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Do Board Characteristics and Innovation Impact Bank Performance? Evidence from Conventional and Islamic Banks in Indonesia

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ABSTRACT. This study aims to analyze the impact of board characteristics, innovation, and the role of the Sharia Supervisory Board (SSB) on bank performance in Indonesia, with a focus on comparing conventional and Islamic banks. Using panel data from 286 bank observations over the period 2010–2020, the study employs panel regression methods and the Generalized Method of Moments (GMM) to address potential endogeneity issues. The findings reveal that the size of the board of commissioners has a significant positive effect on the performance of Islamic banks, while gender diversity in the board of directors generally has a positive impact on overall bank performance. The educational background of board members shows complex and varied effects between conventional and Islamic banks. Innovation demonstrates a significant positive effect on the performance of Islamic banks in additional tests. Furthermore, the moderating role of the SSB in the relationship between innovation and the performance of Islamic banks is highlighted: the size of the SSB tends to weaken the influence of innovation, whereas gender diversity within the SSB strengthens it. These findings have important implications for bank management practices, the development of Islamic banking governance theory, and banking sector regulations. The study underscores the necessity of considering structural differences between conventional and Islamic banks when designing governance policies.

Keywords: Board Characteristics, Innovation, Conventional Banks, Islamic Banks, Bank Performance Indonesia

***JEL CLASSIFICATION*:** G2, G3

***KAUJIE CLASSIFICATION*:** L22, L24, L33

1. Introduction

Globalization, technological innovation, and financial market deregulation are among the key factors that have driven significant restructuring in the banking industry over the past two decades (Phan et al., 2020; Wang & Cao, 2022). According to data from the Indonesian Financial Services Authority (OJK), as of the end of 2021, the total assets of conventional banks in Indonesia amounted to approximately IDR 8,640 trillion, while the total assets of Islamic banks reached only IDR 575 trillion. However, it is important to note that the asset growth of Islamic banks has shown a positive trend in recent years. During the 2015–2020 period, the average annual asset growth of Islamic banks was 15.5%, significantly outpacing the 9.5% growth rate recorded by conventional banks.

Additionally, there are differences in asset composition between conventional and Islamic banks. Conventional banks tend to have asset compositions dominated by loans (around 55%), whereas Islamic banks are more heavily invested in investment instruments (approximately 52%). This difference is attributable to the principles of Islamic banking, which restrict the provision of interest-based loans. The governance differences between conventional and Islamic banks pose distinct challenges to the growth of each type of bank (Shibani & De Fuentes, 2017). Shahzad Bukhari et al. (2013) noted that governance is often linked to the board structure of a bank, with Islamic banks having the additional Sharia Supervisory Board (SSB), distinguishing them from conventional banks.

The characteristics of a bank's board significantly impact its performance (Abdul Gafoor et al., 2018; Bouteska, 2020; Daadaa, 2020; Quoc Trung, 2022). Finkelstein & Hambrick (1996) highlighted that the expertise, experience, and educational background of board members play a critical role in strategic decision-making that can enhance a bank's performance. Boards comprising members with relevant expertise and experience in finance, banking, risk management, and related industries can provide valuable insights into critical aspects of banking operations. Moreover, diversity in background, expertise, and perspective among board members fosters critical and creative discussions, helping to avoid groupthink (Bin Khidmat et al., 2020; Issa et al., 2021).

Board size refers to the number of members on a bank's board of directors. A sufficiently large board can ensure diverse interests are represented, enriching discussions and decision-making processes (Quoc Trung, 2022). Conversely, boards that are too small may face limitations in understanding and evaluating complex aspects of banking operations. Ghosh & Ansari (2018) found no significant impact of board size on performance, while Daadaa (2020) identified a negative relationship between board size and corporate performance. However, studies by Abdul Gafoor et al. (2018) in India and Bouteska (2020) in the Eurozone showed a significant positive relationship between board size and bank performance, as measured by Return on Assets (ROA).

The presence of women on a bank's board of directors has the potential to improve bank performance. Research indicates that gender diversity on boards can bring varied perspectives, enhance decision-making, and improve risk management. Boards that reflect gender diversity are better equipped to represent and understand the diverse needs and preferences of customers. Studies by Moreno-Gómez et al. (2018) and Tanaka (2019) demonstrated that gender inclusion positively influences corporate performance. However, Sila et al. (2016) found no significant relationship between gender diversity and firm performance.

The educational background of board members is another important factor. Boards comprising members with diverse educational backgrounds—such as in finance, economics,

law, or management—can contribute to a more comprehensive analysis of economic conditions, a deeper understanding of business risks, and better strategic decision-making (Sidki et al., 2023). A combination of diverse educational perspectives enhances the board's ability to assess complex situations and make sound decisions (Papadimitri et al., 2020). Higher levels of education among board members are also associated with improved corporate performance (Cheng et al., 2010).

Boards that include members with varied expertise in finance, technology, marketing, and business can bring unique perspectives when addressing innovation challenges (Phan et al., 2020). Such diversity enables boards to offer broader insights and fresh ideas on navigating an ever-evolving landscape of innovation. The expertise and knowledge of individual board members can contribute to a more comprehensive understanding of market trends, technological advancements, and customer preferences. Martini et al. (2012) argued that diverse perspectives within a board foster a culture of innovation, facilitating effective decision-making in promoting product innovation and overall performance. Phan et al. (2020) found that innovation positively affects corporate performance, although Galia & Zenou (2012) observed a negative relationship between innovation and performance.

A fundamental difference between Islamic and conventional banks lies in their governance structures and operational principles. Islamic banks operate based on Sharia principles, while conventional banks utilize an interest-based system. This distinction is evident in the presence of the Sharia Supervisory Board (SSB) in Islamic banks, which is absent in conventional banks. The SSB is an independent body tasked with overseeing and ensuring that Islamic banks operate in compliance with Sharia principles (Grassa et al., 2023; Haddad & Souissi, 2022).

The SSB plays a crucial role in the development of products and services within Islamic banks. It is responsible for evaluating and approving every new product or service to ensure that all aspects of the bank's operations align with Sharia principles (Grassa & Matoussi, 2014). This leads to greater selectivity in product offerings by Islamic banks compared to conventional banks (Nomran et al., 2018). Furthermore, Islamic banks have broader operational objectives, not only focusing on profit but also ensuring social and economic justice in line with Islamic principles.

The presence of the SSB and the requirement to comply with Sharia principles create unique challenges for Islamic banks in terms of innovation and product development. On the one hand, the SSB plays a critical role in maintaining the integrity and Sharia compliance of the bank. On the other hand, the rigorous evaluation and approval processes can potentially slow down the pace of innovation compared to conventional banks, which have greater flexibility in product development (Shahzad Bukhari et al., 2013).

Given these structural and operational differences, it is essential to examine how board characteristics, including the SSB in Islamic banks, as well as product innovation, impact the performance of banks. This study aims to explore the relationship between board characteristics and product innovation on the performance of conventional and Islamic banks in Indonesia. Additionally, it will investigate whether innovation moderates the effect of SSB characteristics on Islamic banks, considering the potential of the SSB as a factor influencing innovation processes and, ultimately, the performance of Islamic banks in Indonesia

2. Literature Review and Hypothesis Development

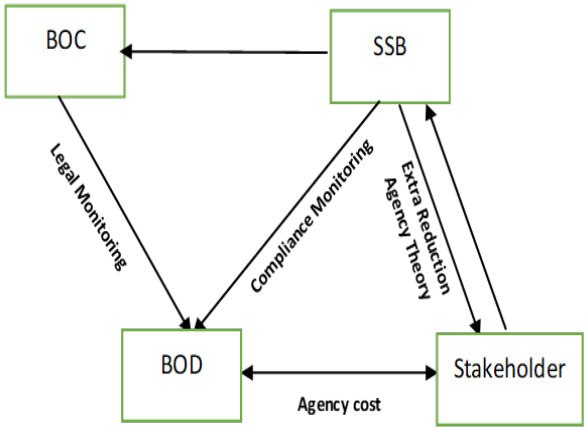
2.1 Literature Review

2.1.1 Differences in Governance Structures Between Islamic and Conventional Banks

There are significant differences between the governance structures of Islamic and conventional banks. Bhatti & Bhatti (2010) argue that the governance structure of Islamic banks follows principles similar to traditional banks but with modifications to meet Shariah requirements (Ashraf et al., 2015). One key distinction is the presence of the Sharia Supervisory Board (SSB), which serves as an additional oversight mechanism unique to Islamic banks and absent in conventional banks (Farook et al., 2011). This internal process is crucial for maintaining control (Haniffa & Hudaib, 2007), with the aim of enhancing financial performance and governance transparency in Islamic banks by addressing their distinctive characteristics and minimizing conflicts between investors and bank managers.

In Indonesia, the dual-board structure is adopted, similar to countries like Germany, the Netherlands, and Japan (Weimer & Pape, 1999). The board of commissioners oversees management activities, while the board of directors handles the day-to-day operations of the institution (Darmadi, 2013). In other words, executive functions are solely performed by the board of directors. However, Islamic banking faces distinct governance challenges, such as a more complex governance structure, particularly concerning Shariah compliance (Bukair & Rahman, 2015). The presence of the SSB differentiates Islamic banks in terms of their oversight processes, especially concerning adherence to Sharīʿah principles (Arifin et al., 2021). An overview of the governance structure of Islamic banks in Indonesia can be seen in the following Figure 1.

Figure 1. Board Structure in Islamic Banks in Indonesia



Source: Adapted from Abdelsalam et al., (2016) and Nomran & Haron, (2019)

2.1.2 The Role of the Board in Bank Governance

Internal oversight structures, such as the board of directors, are a key mechanism for mitigating agency problems (Bathala et al., 1994). The board of directors is essential in resolving agency conflicts between shareholders and management, acting as part of the internal monitoring system (Yoshikawa & Phan, 2005). From a corporate governance perspective, the board of directors serves as an internal governance mechanism, functioning as a monitoring tool to control management (agents) on behalf of shareholders (principals) (Hung, 1998). Both the Sharia Supervisory Board and the board of directors play key roles in the governance of Islamic banks (Grassa et al., 2023; Grassa & Matoussi, 2014).

2.1.3 Roles and Functions of the Sharīʿah Supervisory Board (SSB)

The SSB plays several critical roles in the development of products within Islamic banks (Nomran & Haron, 2019). It is responsible for evaluating new products and services to ensure their compliance with Shariah principles. Additionally, the SSB formulates operational

guidelines for the offered products and services, ensuring alignment with Shariah principles. It also provides advice and recommendations to the management of Islamic banks to improve the quality of their products and services (Haddad & Souissi, 2022).

The SSB also supervises operations to ensure that banks comply with Shariah principles. A strong and effective SSB enables Islamic banks to develop new products and services in harmony with Shariah principles, catering to the growing demand for Islamic banking services. Furthermore, the SSB contributes to enhancing public trust in Islamic banks as secure and reliable financial institutions.

2.1.4 Differences Between the SSB and Conventional Bank Regulators

The primary difference between the SSB in Islamic banks and government regulators in conventional banks lies in the principles they oversee. The SSB ensures that all activities in Islamic banks comply with Shariah principles, such as the prohibition of interest (*ribā*), uncertainty (*gharar*), gambling (*maisir*), and other forbidden practices (Nomran et al., 2018). In contrast, government regulators in conventional banks focus on compliance with regulatory and governmental requirements, such as minimum capital requirements, risk management, and corporate governance.

The composition of the SSB in Islamic banks includes members with expertise in Islamic scholarship and practice, such as Islamic law experts, Shariah accountants, and Islamic banking practitioners (Grassa et al., 2023; Grassa & Matoussi, 2014). Conversely, government regulators in conventional banks are typically composed of individuals with backgrounds in finance and economics.

The SSB plays a vital role in the development of Islamic banking products and services, offering advice and recommendations to the board of directors on operational activities in line with Shariah principles. Meanwhile, government regulators in conventional banks are responsible for establishing regulations and requirements that conventional banks must follow in their operations. The SSB focuses on Shariah compliance and consists of individuals with expertise in Islamic scholarship and practice, while government regulators emphasize regulatory compliance and consist of individuals with financial and economic backgrounds (Khan et al., 2023).

Recent literature on the impact of board characteristics and innovation on the performance of Islamic banks reveals mixed yet significant findings. Research by Mai (2021) and Mai and Setiawan (2024) highlights that board size, gender diversity, and board independence have a significant influence on the performance and capital structure decisions of Islamic banks. Meanwhile, Awad et al. (2024) found that board independence positively affects stock performance in Islamic banks within the MENA region. Haddad (2022) emphasized the importance of financial innovation in enhancing profitability and efficiency in Islamic banks during the digital era.

Further studies by Mamatzakis et al. (2023) identified notable differences in the effects of governance practices on the performance of Islamic versus conventional banks, advising caution in the adoption of international governance practices for Islamic banks. Mukhibad et al. (2024) discovered that cognitive diversity on boards, particularly in terms of educational backgrounds and experiences, has a positive impact on the profitability of Islamic banks in Southeast Asia.

Overall, this body of literature underscores that board characteristics and innovation play crucial roles in the performance of Islamic banks. However, their influence varies depending on the operational context and environment. These findings highlight the need for tailored approaches to governance practices

and innovation strategies to optimize the performance of Islamic banks.

2.2 Hypotheses Development

Board size influences bank performance

The Board of Directors serves as an internal governance mechanism that controls agency problems within a corporate system (Cerbioni & Par-bonetti, 2007). Fama & Jensen, (1983) suggest that board size can influence a company's long-term performance. There is a positive relationship between a larger board size and company performance. Numerous studies have highlighted the benefits and advantages associated with adopting a larger board of directors, which can enhance overall performance (Daadaa, 2020; Ghosh & Ansari, 2018).

H1a: Size of the Board of Directors has a positive impact on bank performance.

H1b: Size of the Board of Commissioners has a positive impact on bank performance.

Gender influences bank performance

Rosener (1995) emphasizes the role of women in top management by explaining that they are "more flexible and better able to handle ambiguity than men, and this ability to motivate team development and flexibility is an important factor for the success of modern businesses conducted in uncertain contexts." Additionally, since flexibility and ambiguity are integral parts of innovation activities, it can be assumed that gender diversity can enhance a company's innovation. Midavaine et al. (2016), Cumming & Leung (2018), and Griffin et al. (2021) found a positive relationship between board gender diversity impact bank performance.

H2a: Gender of the Board of Directors has a positive impact on bank performance.

H2b: Gender of the Board of Commissioners has a positive impact on bank performance.

Educational background influences bank performance

The labor market places a high value on education, which is defined as a person's educational history and academic career (Sidki et al., 2023). The average education level of top management team members has a favorable and significant influence (Finkelstein & Hambrick, 1996). According to (Cheng et al., 2010), in the context of China, the board chairman's university degree has a favorable relationship with seven performance measures, including profits per share (EPS) and return on assets (ROA). The inclusion of board members with experience in accounting and finance, as shown by Grassa & Matoussi (2014), has a favorable and significant effect on banks' financial performance.

H3a: Educational background of the Board of Directors has a positive impact on bank performance.

H3b: Educational background of the Board of Commissioners has a positive impact on bank performance.

Innovation influences bank performance

Bank performance can be enhanced by innovative service convenience or by increasing the value-added services provided to customers, thereby improving bank performance. Cumming & Leung, (2018); Griffin et al., (2021) and Midavaine et al., (2016) found that firm innovation has a positive impact on performance. With an increasing variety of products, companies can improve their performance. Wang & Cao (2022) found that the greater the number of innovations a company possesses, the more it enhances the company's performance.

H4: Innovation has a positive impact on bank performance.

Innovation moderates the relationship between the Shariah Supervisory Board (SSB) and bank performance

Product innovation can enhance the performance of a bank by im-proving competitiveness and efficiency. Therefore, even with a large board size, product innovation can help banks remain competitive and achieve good performance. On the other hand, if product innovation is low or ab-sent, a large board size can become a burden and hinder the bank's performance. Miller & Del Carmen Triana, (2009) suggest that innovation and corporate reputation mediate the relationship between board diversity and firm performance, and the more innovative a company is, the better its performance tends to be. The composition of the board of directors, taking into account the number of qualifications they possess, should have a positive effect on corporate innovation as it brings different perspectives from various levels of education and results in a more diverse population that can enable innovative actions. Although this effect has not been extensively researched in the literature, both Midavaine et al., (2016) found results that support our argument.

Midavaine et al., (2016) found that educational diversity leads companies to invest more in R&D, while (Xiao-qing & Jian, 2012) found that variation in educational backgrounds is positively related to technological in-novation and company performance. However, in Islamic banking, there is a Shariah Board that ensures the operational activities of Islamic banks are in accordance with Shariah principles (Khan et al., 2023). The presence of the Shariah Board has an impact on Shariah compliance in the operational activities of Islamic banks, maintains stakeholders' trust in IB activities, supports management in providing Shariah-compliant products, meets legal requirements for governance, and fulfills the religious function of Islamic banks (Garas, 2012). The presence of the Shariah Board may hinder the development of IB product innovations, thereby affecting the performance of Islamic banks.

H5a: The size of SSB weakens the influence on bank performance through innovation as a moderating variable

H5b: Gender SSB weakens the influence on bank performance through innovation as a moderating variable.

H5c: Educational background of SSB weakens the influence on bank performance through innovation as a moderating variable

3. Research Methodology

This study utilizes data from 14 Islamic banks and 14 conventional banks, covering an 11-year period from 2010 to 2020. The research sample consists of 286 observations, encompassing both Islamic and conventional banks in Indonesia. Bank performance is assessed through Return on Assets (ROA) and Return on Equity (ROE). The data was obtained from the banks' websites by examining board characteristics such as board size, board gender, and board background. Innovation is measured by the number of bank products and services.Control variables include bank age and bank size, as shown in Table 1

Table 1: Variables Measurement

Code	Variable	Measurement	Source
Dependent			
ROA	Return on Asset	Net Income / Total Assets	(Cumming & Leung, 2018; Khalil & Boulila Taktak, 2020)
ROE	Return On Equity	Net Income /Shareholder's Equity	(Nomran et al., 2018)
Independent			
BOD_SIZE	Size of board of directors	Number of board of directors	(Issa et al., 2021)
BOC_SIZE	Size of board of commissioners	Number of board of commissioners	(Bouteska, 2020)
SSB_SIZE	Size of Sharia Supervisory Board	Number of sharia supervisory board	(Khan et al., 2023)
BOD_GEN	Female board of directors	Percentage of women on the board of directors	Griffin et al., (2021)
BOC_GEN	Female board of commissioners	Percentage of women on the board of commissioners	(Abdul Gafoor et al., 2018; Quoc Trung, 2022)
SSB_GEN	Female Sharia Supervisory Board	percentage of women on the haria supervisory board	(Haddad & Souissi, 2022; Khan et al., 2023)
BOD_EDU	Educational background of Board of Directors	Percentage of Board of Directors with an economic education	Fernández-Temprano & Tejerina-Gaite, 2020
BOC_EDU	Educational background of Board of commissioners	Percentage of Board of commissioners with an	Boubakri et al. (2021)

		economic education	
SSB_EDU	Educational background of Sharia Supervisory Board	Percentage of sharia supervisory board with an sharia education	(Grassa & Matoussi, 2014; Khan et al., 2023)
INNOV	Bank innovation	Number of bank products/services per year	(Phan et al., 2020; Wang & Cao, 2022)
Control			
LN_SIZE	Total asset bank	Natural logarithm of total assets	(Buallay, 2019)
AGE	Bank age	Bank age	(Khan et al., 2023)

Source: Author's Own

The data analysis methodology involves several statistical techniques. First, descriptive statistics are used to describe the characteristics of the sample, followed by correlation analysis to detect potential multicollinearity. Subsequently, panel regression analysis is applied based on the results of the Hausman test, utilizing clustered standard errors to address heteroskedasticity and autocorrelation issues. To tackle the problem of endogeneity, the Generalized Method of Moments (GMM) is also implemented. The analysis is conducted separately for conventional banks and Islamic banks, as well as combined analysis for both types of banks. The final analysis examines the moderating effects of innovation and other related factors on Islamic banks. The regression models can be seen in the following equations.

Regression Model 1

$$ROA_{i,t} = \alpha + \beta 1BOD\_SIZE_{i,t} + \beta 2BOD\_GEN_{i,t} + \beta 3BOD\_EDU_{i,t} + \beta 4\_BOC\_SIZE_{i,t} + \beta 5BOC\_GEN_{i,t} + \beta 6BOC\_EDU_{i,t} + \beta 7INNOV_{i,t} + \beta 8AGE_{i,t} + \beta 9LN\_SIZE_{i,t} + e_{i,t} \quad (1)$$

Regression Model 2 Robustness test

$$ROE_{i,t} = \alpha + \beta 1BOD\_SIZE_{i,t} + \beta 2BOD\_GEN_{i,t} + \beta 3BOD\_EDU_{i,t} + \beta 4\_BOC\_SIZE_{i,t} + \beta 5BOC\_GEN_{i,t} + \beta 6BOC\_EDU_{i,t} + \beta 7INNOV_{i,t} + \beta 8AGE_{i,t} + \beta 9LN\_SIZE_{i,t} + e_{i,t} \quad (2)$$

Regression Model 3 Moderating Effect

$$ROA_{i,t} = \alpha + \beta 1BOD\_SIZE_{i,t} + \beta 2BOD\_GEN_{i,t} + \beta 3BOD\_EDU_{i,t} + \beta 4\_BOC\_SIZE_{i,t} + \beta 5BOC\_GEN_{i,t} + \beta 6BOC\_EDU_{i,t} + \beta 7INNOV_{i,t} + \beta 8SSB\_SIZE\_INNOV +$$

4. Results

4.1 Descriptive Analysis

The descriptive statistics provide a summary of the variables in the dataset. This study was conducted by analyzing data from Islamic banks and conventional banks in Indonesia over an 11-year period, from 2010 to 2020. The research sample consisted of 286 observations, covering various aspects of financial performance, corporate governance structures, and bank innovation. The variables examined included Return on Assets (ROA) and Return on Equity (ROE) as measures of financial performance, with an average ROA of 2.3% and an average ROE of 11.2%. Corporate governance structures were represented by the size and composition of the board of directors and the board of commissioners, including aspects such as gender diversity and educational background. The average size of the board of directors was 6.888 members, while the board of commissioners had an average of 6.150 members.

Bank innovation was measured by the number of bank products/services introduced annually, with an average of 69.969 innovations. The study also included control factors such as bank size (measured using the natural logarithm of total assets) and bank age, with the average bank age in the sample being 36.899 years.

Table 2. Descriptive statistics

Variable	Obs	Mean	Median	Maximum	Minimum	Std. Dev.
ROA	286	0.023	0.017	0.452	-0.201	0.044
ROE	286	0.112	0.102	0.636	-0.940	0.144
BOD_SIZE	286	6.888	6.5	15	3	2.903
BOD_GENDER	286	1.294	1	6	0	1.373
BOD_EDU	286	2.944	3	9	0	1.562
BOC_SIZE	286	6.150	6	13	2	2.387
BOC_GENDER	286	0.524	0	3	0	0.636
BOC_EDU	286	2.678	3	7	0	1.405
INNOV	286	69.969	52	313	6	58.489
LN_ASET	286	16.832	17.073	21.137	9.407	2.759
AGE	286	36.899	41	79	1	21.411

Notes: For an understanding of the symbols in the Descriptive statistics, please refer to Table 1 Variable measurement

Source: Author's Own

In the provided correlation table, we can observe that several pairs of variables exhibit relatively high correlation. High correlations between independent variables can indicate the presence of multicollinearity is-sues. However, it is important to note that high correlation between variables does not always imply the absence of multicollinearity, as long as the correlation values do not exceed 0.8. In the table, there are several pairs of variables that show significant correlation. For instance, BOD_SIZE and BOC_SIZE have a correlation of 0.699, while BOD_GEN and BOC_GEN have a correlation of 0.506. Additionally, LN_ASET and INNOV also demonstrate relatively high correlations with several other variables. The correlation results can be seen in table 3.

Table 3. Correlation matrix

	ROA	ROE	BOD_SIZE	BOD_GEN	BOD_EDU	BOC_SIZE	BOC_GEN	BOC_EDU	INNOV	AGE	LN_SIZE
ROA	1										
ROE	0.025	1									
BOD_SIZE	0.251	0.006	1								
BOD_GEN	0.071	0.041	0.402	1							
BOD_EDU	-0.034	-0.098	0.091	-0.148	1						
BOC_SIZE	-0.037	-0.131	0.248	0.093	0.264	1					
BOC_GEN	0.089	-0.083	0.209	0.287	-0.019	0.111	1				
BOC_EDU	-0.199	-0.131	0.197	-0.053	0.341	0.506	-0.009	1			
INNOV	0.005	0.021	0.644	0.44	0.216	0.253	0.202	0.276	1		
AGE	0.101	0.064	0.58	0.394	-0.134	-0.073	0.169	0.053	0.499	1	
LN_SIZE	0.156	0.079	0.699	0.303	-0.023	0.091	0.198	0.096	0.595	0.64	1

Notes: For an understanding of the symbols in the Descriptive statistics, please refer to Table 1 Variable Measurement

Source: Author's Own

4.2. Regression Results

Table 4. Regression results

Variable	(1) ROA CB	(2) ROA IB	(3) ROA	(4) GMM	(5) ROE
L.ROA				7.558*** (0.4424)	
BOD_SIZE	-0.119 (-0.0002)	-0.192 (-0.0015)	-1.088 (-0.0015)	-0.525 (0.0007)	-1.637 (-0.012)
BOD_GEN	-0.076 (0.0001)	0.277 (0.0035)	2.085** (0.0042)	6.53*** (0.0245)	2.093** (0.0172)
BOD_EDU	-0.059 (0.00004)	-2.514*** (-0.017)	-2.695*** (0.0039)	1.391 (0.0018)	-0.994 (-0.0048)
BOC_SIZE	-0.945 (-0.0003)	1.306 (0.006)	0.9934 (0.0017)	1.143 (0.002)	-0.523 (-0.0037)
BOC_GEND	0.729 (0.001)	-1.414 (-0.019)	-1.218 (0.0062)	-4.989*** (-0.018)	1.645 (0.0175)
BOC_EDU	-2.475** (-0.0093)	-2.119** (-0.009)	-1.4629 (-0.0026)	2.285** (0.005)	0.0159 (0.0001)
INNOV	-1.169 (-0.00002)	1.323 (0.0007)	0.2405 (-0.0001)	0.799 (-0.001)	-1.580 (-0.0002)
AGE	-4.642*** (-0.0014)	-2.537** (-0.0047)	-3.400** (-0.0026)	-3.412** (-0.002)	-5.152*** (-0.0158)
LN_ASET	-1.746* (-0.001)	-1.009 (-0.003)	-2.468** (-0.0024)	-0.095 (-0.001)	-1.461 (-0.008)
C	4.930*** (0.134)	1.982** (0.106)	5.668*** (0.176)		7.235*** (0.937)
R-2	0.737	0.405	0.385		0.492
Adjusted R-2	0.691	0.291	0.297		0.419
Prob	0.000	0.000	0.000		0.000
Hausman	0.000	0.023	0.000		0.000
Sargan				0.587	
Arl 1				0.175	
Arl 2				0.441	
Obs.	148	138	286	237	286

Notes: Please see Table 1 for the definition of each variable presented in this regression Table. *, **, and *** denotes significance in 10%, 5%, and 1% levels, respectively

Source: Author's Own

Table 4 presents the regression analysis results of the five models, providing deep insights into the influence of board characteristics, innovation, and other factors on the performance of conventional and Islamic banks in Indonesia. All models employ clustered standard errors, effectively addressing issues of heteroskedasticity and autocorrelation, thereby enhancing the reliability of the estimation results.

For conventional banks (Model 1), the educational background of the board of commissioners (BOC_EDU) has a significant negative effect on Return on Assets (ROA) at the 5% level, indicating that an increase in the proportion of commissioners with an economics background tends to reduce ROA. Bank age (AGE) exhibits a highly significant negative effect at the 1% level, suggesting that older banks are likely to have lower ROA. Bank size (LN_ASET) also shows a significant negative effect at the 10% level, implying that larger banks may face challenges in maintaining high ROA levels. This model has a relatively high explanatory power, with an R-squared value of 0.737, indicating that the independent variables explain 73.7% of the variation in ROA for conventional banks.

For Islamic banks (Model 2), the educational background of the board of directors (BOD_EDU) has a highly significant negative effect on ROA at the 1% level, while the educational background of the board of commissioners (BOC_EDU) also shows a significant negative effect at the 5% level. These findings suggest that a higher proportion of board members with an economics background tends to lower ROA in Islamic banks. Bank age (AGE) also has a significant negative effect at the 5% level, consistent with the findings for conventional banks. This model has a lower R-squared value of 0.405, indicating that the independent variables explain 40.5% of the variation in ROA for Islamic banks.

In the combined model of conventional and Islamic banks (Model 3), the gender diversity of the board of directors (BOD_GEN) has a significant positive effect on ROA at the 5% level, indicating that gender diversity within the board of directors can enhance the financial performance of banks. However, the educational background of the board of directors (BOD_EDU) has a highly significant negative effect at the 1% level. Both bank age (AGE) and bank size (LN_ASET) show significant negative effects, consistent with the findings from the previous models. This model has an R-squared value of 0.385, explaining 38.5% of the variation in ROA.

The GMM model (Model 4), employed to address endogeneity issues, yields intriguing results. The previous period's ROA (L.ROA) has a highly significant positive effect, indicating persistence in bank performance. The gender diversity of the board of directors (BOD_GEN) shows a highly significant positive effect, reinforcing findings from the combined model. However, the gender diversity of the board of commissioners (BOC_GEND) exhibits a highly significant negative effect. Interestingly, the educational background of the board of commissioners (BOC_EDU) demonstrates a significant positive effect in this model, contrasting with earlier findings. The Sargan test (p-value: 0.587) and Arellano-Bond test for autocorrelation (AR1: 0.175; AR2: 0.441) confirm the validity of the instruments and the absence of second-order autocorrelation, supporting the reliability of the GMM estimation results.

Finally, the robustness check model, using Return on Equity (ROE) as the dependent variable (Model 5), shows results largely consistent with the previous models. The gender diversity of the board of directors (BOD_GEN) has a significant positive effect on ROE at the 5% level, further supporting the finding that gender diversity within the board of directors enhances banks' financial

performance. Bank age (AGE) has a highly significant negative effect, consistent across all models. This model has an R-squared value of 0.492, explaining 49.2% of the variation in ROE.

Overall, these results highlight that board characteristics, particularly gender diversity and educational background, significantly influence bank performance, though their impact may vary between conventional and Islamic banks. Factors such as bank age and size consistently exhibit a negative effect on financial performance. These findings have important implications for corporate governance policies in Indonesia's banking sector.

4.3 Moderating test

Table 5. Moderating test

Variable	(1) ROA	(2) ROA
BOD_SIZE	0.185 (0.0014)	0.429 (0.0020)
BOD_GENDER	-0.142 (-0.0017)	-1.096 (-0.0168)
BOD_EDU	-2.669*** (-0.0192)	-3.332*** (0.0209)
BOC_SIZE	2.272*** (0.0085)	3.045*** (0.0127)
BOC_GENDER	-1.648 (-0.023)	-1.883* (-0.0249)
BOC_EDU	-1.489 (-0.0071)	-2.849*** (-0.0112)
SSB_SIZE	1.812* (0.0171)	1.877* (0.1096)
SSB_GENDER	0.789 (0.0081)	-2.161** (-0.7786)
SSB_EDU	-1.795* (-0.0196)	-1.825* (-0.0870)
INNOV	1.036 (0.0007)	1.915* (0.0006)
SSB_SIZE_INNOV		-1.834* (-0.0036)
SSB_GEN_INNOV		2.151** (0.0133)
SSB_EDU_INNOV		1.36 (0.0025)
AGE	-2.336** (-0.0052)	-2.694*** (-0.0051)
LN_ASET	-1.018 (-0.0034)	-1.479 (-0.0064)
C	1.753* (0.2022)	1.679* (0.223)

R-2	0.437	0.50459
Adjusted R-2	0.288	0.37495
Prob	0.000	0.000
Hausman	0.000	0.000
Obs.	138	138

Notes: Please see Table 1 for the definition of each variable presented in this regression Table. *, **, and *** denotes significance in 10%, 5%, and 1% levels, respectively.

Source: Author's Own

Table 5 presents the results of the moderation analysis for Islamic banks, focusing on the role of the Sharia Supervisory Board (SSB) and its moderating effect on innovation, revealing several noteworthy findings. Model 1 examines the direct impact of SSB characteristics on ROA, while Model 2 incorporates the moderating effect of the SSB on the relationship between innovation and bank performance.

In Model 1, the size of the SSB (SSB_SIZE) has a significant positive effect on ROA at the 10% level (1.812), indicating that larger SSBs tend to enhance the performance of Islamic banks. However, the educational background of the SSB (SSB_EDU) shows a significant negative effect at the 10% level (-1.795), suggesting that a higher proportion of SSB members with Sharia-related educational backgrounds may have a negative impact on ROA. The gender diversity of the SSB does not show a significant effect in this model.

Model 2 explores the moderating effect of the SSB on the relationship between innovation and bank performance. The interaction between SSB size and innovation (SSB_SIZE_INNOV) has a significant negative effect at the 10% level (-1.834), indicating that larger SSBs may weaken the positive impact of innovation on ROA. Conversely, the interaction between SSB gender diversity and innovation (SSB_GEN_INNOV) shows a significant positive effect at the 5% level (2.151), implying that greater gender diversity within the SSB can strengthen the positive relationship between innovation and bank performance. The interaction between SSB educational background and innovation does not exhibit a significant effect.

Interestingly, in Model 2, innovation (INNOV) demonstrates a significant positive effect on ROA at the 10% level (1.915), while SSB gender diversity (SSB_GENDER) shows a significant negative effect at the 5% level (-2.161). This suggests that innovation generally has a positive impact on the performance of Islamic banks, but the moderating role of the SSB can influence this relationship in varying ways.

Both models show consistency in certain control variables, with bank age (AGE) consistently exhibiting a significant negative effect on ROA. Model 2 has a higher R-squared value (0.50459) compared to Model 1 (0.437), indicating that the inclusion of SSB's moderating effects enhances the explanatory power of the model.

Overall, these findings indicate that the SSB plays a moderating role in the relationship between innovation and the performance of Islamic banks, with the effects varying depending on the SSB characteristics under consideration. These results highlight the importance of accounting for the composition and characteristics of the SSB when seeking to improve the performance of Islamic banks through innovation.

5. Discussion

This study provides critical insights into the impact of board characteristics and innovation on the performance of banks in Indonesia, with a particular focus on the comparison between conventional and Islamic banks. Findings regarding board size present mixed results, consistent with prior studies such as Ghosh & Ansari (2018). While board size does not generally affect bank performance, moderation tests on Islamic banks indicate a positive impact. This could be attributed to the balance between decision-making efficiency in smaller boards and the diversity of perspectives in larger boards. Issa et al. (2024) emphasized the importance of board diversity in enhancing the efficiency and stability of banks, suggesting that optimal board composition must account for multiple factors.

Gender diversity on boards demonstrates a positive effect on bank performance, supporting findings by Tanaka (2019) and Griffin et al. (2021). Furthermore, Andrieș et al. (2024) confirmed that gender diversity on boards improves bank efficiency in emerging markets. The presence of women on boards brings different perspectives, fosters innovation, and enhances the quality of decision-making. These findings highlight the need for banks to implement inclusive recruitment policies and provide leadership development programs for female candidates to increase gender diversity at the board level.

The educational background of board members shows a negative influence on bank performance, though these results should be interpreted with caution. Mukhibad et al. (2024) found that cognitive diversity on boards, including diverse educational backgrounds, positively impacts the profitability of Islamic banks in Southeast Asia. This discrepancy could be due to the complexity of the banking industry, which requires a combination of technical expertise and practical experience. Banks should regularly assess the skillsets of their board members and offer continuous training to ensure that board competencies align with the evolving needs of the industry.

Innovation exhibits varied effects on bank performance, with a negative impact on banks overall but a positive impact on Islamic banks. Mamatzakis et al. (2023) highlighted the importance of appropriate governance practices in influencing the performance and stability of Islamic banks. These differences may arise from the higher operational complexity of banks with a wide range of innovative products, whereas Islamic banks, with a more limited product range, may be better able to focus on managing their innovations. To maximize the benefits of innovation, banks should develop innovation strategies aligned with their long-term goals and implement robust risk management processes.

Overall, this study underscores the importance of board characteristics and innovation in influencing bank performance while also revealing the complexity of these relationships. Awad et al. (2024) further confirmed the significant influence of board characteristics on stock performance in banks across the MENA region. Banks must adopt tailored approaches to determine optimal board composition and innovation strategies, taking into account their specific contexts as either conventional or Islamic banks. Regular evaluations of governance practices, increased board diversity, and careful management of innovation can help banks enhance their performance in an increasingly dynamic banking environment.

6. Conclusion

This study provides significant insights into the influence of board characteristics, innovation, and the role of the Sharia Supervisory Board (SSB) on bank performance in Indonesia, focusing on the comparison between conventional and Islamic banks. The key findings reveal that the size of the board of

commissioners has a significant positive impact on the performance of Islamic banks, gender diversity in the board of directors generally has a positive effect on bank performance, and the SSB plays a significant moderating role in the relationship between innovation and the performance of Islamic banks. These findings have practical implications for bank management in optimizing the composition of the board and SSB, as well as theoretical implications for advancing the understanding of Islamic banking governance. For regulators, the results emphasize the importance of accounting for structural differences between conventional and Islamic banks when designing governance policies.

However, this study has several limitations. Its focus on the Indonesian context may limit the generalizability of the findings to other countries. The research period (2010–2020) may not fully capture the recent impacts of regulatory changes or global economic conditions. Additionally, the study does not account for external factors such as macroeconomic conditions that could influence bank performance. The measurement of innovation, limited to the number of new products or services, may also not fully capture the complexity of innovation within the banking industry.

For future research, it is recommended to expand the geographical scope, conduct longer-term longitudinal studies, and integrate external factors into the analysis. Developing more comprehensive measures of innovation is also necessary. Qualitative research could provide deeper insights into the decision-making processes within the board and SSB. Furthermore, further exploration of the moderating role of the SSB in different contexts, such as risk management or social performance of Islamic banks and examining interactions among various board characteristics in influencing bank performance could offer valuable contributions to the literature on Islamic banking governance.

References

Abdelsalam, O., Dimitropoulos, P., Elnahass, M., & Leventis, S. (2016). Earnings management behaviors under different monitoring mechanisms: The case of Islamic and conventional banks. *Journal of Economic Behavior & Organization*, 132, 155–173. https://doi.org/https://doi.org/10.1016/j.jebo.2016.04.022

Abdul Gafoor, C. P., Mariappan, V., & Thiyagarajan, S. (2018). Board characteristics and bank performance in India. *IIMB Management Review,* 30(2), 160–167. https://doi.org/https://doi.org/10.1016/j.iimb.2018.01.007

Awad, A. B., Gharios, R., Abu Khalaf, B., & Seissian, L. A. (2024). Board Characteristics and Bank Stock Performance: Empirical Evidence from the MENA Region. *Risks*, *12*(5), 81.; https://doi.org/10.3390/risks12050081

Arifin, R., Rosadi, S., Nugroho, A., & Wahyuningsih, T. (2021). Characteristics of the Sharia Supervisory Board, Sharia Company Size, Zakah, and Islamic Social Reporting on Sharia Banks in Indonesia. Falah: *Jurnal Ekonomi Syariah*, 6(2 SE-), 15–28. https://doi.org/10.22219/jes.v6i1.17100

Ashraf, S., Robson, J., & Sekhon, Y. (2015). Consumer trust and confidence in the compliance of Islamic banks. *Journal of Financial Services Marketing*, 20(2), 133–144. https://doi.org/10.1057/fsm.2015.8

Bathala, C. T., Moon, K. P., & Rao, R. (1994). Managerial Ownership, Debt Policy, and the Impact of Institutional Holdings: An Agency Perspective. *Financial Management*, 23(3). https://EconPapers.repec.org/RePEc:fma:fmanag:bathala94

Bhatti, M., & Bhatti, M. I. (2010). Toward Understanding Islamic Corporate Governance Issues in Islamic Finance. *Asian Politics & Policy*, 2(1), 25–38. https://doi.org/https://doi.org/10.1111/j.1943-0787.2009.01165.x

Bin Khidmat, W., Ayub Khan, M., & Ullah, H. (2020). The Effect of Board Diversity on Firm Performance: Evidence from Chinese Listed Companies. *Indian Journal of Corporate Governance,* 13(1), 9–33. https://doi.org/10.1177/0974686220923793.

Bouteska, A. (2020). Do Board Characteristics Affect Bank Performance? Evidence from the Eurozone. *Journal of Asset Management*, 21(6), 535–548. https://doi.org/10.1057/s41260-020-00181-2

Buallay, A. (2019). Corporate governance, Sharia'ah governance and performance: A cross-country comparison in MENA region. *International Journal of Islamic and Middle Eastern Finance and Management*, *12*(2), 216-235.

Bukair, A. A., & Rahman, A. A. (2015). Bank performance and board of directors attributes by Islamic banks. *International Journal of Islamic and Middle Eastern Finance and Management*, 8(3), 291–309.

Cerbioni, F., & Parbonetti, A. (2007). Exploring the Effects of Corporate Governance on Intellectual Capital Disclosure: An Analysis of European Biotechnology Companies. *European Accounting Review*, 16(4), 791–826. https://doi.org/10.1080/09638180701707011

Cheng, L. T. W., Chan, R. Y. K., & Leung, T. Y. (2010). Management demography and corporate performance: Evidence from China. *International Business Review*, 19(3), 261–275. https://doi.org/https://doi.org/10.1016/j.ibusrev.2009.12.007

Cumming, D. J., & Leung, T. Y. (2018). Diversity and Innovation: The differential role of scope versus levels. *Available at SSRN* 3181323.

Daadaa, W. (2020). Board characteristics and bank performance in emerging stock markets. International *Journal of Business and Emerging Markets*, 12(2), 119–132. https://doi.org/10.1504/IJBEM.2020.107728

Darmadi, S. (2013). Board members' education and firm performance: evidence from a developing economy. *International Journal of Commerce and Management*, 23(2), 113–135. https://doi.org/10.1108/10569211311324911

Fama, E. F., & Jensen, M. C. (1983). Agency problems and residual claims. *The Journal of Law and Economic*s, 26(2), 327–349.

Farook, S., Kabir Hassan, M., & Lanis, R. (2011). Determinants of corporate social responsibility disclosure: the case of Islamic banks. *Journal of Islamic Accounting and Business Research*, 2(2), 114–141.

Finkelstein, S., & Hambrick, D. C. (1996). *Strategic leadership: Top executives and their effects on organizations*. Citeseer.

Galia, F., & Zenou, E. (2012). Board composition and forms of innovation: does diversity make a difference? *European Journal of International Management*, 6(6), 630–650.

Garas, S. N. (2012). The control of the Shari'a Supervisory Board in the Islamic financial institutions. *International Journal of Islamic and Middle Eastern Finance and Management*, *5*(1), 8-24.

Ghosh, S., & Ansari, J. (2018). Board characteristics and financial performance: Evidence from Indian cooperative banks. *Journal of Co-Operative Organization and Management*, 6(2), 86–93. https://doi.org/https://doi.org/10.1016/j.jcom.2018.06.005

Grassa, R., El-Halaby, S., & Khlif, H. (2023). Shariah board characteristics and Islamic banks' performance: a meta-analysis. International *Journal of Islamic and Middle Eastern Finance and Management*, ahead-of-print(ahead-of-print). https://doi.org/10.1108/IMEFM-10-2022-0392

Grassa, R., & Matoussi, H. (2014). Corporate governance of Islamic banks: A comparative study between GCC and Southeast Asia

countries. *International Journal of Islamic and Middle Eastern Finance and Management*, *7*(3), 346-362..

Griffin, D., Li, K., & Xu, T. (2021). Board Gender Diversity and Corporate Innovation: International Evidence. *Journal of Financial and Quantitative Analysis*, 56(1), 123–154. https://doi.org/DOI: 10.1017/S002210901900098X

Haddad, A., & Souissi, M. N. (2022). The impact of Shariah Advisory Board characteristics on the financial performance of Islamic banks. *Cogent Economics & Finance*, 10(1), 2062911. https://doi.org/10.1080/23322039.2022.2062911.

Haddad, A. (2022). The effect of financial innovation and development initiatives on the financial performance of banks: a comparative study within the framework of stakeholder theory. *SN Business and Economics*, 3(1), 17. DOI: 10.1007/s43546- 022-00393-1.

Haniffa, R., & Hudaib, M. (2007). Exploring the ethical identity of Islamic banks via communication in annual reports. *Journal of Business Ethics*, 76(1), 97–116.

Hung, H. (1998). A typology of the theories of the roles of governing boards. *Corporate Governance: An International Review*, 6(2), 101–111. https://doi.org/https://doi.org/10.1111/1467-8683.00089

Issa, A., Yousef, H., Bakry, A., Hanaysha, J. R., & Sahyouni, A. (2021). Does the board diversity impact bank performance in the MENA countries? A multilevel study. Corporate Governance: The International *Journal of Business in Society*, 21(5), 865–891. https://doi.org/10.1108/CG-06-2020-0222.

Khalil, A., & Boulila Taktak, N. (2020). The impact of the Shariah Board's characteristics on the financial soundness of Islamic banks. *Journal of Islamic Accounting and Business Research*, 11(9), 1807–1825.

Khan, I., Khan, I. U., Uddin, M. J., Khan, S. U., & Marwat, J. (2023). Diversity of Shari'ah supervisory board and the performance of Islamic banks: evidence from an emerging economy of Pakistan. *Journal of Islamic Accounting and Business Research*, *15*(1), 1-31. https://doi.org/10.1108/JIABR-09-2021-0240

Mai, MU, (2021). Board characteristics and Islamic bank performance: the role of size as the moderating variable-evidence from Indonesia. *International Journal of Applied Business Research*, 25-38. DOI:10.35313/ijabr.v3i1.123

Mai, M. U., Djuwarsa, T., & Setiawan. (2024). Do board characteristics influence Islamic banks' capital structure decisions? Empirical evidence from a developing country. *Cogent Economics & Finance*, *12*(1). https://doi.org/10.1080/23322039.2023.2295155

Mamatzakis, E., Alexakis, C., Yahyaee, K.A., Pappas, V., Mobarek, A. and Mollah, S. (2023), "Does corporate governance affect the performance and stability of Islamic banks?", *Corporate Governance*, Vol. 23 No. 4, pp. 888-919. https://doi.org/10.1108/CG-05-2022-0217

Martini, S. B., Corvino, A., & Rigolini, A. (2012). Board diversity and investments in innovation: empirical evidence from Italian context. *Corporate Ownership & Control*, 10(1), 9–25.

Midavaine, J., Dolfsma, W., & Aalbers, H. L. (2016). Board diversity and R & D investment. *Management Decision*, 54, 558–569. https://doi.org/10.1108/MD-09-2014-0574

Miller, T., & Del Carmen Triana, M. (2009). Demographic Diversity in the Boardroom: Mediators of the Board Diversity–Firm Performance Relationship. *Journal of Management Studies*, 46(5), 755–786. https://doi.org/https://doi.org/10.1111/j.1467-6486.2009.00839.x

Moreno-Gómez, J., Lafuente, E., & Vaillant, Y. (2018). Gender diversity in the board, women's leadership and business performance. *Gender in Management: An International Journal,* 33(2), 104-122.

Mukhibad, H., Setiawan, D., Aryani, Y.A. and Falikhatun, F. (2024), "Cognitive board diversity and profitability – evidence from Islamic banks in Southeast Asia", *Asian Journal of Accounting Research*, Vol. 9 No. 3, pp. 182-200. https://doi.org/10.1108/AJAR-02-2023-0034

Nomran, N. M., & Haron, R. (2019). Dual board governance structure and multi-bank performance: a comparative analysis between Islamic banks in Southeast Asia and GCC countries. Corporate Governance: *The International Journal of Business in Society*, 19(6), 1377–1402. https://doi.org/10.1108/CG-10-2018-0329

Nomran, N. M., Haron, R., & Hassan, R. (2018). Shari'ah supervisory board characteristics effects on Islamic banks' performance: Evidence from Malaysia*. International Journal of Bank Marketing*, 36(2), 290-304.

Papadimitri, P., Pasiouras, F., Tasiou, M., & Ventouri, A. (2020). The effects of board of directors' education on firms' credit ratings. *Journal of Business Research*, 116, 294–313. https://doi.org/https://doi.org/10.1016/j.jbusres.2020.04.059

Phan, D. H. B., Narayan, P. K., Rahman, R. E., & Hutabarat, A. R. (2020). Do financial technology firms influence bank performance? *Pacific-Basin Finance Journal*, 62, 101210. https://doi.org/https://doi.org/10.1016/j.pacfin.2019.101210

Quoc Trung, N. K. (2022). Board of directors characteristics affect commercial banks' performance – evidence in Vietnam. *Cogent Business & Management*, 9(1), 2060164. https://doi.org/10.1080/23311975.2022.2060164

Rosener, J. B. (1995). Human Resources-Women: A Competitive Secret. *Business Quarterly*, 60, 79.

Shahzad Bukhari, K., Awan, H. M., & Ahmed, F. (2013). An evaluation of corporate governance practices of Islamic banks versus Islamic bank windows of conventional banks. *Management Research Review*, 36(4), 400–416. https://doi.org/10.1108/01409171311315003.

Shibani, O., & De Fuentes, C. (2017). Differences and similarities between corporate governance principles in Islamic banks and Conventional banks. *Research in International Business and Finance,* 42, 1005–1010. https://doi.org/https://doi.org/10.1016/j.ribaf.2017.07.036.

Sidki, M., Boerger, L., & Boll, D. (2023). The effect of board members' education and experience on the financial performance of German state-owned enterprises. *Journal of Management and Governance.* https://doi.org/10.1007/s10997-022-09663-4.

Sila, V., Gonzalez, A., & Hagendorff, J. (2016). Women on board: Does boardroom gender diversity affect firm risk*? Journal of Corporate Finance*, 36, 26–53.

Tanaka, T. (2019). Gender diversity on Japanese corporate boards. *Journal of the Japanese and International Economies*, 51(C), 19–31.

Wang, L.-H., & Cao, X.-Y. (2022). Corporate governance, financial innovation and performance: Evidence from Taiwan's Banking Industry. *International Journal of Financial Studies*, 10(2), 32.

Weimer, J., & Pape, J. (1999). A Taxonomy of Systems of Corporate Governance. *Corporate Governance: An International Review*, 7(2), 152–166. https://doi.org/https://doi.org/10.1111/1467-8683.00143.

Xiao-qing, L., & Jian, Z. (2012). Research on the relationship between board diversity and firm technological innovation. *In International Conference on Management Science and Engineering - Annual Conference Proceedings*. https://doi.org/10.1109/ICMSE.2012.6414388

Yoshikawa, T., & Phan, P. H. (2005). The Effects of Ownership and Capital Structure on Board Composition and Strategic Diversification in Japanese Corporations*. Corporate Governance: An International Review*, 13(2), 303–312. https://doi.org/https://doi.org/10.1111/j.1467-8683.2005.00424.x.

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هل تؤثر خصائص مجلس الإدارة والابتكار على أداء البنوك؟
أدلة من البنوك التقليدية والإسلامية في إندونيسيا

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سوراكرتا - أندونيسيا

المستخلص: يهدف هذا البحث إلى تحليل تأثير خصائص مجلس الإدارة والابتكار ودور هيئة الرقابة الشرعية على أداء البنوك في إندونيسيا، مع التركيز على مقارنة البنوك التقليدية والبنوك الإسلامية. باستخدام بيانات مقطعية من (٢٨٦) ملاحظة مصرفية خلال الفترة ٢٠١٠-٢٠٢٠، تستخدم الدراسة طرق الانحدار اللوحي والطريقة المعممة للحظات (GMM) لمعالجة قضايا الذاتية المحتملة. بينت النتائج أن حجم مجلس المفوضين له تأثير إيجابي كبير على أداء البنوك الإسلامية، في حين أن التنوع بين الجنسين في مجلس الإدارة له تأثير إيجابي بشكل عام على الأداء المصرفي الإجمالي. تُظهر الخلفية التعليمية لأعضاء مجلس الإدارة تأثيرات معقدة ومتنوعة بين البنوك التقليدية والإسلامية. ويُظهر الابتكار تأثيرًا إيجابيًا كبيرًا على أداء البنوك الإسلامية في الاختبارات الإضافية. علاوة على ذلك، تسلط الورقة الضوء على الدور المعتدل لهيئة الرقابة الشرعية في تعزيز العلاقة بين الابتكار وأداء البنوك الإسلامية: ويؤثر حجم هيئة الرقابة الشرعية في الاتجاه نحو إضعاف تأثير الابتكار، في حين أن التنوع بين الجنسين داخل هيئة الرقابة الشرعية يعزز هذا الابتكار. وتترتب على هذه النتائج آثارًا مهمة على ممارسات إدارة البنوك، وتطوير الحوكمة، واللوائح التنظيمية للقطاع المصرفي. تؤكد الدراسة على ضرورة مراعاة الاختلافات البنيوية بين البنوك التقليدية والإسلامية عند إعداد سياسات الحوكمة.

الكلمات الدَّالة: خصائص مجلس الإدارة، الابتكار، البنوك الربوية، البنوك الإسلامية، أداء البنوك في إندونيسيا

تصنيف JEL: G2, G3

تصنيف KAUJIE: L22, L24, L33