (M. H. S. B. Abdullah et al., 2017).

A different result was yielded in the case of Indonesia. Table 4 shows that risk management had no effect on all firm performance variables. This indicates that in Indonesia, risk management

a firm conducted, whether it be low or high, did not have any effect on firm performance. Meanwhile, data analysis results showed that in the Philippines and Singapore, risk management positively influenced firm performance indicators. The results for the Philippines in Table 4 show that risk management positively affected earnings per share and book value per share. This indicates that in the Philippines, the higher the level of risk management the higher the firm performance. As for Singapore, a positive effect of risk management was observed on earnings per share. This indicates that in Singapore, the higher the level of risk management the higher the firm performance, too.

4.8. Risk Management and Firm Performance during the Pandemic Crisis in 2019–2021

An additional analysis was carried out in this research to compare the average performance during the research period, which coincided with the global COVID-19 outbreak. The COVID-19 pandemic has been indubitably impactful to the entire world, including in the economic sector. According to a survey by the Economic Research Institute for ASEAN and East Asia (ERIA), virtually all firms within the ASEAN region have been negatively impacted by the COVID-19 pandemic (ERIA, 2020). This survey reported that 75% of the firms faced a significant decline in sales. This sales decline was the result of a 79% nosedive in demand. The crisis condition resulted also left an impact on the capital market in Indonesia. On 24 March 2020, the IDX Composite was recorded to plunge to a rate of 3.975. Charts of firm performance in the four ASEAN countries studied in the period 2019–2021 are presented in Figure 2.

According to Figure 1, the declining trends experienced by the four ASEAN countries studied were of two different types. Singapore and Malaysia faced a slump at the introduction of the COVID-19, that is, late in 2019 and early in 2021. However, over the year 2021 both countries demonstrated recovered firm performance (EPS) and bounced back. On the other hand, the plummet taking place in Indonesia and the Philippines in 2020 prolonged to 2021. An explanation for this would be that Malaysia and, particularly, Singapore are ASEAN countries that are at the forefront in economic recovery in the aftermath of the COVID-19 outbreak (Bohmer, 2020; Teo, 2020).

The shift into a new normal could open up the opportunity for emerging risks or increase the likelihood of existing risks coming into reality. In such a crisis condition, it is crucial to pay attention to risk management in a firm's policies (D. D. D. Wu et al., 2014; J. Wu & Wu, 2014), in which case the firm is expected to manage uncertainties in order to minimize negative impacts. This

Figure 1. Firm Performance (EPS) Charts in ASEAN Countries in 2019–2021.

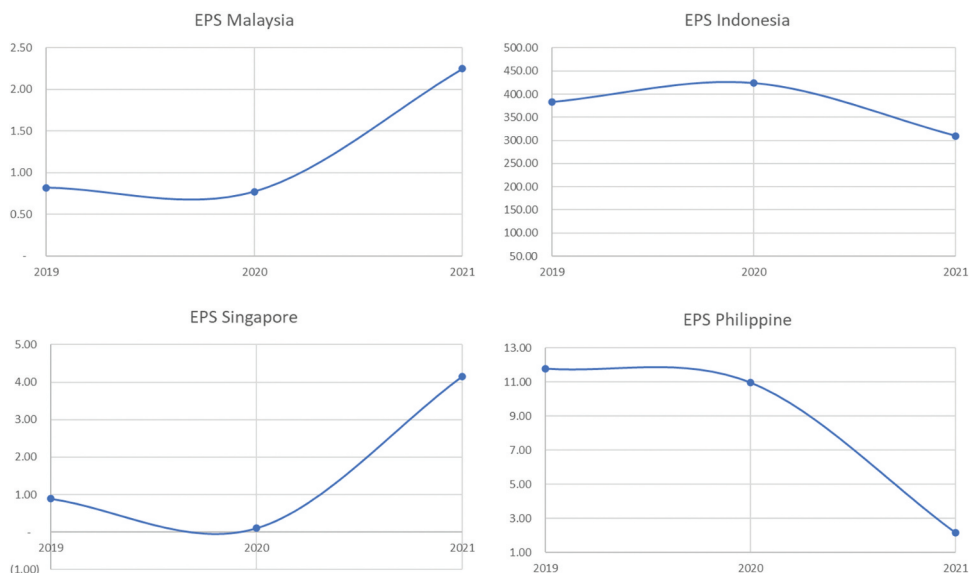


Figure 2. Risk Management Disclosure Chart of ASEAN countries in 2019–2021.



argument is backed by the analysis results of this study, which showed a drastic performance spur in Singapore with the highest risk management average among the four countries (Figure 2).

The average risk management of firms in Singapore hovered around 9.08 over the last three years, and the highest disclosure value scored was 25 disclosure points. This is in parallel with the World Development Report 2014 statement that effective risk management would give a firm resistance against adverse events such as disasters and give it the ability to take advantage of the existing development opportunities (World Bank, 2013b, 2013a, 2013c). Therefore, it is concluded that risk management is a critical point to consider in a firm's policies.

4.9. Conclusions

This study investigated the effect of corporate governance on risk management activity and the role of risk management in improving firm performance in four ASEAN countries, namely Singapore, Malaysia, Indonesia, and the Philippines. This research observed firms in the four countries that belonged to the Best 40 ASEAN Star category within the period 2015–2021. Two examination stages were involved in this study. Firstly, the effects of corporate governance variables on risk management were examined across all countries (Singapore, Malaysia, Indonesia, and the Philippines) by measuring the risk disclosure in annual reports. Secondly, the effects of corporate variables on risk management and the effect of risk management on firm performance were examined per country (Singapore, Malaysia, Indonesia, and the Philippines).

In the first stage of this study, it was found that female commissioners were negatively influential to risk management disclosure. Independent audit committee was also found to have no significant effect in this research. Meanwhile, independent commissioners, board of commissioner meeting frequency, audit committee members with accounting and financial backgrounds, and external auditor quality were discovered to have significant effects on risk management.

In the second stage, varying results were obtained from the examination of governance variables and risk management for each country. Independent board of commissioners composition and external auditor quality in the firms in Malaysia, Indonesia, the Philippines, and Singapore did not affect corporate risk management. Board of commissioners female composition also demonstrated diverse results across the four countries studied. It had a negative effect on corporate risk management in Malaysia, but in the other three countries, it showed no effect. However, board of directors meeting frequency in each country shared the same result, that is, it had a positive effect on corporate risk management. As for independent audit committee, the results for each country was different. In Indonesia and the Philippines, independent audit committee positively affected corporate risk management, while in Malaysia and Singapore it had no significant effect. Audit

committee with financial or accounting background also yielded varying results throughout the four countries studied. It had a negative effect on corporate risk management in Malaysia and Singapore and did not have any effect in Indonesia and the Philippines.

In an added analysis, this study also looked into firm performance as measured using EPS in ASEAN countries (Singapore, Malaysia, Indonesia, and the Philippines) before the 2019–2020 crisis and during the crisis brought about by the COVID-19 pandemic. From 2019 until early 2020 the four countries saw declined performance, but from late 2020 until 2021 Singapore went ahead of Malaysia, Indonesia, and the Philippines in recovery in the EPS indicator.

Nevertheless, the findings of this research are still in need of validation from advanced studies. More detailed measurement of governance in aspects such as female board members' age, expert backgrounds of members of board of commissioners, and shareholders' rights most probably will yield different results. In addition, due to the two existing assumptions that risk management disclosure activity might be responded to as either extra cost or investment, performance measurement using Return on Investment (ROI) in future research may confirm the results of this study. Lastly, the risk management activity in this research was measured using the risk disclosure in annual reports, and the quality of such measurement was overlooked. Measurement of risk disclosure quality in future research would add to the understanding of the relationship between variables.

Funding

The authors received no direct funding for this research.

Author details

Abdul Ghofar¹
E-mail: ghofar@ub.ac.id
Muhammad Muhammad²
Amran Rasli¹
Dwi Narullia²
Silvi Asna Prestianawati³

¹ Universitas Brawijaya.

² Universitas Negeri Malang.

³ Inti University.

Disclosure statement

No potential conflict of interest was reported by the author(s).

Citation information

Cite this article as: An investigation into factors affecting corporate risk management in ASEAN-4 Countries, Abdul Ghofar, Muhammad Muhammad, Amran Rasli, Dwi Narullia & Silvi Asna Prestianawati, *Cogent Business & Management* (2022), 9: 2135204.

References

- Abdallah, A. A. N., Hassan, M. K., & McClelland, P. L. (2015). Islamic financial institutions, corporate governance, and corporate risk disclosure in Gulf Cooperation Council countries. *Journal of Multinational Financial Management*, 31(February), 63–82. <https://doi.org/10.1016/j.mulfin.2015.02.003>
- Abdullah, S. N. (2016). Corporate governance mechanisms and the performance of Malaysian listed firms. *Corporate Ownership and Control*, 14(1), 384–398. <https://doi.org/10.22495/cocv14i1c2p10>
- Abdullah, M. H. S. B., Janor, H., Hamid, M. A., & Yatim, P. (2017). The effect of enterprise risk management on firm value: Evidence from Malaysian technology firms. *Jurnal Pengurusan*, 49(July). <https://doi.org/10.17576/pengurusan-2017-49-01>
- Abdullah, M., Shukor, Z. A., & Rahmat, M. M. (2017). The influences of risk management committee and audit committee towards voluntary risk management disclosure. *Jurnal Pengurusan*, 50, 83–95. <https://doi.org/10.17576/pengurusan-2017-50-08>
- Adams, R. B., & Funk, P. (2012). Beyond the glass ceiling: Does gender matter? *Management Science*, 58(2), 219–235. <https://doi.org/10.1287/mnsc.1110.1452>
- Aebi, V., Sabato, G., & Schmid, M. (2012). Risk management, corporate governance, and bank performance in the financial crisis. *Journal of Banking and Finance*, 36(12), 3213–3226. <https://doi.org/10.1016/j.jbankfin.2011.10.020>
- Al-Najjar, B. (2010). Corporate governance and institutional ownership: Evidence from Jordan. *Corporate Governance: The International Journal of Business in Society*, 10(2), 176–190. <https://doi.org/10.1108/14720701011035693>
- Allini, A., Manes Rossi, F., & Hussainey, K. (2016). The board's role in risk disclosure: An exploratory study of Italian listed state-owned enterprises. *Public Money and Management*, 36(2), 113–120.
- Alsaifi, K., Elnahass, M., & Salama, A. (2020). Market responses to firms' voluntary carbon disclosure: Empirical evidence from the United Kingdom. *Journal of Cleaner Production*, 262. <https://doi.org/10.1016/j.jclepro.2020.121377>
- Arens, A., Elder, R., & Jusuf, A. (2011). *Auditing dan Jasa Assurance Pendekatan Terpadu Jilid* (Vol. 1).
- Barnhart, S. W., & Rosenstein, S. (1998). Board and firm performance: An empirical analysis. *The Financial Review*, 33(303), 1–16. <https://doi.org/10.1111/j.1540-6288.1998.tb01393.x>
- Baulkaran, V., & Bhattarai, S. (2020). Board effectiveness: Evidence from firm risk. *Journal of Economics and Business*, 110, 105907. <https://doi.org/10.1016/j.jeconbus.2020.105907>
- Bohmer, A. (2020). *COVID-19 crisis response in ASEAN Member States*. OECD. <https://www.oecd.org/coronavirus/policy-responses/covid-19-crisis-response-in-asean-member-states-02f828a2/>
- Brammer, S., Millington, A., & Pavelin, S. (2009). Corporate reputation and women on the board. *British Journal of Management*, 20(1), 17–29. <https://doi.org/10.1111/j.1467-8551.2008.00600.x>
- Bushman, R. M., Piotroski, J. D., & Smith, A. J. (2003). What Determines Corporate Transparency? *SSRN Electronic Journal*. <https://doi.org/10.2139/ssrn.428601>

- Byrnes, J. P., Miller, D. C., & Schafer, W. D. (1999). Gender differences in risk taking: A meta-analysis. *Psychological Bulletin*, 125(3), 367–383. <https://doi.org/10.1037/0033-2909.125.3.367>
- Cabedo, J. D., & Tirado, J. M. (2004). The disclosure of risk in financial statements. *Accounting Forum*, 28(2), 181–200. <https://doi.org/10.1016/j.accfor.2003.10.002>
- Campbell, K., & Mínguez-Vera, A. (2008). Gender diversity in the boardroom and firm financial performance. *Journal of Business Ethics*, 83(3), 435–451. <https://doi.org/10.1007/s10551-007-9630-y>
- Chen, S., Ni, X., & Tong, J. Y. (2016). Gender diversity in the boardroom and risk management: A case of R&D investment. *Journal of Business Ethics*, 136(3), 599–621. <https://doi.org/10.1007/s10551-014-2528-6>
- Chou, H. I., Chung, H., & Yin, X. (2013). Attendance of board meetings and company performance: Evidence from Taiwan. *Journal of Banking and Finance*, 37(11), 4157–4171. <https://doi.org/10.1016/j.jbankfin.2013.07.028>
- CNN. (2021). *Positif Covid Bertambah 6.731, Kematian Melonjak 427 Jiwa Baca artikel CNN Indonesia*. <https://www.cnnindonesia.com/nasional/20210404143509-20-625783/positif-covid-bertambah-6731-kematian-melonjak-427-jiwa>
- Cohen, J., Krishnamoorthy, G., & Wright, A. (2004). The Corporate Governance Mosaic and Financial Reporting Quality. *Journal of Accounting Literature*, 87–152. <http://ssrn.com/abstract=1086743>
- Correia, T. D. S., & Lucena, W. G. L. (2020). Board of directors and code of business ethics of Brazilian companies. *RAUSP Management Journal*, 55(2), 263–279. <https://doi.org/10.1108/RAUSP-12-2018-0147>
- COSO. (2015). Enterprise Risk Management-Integrated Framework. In *Sarbanes-Oxley Guide for Finance and Information Technology Professionals* (pp. 224–232). John Wiley & Sons, Inc. <https://doi.org/10.1002/9781119201939.app4>
- DeZoort, F. T., Hermanson, D. R., Archambeault, D. S., & Reed, S. A. (2002). Audit committee effectiveness: A synthesis of the audit committee literature. *Journal of Accounting Literature*, 21, 38–75. <https://doi.org/10.22495/cbv8i1art2>
- Dionne, G., & Triki, T. (2005). Risk Management and Corporate Governance: The Importance of Independence and Financial Knowledge for the Board and the Audit Committee. *SSRN Electronic Journal*, 7(May). <https://doi.org/10.2139/ssrn.730743>
- Doyle, J. T., Ge, W., & Mcvay, S. (2007). over Financial Reporting. *The Accounting Review*, 82(5), 1141–1170. <https://doi.org/10.2308/accr.2007.82.5.1141>
- Duchin, R., Matsusaka, J. G., & Ozbas, O. (2010). When are outside directors effective? *Journal of Financial Economics*, 96(2), 195–214. <https://doi.org/10.1016/j.jfineco.2009.12.004>
- Eisenhardt, K. M. (1989). Agency Theory: An Assessment and Review. *The Academy of Management Review*, 14(1), 57–74. <https://doi.org/10.2307/258191>
- Elamer, A. A., AlHares, A., Ntim, C. G., & Benyazid, I. (2018). The corporate governance–risk-taking nexus: Evidence from insurance companies. *International Journal of Ethics and Systems*, 34(4), 493–509. <https://doi.org/10.1108/IJOES-07-2018-0103>
- Elshandidy, T., & Neri, L. (2015). Corporate Governance, Risk Disclosure Practices, and Market Liquidity: Comparative Evidence from the UK and Italy. *Corporate Governance: An International Review*, 23(4), 331–356. <https://doi.org/10.1111/corg.12095>
- Enofe, A. O., Iyafekhe, C., Enlola, J.O. . (2013). Board Ethnicity, Gender Diversity and Earnings Management: Evidence From Quoted Firms in Nigeria. *International Journal of Economics, Commerce and Management*, V(6), 78–90. <http://ijecm.co.uk/wp-content/uploads/2017/06/565.pdf>
- Felo, A. J., Krishnamurthy, S., & Solieri, S. A. (2003). Audit Committee Characteristics and the Perceived Quality of Financial Reporting: An Empirical Analysis. *SSRN Electronic Journal*. <https://doi.org/10.2139/ssrn.401240>
- Firdaus, L. M., & Adhariani, D. (2017). Board of directors' gender, managerial ownership and corporate risk-taking: Evidence from Indonesia. *Pertanika Journal of Social Sciences and Humanities*, 25(November), 281–297.
- Fraser, I., & Henry, W. (2007). Embedding risk management: Structures and approaches. *Managerial Auditing Journal*, 22(4), 392–409. <https://doi.org/10.1108/02686900710741955>
- Ghofar, A., & Islam, S. M. N. (2015). *Corporate Governance and Contingency Theory*. Springer International Publishing Switzerland. <https://doi.org/10.1007/978-3-319-10996-1>
- Gordon, L. A., Loeb, M. P., & Tseng, C. Y. (2009). Enterprise risk management and firm performance: A contingency perspective. *Journal of Accounting and Public Policy*, 28(4), 301–327. <https://doi.org/10.1016/j.jaccpubpol.2009.06.006>
- Gul, F. A., Srinidhi, B., & Ng, A. C. (2011). Does board gender diversity improve the informativeness of stock prices? *Journal of Accounting and Economics*, 51(3), 314–338. <https://doi.org/10.1016/j.jacceco.2011.01.005>
- Gwenda, Z., & Juniarti. (2013). Pengaruh Penerapan Good Corporate Governance (GCG) Pada Variabel Ukuran, Debt Ratio, dan Sektor Industri Terhadap Nilai Perusahaan. *Business Accounting Review*, 1(2), 137–150. <https://publication.petra.ac.id/index.php/akuntansi-bisnis/article/view/784>
- Ishak, S., & Mohamad Nor, M. N. (2017). The Role of Board of Directors in the Establishment of Risk Management Committee. *SHS Web of Conferences*, 34 <https://doi.org/10.1051/shsconf/20173409001>
- Ismail, R., & Abdul Rahman, R. (2011). Institutional investors and board of directors' monitoring role on risk management disclosure level in Malaysia. *The IUP Journal of Corporate Governance*, X(2), 37–61.
- Jensen, M. C., & Meckling, W. H. (1976). Theory of the firm: managerial behavior, agency costs, and ownership structure. In Wittman, D. A. (Ed.) *Economic Analysis of The Law* (pp. 162–176). Blackwell Publishing Ltd. <https://doi.org/10.1002/9780470752135.ch17>
- Khan, T. M., Nosheen, S., & Ul Haq, N. (2020). Corporate governance mechanism and comparative analysis of one-tier and two-tier board structures: Evidence from ASEAN countries. *International Journal of Disclosure and Governance*, 17(2–3), 61–72. <https://doi.org/10.1057/s41310-020-00075-0>
- Khaw, K. L. H., & Liao, J. (2018). Board gender diversity and its risk monitoring role: Is it significant? *Asian Academy of Management Journal of Accounting and Finance*, 14(1), 83–106. <https://doi.org/10.21315/aamjaf2018.14.1.4>
- Kiel, G. C., & Nicholson, G. J. (2003). Board Composition and Corporate Performance: How the Australian experience informs contrasting theories of corporate governance. *Corporate Governance*, 11(3), 189–205. <https://doi.org/10.1111/1467-8683.00318>
- Krishnamurti, C., & Velayutham, E. (2018). The influence of board committee structures on voluntary disclosure of greenhouse gas emissions: Australian evidence. *Pacific Basin Finance Journal*, 50, 65–81.

- Krishnan, J. (2005). Audit Committee Quality and Internal Control: An Empirical Analysis. *The Accounting Review*, 80(2), 649–675. <https://doi.org/10.2308/accr.2005.80.2.649>
- Laksmiana, I. (2008). Corporate board governance and voluntary disclosure of executive compensation practices. *Contemporary Accounting Research*, 25(4), 1147–1182. <https://doi.org/10.1506/car.25.4.8>
- Lefort, F., & Urzúa, F. (2008). Board Independence, firm performance and ownership concentration: Evidence from Chile. *Journal of Business Research*, 61(6), 615–622. <https://doi.org/10.1016/j.jbusres.2007.06.036>
- Liebenberg, A. P., & Hoyt, R. E. (2003). The determinants of enterprise risk management: evidence from the appointment of chief risk officers. *risk management. Insurance Review*, 6(1), 37–52. <https://doi.org/10.1111/1098-1616.00019>
- Low, D. C. M., Roberts, H., & Whiting, R. H. (2015). Board gender diversity and firm performance: Empirical evidence from Hong Kong, South Korea, Malaysia and Singapore. *Pacific Basin Finance Journal*, 35, 381–401. <https://doi.org/10.1016/j.pacfin.2015.02.008>
- McNulty, T., Florackis, C., & Ormrod, P. (2013). Boards of Directors and Financial Risk during the Credit Crisis. *Corporate Governance: An International Review*, 21(1), 58–78. <https://doi.org/10.1111/corg.12007>
- Moumen, N., Ben Othman, H., & Hussainey, K. (2016). Board structure and the informativeness of risk disclosure: Evidence from MENA emerging markets. *Advances in Accounting*, 35, 82–97. <https://doi.org/10.1016/j.adiac.2016.09.001>
- Nielsen, S., & Huse, M. (2010). The Contribution of Women on Boards of Directors: Going beyond the Surface. *Corporate Governance: An International Review*, 18(2), 136–148. <https://doi.org/10.1111/j.1467-8683.2010.00784.x>
- Nocco, B. W., & Stulz, R. M. (2006). Enterprise risk management: theory and practice. *Journal of Applied Corporate Finance*, 18(4), 8–20. <https://doi.org/10.1111/j.1745-6622.2006.00106.x>
- Ong Yiu, M. K. A., Ricafrente, L. A. S., Shi, A. A., Unite, A. A., & Sullivan, M. J. (2017). Women on boards of Philippine publicly traded firms: Does gender diversity affect corporate risk-taking behavior? *Asia-Pacific Social Science Review*, 21(2). <https://doi.org/10.13140/RG.2.2.32270.46408>
- Pagach, D. P., & Warr, R. S. (2011). The Effects of Enterprise Risk Management on Firm Performance. *SSRN Electronic Journal*. April 2010 <https://doi.org/10.2139/ssrn.1155218>
- Power, M. (2004). The risk management of everything. *The Journal of Risk Finance*, 5(3), 58–65. <https://doi.org/10.1108/eb023001>
- Rosli, N. F., Mohammed, N. F., & Sanusi, Z. M. (2017). The determinants of voluntary risk disclosures: the case of shariah compliant companies in Malaysia. *SHS Web of Conferences*, 36, 00002. <https://doi.org/10.1051/shsconf/20173600002>
- Samaha, K., Khelif, H., & Hussainey, K. (2015). The impact of board and audit committee characteristics on voluntary disclosure: A meta-analysis. *Journal of International Accounting, Auditing and Taxation*, 24(March), 13–28. <https://doi.org/10.1016/j.intaccudtax.2014.11.001>
- Schleiver, A., & Vishny, R. W. (1986). Large Shareholders and Corporate Control. *The Journal of Political Economy*, 94(3), 461–488. <https://doi.org/10.1086/261385>
- Shivaani, M. V., & Agarwal, N. (2020). Does competitive position of a firm affect the quality of risk disclosure? *Pacific Basin Finance Journal*, 61, 101317. <https://doi.org/10.1016/j.pacfin.2020.101317>
- Simkins, B., & Ramirez, S. A. (2008). Enterprise-Wide Risk Management and Corporate Governance. *Loyola University Chicago Law Journal*, 39, 571–594. http://www1.luc.edu/law/activities/publications/ljdocs/vol39_no3/simkins_ramirez.pdf
- Soi, N., Cheboi, J., & Kosgei, D. (2021). Board activity and risk-taking. A study of commercial banks in Kenya. *Journal of Business Management and Economic*. <https://doi.org/10.29226/TR1001.2021.266>
- Subramaniam, N., Mcmanus, L., & Zhang, J. (2009). Corporate governance, firm characteristics and risk management committee formation in Australian companies. *Managerial Auditing Journal*, 24(4), 316–339. <https://doi.org/10.1108/02686900910948170>
- Tao, N. B., & Hutchinson, M. (2013). Corporate governance and risk management: The role of risk management and compensation committees. *Journal of Contemporary Accounting & Economics*, 9(1), 83–99. <https://doi.org/10.1016/j.jcae.2013.03.003>
- Teo, J. (2020). Coronavirus: WHO praises Singapore's containment of Covid-19 outbreak, *Health News & Top Stories - The Straits Times*. The Straits Times. <https://www.straitstimes.com/singapore/health/coronavirus-who-praises-singapores-containment-of-covid-19-outbreak>
- Tjahjadi, B. (2011). Hubungan sistem manajemen risiko dengan ketidakpastian lingkungan dan strategi serta dampaknya terhadap kinerja organisasi. *Majalah Ekonomi*, 21(2), 142–154. <https://www.neliti.com/id/publications/4097/hubungan-sistem-manajemen-risiko-dengan-ketidakpastian-lingkungan-dan-strategi-s>
- Utami, W., Oktris, L., Rini, R., & Yulianti, N. W. (2021). Corporate Governance Practices and Disclosure of Risk Management Sharia Bank in Asean. *Al-Iqtishad: Jurnal Ilmu Ekonomi Syariah*, 13(1), 121–136. <https://doi.org/10.15408/aiq.v13i1.19712>
- Wiseman, R. M., & Bromiley, P. (1996). Toward a model of risk in declining organizations: an empirical examination of risk, performance and decline. *Orga*, 7(5). <https://pubsonline.informs.org/doi/10.1287/orsc.7.5.524>
- World Bank. (2013a). *Better risk management can unlock opportunities, prevent crises, and protect poor amidst disasters and shocks, says world bank*. <https://www.worldbank.org/en/news/press-release/2013/10/06/better-risk-management-unlock-opportunities-prevent-crisis-protect-poor-amidst-disasters-shocks>
- World Bank. (2013b). *Managing risk for development: From crisis fighting to systematic risk management*. <https://www.worldbank.org/en/news/feature/2013/10/06/Managing-risk-for-development-From-crisis-fighting-to-systematic-risk-management>
- World Bank. (2013c). *World Development Report 2014: Risk and Opportunity-Managing Risk for Development*. *World Bank*. https://openknowledge.worldbank.org/bitstream/handle/10986/16092/9780821399033_fm.pdf
- Wu, D. D., Chen, S. H., & Olson, D. L. (2014). Business intelligence in risk management: Some recent progresses. *Information Sciences*, 256, 1–7. <https://doi.org/10.1016/j.ins.2013.10.008>
- Wu, Y.-C., Kweh, Q. L., Lu, W.-M., & Azizan, N. A. (2016). The impacts of risk-management committee characteristics and prestige on efficiency. *Journal of the Operational Research Society*, 67(6), 813–829. <https://doi.org/10.1057/jors.2015.101>
- Wu, J., & Wu, Z. (2014). Integrated risk management and product innovation in China: The moderating role of board of directors. *Technovation*, 34(8), 466–476. <https://doi.org/10.1016/j.technovation.2013.11.006>

- Yakob, N. A., & Hasan, N. A. (2021). Exploring the interaction effects of board meetings on information disclosure and financial performance in public listed companies. *Economies*, 9(139). <https://doi.org/10.3390/economies9040139>
- Yatim, P. (2010). Board structures and the establishment of a risk management committee by Malaysian listed firms. *Journal of Management and Governance*, 14(1), 17–36. <https://doi.org/10.1007/s10997-009-9089-6>
- Yunos, R. M. (2011). The Effect of Ownership Concentration, Board of Directors, Audit Committee and Ethnicity on Conservative Accounting: Malaysian Evidence. https://doi.org/10.1057/978-1-349-95943-3_324
- Zhang, Y., Zhou, J., & Zhou, N. (2007). Audit committee quality, auditor Independence, and internal control weaknesses. *Journal of Accounting and Public Policy*, 26(3), 300–327. <https://doi.org/10.1016/j.jaccpubpol.2007.03.001>



© 2022 The Author(s). This open access article is distributed under a Creative Commons Attribution (CC-BY) 4.0 license.

You are free to:

Share — copy and redistribute the material in any medium or format.

Adapt — remix, transform, and build upon the material for any purpose, even commercially.

The licensor cannot revoke these freedoms as long as you follow the license terms.

Under the following terms:

Attribution — You must give appropriate credit, provide a link to the license, and indicate if changes were made.

You may do so in any reasonable manner, but not in any way that suggests the licensor endorses you or your use.

No additional restrictions

You may not apply legal terms or technological measures that legally restrict others from doing anything the license permits.



Cogent Business & Management (ISSN: 2331-1975) is published by Cogent OA, part of Taylor & Francis Group.

Publishing with Cogent OA ensures:

- Immediate, universal access to your article on publication
- High visibility and discoverability via the Cogent OA website as well as Taylor & Francis Online
- Download and citation statistics for your article
- Rapid online publication
- Input from, and dialog with, expert editors and editorial boards
- Retention of full copyright of your article
- Guaranteed legacy preservation of your article
- Discounts and waivers for authors in developing regions

Submit your manuscript to a Cogent OA journal at www.CogentOA.com

