

Does Gender Diversity Drive Financial Performance? Empirical Evidence in Indonesia

Deska Kharisma Novita¹, Agus Satrya Wibowo², Muhammad Ichsan Diarsyad³
{deska.novita1225@gmail.com¹, satrya.upr@gmail.com², muhammad.ichsan@feb.upr.ac.id³}

FEB Universitas Palangka Raya, 082154070847¹, FEB Universitas Palangka Raya, 082311252626²,
FEB Universitas Palangka Raya, 081349647839³

Abstract. Previous references provide evidence that Gender Diversity has a positive impact on financial performance. Gender Diversity has the potential to stimulate competitive advantages in terms of innovation and improved problem-solving abilities. The purpose of this study is to explore the relationship between gender diversity and financial performance. This study utilizes panel data with 88 observational samples from companies listed in the Indonesian Stock Exchange's LQ45 index during 2019-2022 period. The Fixed Effect Model is considered the most suitable model compared to OLS or random effect models. Empirical evidence demonstrates that gender diversity has been proven to drive an enhancement in financial performance. The findings of this research contribute to the understanding of the importance of gender diversity in decision-making, which triggers team dynamics and collaboration within a company. Future research is expected to test this model in the context of companies with strict regulations, such as the banking sector.

Keywords: gender diversity, financial performance, resource dependency theory

1 Introduction

Companies play a crucial role, especially in enhancing and accelerating corporate economic growth. Matters associated with this increase involve the company's contribution in implementing and generating resources in the economic realm [1]. With the increasing global economic development, the existence of companies is something sustained and relied upon to meet the capital needs of the company in both the short and long term. A company is considered sound if its operational sustainability is assured due to its performance, making it easier to gain the trust of potential shareholders, thus making investors more comfortable [2].

One factor that can enhance financial performance is gender diversity. Gender diversity can encourage objective, comprehensive, and transparent decision-making from various perspectives [3]. The issue of gender diversity in Indonesia is intriguing to be examined, as women's participation in the business world has shown progress. Indonesia ranks fifth above Hong Kong (10.7%), India (8.6%), Singapore (7.7%), Japan (3.3%), and South Korea (2.6%) in terms of the role of women on corporate boards.

Gender diversity can be perceived as a process that exploits diverse traits and skills in both men and women, which can benefit the company [4]. The economic case for board diversity, namely gender, indicates that gender diversity can lead to more profitable firms and diverse boards may possess unique attributes that enhance shareholder value.

2 Theoretical Framework and Hypothesis Development

2.1 Resource Dependency Theory

The Resource Dependency Theory underpins several of the most compelling theoretical arguments for business case studies on board diversity. Diversity holds the potential to enhance the information provided by the board to managers due to the unique insights possessed by diverse directors. Differences in gender and ethnicity are highly likely to yield unique information available for better management decision-making [5].

2.2 Gender Diversity

Gender diversity refers to the proportion of women to men. This diversity focuses on the presence of female board members within a company. Essentially, gender diversity is influenced by inherent traits believed to be associated with men and women as individuals, which impact their environment. Thus, this gender diversity influences the risks taken by the board of directors when making decisions [6]. The measuring indicators for the Gender Diversity variable used in this study are as follows:

$$Woman = \frac{Female\ Board\ of\ Directors}{Number\ of\ Board\ of\ Directors} \times 100\% \quad [7]$$

2.3 Financial Performance

The financial performance of a company signifies the success it has achieved within a period, portraying the company's health. Financial performance can also be interpreted as a future prospect; it serves as a benchmark for a company's success from a financial perspective [8]. The measuring indicators for the Financial Performance variable used in this study are as follows:

$$Tobin's\ Q = \frac{Market\ Value\ of\ Equity+Debt}{Total\ Assets} \times 100\% \quad [9]$$

2.4 Leverage

Company leverage refers to the fixed income securities employed by a company, such as debt and preferred equity. A high level of financial leverage results in high interest payments as well. The Modigliani-Miller theorem states that a company's value is influenced by its capital structure. Leverage involves borrowing money in addition to existing funds [10]. The measuring indicators for the Leverage variable are as follows:

$$Debt\ to\ Equity\ Ratio = \frac{Total\ Liabilities}{Total\ Equity} \times 100\% \quad [11]$$

2.5 Firm Size

Firm size is one of the most significant influencers of financial performance. Larger companies are considered more efficient than smaller ones. Larger companies have better opportunities to secure credit from financial institutions and can obtain loans at a lower cost. This is due to their higher creditworthiness and lower probability of bankruptcy [10]. The measuring indicators for the Firm Size variable in this study are as follows:

$$Firm\ Size = Ln (Total\ Assets) \quad [11]$$

2.6 Growth

Growth represents the change (increase or decrease) in total assets owned by a company. Asset growth is calculated as the percentage change in assets at a specific time compared to the previous year. Growth constitutes the total asset change, whether it's an increase or decrease, experienced by a company during a period (one year). The company's value formed through market capitalization indicators is heavily influenced by investment opportunities.

The presence of investment opportunities can provide positive signals about the company's future growth, thereby enhancing its value. Growth refers to how far a company positions itself within the overall economic system or the economic system for the same industry [12]. The measuring indicators for the Growth variable in this study are as follows:

$$Growth = \frac{Total\ Assets\ this\ year - Total\ Assets\ last\ year}{Total\ Assets\ last\ year} \times 100\% \quad [12]$$

2.7 Theoretical Framework

This study analyzes the prospective relationship between the variables of gender diversity and financial performance. The gender diversity variable employs references based on previous research conducted by (Lestari & Muthmainah., 2020), (Eliya & Soprpto., 2022), (Campbell & Minguez-Vera, 2007), (Jabari & Muhammad., 2020) and (Maghfiroh & Utomo., 2019). Hence, the relationship between these two variables can be controlled by the variables of leverage, firm size, and growth.

Based on the elaboration above, the research framework can be presented as follows:

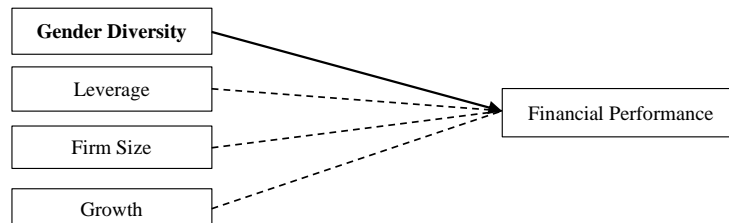


Fig. 1. Empirical Model

Based on the outlined research framework, the hypotheses to be used in this study can be summarized as follows:

H₁: Gender Diversity has a positive and significant impact on Financial Performance

3 Research Methodology

In this study, the author employs a quantitative approach, involving data analysis using statistics. In this context, statistics can encompass both descriptive and inferential statistics. Within inferential statistics, both parametric and non-parametric statistics are utilized.

The object of this study is the LQ45 listed companies on the Indonesia Stock Exchange (IDX). The sampling method employed is secondary, which entails using the annual reports of LQ45 listed companies available on the IDX website. The data collected spans the last four years, from 2019 to 2022, comprising a total of 62 companies. This research employs purposive sampling, a sampling technique based on specific considerations to ensure a sample that adheres to predefined criteria, amounting to 22 companies.

The research model employs a combination of time series and cross-section data analysis, representing a multiple regression analysis using panel data to ascertain the relationships among the studied variables. The software program utilized in this research is Eviews 10. The analytical procedures involve descriptive statistics, multiple regression analysis using panel data, regression model selection for panel data, and hypothesis testing.

3.1 Research Finding and Discussion

3.1.1 Descriptive Statistical Analysis

Table 1 Result of Descriptive Statistical Test

	FP	GD	LEV	FS	GROWTH
Mean	2235,239	0,156417	2,470103	19,62019	0,206030
Maximum	16701,92	0,571429	16,07858	32,36002	10,16700
Minimum	0,367000	0,000000	0,126217	12,12400	-0,781000
Std. Dev.	3990,265	0,152835	3,233057	3,688349	1,101542

Based on Table 1, the results of the descriptive statistical test for gender diversity are presented, with women's representation, and the control variables Leverage, Firm Size, and Growth. As for the Financial Performance variable (Y), measured using Tobin's Q as one of the indicators depicting a company's performance level, it has a minimum value of 0.367000 and a maximum value of 16701.92. From these results, the Financial Performance has a mean value of 2235.239 with a standard deviation of 3990.265, indicating that the mean is smaller than the standard deviation, signifying a significant difference in Financial Performance among the sampled companies.

Gender diversity is measured based on women's representation, with a minimum value of 0.000000, signifying that some companies do not have female directors, and a maximum value of 0.571429 for Media Nusantara Citra Tbk, indicating that the number of female directors in Media Nusantara Citra Tbk is represented as a percentage of the entire board. The mean value of the gender diversity variable is 0.156417, indicating that 15.6417% of LQ45 listed companies have female directors.

3.1.2 Multiple Linear Regression in Panel Data

Table 2 Common Effect Model

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	1632.671	329.8336	4.949983	0.0000
GD	-879.7437	414.2526	-2.123689	0.0379
LEV	-48.09442	14.96275	-3.214277	0.0021
FS	-44.00425	15.50999	-2.837156	0.0062
GROWTH	-337.0764	199.2918	-1.691371	0.0960

Table 3 Fixed Effect Model

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	9052.975	2458.383	3.682492	0.0006
GD	1908.423	866.1443	2.203355	0.0329
LEV	1.892460	39.41057	0.048019	0.9619
FS	-455.6605	128.3483	-3.550187	0.0009
GROWTH	72.31057	101.0897	0.715311	0.4782

Table 4 Random Effect Model

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	1560.165	606.3590	2.573005	0.0126
GD	126.5402	599.8572	0.210950	0.8337
LEV	-39.48250	24.09278	-1.638769	0.1066
FS	-50.59036	29.63296	-1.707233	0.0930
GROWTH	-89.05436	91.65835	-0.971590	0.3352

3.1.3 Selection of Multiple Liner Regression in Panel Data**Table 5 Chow Test**

Effects Test	Statistic	d.f.	Prob.
Cross-section F	22.690781	(15,44)	0.0000
Cross-section Chi-square	138.713245	15	0.0000

Based on Table 5, the obtained chi-square probability value is $0.0000 < 0.05$. This indicates that the chow test results between the Fixed Effect Model are superior to the Common Effect Model. Therefore, the outcome derived from the chow test is the Fixed Effect Model. Consequently, the next step involves conducting the Hausman test.

**Table 6 Chow Test
Table 6 Hausman Test**

Test Summary	Chi-Sq. Statistic	Chi-Sq. d.f.	Prob.
Cross-section random	15.921942	4	0.0031

Based on Table 6, the more favorable Random Effect Model, of course, exhibits a probability value > 0.05 . Meanwhile, the obtained result is 0.031, where this value is smaller than 0.05. Based on the findings of the Hausman test in this research, it indicates that the regression model with the Fixed Effect Model is superior to the Random Effect Model. Thus, the multiple linear regression testing in this research employs the data of the Fixed Effect Model regression equation. Based on the regression analysis results in Table 3, the estimation formula for the multiple linear regression can be written as follows:

$$Y = 9052,975 + 1908,423 X1 + 1,892460 C1 - 455,6605 C2 + 72,31057 C3 + e$$

From the multiple linear regression equation above, it can be explained as follows:

1. The obtained constant value (a) is 9052.975. This implies that the Financial Performance variable is not influenced by other factors (Gender Diversity, Leverage,

Firm Size, and Growth), and its value is zero, resulting in the Financial Performance having a value of 9052.975.

2. The Gender Diversity variable (X1) has a positive regression coefficient, indicating a one-way relationship between Gender Diversity and Financial Performance. The regression coefficient for the Gender Diversity variable is 1908.423. This result signifies that for every 1% increase, the Financial Performance will increase by a factor of 1908.423 times. Conversely, if Gender Diversity decreases by 1%, the Financial Performance will decrease by a factor of 1908.423 times, assuming other variables remain constant.
3. The Leverage variable (C1) also has a positive regression coefficient, indicating a one-way relationship between Leverage and Financial Performance. The regression coefficient for the Leverage variable is 1.892460. This result implies that every 1% increase will lead to a 1.892460 times increase in Financial Performance, and conversely, if Leverage decreases by 1%, Financial Performance will decrease by a factor of 1.892460 times, assuming other variables remain constant.
4. The Firm Size variable (C2) has a negative regression coefficient, indicating a non-unidirectional relationship between Firm Size and Financial Performance. The regression coefficient for the Firm Size variable is -455.6605. This result implies that every 1% increase will result in a decrease of Financial Performance by -455.6605 times. Conversely, if Firm Size decreases by 1%, the company's performance will increase by a factor of 455.6605 times, assuming other variables remain constant.
5. The Growth variable (C3) has a positive regression coefficient, indicating a one-way relationship between Growth and Financial Performance. The regression coefficient for the Growth variable is 72.31057. This result implies that every 1% increase will lead to a 72.31057 times increase in Financial Performance, and conversely, if Growth decreases by 1%, Financial Performance will decrease by a factor of 72.31057 times, assuming other variables remain constant.

3.1.4 Hypothesis Testing

This testing aims to examine the influence of independent variables on the dependent variable separately with a probability of < 0.05 . In this study, the criterion used involves comparing the calculated t-value with the tabulated t-value and the probability value. The tabulated t-value obtained is 1.66980, calculated using the following formula:

$$t_{table} = t(\alpha; n-k-1)$$

$$t_{table} = t(0.05; 64-1-1)$$

$$t_{table} = (0.05; 62).$$

The value (0.05 : 62) is sought in the distribution of t-table statistical values, resulting in a tabulated t-value of 1.66980.

Table 7 Parameter Individual Test (t Test)

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	9052.975	2458.383	3.682492	0.0006
GD	1908.423	866.1443	2.203355	0.0329
LEV	1.892460	39.41057	0.048019	0.9619
FS	-455.6605	128.3483	-3.550187	0.0009
GROWTH	72.31057	101.0897	0.715311	0.4782

Thus, Gender Diversity has a positive and significant effect on financial performance. The Gender Diversity variable has a calculated t-value of 2.203355 > tabulated t-value of 1.66980 and a probability of 0.0329 < 0.05. These results meet the criteria for the t-test, indicating that, partially or individually, the Gender Diversity variable has a significant positive influence on Financial Performance. Hence, it can be stated that **H₁ is accepted**.

3.1.5 Adjusted R² Test

The R-squared test is commonly used to measure how far the model's ability in explaining the variation of the dependent variable. This ability can be observed from the coefficient of determination value, indicated by the Adjusted R Square value.

Table 8 Adjusted R² Test

R-squared	0.920380	Mean dependent var	474.4936
Adjusted R-squared	0.885999	S.D. dependent var	487.2369
S.E. of regression	164.5110	Akaike info criterion	13.29414
Sum squared resid	1190810.	Schwarz criterion	13.96879
Log likelihood	-405.4124	Hannan-Quinn criter.	13.55992
F-statistic	26.76978	Durbin-Watson stat	1.862409
Prob(F-statistic)	0.000000		

Based on Table 7, it is indicated that the Adjusted R Square value is 0.8859 or equivalent to 88.59%. Therefore, this can be interpreted as Gender Diversity, Leverage, Firm Size, and Growth collectively being able to influence Financial Performance by 88.59%. The remaining 11.41% (100% - 88.59%) can be influenced by other factors beyond Gender Diversity, Leverage, Firm Size, and Growth.

4 Conclusion and Recommendations

4.1 Conclusion

The researcher can draw a conclusion that there is a significant positive influence of gender diversity on financial performance, measured using Tobin's Q, with a significance value of less than 0.05. This outcome indicates that companies with female board members are capable of enhancing profitability and capturing future market expectations. These research findings are also supported by prior researchers who achieved consistent results, such as the study conducted by (Lestari & Muthmainah., 2020), (Eliya & Soprapto., 2022), (Campbell & Mínguez-Vera,2007), (Jabari & Muhammad., 2020).

4.2 Recommendations

For future researchers, it is suggested to incorporate a broader range of independent variables and additional control variables beyond gender diversity, leverage, firm size, and growth. Moreover, future researchers are advised to conduct studies on companies with more diverse characteristics, such as banks subject to stricter regulatory frameworks. This approach would allow the obtained results to be more representative for drawing conclusions and comparing them across various indices apart from the LQ45 listed companies on the Indonesia Stock Exchange. Furthermore, conducting research using a longer time span, such as a time series analysis, is recommended to enhance the accuracy of findings.

References

- [1] T. Lestari and K. Mutmainah, "Studi Empiris pada Perusahaan Manufaktur Industri Barang Konsumsi yang terdaftar di BEI Periode 2015 sampai 2018," *J. Econ. Bus. Eng.*, vol. 2, no. 1, pp. 34–41, 2020.
- [2] S. Eliya and Y. Suprpto, "Pengaruh Keberagaman Gender terhadap Kinerja Keuangan pada Perusahaan Manufaktur Barang Konsumsi Publik di Indonesia Abstrak," *J. Manaj. dan Bisnis*, vol. 5, no. 2, pp. 23–30, 2022.
- [3] R. Yuniarti, A. Sumarlan, A. Junaidi, and P. Riswandi, "Peran Kinerja Lingkungan pada Pengaruh Gender Diversity terhadap Kinerja Keuangan," *EKOMBIS Rev. J. Ilm. Ekon. Dan Bisnis*, vol. 11, no. 1, p. 11, 2023.
- [4] Roika R, U. Salim, and Sumiati S, "Pengaruh Keragaman Dewan Direksi Terhadap Kinerja Keuangan Perusahaan," *IQTISHODUNA Vol.15 No.2*, 2019.
- [5] D. A. Carter, F. D'Souza, B. J. Simkins, and W. G. Simpson, "The gender and ethnic diversity of US boards and board committees and firm financial performance," *Corp. Gov. An Int. Rev.*, vol. 18, no. 5, pp. 396–414, 2010, doi: 10.1111/j.1467-8683.2010.00809.x.
- [6] Ilhamdi and N. E. S. Arianti, "Board Diversity, Ukuran Perusahaan dan Intellectual Capital Disclosure Bank Umum Syariah," *J. Akunt. dan Keuang. Islam*, vol. 5, no. 2, pp. 143–161, 2017.
- [7] N. R. H. Lubis, Syahyunan, and M. F. Azhmy, "Pengaruh Keberagaman Dewan Direksi Terhadap Kinerja Keuangan Pada Perusahaan Manufaktur."
- [8] M. R. T. Bukhori and D. Sopian, "Pengaruh Sustainability Terhadap Kinerja Keuangan," *Sikap*, vol. 2, no. 1, pp. 20–34, 2017.
- [9] V. D. Maghfiroh and D. C. Utomo, "Pengaruh Diversitas Gender Pada Struktur Dewan Terhadap Kinerja Keuangan Perusahaan (Studi empiris pada perusahaan manufaktur yang terdaftar di BEI tahun 2015-2017)," *Diponegoro J. Account.*, vol. 8 Nomor 3, pp. 1–9, 2019.
- [10] Megawati and E. S. Dermawan, "Analisis pengaruh firm size , firm age , leverage , dan growth terhadap kinerja perusahaan," *J. Multiparadigma Akunt.*, vol. I, no. 3, pp. 666–674, 2019.
- [11] A. J. S. Susanto Salim, "Pengaruh Profitabilitas, Leverage, Firm Size, Dan Sales Growth Terhadap Financial Distress," *J. Paradig. Akunt.*, vol. 2, no. 1, p. 262, 2020.
- [12] K. Krisnando and R. Novitasari, "Pengaruh Struktur Modal, Pertumbuhan Perusahaan, dan Firm Size terhadap Nilai Perusahaan Pada Perusahaan Consumer Goods yang Terdaftar di Bursa Efek Indonesia (BEI) Periode 2017-2020," *J. Akunt. dan Manaj.*, vol. 18, no. 02, pp. 71–81, 2021.