

# THE IMPACT OF BOARD OF DIRECTOR'S DIVERSITY ON FINANCIAL PERFORMANCE AMONG BANKING COMPANIES LISTED ON IDX

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*Submitted: 04-04-2023, Revised: 06-06-2023, Accepted: 17-07-2023*

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## ABSTRACT

*The current study investigates empirically how the diversity present in Indonesia's banking industry can enhance banking employment. The key participant categories that are discussed in this essay are gender, nationality, educational background, and age. This research uses a descriptive quantitative approach design because this research uses banking annual report data from the IDX website and firm's website. For the 2018–2021 timeframe, the population of banking companies listed on the Indonesia Stock Exchange was used in this study. The research sample was selected using a purposive sampling technique with predetermined criteria. This study has shown that diversity on Indonesian banking boards of directors can significantly improve banking performance. By demonstrating how the board of directors' diversity regarding nationality, educational background, and age may greatly enhance banking performance. But not with gender diversity, which gives results that cannot improve banking performance in Indonesia.*

**Keywords:** *Diversity, Bank financial performance*

## 1. INTRODUCTION

Financial institutions such as banks play a crucial act in encouraging domestic economic growth. When a country is carrying out the process of economic recovery due to the Covid-19 pandemic that hit the world and Indonesia in 2020-2021, Indonesian banks are still strong in supporting the national economic recovery, where this is realized cannot be separated from the role of OJK, Bank Indonesia, Ministry of Finance, and LP S ([bisnis.tempo.co.id](http://bisnis.tempo.co.id), accessed 10 August 2022). The role of banking in the midst of the Covid-19 pandemic was driven by PJOK Number 11/POJK.03/2020 concerning National Economic Stimulus and POJK Number 48/POJK.03/2020, until now banks have launched loan restructuring or financing of almost one thousand trillion rupiah ([business.tempo.co.id](http://business.tempo.co.id), accessed on August 10, 2022). It is hoped that the stimulus provided by the Government can create financial sector stability and ease the burden on the community, informal sector actors and MSMEs as well as other business actors while maintaining the stability and performance of financial service institutions ([www.yai.ac.id](http://www.yai.ac.id), accessed 10 August 2022). To support the stimulus provided by the government, banks need good financial performance with the need for an essential role from the board of directors [1].

The Board of Directors has the task of determining the direction of policies and strategies for the resources owned by the Bank, both for the short and long term, so that it will strive to enhance the performance of the company/Banking. Given the very crucial act of the Board of Directors for banking, the various characteristics of the Board of Directors also play a role in enhancing banking performance. Diversity in the board of directors includes nationality, educational background, gender, and age that can affect banking performance. Another reason is that the diversity of the board of directors in the company will increase the confidence of potential investors in fairness, transparency, accountability, and responsibility in managing the

company so that it will increase investors' estimates of the value of the company in the future, which is reflected in net income. This proves that there is a direct correlation between financial performance and the board of directors [2].

Findings from research on board diversity and corporate governance lead to increased board and oversight effectiveness and improved financial performance of companies [3]. This is due to the Board of Directors' significant commitment to the Company's objectives, which include enhancing the financial performance of the Banking Industry. Therefore, the board of directors must be diversified, consist of (1) gender, (2) nationality, (3) educational background, and (4) age [4] in order to accomplish the company's aims. Gender diversity on boards has produced conflicting results in some literature regarding its positive impact on financial performance. This is based on his work by Ali et al. [5] and García-Meca et al. [6] demonstrated that gender balance on boards can improve financial performance. A different study was published by Chapple and Humphrey [7]. [8], proving that gender diversity can affect performance. On the other hand, a study by Fernández-Temprano and Tejelina-Gaite [9] proved that the gender of women on boards had no effect on company performance. The next diversity is nationality, namely foreign nationality (foreign nationals) being one of the board diversities measures that is often used in several researches. The research results of Ararat, et al [10] have proven that there is a positive influence of the presence of foreign or ethnic minority boards of directors on firm value, but the research is based on Norway, Sweden, which is a country with a system that is between one tier system and two-tier system. tier system, and research conducted in countries that adhere to a one tier system such as the United States. However, different results were proven by Eulerich et al [11]; Arquisola et al [12] that the existence of diversity in the board of commissioners and directors can reduce the company's performance. They reason because of the fact that great internationality in board members can reduce communication between board members of different languages. In contrast, the findings of Carter et al.'s study [13] show that the financial performance of the company is unaffected by the national diversity of the board of directors and commissioners.

According to the demands of the banking industry, diversity in the board of directors also takes into account educational background. Given that the company's needs for educational backgrounds are ever-changing, diversity of educational background is significant for the establishment that makes up the board as a whole. It presents actual proof that, to some extent, the educational backgrounds of board members and CEOs are crucial in enhancing the company's financial success as evaluated by Return on Assets [14], based on the findings of Darmadi's research. As Bhagat et al. [15] suggest that because it is challenging and expensive to identify and assess managerial qualities, measurable and objective standards, like as educational requirements, may need to be taken into account when selecting board members. According to [14], educational background can serve as a stand-in for intelligence, with brighter board members likely to perform better than their counterparts on the board of directors and commissioners, improving the financial success of the organization.

Age diversity among current directors is one factor. According to Tulung and Ramdani [16], the age diversity based on TMT characteristics has a good working relationship with the officials of North Sulawesi Regional Development Bank. The age diversity measure is used to high spot differences that are more significant in cognitive, informational, and numerical areas because more junior deputies have different information, skills, and perspectives than senior deputies when formulating company statements about strategic issues [17]. The findings of a similar study carried out by Saerang et al. [17] at a bank that was creating a community in

North Sulawesi, Indonesia, showed that the management's age had no bearing on the community bank's day-to-day operations.

Based on the background of the need for the board of directors' role, this research seeks to investigate how diversity in the board of directors may affect the financial performance of companies after the COVID-19 pandemic. Asking the board to improve the company's financial performance is contrary to various research findings. with another industry, in particular the banking industry.

The following research questions have been put forth in light of the description of the study challenge given above:

- 1) Does the gender diversity of the board of directors improve the financial performance of the banking?
- 2) Does the board of directors' national diversity improve the financial performance of the banking?
- 3) Does the board of directors' diversity in terms of educational background have a favourable impact on the financial performance of the banking?
- 4) Does the board of directors' age diversity improve the financial performance of the banking?

### ***Our Contribution***

This study contributes to the proxy for measuring banking financial performance, namely Return on Cash Flow Return on Assets (CFROA) [18], on the grounds that the company's financial performance assessment is based on financial statements. Another reason for using CFROA is that it focuses more on measuring current banking performance and CFROA is not tied to stock prices [19].

## **Background**

### ***Upper Echelon Theory***

Is a theory developed by Hambrick & Mason [20] which implies that top management is reflected in the organization. According to this hypothesis, managerial background traits might help forecast some aspects of organizational strategy decisions and performance levels. The outcomes of a sound strategy are viewed as a reflection of the beliefs and principles of powerful cognitive actors within businesses [20]. In companies, CEOs who have characteristics play an important role in making strategic decisions as well as resource allocation [21]. Wang et al [22] suggest that upper echelon theory can be used to help explain that leaders are influenced by knowledge abilities, beliefs, and individual characteristics, which are vitally critical to a company's performance. According to Toyyibah [23], the upper echelon theory lends some support to the idea that it is crucial to understand the Commissioners' and Directors' personalities since they have a direct impact on the operation of the business. Studying managerial traits is crucial since they will affect the company's performance, which will ultimately affect its profitability. The presence of gender differences in top management will offer numerous alternative ideas that can be used as a basis for decision-making.

### ***Diversity Board of Directors***

According to the Limited Liability Company Law No. 40 of 2007 article (1) paragraph 5, the Board of Directors is the Organ of the Company and is completely authorized and accountable

for managing the Company for the Company's benefit, both in and out of court, in accordance with the Company's goals and objectives. Board diversity has attracted a lot of attention from regulators, experts, and businesses in recent years. Diversity of the board refers to the board's diversity in terms of the traits that they use to express their opinions (Ararat et al., 2010). According to NACD, the selection of members of the board of directors must consider the inherent characteristics of the board (attributes) [24]. The majority of research have seen gender diversity as the only significant aspect of board diversity [25], ignoring the fact that a board is a collection of individuals who share a wide range of characteristics, including age, tenure, and education. The increasingly diverse composition of the board of directors means that there are many options available to improve banking financial performance.

According to the Gender Socialization Theory, gender decisions, judgments, and actions might arise as a result of the various values and attributes that each gender possesses [26]. According to the gender socialization theory, there are gender disparities where men and women have different traits, and this will cause men and women to behave differently. Moral growth, moral sensitivity, and a penchant for taking risks are a few gender-related traits that have been noted in the literature [27]. Therefore, disparities between men and women's gender traits can affect the management choices made by the organization. Nationality is the second type of diversity. The presence of foreign board members promotes the firm because investors believe that it demonstrates that it has been managed properly if there are foreign board members, which encourages foreign investors to invest in the company [28].

Board members' higher education can help investors determine their efficacy by providing a quality signal. Although the current board of directors is not required to have a business education background, it is highly preferable if the board members are familiar with business and economics [17]. Team members who are knowledgeable about business are at least more qualified to manage a company and make business decisions than those who are not [17]. Age is diversity that is used to measure more differences in cognitive, informational and value terms, because young managers may have different information, experiences, and perspectives than senior managers in making corporate decisions on strategic issues [17]. According to Pegels and Yang [29], younger managers are more likely to explore riskier and creative growth methods than older managers who tend to shun risk.

### ***Financial Performance***

According to RI Law No. 10 of 1998 dated November 10, 1998 concerning banking, it can be said that the banking industry consists of three activities: money collection, money distribution, and other bank services. The primary function of the bank is the collection and distribution of funds; all other banking activities are secondary functions. Activities to collect money of the general public in the mold of demand deposits, savings accounts, and time deposits. Normally while being given interesting rewards, such as interest and gifts as a excitement for the community [30].

The philosophical purpose of the existence of banks in Indonesia should be taken into account for the banking world in addition to the primary banking functions or their derivatives. This is very clearly reflected in Article 4 of Law Number 10 of 1998 which explains, "In order to improve equity, economic progress, and national stability and the welfare of the general populace, Indonesian banking aspires to promote the implementation of national development". Reviewing more deeply the bank's business activities. Therefore, Indonesian banks (banks) in conducting their business must be based on the principle of economic democracy that uses the

principle of prudence. This is amply demonstrated by the fact that, theoretically, banks play both macro and micro roles in the process of national development [30].

As a tool for assessing bank operations, management planning, and strategic analyses, banking performance is crucial. Banks contribute to economic expansion. So, if the bank does well, the economy as a whole will likewise perform well. The term "banking performance" refers to the successes in bank operations in the areas of finance, marketing, money collection and distribution, technology, and human resources [31]. The bank's financial performance is a description of the bank's financial health during a specific time period, including its ability to raise and distribute capital, which is often gauged using metrics of capital sufficiency, liquidity, and bank profitability [31].

There are two key indicators and two aspects for banking performance. Quality and quantity indicators make up bank performance indicators. The dimensions of bank performance are the dimensions of profitability and the dimensions of risk. The measure of banking performance in this study uses Return on Cash Flow Return on Assets (CFROA) [18], with the reason that the company's financial performance assessment is based on financial statements, this study uses financial ratios, namely Cash Flow Return on Assets (CFROA) [32]. CFROA is one of the additional financial ratios that are used to gauge a company's performance and demonstrates the capacity of its assets to produce operating profit. CFROA focuses more on measuring the company's current performance and CFROA is not tied to stock prices [19] The calculation of this ratio will be used to assess the performance position of a company, providing a clear picture of whether or not a company's operational activities are good, which can be seen from its financial position in the balance sheet and profit and loss contained in the company's financial statements [32]

### ***Hypothesis Development***

According to the gender socialization theory, there are gender disparities where men and women have different traits, and this will cause men and women to behave differently. Moral growth, moral sensitivity, and a willingness to take risks are a few gender-related traits that have been noted in the research. [27] As a result, gender disparities between men and women might have an impact on management choices in businesses. Given that [6], [33], [17], and [34]'s studies have shown that gender diversity on boards of directors improves company/banking finance performance, the following hypothesis was put forth:

**H1a:** The gender diversity of the board of directors has a positive effect on the financial performance of banks.

The diversity of nationalities owned by the board of directors provides benefits for banking because the board of foreign nationals has wider work experience, adds more information and experience to the company, and can also convince investors that the company has been operated professionally [24]. These results are evidenced by the research results of [35]; [36], namely the board of directors of foreign nationality can improve the company's financial performance, and the proposed hypothesis is:

**H1b:** The national diversity of the board of directors has a positive effect on the financial performance of banks.

A board of directors with educational backgrounds in the banking sector can undoubtedly increase effectiveness and communicate quality to investors. Although having a business education is not a requirement for the board of directors, having business and economic

understanding is much preferred [17]. According to [17], research findings from [33] and [37] have demonstrated that a board member's educational background can enhance the financial success of the company, hence the following is the suggested hypothesis:

**H1c:** Diversity of educational background of the board of directors has a positive effect on banking financial performance

The results [16]' research show that age diversity on the board of directors at Regional Development Banks can improve banking performance. The reason is that senior board members tend to be risk averse, whereas younger managers tend to pursue risky, innovative growth strategies [17]; [38]. Based on the results of the research, the hypotheses proposed are: **H1d:** The age diversity of the board of directors has a positive effect on financial performance Banking.

## **2. RESEARCH METHOD**

### ***Population and Sample Determination***

All of the companies listed on the Indonesia Stock Exchange (IDX) comprise the study's population. Additionally, all banks listed on the IDX for the years 2018–2021 comprise the research sample. The data used in this research is secondary data in the form of annual reports, which can be acquired at [www.idx.co.id](http://www.idx.co.id) and the websites of each bank. The list of banks can be found on the website [www.sahamok.com](http://www.sahamok.com). the process of selecting a sample using a purposive sampling approach in order to acquire one that meets certain requirements.

Some of the criteria that will be used as research samples include the following: The financial statements employ rupiah currency, a company was continually listed on the IDX during the research period, b. there was no loss during the research period, c. there was no IPO during the research period, d. there was no merger, e. there was no BEI delisting during the research period.

The study used 176 observational data that satisfied the criterion, according to the criteria outlined above.

### ***Data Analysis Technique***

The author then applies the panel regression data analysis technique to test a theory by defining specific hypotheses, gathering data to support or contradict these hypotheses based on statistical data, and analyzing the results [37]. In order to provide results that are applicable in any situation, independent of time, place, or circumstance, a research approach that solves research problems must carefully assess the variables of the topic under study.

## Variables and Measurements

**Table 1** Operational Variables

Variable	Proxies
<b>Dependent</b>	
CFROA (Bank Financial Performance) (Pancawardani, 2009)	<u>Cash flow from operations</u> <u>Total Assets</u>
<b>Independent</b>	
Gender	Presentation of the number of female board members to total board members
<b>Variable</b>	
<b>Proxies</b>	
Nationality	Dummy variable with a value of 1 for board members who are foreign nationals and a value of 0 otherwise
Education	Indicating how many board members have backgrounds in economics and business (Kusumastuti et al., 2007)
Age	Presentation of the number of board members aged more than 40 years (Kusumastuti et al., 2007)
<b>Control</b>	
Bank size	Ln (Total Assets)
Loans Emma García-Meca, Isabel-María García-Sánchez, Jennifer Martínez- Ferrero (2015)	<u>Jumlah Kredit</u> <u>Total Assets</u>

## Analysis Model

The research model equation for this study's panel data regression analysis is as follows:

$$CFROA_t = a + bDJEND_{it} + cDKEB_{it} + dDLBP_{it} + eDUSIA_{it} + fBS_{it} + gLOAN_{it} + e_{it}$$

Descriptions:

CFROA	= Banking Performance
DJEND	= Gender Diversity
DKEB	= National Diversity
DLBP	= Diversity of Educational Background
DUSIA	= Age Diversity
BS	= Bank Size
LOAN	= Amount of Loan / Credit
e	= Error

### 3. RESULT AND DISCUSSIONS

#### *Descriptive Statistical Analysis*

**Table 2** Descriptive Statistical Analysis Research Model

	<b>N</b>	<b>Min</b>	<b>Max</b>	<b>Mean</b>	<b>Std. Dev.</b>
<b>CFROA</b>	176	-2.328	2.380	0.045	0.318
<b>JEND</b>	176	0.000	1.000	0.184	0.196
<b>KEB</b>	176	0.000	1.000	0.316	0.465
<b>LBP</b>	176	0.000	1.000	0.736	0.202
<b>AGE</b>	176	0.000	1.000	0.975	0.106
<b>BS</b>	176	27.222	35.084	31.332	1.699
<b>LOAN</b>	176	0.000	1.566	0.562	0.194
<b>Valid N (listwise)</b>	176				

Source: Output from EViews 10

Based on the results of descriptive statistical testing for the research model based on Table 1, which resulted from 176 observations of a sample of banks listed on the Indonesia Stock Exchange during the 2018-2021 research period, it shows that the average Indonesian bank has a financial performance as measured by CFROA of 4.52%. As a result of the low emphasis placed on board member diversity (gender, nationality, educational background, and age), Indonesian banks have poor financial performance.

#### *Best Model Determination*

##### **Chow test**

The Chow test is used to identify whether fixed effects or common effects should be used in the model.

H0 is rejected if the chi-square probability result is less than 5%. The model thus employs a fixed effect. These are the outcomes of the estimation utilizing the fixed specification effect:

**Table 3** Redundant Fixed Effect-Likelihood Ratio Test

<b>Effect Test</b>	<b>Probability</b>
Cross-section F	0.6102
Cross-section Chi-Square	0.9802

Source: Output from EViews 10

Based on the aforementioned findings, it is recognized that the common effect should be employed instead of the fixed effect since the Chi-square probability of 0.9802 is larger than 5%, causing H0 to be accepted. Lagrange Multiplier (LM) Test is a subsequent test.

##### **Lagrange Multiplier (LM) Test**

It will be determined by this test whether the common effects model is preferable than random effects.



The Breusch-Pagan probability is the foundation of this LM test; if the Breusch-Pagan probability value is less than 5% alpha value, then  $H_0$  is rejected, indicating that a random effect model, rather than a panel data regression, provides the accurate estimate.

**Table 4** LM Test Results

Test Summary	Cross-section
Breusch – Pagan	6.429 (0.0112)

Source: Output from EViews 10

Table 4 demonstrates that the value of the Breusch-Pagan cross section is 0.0112. In accordance with the hypothesis above, if the Breusch-Pagan cross section value is  $< 0.05$ , then  $H_0$  is rejected and  $H_a$  is accepted, so this shows that the right model is random effect.

### ***Classical Assumption Test***

#### **Normality Test**

Used to assess whether the error term is near to a normal distribution when there are fewer than 30 data. There is no need to do a normality test if there are more than 30 observations because the sampling error term's distribution is nearly normal [38]. With 176 observations in this investigation, the normalcy test can be disregarded.

#### **Multicollinearity Test**

The goal is to determine whether the independent variables in the regression model have a strong or ideal association with one another. Multicollinearity identification in this study will be done by examining the correlation value. The multicollinearity test's basis for decision-making is:

1. Multicollinearity cannot exist if the correlation coefficient is greater than 0.80.
2. Multicollinearity develops if the correlation is less than 0.80.

As a result, it may be said that the data is not multicollinear because the independent variables have low correlations that do not surpass 0.8 [39].

**Table 5** Multicollinearity Test Result

	JEND	KEB	LBP	AGE	BS	LOAN
JEND	1.000000	-0.136475	-0.023807	-0.076960	-0.011190	-0.038288
KEB	-0.136475	1.000000	-0.112723	-0.050571	-0.067987	0.109380
LBP	-0.023807	-0.112723	1.000000	0.136352	0.143536	0.109736
AGE	-0.076960	-0.050571	0.136352	1.000000	0.013128	0.007262
BS	-0.011190	-0.067987	0.143536	0.013128	1.000000	0.137609
LOAN	-0.038288	0.109380	0.109736	0.007262	0.137609	1.000000

Source: Output from EViews 10

## Heteroscedasticity Test

Regressing all independent variables to the absolute value of the residual is how the Glesjer approach is applied. The model has a heteroscedasticity issue if a substantial independent variable has an impact on the absolute magnitude of the residual. If  $p\text{-value} > \alpha$  ( $\text{Sig} > \alpha$ ) then the model does not contain heteroscedasticity symptoms, or heteroscedasticity does not occur if  $t\text{-count} < t\text{-table}$  [43]. The results of the heteroscedasticity test show that the data is exposed to heteroscedasticity where Obs\* R-Squared has a prob of  $< 5\%$  so that the data requires treatment with a natural log transformation on EViews program (www.maglearning.id, Accessed on 15 October 2022). The conclusion is that after being treated, the random effect model is free from heteroscedasticity problems, it is shown that the value of Obs\* R-Squared has a prob of  $> 5\%$ , which is 0.6465. The reason for the heteroscedasticity problem is that the data are homogeneous / the same on the KEB, LBP, and AGE variables.

## Autocorrelation Test

By comparing the R-Squared probability value with  $= 0.05$ , the Langrange Multiplier (LM Test) test or so-called Breusch-Godfrey test can also be used to determine whether an autocorrelation sickness exists. The model does not contain autocorrelation if the probability of Obs\*R2 is greater than 0.05, and vice versa. The research model did not exhibit autocorrelation, according to the autocorrelation test results with the value of Obs\* R-Squared having a probability of 0.1938 ( $> 5\%$ ), so the correct model was free of autocorrelation problems.

**Table 6** Autocorrelation Test Results

Test Summary	Result
Obs*R-squared	3.282
Prob. Chi-Square (2)	0.1938

Source: Output from EViews 10

## Hypothesis Testing Results

According to the results of the aforementioned specification test, it is preferable to employ an estimate produced by a random effect model. Additionally, it is known that in the previous test, the model passed the classical assumption test with a reduction in the number of data observations from 176 to 63 as a result of a natural log transformation of the data, a method for addressing issues related to heteroscedasticity. The panel data regression model's forecasting outcomes are as follows:

**Table 7** Model Estimation Results for Research Model  
 After Heteroskedasticity Treatment

Variable	Coeff.	Std. Error	t-stats.	Prob.
C	-3.260	4.050	-0.804	0.424
LOGJEND	0.068	0.146	0.469	0.640
LOGKEB	0.249	0.079	3.149	0.002
LOGLBP	0.757	0.068	11.071	0.000
LOGAGE	0.030	0.471	0.065	0.094

<b>LOGBS</b>	0.978	1.213	0.806	0.423
<b>LOGLOAN</b>	-0.024	0.076	-0.315	0.753
<b>R<sup>2</sup></b>	0.894	<b>D-W stats</b>	1.846	
<b>Adjusted R<sup>2</sup></b>	0.883			
<b>F-stats</b>	79.198			
<b>Prob (F-stats)</b>	0.000			

Source: Output from EViews 10

The research methodology draws the conclusion that diversity in the Indonesian banks board of directors has a favorable impact on financial performance from the findings of panel data regression analysis. The likelihood F-value of 0.000, which is less than the 10% level of significance, provides proof for this.

The results of the t-test presented in the table prove that:

- The probability value of 0.640, which is higher than the significance level ( $\alpha$ ) of 10%, indicates that the gender diversity variable, which is computed by presenting the number of female board members to the total number of board members, has no positive effect on the financial performance of the banking industry.
- The national diversity variable, which is proxied by the dummy variable, gives a significant positive effect on banking financial performance with a probability value of 0.002 which means it is less than 10% (significance level).
- The educational background diversity variable which is proxied by the presentation of the number of board members who have economic and business education background, gives a significant positive effect on banking financial performance with a probability value of 0.000 which means less than 10% (significance level).
- The number of board members who are over 40 years old, which serves as a proxy for the diversity variable of the board of directors' age, yields a value of 0.094, which means it is also less than 10% (significance level).
- With probability values of 0.423 and 0.753, the two control variables in the research model—bank size and loan—do not significantly improve banking financial performance. Where the probability value shows the probability value exceeds the significance level ( $\alpha$ ) 10%.

## **Discussion**

The regression equation is created using the random effect model:

$$\text{CFROA} = -3.26 + 0.068*\text{JEND} + 0.249*\text{KEB} + 0.757*\text{LBP} + 0.030*\text{AGE} + 0.978*\text{BS} - 0.024*\text{LOAN}$$

**H1a: The gender diversity of the board of directors does not have a positive effect on the financial performance of banks.**

The finding of the panel data regression using the random effect model show that gender diversity on the board of directors, as measured by the percentage of female board members, has no effect on the banking industry's financial performance. These results confirm the findings of [7]. [9]; [38]; [39], proving that female boards have no impact on company performance. Due to the banking industry's presumption that men are more capable than women regarding brilliance, which promotes financial performance, more men than women are appointed to boards of directors [7]. Another reason why there are fewer than 50% of

women on the board of directors is that some women serve on boards only to comply with legal requirements, to uphold ethical obligations, or for symbolic purposes. [9]; [38]. Another reason why there are fewer than 50% of women on the board of directors is that some women serve on boards only to comply with legal requirements, to uphold ethical obligations, or for symbolic purposes. [9]; [38].

**H1b: National diversity of the board of directors has a positive effect on banking financial performance.**

The findings from panel data regression support Hypothesis 1b, according to which the presence of a foreign board of directors can enhance banking performance. Our research results support the research results of [24]; [36]; [35]. The reason is because the diversity of nationalities owned by the board of directors provides benefits for banking because the board of foreign nationals has wider work experience, adds more information and experience to the company, and can also convince investors that the company has been operated professionally [24]. In addition, research results have proven to support the Upper Echelon theory, where with a background owned by the board of directors (managerial), namely nationality, companies can create strategies that improve their financial performance [22].

**H1c: Diversity of educational background of the board of directors has a positive effect on banking financial performance**

The panel data regression test's findings demonstrate how a board of directors' diverse educational backgrounds might enhance the financial performance of a bank. Where these results support Saidu's research [40]; [17]; [33]. The banking industry, which has a board of directors with business and economic education backgrounds, can certainly provide better effectiveness in running a business/company according to investors [17]. Team members who are knowledgeable in business and economics may operate businesses more effectively and make better business judgments than those who lack these skills, which improves the financial performance of banks [17]. In addition, research results have proven to support the Upper Echelon theory, where with a background owned by the board of directors (managerial), namely an educational background, companies can create strategies that improve their financial performance [22].

**H1d: The age diversity of the board of directors has a positive effect on banking financial performance.**

The panel data regression test of the data from the random model shows that the board of directors' age diversity can enhance banking financial performance. These findings confirm those of Tulung & Ramdani [16], who found that the performance of the Regional Development Bank of North Sulawesi is positively correlated with the age variety of TMT features. Young board members have diverse information, experiences and perspectives compared to senior board members in making corporate decisions on strategic issues thereby improving banking performance. In addition, research results have proven to support the Upper Echelon theory, where with the background of the board of directors (managerial), namely the age of the board of directors, its financial performance can create company strategies that improve its financial performance [22].

As for the control variable, the size of the bank and the loan both gave results that did not influence the financial performance of banks in Indonesia, which supports the research results

of [41]; [42]. Investors understand that a company's size cannot be interpreted as evidence that a large company has good financial performance because a large company has not yet been managed well. For banks, the amount of loans provided by banks in Indonesia does not interfere with the performance of banks, which means that they are still within the regulations of Bank Indonesia.

#### **4. CONCLUSIONS AND RECOMMENDATIONS**

The current study supports the notion that bank regulation in Indonesia can result in significant positive effects on banking operations. By proving the diversity of nationality, educational background, and age of the board of directors can significantly improve banking performance. But not with gender diversity, which gives results that cannot improve banking performance in Indonesia.

This research has limitations that have been found, namely the existence of a heteroscedasticity problem for all the data, but this problem has been solved by carrying out an inverse natural logarithm transformation using the EViews program. Another limitation is using four diversity boards of directors, where future research can add characteristics of the board of directors such as tenure, experience working in banking, the number of board of directors owned by banks, and the number of independent directors owned by banks. which can affect banking financial performance.

This study has implications for banking management since it can provide ways to achieve gender equality in the banking industry by increasing the number of women on boards of directors to equal or higher than the number of males, or both. If the percentage of female board members is now under 20%.

#### **ACKNOWLEDGMENT**

This study needed assistance from the LPPM Untar in order to be finished on schedule (August to December 2022). The Indonesian Stock Exchange's website hasn't yet posted all of the annual reports from banking companies for the period ending in 2022 as a result.

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