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The effect of gender diversity on firm performance in Indonesia

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Abstract

This study investigates the relationships between gender diversity in the board of directors and firm performance. It also uses several control variables: education, age, tenure, board size, board meeting, firm size, firm age, and leverage. We examine the relationship between variables with several methods, such as descriptive statistic methods, correlation tests, t-tests, and hypothesis testing on 29 LQ45 companies from 2016-2020. Our finding shows that gender diversity on the board of directors significantly negatively impacts firm performance. Despite the negative research results, we still recommend that companies increase gender diversity on the board of directors because many studies state a positive relationship between gender diversity on the board of directors and firm performance. In addition, the small number of women on the board of directors is less capable of positively affecting company performance, whereas, in this study, the number of women in each company each year is relatively small. The limitations of this study are that the number of years studied is only five years and the measurement of gender diversity only uses one proxy.

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Introduction

Implementing sound corporate governance is usually associated with developing practices that ensure corporate management's accountability and improve firm performance. Gender diversity has attracted tremendous attention from various parties, including practitioners, academicians, and the media. Several studies investigate the relationship between gender diversity and firm performance. Female representation in the boardroom is increasing the fact that many countries have promoted female representation on boards or mandating the corporate to recruit at least one female director (Kilic & Kuzey, 2016). Board gender diversity promotes better decision-making and increases firm performance (Lee & Thong, 2022). Landry *et al*. (2016) found that having more women on the corporate board seemed to have a better corporate culture, and the companies were viewed as more ethical.

Agyemang-Mintah and Schadewitz (2017) was found that several studies have proven that appointing women to the board of directors is vital to the company's success. The election of women to the board of directors must be done with the motive that the presence of women will improve firm performance, not just as a symbolic act. The presence of women on the board of directors should be focused on what can be given to improve firm performance and not just tokenism. While many companies are experiencing retention challenges and a lack of skilled human resources, the female talent pool continues to grow. More and more women are graduating from university. In Indonesia, the percentage of women graduating from university increased from 16% in 1993 to 59% in 2018. While in the Asia Pacific region, university graduates have a female percentage of 51% (International Labour Organization, 2020).

However, companies still recruit more men to occupy decision-making positions within a company which can provide more significant opportunities for professional development and promotion for men. Meanwhile, women are given positions that can reduce their opportunities to develop their careers. Indonesia is a country that has a different perspective on men and women at management levels. The critical issue is whether gender diversity in the board of directors can stimulate firm performance in Indonesia. There is a study that states that the board of directors that implements gender diversity allocates more significant effort to monitoring the company (Siagian, 2018). In Indonesia, the emergence of occupational segregation has associations with stereotypes about women and men. In other words, there is a hierarchical and patriarchal structure that illustrates that men are more competent than women. It is difficult for women to reach top-level management positions compared to men (International Labour Organization, 2020).

In fact, according to the International Labour Organization (2020), companies with women as CEOs of their companies in the Asia Pacific are proven to have better firm performance than companies that only include men. The existence of stereotypes against women and men has a direct influence on the promotion of gender diversity. Existing problems can arise from the recruitment stage of workers and unconscious discrimination against women resulting in the view that women are not suitable for specific roles. These stereotypes also prevent women from being promoted. Often women's capabilities to gain professional advantages are limited compared to men's, even though their abilities are the same (UNDP, 2021).

To understand the relationship between board gender diversity and firm performance of a company and why higher levels of gender diversity can have a

positive impact on financial performance, it is necessary to understand the influence of success from non-financial areas such as company reputation, decision-making, risk-taking, and type of leader. It can have a positive impact on the company, namely by increasing firm performance (Intelligence Unit, 2019). Some say that it can refer to window dressing if a company promotes women on the board of directors (Anh & Khanh, 2017).

The presence of women on the board of directors can increase effectiveness, and the presence of women's representation at a high level of the company has an important influence on firm performance. Gender diversity itself can expand experience and expertise. The benefit of the participation of women in companies, especially in developing countries, is that there is an essential contribution in cognitive variation to develop firm performance (Azaria *et al*., 2021).

Firm performance is an indicator that can reflect the success of the management owned by the company. A firm performance assessment is carried out so the company can find out the condition of the company. One way to assess this aspect is to analyze the financial statements issued by the company. The goal is to be able to evaluate the company's performance (Lestari & Mutmainah, 2020).

ASEAN companies with at least one female member or at least 30% percent of women on their board of directors are said to have a higher ROA value when compared to companies that do not include women on their board of directors. The study also found that ROA would increase by an average of 1.4% if a company that initially included only men on its board of directors later had at least one woman on its board of directors (Intelligence Unit, 2019).

The object that has been determined in conducting this research is LQ45. This is because, along with the times and progress in the quality of female human resources, most market capitalization companies in Indonesia have women in supervisory manager positions of 30%-39%. The company has a female percentage of 11%-29 % at the middle management level, and the percentage of female middle managers is 30%-39%. However, 35% of companies with women at the senior manager level have a percentage of 1%-10%, and the majority of companies with women at the top executive level are only 1%-10%. It can be seen that the position of women is less in senior management and top executive positions. This will also remain the same if almost 80% of companies employ more than 30% of women in their companies (International Labour Organization, 2020). This study aims to investigate whether gender diversity influences firm performance.

Theoretical framework and model

Gender diversity

Gender diversity is a significant aspect of corporate governance. This aspect refers to the presence of women as directors or the representation of women on a company's board. It is also the level of heterogeneity between men and women depicted in the board of directors. Gender diversity can be seen as an introduction and aspect that promotes the various characteristics and skills of different women and men as equal sources (Dankwano & Hassan, 2018).

Firm performance

Firm performance is the overall stability and financial health of a company in a certain period (Dankwano & Hassan, 2018). The firm performance measurement used in this study is ROA which is a measure of return on assets. ROA itself is calculated by dividing profit after tax by total assets (Khan & Subhan, 2019). This measurement is the best indicator to represent firm performance because the indicator shows the capability of a company's management in obtaining and managing assets owned by the company in different ways to utilize company assets to generate profits. It can be said that ROA is a representative used in measuring accounting-based performance (Bin Khidmat *et al.*, 2020). Researchers often use ROA as an indicator in measuring firm performance (Shehata *et al.*, 2017).

The effect of gender diversity on firm performance

Several previous studies examine the effect of gender diversity on firm performance. The following are some of the results of previous research. Results from research by Duppati *et al.* (2020) indicates that the implementation of the gender diversity aspect in the board of directors positively affects firm performance in India and Singapore. This is indicated by the board of directors, which includes representation of women in the period studied has firm performance that can be said to be better when compared to companies that do not include representation of women in the same period. Therefore, it can be interpreted that the aspect of gender diversity has a positive influence on firm performance.

Agyemang-Mintah & Schadewitz (2017) argued that the presence of women on the board of directors of UK financial institutions has a positive and significant association with firm performance. This statement is supported by evidence that before the crisis era (2000-2006), the presence of women on the board of directors had a positive and significant relationship with firm performance. This indicates that women have a significant contribution to firm performance.

However, after the crisis era, although the presence of women on the board of directors had a positive effect, the effect was not significant. This was because, during the crisis period, the UK economy was still experiencing an economic downturn. Financial companies were no exception, not affected by the presence or absence of women's representation on a board of directors. In addition, macroeconomic conditions cover the importance of women's representation on the board of directors. This does not have a relationship with the ability of women but rather a factor that cannot be controlled.

Based on the results of research by Ullah *et al.* (2019) on public companies in Pakistan, it is stated that gender diversity has a positive association with firm performance. The results are in line with the idea that the representation of women on the board of directors can improve firm performance because it improves corporate governance mechanisms, maintains good relations and also maintains effective communication with potential clients, builds the corporate image, increases the effectiveness of the board of directors by bringing a different perspective. Different and non-conventional techniques to the board of directors.

M.K. & Sori (2012) stated that based on his research, gender diversity has a positive association with ROA, which means that women can have a good influence on the company's financial condition. This study recommends continuing to take

advantage of the composition of the board of directors, which includes both women and men, for better financial performance. The representation of two or more women is capable of making better decisions. This is because the diverse characteristics of the board of directors can fulfill the obligation of the board of directors to monitor effectively. Chijoke-mgbame *et al* (2020) indicates that the representation of women on the board of directors positively affects firm performance. The study's results indicate that the relationship between the representation of women on the board of directors and firm performance will be stronger if the number of female directors increases to two or more. It also demonstrates that the representation of women on the board of directors reduces agency costs, increases legitimacy, increases effective oversight, and ultimately produces a positive effect on firm performance.

Based on the results of research that has been researched by Tleubayev *et al* (2019), stated that there is a positive and robust relationship between the percentage of female employees on the board of directors and firm performance. In line with the existing theory, a board of directors with three or more female directors has a better influence on firm performance when compared to a board of directors with only two or less than two female directors on its board of directors. The analysis shows that the presence of female directors in companies that have a positive influence is due to their executive role more than their supervisory effect.

According to research results by Moreno-gómez *et al* (2018), gender diversity on the board of directors positively affects firm performance. This result is based on the perspective differentiation of the type of feminism management that can generate value for the business. Increasing the presence of women in top management is relevant for enhancing knowledge-intensive strategies and decision-making tasks in organizations. The results of this study are the same as the results of research conducted by Bin Khidmat *et al* (2020), Song *et al* (2020), Sial *et al* (2018), and Fidanoski *et al* (2014). With the research results that have been mentioned, the hypothesis is set as follows

Hypothesis. Gender diversity has a positive influence on firm performance

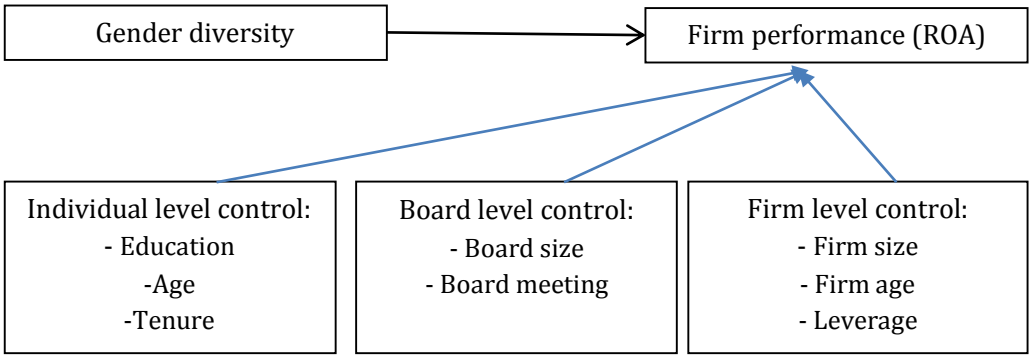

Figure 1.
Research Models and Relationships Between Variables

Methods

Research design

There are two types of research based on objectives: pure research and applied research. This research can be classified as pure research, which aims to develop knowledge but does not apply the research results. Alternatively, in other words, it is just researched to understand a problem. The research conducted is an explanatory level research type associative research, where the aim is to understand the relationship between variables in order to build a theory that can explain a problem, and this research has comparative causal characteristics or what is usually referred to as the ex post facto expression, namely research on events. That has passed after that examine the event in order to find out the factors that led to the occurrence of the event (Darna & Herlina, 2018). This relationship has three different types of variables: the affected variable, the dependent variable, the influencing variable, the independent variable, and the control variable. This study defines firm performance as the dependent variable and also aspects of gender diversity as an independent variable, where firm performance is measured from the ROA of the company under study, while the control variables include individual level control, board level control, and firm level control.

Data collecting procedures

Researchers have determined companies listed in the LQ45 list as research objects. The sample of this study is a sample taken secondary to the type of non-probability sample. Purposive sampling is a sampling technique used to examine this research. This type of technique is a sampling technique that is not based on random, by region or strata but instead takes samples with a specific purpose of use (Abdullah, 2015). The following criteria are determined, namely:

1. Companies listed in LQ45 in 2016-2020 consecutively without leaving the LQ45 list in that period.
2. Companies that have complete 2016-2020 financial report data
3. The published report includes data needed by researchers, namely gender diversity, education, age, tenure, board size, board meeting, firm size, firm age, leverage, and ROA.
4. The company has complete financial statements and also closes the books on December 31

Table 1.
Company list

No	Code	Companies
1	ADRO	PT Adaro Energy Tbk
2	AKRA	PT AKR Corporindo
3	ANTM	PT Aneka Tambang (Persero) Tbk
4	ASII	PT Astra International Tbk
5	BBCA	PT Bank Central Asia Tbk
6	BBNI	PT Bank Negara Indonesia Tbk
7	BBRI	PT Bank Rakyat Indonesia Tbk
8	BBTN	PT Bank Tabungan Negara Tbk
9	BMRI	PT Bank Mandiri Tbk

10	BSDE	PT Bumi Serpong Damai Tbk
11	GGRM	PT Gudang Garam Tbk
12	ICBP	PT Indofood CBP Sukses Makmur Tbk
13	INCO	PT Vale Indonesia Tbk
14	INDF	PT Indofood Sukses Makmur Tbk
15	INTP	PT Indocement Tunggal Prakarsa Tbk
16	JSMR	PT Jasa Marga Tbk
17	KLBF	PT Kalbe Farma Tbk
18	MNCN	PT Media Nusantara Citra Tbk
19	PGAS	PT Perusahaan Gas Negara Tbk
20	PTBA	PT Tambang Batubara Bukit Asam Tbk
21	PTPP	PT PP (Persero) Tbk
22	PWON	PT Pakuwon Jati Tbk
23	SCMA	PT Surya Citra Media Tbk
24	SMGR	PT Semen Indonesia (Persero) Tbk
25	SRIL	PT Sri Rejeki Isman Tbk
26	TLKM	PT Telekomunikasi Indonesia Tbk
27	UNTR	PT United Tractors Tbk
28	UNVR	PT Unilever Indonesia Tbk
29	WIKA	PT Wijaya Karya (Persero) Tbk

Source: Research Results

LQ45 was chosen as the object of this research because although the existing report notes that there has been progressed in education pursued by women, existing companies still recruit more men to occupy decision-making positions. In contrast, most women are given positions below the decision-making position. In addition, according to several studies, there is still a stigma in society regarding women and men, which also impacts women's careers. The study was conducted on companies listed in LQ45 for five consecutive years (2016-2020). This ensures that the arranged data is more concrete and filtered.

Secondary data is data taken to conduct this research, meaning that the data in the research is obtained indirectly, namely the annual report issued by the company. The data taken is internal, namely data that can provide an overview of the state of a company. The data taken is quantitative data from the annual report issued by the company in the LQ45 list with a period of 2016-2020 and is complete.

Variable Measurement

The dependent variable studied is firm performance, which ROA measures. Taking ROA as a firm performance measurement has an advantage because ROA does not ignore firm size, so it will be easier to compare how well a company is doing compared to other companies (Brahma *et al*., 2020). The formula used is as follows:

$$Return\ On\ Assets = \frac{Net\ Income}{Total\ Asset}$$

The independent variable that was determined was gender diversity. Gender diversity can be said as a process of utilizing the different characteristics and abilities of women and men that can provide benefits for the company (M.K. & Sori, 2012). The formula that has been set to measure this variable is as follows:

$$FEBLAU = 1 - \sum_{i=1}^{n} P_i^2$$

Description:

P_i is the percentage of members in by gender

n is the total of gender

There are 8 control variables in this study, namely education, age, tenure, board size, board meeting, firm size, firm age, and leverage with the following explanation:

Individual level control: (1) Education. This variable is measured by the education level of the company directors (Li & Chen, 2018). The measurement using nominal data to categorize the level of education from number 1 as high school graduate or below; number 2 as diploma degree; number 3 as bachelor degree; number 4 as master degree; number 5 as doctoral degree. (2) Age, measured from the average age of the directors of each company (Li & Chen, 2018). (3) Tenure, measured based on the average term of office of the directors of each company (Li & Chen, 2018).

Board level control: (1) Board size. There are studies that say that firm performance is also influenced by board size. A large board of directors size has characteristics such as more efficient monitoring and more significant influence than a small board of directors size. However, there are also studies that say that a small board size can increase firm value (Bin Khidmat *et al*., 2020). This variable is seen from the number of members of the board of directors (Anh & Khanh, 2017). (2) Board meeting. The board meeting variable is measured by the number of meetings for the board of directors (Li & Chen, 2018).

Firm level control: (1) Firm size, Is also covered because larger companies usually have better capabilities to obtain resources, which will certainly improve the company's performance. (Duppati *et al*., 2020). This variable is measured by the formula: $Firm\ Size = \text{LN}(Total\ Assets)$. (2) Firm age, is measured by how long the company has been listed on the Indonesia Stock Exchange (Sial *et al*., 2018). (3) Leverage. High leverage can increase firm valuation by reducing the ability of managers to access free cash flow and can also have a positive correlation with firm value. (Agyemang-Mintah & Schadewitz, 2017). This variable is measured by the formula:

$$Leverage = \frac{Total\ Debts}{Total\ Asset}$$

Analysis Techniques

The method used in conducting data analysis in this study is panel data regression. Panel data is data that has a mixture of time series data and also cross section data. In addition, this study uses balanced panel data when viewed from the amount of data, namely the time series and cross section data have the same amount. Data analysis was

carried out by several steps, namely descriptive statistical tests, correlation tests, different tests and hypothesis testing. These tests were carried out using the Stata 13 application.

Results and discussion

Descriptive statistics

Based on the table above, it can be seen that ROA had a minimum value of -0.028 by PGAS in 2020, a maximum of .46 by UNVR in 2018, and an average of .07 or .78%, which means the average ability of the companies studied to produce profit using assets owned by the company is only .78%. The company's average ROA is low because, according to Bank Indonesia Regulation No. 6/9/PBI/2004, the best standard ROA value is 1.5%. So it can be judged that the average ability of the companies studied in managing assets to generate profits is less than the standard set.

Table 2.
Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
ROA	145	-.028	0.46	.07	.08
FEBLAU	145	.60	1.00	.94	.09
AGE	145	44.37	60.00	52.61	3.08
BMEETING	145	10.00	282.00	36.89	34.32
BSIZE	145	4.00	13.00	7.77	2.09
EDU	145	2.50	4.33	3.46	0.39
FAGE	145	3.00	38.00	19.06	8.44
FSIZE	145	12.09	34.42	21.57	6.01
LEV	145	0.12	.91	0.50	.21
TEN	145	1.00	18.57	4.67	3.57
Valid N (listwise)	145				

Source: Research Results

Gender diversity in this study is calculated using the established FEBLAU formula. The minimum result is .60 by MNCN in 2016, with a maximum value of 1.00 by 13 companies in 2016-2018 respectively, 11 companies in 2019, 12 companies in 2020, and an average of .94. It can be said that the average gender diversity in the LQ45 group of companies is sufficient because it does not differ much from the maximum value. The age variable has a minimum value of 44.37, a maximum value of 60.00, and an average value of 52.61. The age variable is calculated by calculating the average age of the company's board of directors. Thus, it can be concluded that the minimum result of an average age of the company's board of directors is approximately 44 years, which is held by MNCN companies in 2016, and the maximum average age of 60 years by INDF in 2020. The average age of members of the board of directors in this study is approximately 52 years.

The number of meetings of the board of directors of the companies studied had a minimum and maximum value of 10,00 and 282,00, with an average of 36,89. The

number of meetings with the minimum value held by the ADRO company in 2017 and the maximum number of meetings in this study were held by the BBTN company in 2019. According to OJK Regulation Number 57 /POJK.04/2017 Article 16(1) states that the board of directors must hold a meeting at least once every two months. This means that the companies studied have met existing standards, and even the average number of company meetings has exceeded the minimum standard of annual meetings.

The board size variable is seen from the number of members of the company's board of directors. This study's minimum and maximum values are 4.00 and 13.00, with an average of 7.772. This indicates that the number of members of the board of directors is at least four by the INCO from 2016 to 2018. The maximum number of members of the board of directors is 13 people by the BMRI in 2019 and 2020. The companies covered in this study have met the minimum standards for the number of members of the board of directors because according to POJK Regulation Number 33/POJK.04/2014 in Chapter 2 Article 2(1), states that the minimum number of members of the board of directors of public companies is two people.

The education variable in this study was calculated by the average level of education of the board of directors members. This variable's minimum and maximum results are 2.5 by INCO companies in 2016-1018 and 4.333 by PGAS companies in 2019, with an average of 3.46. This illustrates that the minimum and maximum average education of the board of directors of the companies studied were Diploma and Masters's graduates, and the average education of members of the company's board of directors in this study was a bachelor's degree.

Firm age is calculated from the years the company has been since the company became a public company. The results of the minimum firm age value of the company under study held by the SRIL company in 2016 was 3,000, with the maximum value held by UNVR in 2020 of 38,00, and the average firm age of the company in the study of 19,06. That is, the firm age range of the companies studied is three to 38 years, and the average age is 19.

Calculating firm size variable is carried out using the LN (Total Asset) formula, the minimum result of which is 12,098, with a maximum result of 34,43 and an average result of 21,57. The firm size with the smallest size was obtained by TLKM company in 2016, while the most significant size was held by BBNI company in 2020. The more assets owned by large companies, the company can be said to be able to manage its investment well and meet demand. This results in a broader market share and, of course, can affect the company's profitability.

After conducting descriptive statistical tests on the leverage variable, the minimum result is .12, held by the INCO company in 2019. The maximum result on the leverage variable is .91, which the BBTN company held in 2016. investigated is .50. This variable is calculated by comparing the total debts owned by the company and the total assets of the company. The lower the leverage of a company, the risk of the company failing to pay its debts is lower, and vice versa. However, high leverage also has a positive side for the company's operations if high company profits support it.

The tenure variable is calculated by calculating the average number of years of service members of the board of directors. The minimum result from descriptive statistics on tenure variables is 1.00 by BBNI and BMRI companies in 2016, PGAS and SMGR in 2017, SMGR in 2018, and PGAS and TLKM companies in 2020. Meanwhile, the maximum value of company tenure is held by AKRA companies. In 2020 worth 18.57.

The average term of the company is 4.67. This means that the term of office of members of the board of directors is at least one year, the maximum is approximately 18 years, and the average tenure of members of the board of directors in the companies studied is approximately four years.

Correlation Test and T-test

The correlation test shows gender diversity has a negative correlation toward firm performance, a table containing the results of the correlation test is attached to the appendix 1. The table shows that the variable that has a positive relationship with firm performance only amounts to one variable, firm age, with a value of .35, which is the control variable in this study. Meanwhile, the independent variable of this study, namely gender diversity or FEBLAU, has a negative relationship of -.53. In addition, other control variables that have a negative relationship with the ROA variable, namely education with a value of -.11, age variable with a value of -.31, tenure variable with a value of -.03, board size variable with a value of -.00, variable board meeting with a value of -.27, firm size variable with a value of -.26, and the last is the leverage variable which has a value of -.26.

The t-test or difference test involved a dummy variable for gender diversity as an independent variable with ROA as the dependent variable in this study. The dummy variable is determined with the assumption of the independent variable. That is, if the value of gender diversity is < .94, then the value of gender diversity in the dummy version is 0. Meanwhile, if the value of gender diversity is >0.948, the dummy variable of gender diversity is 1.

Table 4.
t-test Results

Dummy Variable ***Gender Diversity***	***Obs***	***Mean***	***Std. Err.***	***Std. Dev.***	***95% Conf.***	***Interval***
0	38	.126	.20	.12	.08	.16
1	107	.06	.00	.04	.05	.07
combined	145	.07	.00	.08	.06	.09
Diff		.06	.01		.03	.091
					t = 4.49	

Source: Research Results

The results of the t-test in this study were 4.49, which means that the effect given by gender diversity on ROA has a significant negative relationship. The results of these tests have results that are in line with research by Rodrigues (2014), Mohammad *et al.* (2018), John *et al.* (2020), dan Prasetya (2020).

Regression results

Hypothesis testing in this study includes nine regression models. These variables include gender diversity as an independent variable and education, age, tenure, the board size, board meeting, firm size, firm age, and leverage as control variables. It can

be seen in Table 5 that there are results of testing the gender diversity hypothesis on firm performance.

Hypothesis testing (see appendix 2) shows that gender diversity as an independent variable has a significant negative relationship to ROA as firm performance. The coefficient of the relationship between the two variables is -.46, p greater than .05. So it can be concluded that gender diversity significantly negatively affects firm performance. Meanwhile, the hypothesis set out in this study is that gender diversity has a significantly positive effect on firm performance.

Therefore, the hypothesis that has been established, namely the statement that gender diversity can have a significant positive effect, is declared wrong. This is also caused by the relatively small number of women in each company, so the positive effect felt by the company is said to be less. The small number of women on the board of directors makes it difficult for companies to take advantage of the benefits of gender diversity in achieving increased firm performance (M.K. & Sori, 2012).

These results are consistent with the results of the study by Rodrigues (2014), Mohammad *et al* (2018), John *et al* (2020), and Prasetya (2020). Meanwhile, contrary to the results of research by Bin Khidmat *et al* (2020), Brahma *et al* (2020), Agyemang-Mintah & Schadewitz (2017), Ullah *et al* (2019), Chijoke-mgbame *et al* (2020), Khan & Subhan (2019), Fidanoski *et al* (2014), Zakaria *et al* (2021), Sial *et al* (2018), and Woschkowiak (2018).

Managerial implications

Apart from the study's results, which state that gender diversity has a significant negative effect on firm performance, companies are still advised to increase gender diversity on their board of directors. Many studies state that gender diversity can improve firm performance if the number of women on the board of directors is large. Meanwhile, in this study, the number of women on the company board of directors was relatively small, so the benefits of gender diversity were difficult for companies to perceive.

Limitations and further study agenda

Apart from the study's results, which state that gender diversity has a significant negative effect on firm performance, companies are still advised to increase gender diversity on their board of directors. Many studies state that gender diversity can improve firm performance if the number of women on the board of directors is large. Meanwhile, in this study, the number of women on the company board of directors was relatively small, so the benefits of gender diversity were difficult for companies to perceive. In conducting this research, of course, there are limitations. The limitation in question is because, in this study, only five years of data were used with company annual reports in the 2016 to 2020 period with a total of 29 companies. In addition, the measurement of the independent variable used was only one, namely FEBLAU, where there are still several measurements that are still used other than the FEBLAU measurement.

Conclusion

Gender diversity is stated to improve firm performance in several previous studies, but the level of gender diversity in Indonesia is still relatively low. This study examines the effect of gender diversity on firm performance in Indonesia by using a sample of companies listed in LQ45. This study establishes several criteria for companies to be sampled so that the total companies that meet the requirements are 29 companies in 2016-2020. The tests carried out were descriptive statistics, correlation tests, t-tests, and also hypothesis testing. The results of this study state that gender diversity has a significant negative effect on firm performance.

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Appendix 1. *Correlation*

	ROA	FEBLAU	EDU	AGE	TEN	BSIZE	BMEETING	FSIZE	FAGE	LEV
ROA	1.00									
FEBLAU	-.53	1.00								
EDU	-.11	.09	1.00							
AGE	-.31	.45	-.15	1.00						
TEN	-.03	-.04	-.61	.52	1.00					
BSIZE	-.00	.10	.21	.38	.02	1.00				
BMEETING	-.27	.16	.37	-.09	-.29	.12	1.00			
FSIZE	-.26	.02	.18	.05	.07	-.10	.10	1.00		
FAGE	.35	-.06	-.33	.00	.04	.08	-.10	-.16	1.00	
LEV	-.26	.15	.49	.12	-.19	.51	.42	.17	-.33	1.00

Appendix 2. *Regression results*

	-1	-2	-3	-4	-5	-6	-7	-8	-9
	ROA	ROA	ROA	ROA	ROA	ROA	ROA	ROA	ROA
FEBLAU	-.46**	-.45**	-.41**	-.44**	-042**	-.38**	-.38**	-.36**	-0.36**
	(-5.06)	(-4.92)	(-4.89)	(-5.25)	(-5.20)	(-4.61)	(-4.60)	(-4.73)	(-4.66)
EDU		-.01	-.01	-.03*	-.03*	-.02	-.00	.03	0.0334*
		(-1.12)	(-1.3)	(-1.95)	(-2.38)	(-1.5)	(-.38)	-1.46	-1.69
AGE			-0.00	-.00	-.00	-.00	-.00	-.00	-.00
			(-1.16)	(-.26)	(-0.65)	(-.93)	(-.90)	(-1.12)	(-1.12)
TEN				-.00*	-.00	-.00*	-.00	.00	.00
				(-1.95)	(-1.54)	(-1.71)	(-.70)	-.53	-.52
BSIZE					0.08	.05	.00	.00	.00
					-1.08	-1.31	-.95	-.44	-1
BMEETING						-.00**	-.00**	-.00**	-.00*
						(-3.93)	(-4.10)	(-3.20)	(-2.57)
FSIZE							-.00**	-.00**	-.00**
							(-3.51)	(-3.67)	(-3.36)
FAGE								.00**	.00**
								-3.5	-2.62
LEV									-.03
									(-.81)
Constant	051**	.55**	.67**	.66**	.72**	.70**	.70**	.52**	.52**
	-5.76	-6.05	-4	-3.81	-3.49	-3.53	-3.49	-3.33	-3.17
Adj. R-squared	.27	.27	.27	.28	.28	.32	.35	.44	.44
Obs.	145	145	145	145	145	145	145	145	145
="* p<0.10	* p<0.05	** p<0.01"							

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