The Effectiveness of Qualified Independent Supervisory Boards : Evidence from Indonesia

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Abstract. *The purpose of our empirical research is to investigate the characteristics of an independent board of commissioner (BOC)/supervisory board (S.B.) on a company's risk in a dual board setting, Indonesia, from 2015-2017. Our research is different from previous literature in several points. Our study first examines the value of qualified independent S.B.s in Indonesian dual board settings, while previous works focus on single-board systems and developed countries. Second, we also test the effectiveness of several characteristics of a qualified independent supervisory board, including size, financial expertise, and tenure on corporate risks, including market and operation. After deleting the missing information, the final sample of this research is 1,089 firm-year observations. The result suggests that both independent S.B. size and financial expertise help the company reduce operating and market risks. Further, we show that independent S.B. tenure is negatively associated with operational risk. Our results are robust after addressing the endogeneity problem.*
Keywords: *firm's risk; independent SB; two-tier board setting*

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INTRODUCTION

The primary purpose of our empirical study is to investigate several characteristics of qualified independent S.B. on firm's risk in Indonesia in the period of 2015-2017. Agency theory suggests that the independent board of directors in a single-board setting or the independent supervisory board in a dual board setting is an essential element of corporate governance mechanisms for protecting majority and minority shareholders' interests (Fama and Jensen 1983). Duchin et al. (2010) note that the top priority of corporate governance reform in the U.S. is to increase the number of independent directors on corporate boards in the setting of a one-tier board system.The regulators and practitioners pay attention to the effectiveness of independent directors. They convince that independent directors are willing to argue with the CEO (Chief Executive Officer) to maintain or protect shareholder's interests. The policymakers in the U.S., including the New York Stock Exchange (NYSE), National Association of Securities Dealers (NASD), and Securities and Exchange Commission (SEC), show their commitment to secure the interest of shareholders by making a regulation that requires listed companies to add the certain number of independent board members on corporate board. The regulation is reflected in the Sarbanes-Oxley Act of 2002 (SOX) and other rules. Notwithstanding that the number of independent boards is increasing, the effectiveness of this regulation is still not apparent and leaving an essential unsettled question in the literature.

Further, research into the value of independent directors has been extensively examined in developed countries that apply a one-tier corporate board system (such as the U.S.). However, empirical results are conflicting and inconclusive. While several empirical studies show convincing evidence that companies with more independent directors experience better corporate outcomes (e.g., Cornett et al. 2009), others find that independent director is negatively associated with financial outcomes or no relation (e.g., Bhagat and Black 2002; Fich and Shivdasani 2006). Recently, several studies have readdressed the value of independent directors as a primary monitoring function in the corporate governance mechanism by considering other essential factors and perspectives. For instance, Duchin et al. (2010) find that the value of independent directors relies on information cost in the U.S. context. Nguyen and Nielsen (2010) show that independent board is more valuable when they are in key positions, such as chairman or audit committee member in U.S. Additionally, Masulis and Zhang (2018) indicate several exogenous events (illness/injury, and award) that severely distract the performance of independent directors using US sample.

The need to investigate the effectiveness of independent boards is even more crucial in a dual board system in an emerging economy where company response and law enforcement toward corporate governance standards are different from corporate governance practices in developed markets. Studying the effectiveness of independent S.B. in emerging economies is also an opportunity to explore corporate governance's progress among worldwide reform pressure (Przybyłowski et al. 2011). Moreover, we find that limited studies have documented the effectiveness of the independent board in the dual board mechanism, particularly the specific characteristics (size, financial background, and tenure) of qualified independent SBs.

We hand-collect data for 1,087 firm-year observations using publicly listed companies on the Indonesian Stock Exchange (IDX) from 2015 to 2017. The result of our study shows that qualified independent SB characteristics (size and financial expertise) reduce a firm’s operating and market risks. In addition, independent SB tenure is negatively associated with operational risk, yet it is not related to market risk. The results are consistent with previous studies (e.g., Nguyen and Nielsen (2010)), suggesting that independent boards increase firm value. Overall, our finding supports the argument on the bright side of qualified independent S.B. Also, this study shows a piece of empirical evidence based on a sample of a two-tier board system context in an emerging economy.

Our research contributes to the field of corporate governance practices in many ways. First, we explore the value of independent Board of Commissioners (BOC) or SBs in the case of dual board mechanism in the emerging economy, which has a different law enforcement (Porta et al. 1999) and company response toward corporate governance regulations (Przybyłowski et al. 2011). It is argued that the effectiveness of corporate governance depends on both regulator and corporate roles. Prior studies also show limited empirical evidence on the standards and efficiency of the qualified independent board in the dual board mechanism in emerging economies. Therefore, our empirical study offers an exciting opportunity to investigate qualified independent board effectiveness in different contexts, besides developed countries (such as U.S., U.K., Germany, etc.). Second, this study contributes to the growing literature by using specific characteristics of qualified independent SB (size, financial expertise, and tenure) to test whether the presence of independent SB reduces corporate risks. Previous literature (Przybyłowski et al. 2011; Fisch 1997) argues that the most important factor that cause corporate control failures is the value of human capital of the boards and the standard of their responsibilities. Both academics and practitioners believe that there is no ideal corporate governance structure and regulation if independent boards do not show the highest standard of their responsibility and capability. We specifically investigate size, financial expertise and tenure of independent SB to address the value of qualified human capital of board members.

We structure the remaining of the paper as follows: the explanation of the theories and hypotheses development are reviewed in section 2, section 3 mainly describes our research design followed by empirical results and discussion in section 4, section 5 shows our further test regarding the endogeneity issue, and finally section 6 provides concluding comments.

INSTITUTIONAL BACKGROUND

Generally, there are two mainboard mechanisms, including single and dual board mechanisms. While one-tier board mechanism has executive directors and independent directors in a one board structure, dual board system has a separate BOD (Board of Director) and supervisory board (or board of commissioners in Indonesia). According to *Company Law No. 40 of 2007*, the corporate governance in Indonesia applies a dual board mechanism which consists of a board of directors (BOD) and board of commissioners (BOC) / Supervisory Board (SB). Under a dual board structure, a board member cannot have a dual position. The BODs responsible for daily operation and the supervisory board provides advice, and performs monitoring to safeguard minority shareholder interests. Indonesian listed companies must have at least two SB members for a maximum period of five years, and they can be re-appointed for a maximum of two terms.

The BOC/SB has several strategic responsibilities, such as oversee management's operation and governance, decide strategic and long-term contracts, examine the annual report, approve corporate budget, etc. In the context of dual board mechanism, the role of Supervisory Board is important and strategic, particularly independent SB (Joni et al. 2019). As a member of the Supervisory Board, a candidate must meet some requirements. First, the candidate must never have been declared bankrupt or been a member of a BOD or BOC/SB that caused bankruptcy of the institution in the previous five years. Second, the candidate must never have been involved in a criminal act in the last six years. Third, the candidate must never have caused financial losses to the government and/or in association with the finance industry. Fourth and finally, the candidate must be legally competent, and show a good character and morals.

Sound practice of corporate governance requires companies to have independent SBs. Accordingly, the Indonesian Company Law requires listed companies to have at least one independent SB member and one delegated SB member. The Indonesian Stock Exchange (IDX) issued *Decree Kep-315/BEJ/06-2000* regarding to independent Supervisory Board members for listed firms. In 2001, the regulation, then was amended by *Decree Kep-339/BEJ/06-2001*. Under this regulation, one-third of Supervisory Board members must be independent Supervisory Board members. It also defines an independent SB member as a person who 1) has no affiliation with controlling shareholders in the company; 2) has no affiliation with top executives and/or board members in the company; 3) is not appointed as an officer in other companies that have an affiliation with related companies; and 4) understands stock exchange rules.

If an organisation is growing and becomes more complex, the responsibilities of its SB increase. In that case, the Indonesian Company Law (ICL) allows the BOC/SB to create committees that can support the work of BOD/SB and become more effective. It is expected that the presence of committees can support an SB in facing complex issues, such as providing a comprehensive analysis and improving BOC's judgements. IFC (2014, International Finance Corporation) suggests several committees, including committee of audit, committee of corporate governance, committee of risk policy, committee of nomination and remuneration, and other related committees. *Decree Kep-339/BEJ/06-2001* requires listed firms to establish an audit committee with at least three members. Audit committee members consist of an independent BOC member who will be the Chair, and independent members from external organisations. As well, audit committee member must have an accounting and finance background at least one.

LITERATURE REVIEW AND HYPOTHESES DEVELOPMENT

Agency theory views board as a crucial mechanism in corporate governance (Fama and Jensen 1983). Agency theory addresses the relationship between agent (management) and principal (shareholders). When both parties have their own interest, which is completely different one another, the conflict between shareholders and management happened. This is called agency conflict type 1 (PA-Principle Agent conflict). In emerging market, such as Indonesia, agency conflict type 1 is usually not happened because the ownership structure is concentrated (Fan and Wong 2002). The conflict is usually between majority shareholders and minority shareholders (PP-Principle Principle conflict), called agency conflict type 2 (Young et al. 2008). Similarly, in our context where agency conflict type 2 is applied, qualified independent board as a part of board mechanism is an important monitoring and controlling functions for protecting minority shareholder's interests. It is argued that the presence of qualified independent board could improve the quality of monitoring and supervision processes. Consequently, the qualified independent SB can reduce corporate risks to protect minority shareholders in the context of emerging market, Indonesia.

In addition to agency theory, Human Capital Theory (HCT) focuses on the characteristics of independent SB at the individual level. Human capital theory proposed by Becker (1964) explains that individual educations, skills and experiences of an independent SB in improving his/her productive capabilities can benefit themselves and the organisation. To be considered as a qualified independent SB, he/she must obtain highly cumulative capabilities (education, skill, experience). When firms have more independent SB with accounting and finance background, and extensive experiences (proxied by tenure), organisation obtain more benefits as reflected in lower corporate risks.

While extensive empirical studies have assessed the value of the board in single corporate governance mechanism (e.g., Dunchin et al., 2010), limited empirical research has documented the value of the board in dual board setting, particularly the value of qualified independent SBs. There are two competing predictions regarding the association between independent boards and firm value in the context of dual board system. On one hand, the prior literature shows that independent boards are related to a higher company's outcomes. This view is in line with the agency theory. It suggests that the presence of independent boards can lower firm value when they practise rent-seeking behaviour (Shleifer and Vishny 1998; Young et al. 2008). Using Netherland dual board setting, for instance, Van Ees et al. (2003) test the effect of board characteristics on firm performance. The Dutch dual board mechanism is voluntarily adopted. And the SB in the Dutch dual board mechanism is appointed by multiple parties: shareholders and employees. In fact, the relation between board of management and SB in the context of Dutch dual system is close. The practice of Dutch dual board system in Netherland is quite similar to the practice of US one-tier system. Their finding show that the number of independent boards is negatively associated with performance. The evidence suggests that outside SB is not necessarily the solution to the Dutch dual system.

On the other hand, agency theory and HCT predict that independent board helps organisations to improve financial outcomes and reduce risks through monitoring and controlling functions, and connections. In the context of single board mechanism, Daily and Dalton (1992) use small publicly listed firms in the U.S. to test the association between independent director and firm performance. Their finding conforms that the independent director is related to firm performance. Further, Duchin et al. (2010) find that information costs determine the value of independent directors. Also, Nguyen and Nielsen (2010) provide convincing evidence that independent boards have more value when they are in important board's position, Recently, Masulis and Zhang (2018) identify that illness/injury and awards are exogenous events that distract independent director's performance. In the context of dual board mechanism, Velte (2010) examines the value of SB reporting in the German and Austrian Prime Standard and provides a comparison study. Both German and Austrian implement similar codes for corporate governance and the two-tier board system. They find that when firms with independence SB report show better firm performance in both Germany and Austria.

Based on the agency theory, HCT and the estimation of the empirical evidence, we propose several hypotheses as follow:

H_1 : the qualified independent BOC/SB characteristics (size, financial expertise, and tenure) in Indonesia is associated with operating risk.

H_2 : the qualified independent BOC/SB characteristics (size, financial expertise, and tenure) in Indonesia is associated with market risk.

RESEARCH DESIGN

Data and Sample Selection

The final sample of our research is based on all publicly listed firms in the Indonesian Stock Exchange (IDX) in the period of 2015-2017. We collect both qualitative and quantitative data from several different resources. We hand-collect corporate governance data (such as independent SB information) from company's annual report, individual website, and Google search engine. Financial information is extracted from Datastream. Table 1, Panel A reports the final sample after screening firms with missing data is 1,089 firm-year observations. The total sample is distributed across sectors using Global Industry Classification Standard (GICS) code with 73% of firms being in industrial sector, 18% from banking and other financial sectors (e.g., insurance), 6% from transportation sector and only 3% from utility sector (Panel B of Table 1).

(Table 1. Description of the sample)

Panel A: sample selection					
No.	**Year**	**2015**	**2016**	**2017**	**Total**
01.	Number of listed companies	582	582	582	1,746
02.	Number of listed companies with incompleted data	195	219	243	657
	Total listed companies in the sample	387	363	339	1,089
Panel B: Distribution of companies by sector					
GICS Code	**Sector**	**2015**	**2016**	**2017**	**Total**
01	Industrial	281	265	245	791 (73%)
02	Utility	11	11	9	31 (3%)
03	Transportation	22	20	20	62 (6%)
04	Bank/Saving & Loan	35	32	31	98 (9%)
05	Insurance	8	7	7	22 (2%)
06	Other Financial	30	28	27	85 (7%)
	Total listed firms in the sample	387	363	339	1,089 (100%)

Models and Variables

We estimate the following regression models to investigate the effect of qualified-independent SBs on firm's risks in hypotheses 1 and 2.

$$OP\text{-}RISK_{it}=\alpha_1 I\_SBSIZE_{it}+\alpha_2 I\text{-}SBF_{it}+\alpha_3 I\text{-}SBTEN_{it}+\alpha_4 SIZE_{it}+\alpha_5 MBV_{it}+\alpha_6 LEV_{it} +\alpha_7 SEC_{it}+\alpha_8 YEAR_{it}+\varepsilon_{it} \quad (1)$$

$$MKT\text{-}RISK_{it}=\alpha_1 I\_SBSIZE_{it}+\alpha_2 I\text{-}SBF_{it}+\alpha_3 I\text{-}SBTEN_{it}+\alpha_4 SIZE_{it}+\alpha_5 MBV_{it}+\alpha_6 LEV_{it} +\alpha_7 SEC_{it}+\alpha_8 YEAR_{it}+\varepsilon_{it} \quad (2)$$

A detailed information on variable definitions and references are reported as follow:

(Table 2. Variable Definitions)

Variable	Definition
$OP\text{-}RISK_{it}$	The standard deviation of a five years profitabilty (Harjoto and Laksmana 2018; Mulia and Joni 2019)
$MKT\text{-}RISK_{it}$	The standard deviation of the corporate's returns (Harjoto and Laksmana 2018; Mulia and Joni 2019)
$I\text{-}SBSIZE_{it}$	The size of independent BOC/SB (Joni, et al., 2019)
$I\text{-}SBF_{it}$	The ratio of independent BOC/SB member with financial and accounting expertise (Joni, et al., 2021)
$I\text{-}SBTEN_{it}$	The tenure of BOD/SB member (Nguyen and Nielsen 2010)
Control variables-the characteristics of the firm	
$SIZE_{it}$	Firm size measured by using the natural log of the total property, plant, and equipment (Masulis and Zhang 2018).
LEV_{it}	The natural log of the ratio of total long-term debt divided by the total assets (Masulis and Zhang 2018).
MBV_{it}	Market to book value (Harjoto and Laksmana, 2018)
Control variables-fixed effects	
SEC_{it}	a vector of sector indicator variables that classified using Global Industry Classification Standard (GICS).
$YEAR_{it}$	a year indicator variable: 2015; 2016; 2017.

Statistical Analyses

To estimate data and test all hypotheses, we use several statistical techniques. Firstly, we employ descriptive statistics to present a clear picture of the data and to provide useful insights for the main analyses. Further, correlation analysis is conducted to identify the correlation between experimental variables and other control variables. Further, correlation analysis is important to check for the existence of the multicollinearity problem in models. In addition to checking for the multicollinearity issue, variance inflation factor analysis (VIF) is obtained to detect multicollinearity for each model. In terms of hypothesis testing, we employ regression analysis because it is widely used in corporate governance literature to estimate the relation between independent director and corporate value (e.g. Nguyen and Nielsen 2010; Duchin et al. 2010; Masulis and Zhang 2018).

RESEARCH FINDING AND DISCUSSION

Descriptive Statistics

Table 3 shows descriptive statistics of the variables in the final sample of 1,089 firm-year observations. Among the dependent variables, operating risk (OP-RISK), has a mean value of 0.045. The maximum value is 3.772 and the minimum value is 0.001. The mean of volatility (MKT-RISK) is 0,027 with a minimum value of 0.000 and a maximum value of 0.960. Consistent with prior studies (e.g. Harjoto and Laksmana 2018; Mulia and Joni 2019), the magnitude of the operating and market risks are reasonable.

Also, we estimate pairwise Pearson correlations to investigate the correlations among main variables in both models, except for the industry and year dummies (Table 4). After running the test, we report that the highest correlation is between I-SBSIZE and SIZE (r=0.259) at the 1% level. In addition, we address multicollinearity problem by applying VIF (Variance Inflation Factor) shown in Table 5. As reported, the average value of the VIF in each model is around 1.13, indicating that the model is free from multicollinearity.

(Table 3. Summary statistics)

Variable	N	Average	St. Dev	Min	Max
OP-RISK	1089	0.045	0.137	0.001	3.772
MKT-RISK	1089	0.027	0.014	0.000	0.096
I-SBSIZE	1089	1.820	0.887	1.000	7.000
I-SBF	1089	0.580	0.414	0.000	1.000
I-SBTEN	1089	4.627	3.674	6.000	26.500
SIZE	1089	27.482	3.669	19.000	32.000
MBV	1089	2.465	3.299	0.090	14.510
LEV	1089	60.498	73.248	0.000	267.21

Notes: The table reports summary statistics of the variables. We include 1,089 firm-year observations during the period 2015-2017 in our sample. All variables are based on fiscal year. Variable definitions are described in table 2.

(Table 4. Summary statistics of main variables)

Variable	1	2	3	4	5	6	7	8
OP-RISK (1)	1.000							
MKT-RISK (2)	0.008	1.000						
I-SBSIZE (3)	-0.095[a]	-0.100[a]	1.000					
I-SBF (4)	-0.068[b]	-0.042	-0.002	1.000				
I-SBTEN (5)	-0.031	0.028	-0.057[c]	-0.121[a]	1.000			
SIZE (6)	-0.126[a]	-0.168[a]	0.259[a]	-0.059[c]	-0.021	1.000		
MBV (7)	-0.039	-0.102[a]	0.090[a]	-0.020	-0.073[b]	0.078[a]	1.000	
LEV (8)	-0.085[b]	0.028	0.039	-0.004	-0.028[c]	-0.005	0.026	1.000

The table presents Pairwise Pearson Correlation matrix for 1,089 firm–year observations. The superscripts a-c report two-sided significance at the 1%, 5%, and 10% levels, respectively. Table 2 describes variable definitions.

Results

Table 5 reports the Ordinary Least Square (OLS) estimates for our main models in which the relation between qualified independent boards and company risks are addressed. In Model 1, the association between independent BOC/SB with financial background and operating risk is negative and statistically significant at the 1% level (coefficient = –0.028, *t* = –2.84). Further, it shows that the effect of independent supervisory board size and tenure on operating risk is negative and significant at the 10% level statistically (coefficient = –0.008, *t* = –1.71; coefficient = –0.002, *t* = –1.94). The results indicate that the presence of independent supervisory boards in Indonesia lowers the level of firm's operating risk. The overall results demonstrate the important role of qualified independent BOC/SB based on dual board mechanism.

Model 2 examine the relationship between qualified independent SB characteristics and market risk. As shown in Table 5, the independent board size is negatively related to market risk and statistically significant at the 1% level (coefficient = –0.001, *t* = –2.54). In addition, the independent SB with financial background is negatively related to market risk at the 10% level (coefficient = –0.001, *t* = –1.66). However, there is no association between the independent board tenure and market risk. In our main models, we use several potential control variables such as firm size, leverage, market to book ratio. Overall, the results are consistent with previous studies (e.g. Nguyen and Nielsen 2010; Masulis and Zhang 2018; Duchin et al. 2010). Our study provides convincing empirical findings on the effectiveness of qualified independent BOC/SB in Indonesia. In line with agency theory, it explains that qualified independent SBs reduce agency conflict between majority and minority shareholders through their extensive monitoring and supervising functions. When companies have highly qualification of independent SBs (size, financial background, and tenure), they add more value to the company as reflected in lower operating and market risks. Based on human capital theory, the qualified independent boards contribute to the value of the company through their cumulative capabilities (educations, skills, and experiences). This can benefit themselves and organisation. As a result, firms with more qualified independent board have lower corporate risks. Also, the presence of qualified independent SB protects shareholder's interest by reducing the operating and market risks of the company.

(Table 5. Independent BOC/SB characteristics and company's risks-pool OLS)

Variables	Estimated coefficient	
	OP-RISK (Model 1)	MKT-RISK (Model 2)
INTERCEPT	0.210^a (5.92)	0.049^a (13.25)
I-SBSIZE	-0.008^c (-1.71)	-0.001^a (-2.54)
I-SBF	-0.028^a (-2.84)	-0.001^c (-1.66)
I-SBTEN	-0.002^c (-1.94)	0.000 (0.71)
SIZE	-0.003^a (-3.08)	-0.000^a (-5.29)
MBV	-0.001 (-1.05)	-0.000^a (-2.88)
LEV	-0.000^a (-3.21)	0.000 (1.17)
YEAR	Yes	Yes
SEC	Yes	Yes
Mean VIF	1.13	1.13
R^2	0.045	0.056
F	3.93^a	4.91^a
Prob > F	0.000	0.000
N	1,089	1,089

The regression coefficient estimates are reported in the table. In addition, indicator variables are included in the model to control for year and industry. The superscripts a-c present two-sided significance at the 1%, 5%, and 10% levels, respectively. Variable definitions are explained in table 2.

Robustness Test

In our study, we also address the simultaneity issue using the difference GMM (Generalized Method of Moments) model which is an efficient estimate when in the presence of heteroskedasticity and asymptotically normal when heteroskedasticity is not happened (Baum et al. 2003). In our models, there is a possibility that less risky companies prone to appoint more capable independent supervisory board to improve the monitoring function. We expect GMM estimation can address endogeneity issue, especially simultaneity effect of our models. Table 6 shows the estimated coefficients using GMM model. The results are consistent with those presented in Table 5.

(Table 6. Independent BOC/SB characteristics and company's risks -GMM)

Variables	Estimated coefficient	
	OP-RISK (Model 1)	MKT-RISK (Model 2)
INTERCEPT	10.493^{b} (1.99)	-0.464 (-0.42)
I-SBSIZE	-0.009^{a} (-2.74)	-0.000^{b} (-1.97)
I-SBF	-0.027^{c} (-1.81)	-0.001^{c} (-1.11)
I-SBTEN	-0.002^{c} (-1.49)	0.000 (0.35)
SIZE	-0.004^{a} (-3.60)	-0.000^{a} (-4.72)
MBV	-0.001 (-1.34)	-0.000^{a} (-2.37)
LEV	-0.000^{a} (-2.99)	0.000 (0.98)
YEAR	Yes	Yes
SEC	Yes	Yes
N	1,089	1,089

The GMM coefficient estimates are shown in the table. The superscripts a-c describe two-sided significance at the 1%, 5%, and 10% levels, respectively. Table 2 reports variable definitions.

CONCLUSIONS

Recently, the question on the effectiveness of independent board in developed countries has been raised by both academics and practitioners. Since the Sarbanes-Oxley Act of 2002 regulate the U.S. listed companies to add the number of independent board members, the effectiveness of independent board is still not clear. This issue is, even more interesting in the context of dual board system in emerging economy, such as Indonesia where the corporate response toward the regulation is completely different with developed countries. Further, the role of independent SB in Indonesia is important which has authority to decide long-term contract and other strategic decision in the company. Also, there is limited empirical evidence whether companies with more qualified independent supervisory board can improve their corporate value based on emerging market sample. While most studies focus on the issue of independent director in one-tier context (such as US sample), our paper tests the effectiveness of independent board of commissioner/supervisory boards in the context of Indonesian dual board system. Specifically, we examine whether qualified independent SB characteristics (size, financial expertise, tenure) reduce firm's risks.

In summary, we show an empirical evidence suggesting that the number of independent SBs reduce both operating and market risks. In terms of the qualification, the presence of independent supervisory boards with financial background lowers corporate's risks. Also, independent SB tenure is negatively related to operating risk, but it is not associated with market risk. Our study extends the literature on the effectiveness of independent BOC/SB.

We show that the independent SB provide value to the company by reducing the level of company's risks in emerging economy.

These results need to be interpreted by pointing several limitations. At the first place, we do not consider the value of independent BOC/SB on social outcomes or non-financial outcomes, such as corporate social responsibility. We suggest further research to address this issue. Second, this paper includes listed companies across industry. It might be possible that some industries are more risky than other industries. It will be interesting to address this issue in a specific industry for future research. Lastly, our study does not include other unique characteristics of Indonesian corporate governance, such as concentrated ownership. Future study can examine whether concentrated ownership affect the association between independent supervisory board and firm's risks.

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