

The Influence Of Board Of Directors' Components On Social Responsibility Reputation In Lq-45 Index Companies

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Atika Wulandari¹, Santi Yopie²

E-mail: 1942010atika@uib.edu, santiyopie.uib@yahoo.com

¹Faculty Economics and Management, Batam International University, Batam,
Indonesia

Abstract

The aims of this study is to examine the effect of the diversity of the board director components on companies that have social responsibility (CSR) due to limited evidence that the diversity of the board of directors within a company affects the reputation of organizations or companies that are involved in social responsibility (CSR).

The object of this study is a company listed on the LQ45 Index, which is a stock market index on the Indonesia Stock Exchange which consists of 45 companies that are included in the top 60 companies with the highest market capitalization in the past year. The diversity is based on gender diversity, board meetings, board education variety, board average age, and number of board of commissioners. There are 225 observation samples from 2017-2021. In this study it was concluded that the diversity of directors based on the matters mentioned above had a significant and positive impact.

The diversity of components of a company's board of directors influences an organization or company in decision making and involvement in social responsibility as demanded by directors or stakeholders. This study aims to determine the importance of the diversity of the board directors on social responsibility and the positive influence of the diversity of the board of directors in managing corporate social responsibility.

Keywords: gender diversity, board meeting, board educational, average age of the board, board size, firm size, profitability, sales growth

1. INTRODUCTION

Social responsibility or often termed Corporate Social Responsibility (CSR) is a form of company's efforts to carry out its responsibilities to the

¹Corresponding author: Author Institution, Name of Street, Village/District/Regency, City, ZIP/Postal Code, Province/State, Country ←10pt, Times New Roman, Italic

²Author Institution, Name of Street, Village/District/Regency, City, ZIP/Postal Code, Province/State, Country ←10pt, Times New Roman, Italic

people living nearby and the environment affected by the company's operational activities (Anita & Amalia, 2021; Yopie & Robin, 2023). Some experts also say that social responsibility is an involvement carried out voluntarily by an organization in order to meet the needs of its stakeholders or company members. CSR issues have become global and have received wider acceptance from both stakeholders and corporate organizations (Wati & Malik, 2021). A company can achieve its main goals if CSR implementation goes well. Some of the company's main goals are to generate large profits, increase access to capital for the company, increase sales of goods or services, increase company productivity and improve the image of a company. Companies that carry out CSR can increase their reputation where reputation cannot be identified as an asset in financial reports but reputation has an influence on investor confidence, staff recruitment, supplier attitudes and influence on other stakeholders as a tool of business relationships (Edi & Wati, 2022).

Corporate Social Responsibility (CSR) is said to be important, especially for large companies, as evidenced by the importance of social responsibility on the board of directors' meeting agenda. Companies are responsible for meeting the needs of various stakeholders and for other matters related to CSR and sustainability, especially those related to achieving competitive advantage in business. Companies should not only pursue profit as the main goal but also pay attention to and be involved in environmental preservation (Itan et al., 2023)

Realizing the importance of implementing corporate social responsibility, the Indonesian Government finally implemented regulations regarding the implementation of corporate social and environmental responsibility, namely Law no. 40 of 2007 Article 74 paragraph 1. Law no. 40 of 2007 contains: "Companies that carry out their business activities in the field and/or related to natural resources are obliged to carry out social and environmental responsibilities."

Global Reporting Initiative(GRI) is a program from the United Nations (UN) in 2000 which was created as a guideline regarding Sustainability Reporting which can be used by companies to express corporate social responsibility. There are two different types of standard disclosures, namely general standard disclosures and specific standard disclosures. General standard disclosures include seven aspects, namely: (1) strategy and analysis; (2) organizational profile; (3) material aspects and boundaries identified; (4) relationships with stakeholders; (5) report profile; (6) governance; (7) ethics and integrity. Meanwhile, special standard disclosures consist of three categories, namely: (1) economic; (2) environment; (3) social.

Corporate social responsibility is influenced by several factors, including gender diversity, number of board of directors meetings, educational diversity, average age of the board of directors, number of board of commissioners, company size, profits and sales growth. Even though there are several factors that have been tested in previous research, in fact there are still some asymmetries in the concluded hypotheses which may be caused by several

internal or external factors of the company. Therefore, it is deemed necessary to re-examine the factors that influence the reputation of social responsibility along with improvements in various aspects of life in the last five years.

Diversity is an integral part of culture in many countries around the world. Quotas for board gender diversity (and not other types of diversity such as age, profession, or education) have become law in many countries, such as Norway, France, India, and Israel. Little is known about the economic and innovation consequences of a growing and diverse array of external stakeholders with competing interests, coupled with diverse internal corporate structures.

A diverse company board composition is better known as board diversity. Diversity in gender, age, race, educational background and nationality are things that companies must consider when choosing who will serve on the company's board of commissioners because board diversity is seen as an indicator of independence and accountability in making decisions and is the easiest to observe. In addition, diversity is believed to influence a company's financial value in the long and short term (Princess, 2020).

2. LITERATURE REVIEW AND HYPOTHESIS DEVELOPMENT

2.1 Literature Review

2.1.1 Signal Theory

Companies that care about their reputation also care about their governance structure, as well as social policies and actions that are perceived by stakeholders and society. Therefore, quality information is essential to ensure that stakeholders understand what the message means and legitimize organizational behavior. When organizations engage in CSR activities, they manage information asymmetry between management and stakeholders through disclosing their social practices. Stakeholders then rate their level of satisfaction with the claim and their expectations with the quality of the information that is being provided. Ultimately, these signals will confirm how well the organization meets stakeholder expectations and shapes the company's reputation (Hartmann and Carmenate, 2021).

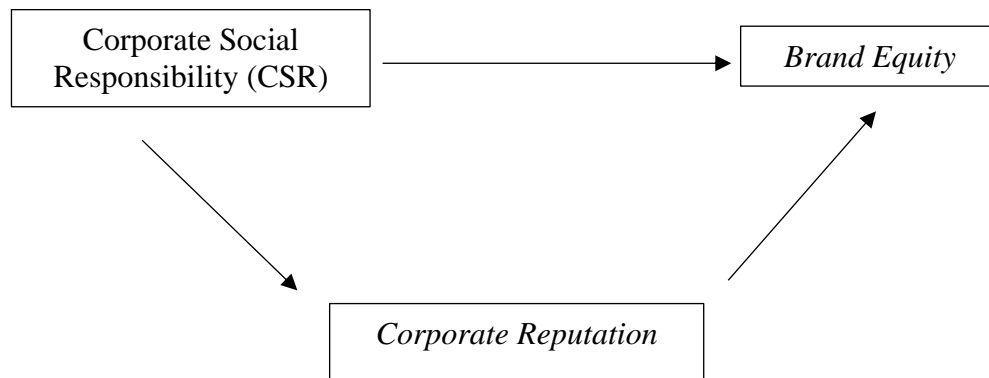
2.1.2 Corporate Social Responsibility Reputation

The variable in this research is Corporate Social Responsibility Reputation. There are many definitions related to the concept of corporate social responsibility, but many experts agree that social responsibility is voluntary involvement by an organization to meet the needs of its stakeholders or company members. A stakeholder is any group or individual who can influence or be influenced by the achievement of organizational goals. Company managers are required to meet the needs of all parties who have shares in the business to maximize company value and shareholder value.

It is stated that there is a natural fit between the idea of corporate social responsibility and stakeholders for a company's reputation. Corporate social responsibility conveys the idea that social response is a multidimensional concept that embodies a wide variety of corporate activities that can have separate impacts on the reputation of the corporate organization.

The limited research on the relationship between social responsibility and corporate reputation provides some evidence that being socially responsible can improve organizational competitiveness and reputation among stakeholders (Jeffrey, Rosenberg and McCabe, 2019). Giving a portion to charity can restore a company's reputation after violating environmental health and safety regulations.

Research on Social Responsibility Reputation has been studied several times by previous researchers. A previous research model that examined the influence of corporate social responsibility on corporate social responsibility and its impact on brand equity was carried out by Fajar Mochamad Sidik, Agus Rahayu, and Ratih Hurriyati (2016). The type of research used previously was descriptive verification and the method used was explanatory survey with simple random sampling techniques. This research sent a questionnaire to conduct a survey via a link to 218 customer companies of PT Bio Farma. The data analysis technique used is Path Analysis with SPSS 23.0 computer software.



Picture 1 Model of the Influence of Corporate Social Responsibility on Corporate Social Responsibility and its Impact on Brand Equity (Mochamad Sidik, Agus Rahayu, and Ratih Hurriyati, 2016).

Furthermore, research conducted by Juniati Gunawan (2018) on Corporate Social, Environmental and Reputation Responsibility: Disclosures on Bank Websites aims to provide evidence regarding the content of corporate social and environmental responsibility (CSER) disclosures and corporate reputation at the three largest banks, namely Bank Mandiri, Bank Central Asia, and Bank Rakyat Indonesia. CSER disclosure is measured through content analysis methods from company websites and company reputation is measured through customer perceptions. The research was conducted on 360 customers through an online survey using non-profitability sampling (convenience sampling).

Scott Jeffrey, Stuart Rosenberg, and Brianna McCabe in their research entitled Corporate Social Responsibility Behaviors and Corporate Reputation which generally aims to study corporate social responsibility behavior. Then, they found that CSR behavior is important for corporate reputation.

Maja Arslanagic-Kalajdzic, Vesna Zabkar (2017) in their research entitled

The Role of Corporate Social Responsibility and Corporate Reputation for Client-perceived Value which aims to examine the interaction between corporate social responsibility (CSR), company reputation and client-perceived value, and to assess the moderating role of strategic orientation in business service relationships. A conceptual framework based on the corporate communication framework, signaling theory and relationship marketing theory was tested on a survey sample of 228 client companies, using covariance-based SEM and additional moderated mediation assessment procedures.

Research conducted by Aiman Ajaz, Zhou Shenbei, Muddasar Sarfraz (2020), in a journal entitled Delineating the Influence of Boardroom Gender Diversity on Corporate Social Responsibility, Financial Performance, and Reputation which aims to reveal the effectiveness of gender diversity in the boardroom and consider its impact towards corporate social responsibility, financial performance and reputation which leads to business sustainability. This study is based on the assumptions of stakeholder theory which states that female directors play a role in board diversification. This research uses a methodology by assigning a sample to 100 companies listed on the Pakistan Stock Exchange.

2.1.3 Diversity *Gender* Board of Directors

One of the most commonly studied characteristics of board diversity is gender, specifically the presence of women on boards. Until now, women have been underrepresented in boardrooms. Therefore, companies are under great pressure to increase the presence of women directors on the board. Currently, 84% of the 500 companies in the United States have female boards of directors, with 181 companies having more than one woman and another 31 companies having three or more women on the board. Despite these numbers, women represent only 10.6% of the 6,081 corporate board seats in the United States. In Europe, the 200 largest companies from the Stoxx Europe 600 had an average presence of women on boards in 2018 of 33.6% (European Women On Boards, 2018). Female board representation is likely to increase due to regulations passed by the European Union requiring boards to have at least 40% women on the boards of public companies and various European countries introducing legislation at the national level requiring gender quotas for companies.

Generally, board of directors meetings are often held at certain time intervals in accordance with company policy with the aim of considering issues or problems contained in company policy. Claimed as *proxies* for board persistence, it is a decisive dimension to improve the effectiveness of the board and the level of monitoring of the activities delivered. Frequency of board meetings is measured as the natural logarithm of the number of board meetings held during the fiscal year.

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Much research on gender diversity and corporate social responsibility shows that having a female board improves the board's ability to effectively address social responsibility issues (Matitaputty and Davianti, 2020). This is caused by the psychological characteristics that women have, such as being affectionate, helpful, kind, nurturing, and various other good instincts that make them pay more attention to the needs of other people. Women also tend to be more concerned about health and environmental risks than men and are more likely to take action to reduce risks (Ciocirlan and Pettersson, 2012). Gender diversity influences companies to be more involved in social responsibility activities which can improve the company's overall reputation.

2.1.4 Board of Directors Meeting

Generally, board of directors meetings are often held at certain time intervals in accordance with company policy with the aim of considering issues or problems contained in company policy. Claimed as a proxy for board persistence, it is a decisive dimension for improving board effectiveness and the level of monitoring of delivered activities. Frequency of board meetings is measured as the natural logarithm of the number of board meetings held during the financial year (Ntim and Osei, 2011).

2.1.5 Educational Diversity of the Board of Directors

The educational background of board members influences the knowledge they possess. Although it is not a requirement for someone entering the business world to have a business education, it would be better if board members have an educational background in business and economics. By having existing business and economic knowledge, at least board members have a better ability to manage the business and make business decisions than not having business and economic knowledge. Ultimately this will affect the value of the company.

2.1.6 Age Diversity of the Board of Directors

Board age is an indicator of board diversity which can also influence company value. Age can be considered a proxy for a board member's level of experience and risk-taking manner. Judging from signal theory, the age of a young board of commissioners brings a positive signal to investors because young age indicates courage in taking risks and new ideas for the survival of the company. Younger board members tend to be braver in taking risks and always have new ideas, so the company can experience higher growth

compared to older board members. This is because older board members are more concerned with financial security and company careers (Hartmann and Carmenate, 2021). Younger board members tend to have a higher ability to process new ideas, which results in a lower desire for status and less interest in career stability.

2.2 Hypothesis Development

2.2.1 The Influence of Board of Directors' Gender Diversity on Corporate Social Responsibility Reputation

The first hypothesis is the influence of gender diversity of the board of directors on the reputation of corporate social responsibility. Having a female board of directors signals to stakeholders and corporate mobility to consider the need for its various stakeholders to be socially responsible. This is due to the psychological character that a woman has, namely loving, helpful, kind, and has softer instincts than men.

Thus, the more frequently organizations engage in charitable and social activities and the more they communicate to the public, the better they will signal responsiveness to social issues and will increase their credibility among other stakeholders. However, the assessment of gender is something objective. Every person, regardless of gender, will certainly have different characteristics.

H1: Gender diversity has no effect on corporate social responsibility reputation and has a positive direction (not significant)

2.2.2 The Influence of the Number of Board of Directors Meetings on Corporate Social Responsibility Reputation

Corporate governance mechanisms are not limited to the number and composition of the board, but also to the use of the number of board work processes, namely the number of meetings held. The frequency of meetings held by the board of commissioners tends to regulate company activities and disclose social responsibility information to fulfill the wishes of various stakeholders (RI, 2019).

H2: the number of board of directors meetings has an influence on the reputation of corporate social responsibility and is also positive (significant)

2.2.3 The Influence of the Board of Directors' Educational Background on Corporate Social Responsibility

One characteristic of diversity that has not received much attention in the social responsibility literature is educational diversity. Education is considered important because it shapes individual values and cognitive abilities and increases individual knowledge and skills. Of the 225 samples tested, there were various levels of education for each board of directors, ranging from S1 to S3.

The educational background of the board of directors is able to influence decision making based on the perspective scale of each board. For example, if there is a board of directors with management graduates, of course the company will place more emphasis or pay more attention to management elements in that company. It's different if the company director is an

engineering graduate.

H3: The educational background of the board of directors influences the reputation of corporate social responsibility and has a positive sign (significant)

2.2.4 The Influence of the Average Age of the Board of Directors on Corporate Social Responsibility

The average age of the board of directors is the result of dividing the total age of the board of directors divided by the number of directors in a company. A company certainly has minimum and maximum age requirements that have been determined and apply to all its employees. Decision making so as to be able to have a good reputation for corporate social responsibility cannot be judged by how old or young a person is.

This variable takes into account the influence of the average age of directors in a company on the company's social responsibility reputation. Comparing one company to another in what age range a company is able to have a good influence on decision making on the company's social responsibility reputation.

H4: The average age of the board of directors has no influence on corporate social responsibility reputation and is positive (not significant)

2.2.5 The Influence of the Number of Board of Commissioners on Corporate Social Responsibility

The board of commissioners is a board consisting of several people who have the task of supervising and providing advice to the board of directors. The more commissioners there are in a company, the longer and longer the decision making process in a company will be. The board of commissioners is of course appointed by the GMS and each member of the board certainly has a different view. It is becoming easier to spot errors in decision making that are thought to worsen a company's social responsibility reputation.

H5: The number of board of commissioners has an influence on the reputation of corporate social responsibility and has a positive direction (significant)

3. mRESEARCH METHODS

3.1 Research design

This research uses a quantitative approach in looking for relationships between variables. The type of data used in this research is secondary data obtained from sustainability reports, annual reports and financial reports from each company for the last five years.

3.2 Object of research

The research object is something that is of concern in a study. The object of this research is the target of research to obtain answers or solutions to problems that will be proven objectively. The object of research is a scientific target to obtain data with a certain purpose and use about something objective, valid and reliable about something. In this study, the objects of research were 45 companies listed on the LQ45 Index on the Indonesian Stock Exchange.

3.3 Definition of Variables and Operational Research Variables

3.3.1 Definition of Research Variables

Research variables are anything in any form that is determined by the researcher to be studied so that information about it is obtained, then conclusions are drawn. In accordance with the research title chosen by the author, namely the Influence of Board of Directors Components on Company Reputation, the author grouped the variables used in this research into three, namely dependent, independent and control variables. Corporate Social Responsibility is the dependent variable in this research. The independent variables in this research consist of gender diversity, board meeting, board educational, average age of board, and board size. The control variables consist of firm size, profitability, and sales growth.

3.3.2 Dependent Variable

The dependent variable is a variable that can be explained or influenced by independent variables (independent). The dependent variable in this research is Corporate Social Responsibility (CSR) which is a concept, action, or real action carried out by a company as a sense of corporate responsibility towards social and environmental issues where the company is located. CSR can be measured or calculated based on activities or criteria disclosed by banks in annual reports and divided into 91 indicators based on GRI-G4 (Samsu, 2017).

The measurement is carried out based on the disclosure index for each company which is calculated by dividing the number of activities or criteria disclosed by the bank in the annual report divided by the 91 GRI-G4 indicators, which are formulated as follows:

$$CSRDIJ = \sum x_{ij} n_j \times 100\%$$

Information :
 CSRDIj : *corporate social responsibility* company index
 NJ : number of corporate social responsibility (CSR) disclosure criteria for company j, $NJ \leq 91$.
 Xij : 1 = if criteria are disclosed
 0 = if criteria are not disclosed

3.3.3 Independent Variable

3.3.3.1 Gender Diversity

This research uses the percentage of women on the board of directors (BG) as a measure of women on the board of directors. The following is the formula for calculating the gender diversity variable.

$$Gender\ Diversity = (Total\ dewan\ wanita) / (Total\ dewan\ direksi)$$

3.3.3.2 Board Meetings

The frequency of meetings or meetings of the board of directors is measured by the natural logarithm of the number of board meetings held throughout the fiscal year (Ntim and Osei, 2011).

$$Board\ Meetings = \ln(\text{frequency of number of board meetings})$$

3.3.3.3 Board Educational

Board Educational measured by dividing the education level of the board of directors based on their level, starting from S1 to S3.

3.3.3.4 Average Age of Board

Average Age of Board measured by dividing the age of the board of directors by the number of members of the board of directors.

3.3.3.5 Board Size

Board size measured based on the number of board of commissioners in the company. Bearing in mind that a larger board of commissioners brings more knowledge and expertise, thereby influencing effectiveness in supervising a company. (Hartmann and Carmenate, 2021)

4. RESEARCH RESULTS AND DISCUSSION

4.1 Research result

4.1.1 Descriptive Research Results

The first thing that must be done in research is descriptive statistics for each research variable. Descriptive statistics relate to the process of describing or explaining the description of the object under study through sample or population data so that it can describe the character of the sample used. There are 9 ratio variables for which descriptive analysis is presented. Descriptive statistics generally describe a research variable. Descriptive statistics focus on maximum values, minimum values, average values (mean) and standard deviation values. Descriptive details of the complete data can be seen in the following table.

Table 4. 1 Descriptive Statistics

	N	Mean	Median	Maximum	Minimum	Std. Dev.
CSR	225	0.349153	0.485149	0.965347	0.00000	0.300
GEN_D	225	0.119000	0.000000	0.600000	0.00000	0.154
B_MEET	225	33. 16889	24,00000 0	282,0000	3,00000	33,175
B_EDU	225	2.608889	3,000000	4,000000	2,00000	0.549
AVG_AGE	225	52. 59469	52.63636 0	64.80000	41.28571	3,650
B_SIZE	225	6.111111	6,000000	14,00000	3,00000	2,147
F_SIZE	225	31.65398	31.55675 0	35.08440	29.20647	1,330
PROFIT	225	0.060967	0.042609	0.465200	-0.87615	0.114
S_GROWTH	225	0.024444	0.060515	0.653000	-2.37665	0.304

Source: Eviews Data Processing, 2022

Based on the CSR data obtained, it can be seen that the average corporate social responsibility reputation is 0.349153 points. Meanwhile, the standard deviation of corporate social responsibility reputation is 0.300053 points. The average value of corporate social responsibility reputation is 0.349153, which means the average for companies in this research sample is 34.9% of the total of 91 points. The standard deviation value in the table above shows that the variation in the corporate social responsibility variable data is small, caused by the standard deviation being smaller than the average

value. The minimum value for this table is 0 from 225 data and the maximum value is 0.600000 from 225 data.

The average value of gender diversity, which is measured by dividing the number of women on the board of directors by the number of boards of directors of a company, is 0, which means there is slight variation from the existing sample of companies. The standard deviation for gender diversity is 15.36%. A standard deviation value that is greater than the average value indicates that there are many variations in gender diversity data. The minimum value of the gender diversity variable is 0 and the maximum value is 0.600000. Large data variations mean that the difference between the maximum and minimum is statistically considered large.

The average board meeting value is 33.1689, which means there is a lot of variation in the existing sample of companies. The standard deviation for board meetings is 33.17510. A standard deviation value that is greater than the average value indicates that there is a lot of variation in data from the board meeting. The minimum value of the board meeting variable is 3.00000 and the maximum value is 282,000. Large data variations mean that the difference between the maximum and minimum is statistically considered large.

The results of the descriptive statistical analysis shown in the table above show that the board educational variable 2.00000 has a minimum value of 4.00000, which indicates that the board of directors in the company in the sample has the lowest level of education at Bachelor (S1) level and the highest is Doctoral level (S3). Meanwhile, the average value is 2.608889, which means that most of the board of directors in the sample companies have bachelor's and master's degrees, with a standard deviation value of 0.549278, which is smaller than the average value, so the results of the analysis for this variable show that there are slight variations in the sample data.

The numbers in the average age of board variable have a minimum value of 41.28571 and a maximum value of 64.80000, which shows that the smallest average age of the board of directors is around 41-42, while the largest age of the board of directors is in the range 64 -65 years. The table shows that the value for the standard deviation is 3.649747 and the average value is 52.59, so the results of the analysis for this variable show that there is slight variation in the sample data.

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The number in the board size variable has a minimum value of 3 and a maximum value of 14 which indicates that the number of board commissioners in the sample is at least 3 and a maximum of 14. The table shows the value for the standard deviation is 2.146657 and the average value is 6.11111 so

the results of the analysis for this variable show that there is slight variation in the sample data.

The number in the board size variable has a minimum value of 3 and a maximum value of 14 which indicates that the number of board commissioners in the sample is at least 3 and a maximum of 14. The table shows the value for the standard deviation is 2.146657 and the average value is 6.11111 so the results of the analysis for this variable show that there is slight variation in the sample data.

The number in the firm size variable has a minimum value of 29.20647 and a maximum value of 35.08436. This natural logritm is used to minimize differences in numbers that are too far from the data that has been collected. The table shows the value for the standard deviation is 1.329761 and the average value is 31.65398 so the results of the analysis for this variable show that there is a slight variation in the sample data which shows good results.

The figure for the profitability variable has a minimum value of -0.876150 and a maximum value of 0.465154, which means that in this sample there are companies whose profitability has decreased to 87.61% and increased to 46.51%. The table shows that the value for the standard deviation is 0.113530 and the average value is 0.060967, so the results of the analysis for this variable show that there is a lot of variation in the sample data.

The number in the sales growth variable has a minimum value of -2.376653 and a maximum value of 0.653049, which means that in this sample there were companies that experienced an increase in sales of up to 65.3% which decreased by 237%. The table shows that the value for the standard deviation is 0.304485 and the average value is 0.024444, so the results of the analysis for this variable show that there is a lot of variation in the sample data.

4.1.2 Panel Data Regression Model Analysis Test

In the panel data regression model analysis, regression testing of various models is carried out, namely as follows.

1. Fixed Effect Regression Model

The method for estimating panel data regression in the Fixed Effect Model uses the technique of adding dummy variables or Least Square Dummy Variables (LSDV). The results of panel data regression with the Fixed Effect Model are presented in the following table.

Table 4.2 Fixed Effect Regression

Cross section fixed effects test equation:

Dependent variable: CSR

Method: Least Squares Panel

Date : 12/29/22 time : 22:59

Sample: 2017 2021

Periods included : 5

Cross-sections included: 45

Total panel (balanced) observations: 225

<i>Variables</i>	<i>Coefficien t</i>	<i>Std. error</i>	<i>t- Statistics</i>	<i>Prob</i>
CSR	-1.21628	0.551368	-2.2059	0.0284
GEN_D	0.13031	0.123912	1.05163	0.2941
B_MEET	0.001559	0.000619	2.51731	0.0126
B_EDU	0.114804	0.034881	3.29134	0.0012
AVG_AGE	0.002815	0.005519	0.51009	0.6105
B_SIZE	0.031125	0.010015	3.10774	0.0021
F_SIZE	0.026937	0.017727	1.51952	0.1301
PROFIT	0.116496	0.184066	0.6329	0.5275
S_GROWTH	0.02727	0.064884	0.42029	0.6747
R-squared	0.609905	Mean dependent var		0.3491 5
Adjusted R- squared	0.580642	SD dependent var		0.3000 5
SE of regression	0.271603	Akaike info criterion		0.2702 3
Sum squared resid	15.93396	Schwarz criterion		0.4068 7
Log likelihood	-21.40079	Hannan-Quinn Criter		0.3253 8
F-statistic	7.173104	Durbin-Waston stat		0.3970 3
Prob (F-statistic)	0			

Source: Eviews Data Processing, 2022

2. Random Regression Model

Dependent variable: CSR

Method: EGLS Panel (Cross-section random effects)

Date : 12/29/22 time : 22:57

Sample: 2017 2021

Periods included : 5

Cross-sections included: 45

Total panel (balanced) observations: 225

Swamy and Arora estimator of component variances

Table 4.3 Random Regression Results

<i>Variables</i>	<i>Coefficie nt</i>	<i>Std. error</i>	<i>t-Statistics</i>	<i>Prob</i>
CSR	- 2.474888	0.852024	-2.904716	0.00 4

GEN_D	0.190926	0.115106	1.658706	0.099
B_MEET	5.99E-05	0.000564	0.106144	0.916
B_EDU	-0.015827	0.032211	-0.491364	0.624
AVG_AGE	-0.000527	0.004475	-0.117875	0.906
B_SIZE	0.007236	0.008657	0.83583	0.404
F_SIZE	0.089253	0.027142	3.288424	0.001
PROFIT	-0.019239	0.121152	-0.158805	0.874
S_GROWTH	0.004039	0.034022	0.11871	0.906
<i>Effects Specification</i>				
			elementary school	Rho
Random cross-section			0.250306	0.798
Idiosyncratic radom			0.125941	0.202
<i>Weighted Statistics</i>				
R-squared	0.074227	Mean dependent var	0.076648	
Adjusted R-Squared	0.03994	SD dependent var	0.131269	
SE of regression	0.128621	Sum squared resid	3.573354	
F-Statistics	2.164833	Durbin-Watson stat	1.466101	
Prob (F-Statistic)	0.031292			
<i>Unweighted Statistics</i>				
R-Squared	0.076189	Mean dependent var	0.349153	
Sum squared resid	18.63063	Durbin-Watson stat	0.281198	

Source: Eviews Data Processing, 2022

3. Common Regression Model

Table 4.4 Common Regression Results

Dependent variable: CSR

Method: Least squares panel
Date : 12/29/22 time : 23:07
Sample: 2017 2021
Periods included : 5
Cross-sections included: 45
Total panel (balanced) observations: 225

<i>Variables</i>	<i>Coefficien t</i>	<i>Std. error</i>	<i>t- Statistics</i>	<i>Prob</i>
CSR	-1.18593	0.554717	-2.137903	0.0337
GEN_D	0.102256	0.126108	0.810779	0.4184
B_MEET	0.001514	0.000623	2.421288	0.0159
B_EDU	0.116892	0.035194	3.321391	0.0011
AVG_AGE	0.002211	0.005574	0.39674	0.692
B_SIZE	0.029917	0.010151	2.947145	0.0036
F_SIZE	0.027119	0.01792	1.513346	0.1317
PROFIT	0.149113	0.187245	0.796353	0.4267
S_GROWTH	0.044507	0.076744	0.579945	0.5626
<i>Effects specification</i>				
Period fixed (dummy variables)				
R-squared	0.219638	Mean dependent var	0.349153	
Adjusted R-squared	0.175467	SD dependent var	0.300053	
SE of regression	0.27246	Akaike info criterion	0.293389	
Sum squared resid	15.73767	Schwarz criterion	0.490764	
Log likelihood	-20.00631	Hannan-Quinn Criter	0.373051	
F-statistic	4.9724	Durbin-Waston stat	0.399869	
Prob (F-statistic)	0			

Source: Eviews Data Processing, 2022

After estimating the regression model, the next step will be to select a suitable regression model between the fixed effect model, random effect model and common effect model. By using the Chow test to determine which model is better. Then it will be compared using the Hausman test with a

random effect model. If it still does not meet the prerequisites explained in chapter 3, a Lagrange Multiplier test will be carried out.

1. Test Chow

The Chow test is used to determine whether the common effect model or fixed effect model will be used. The hypothesis used is as follows:

- a. H0: The CEM model is better than the FEM model.
- b. H1: The FEM model is better than the CEM model.

The rules for making decisions regarding hypotheses are as follows:

- 1. If the cross section fixed effects probability value is < 0.05 , then H0 is rejected and H1 is accepted.
- 2. If the cross section fixed effects probability value is ≥ 0.05 , then H0 is accepted and H1 is rejected. In Table 4.4 below you can see the results based on the Chow test.

Table 4.5 Test results based on the Chow test

Redundant fixed effects test

Equation : Untitled

Cross-section fixed effects test

<i>Effects Test</i>	<i>Statistics</i>	<i>df</i>	<i>Prob</i>
Cross-section F	18.922627	-44,172	0
Chisquare cross-section	397.09032	44	0

Source: Eviews Data Processing, 2022

Based on the Chow test results in table 4.5, it is known that the probability value is 0.000. Because the probability value is < 0.05 , H0 is rejected and H1 is accepted, in other words the estimation model used is FEM.

2. Hausman test

Hausman Test After completing the Chow test with a probability result of $0.0000 \leq 0.05$, the Hausman test is then carried out which aims to determine which model is more appropriate, whether the fixed effect model or the random effect model that will be used in this research in data analysis , with the hypothesis tested as follows:

- a. H0: The REM model is better than the FEM model.
- b. H1: The FEM model is better than the REM model.

The rules for making decisions regarding hypotheses are as follows:

- 1. If the chi square p-value probability value is < 0.05 , then Ho is rejected and H1 is accepted.
- 2. If the chi square p-value probability value is > 0.05 , then Ho is accepted and H1 is rejected.

In table 4.6 below you can see the results based on the Hausman test.

Table 4.6 Test results based on the Hausman test

Correlated Random Effects – Hausman Test

Equation : untitled

Cross-section random effects test

<i>Test Summary</i>	<i>Chi-Sq. Statistics</i>	<i>Chi.Sq.df</i>	<i>Prob.</i>
Random cross-section	17.290867	8	0.0272

Source: Eviews Data Processing, 2022

After carrying out the Hausman test, it can be seen in table 5.10 that it has a probability value of 0.027. Because the probability value is <0.05 , then H_0 is accepted and H_1 is rejected or in other words the estimation model used is FEM.

Based on these results, the chosen one was FEM.

4.1.3 Hypothesis testing

Multiple Linear Regression Analysis functions to measure the influence of more than one independent variable on the dependent variable. In this research, it is used to determine the influence of x and y projected using a regression model based on the following table:

Table 4.7 Regression Analysis of Coefficient Variables

<i>Variables</i>	<i>Coefficient</i>	<i>Std. error</i>	<i>t-Statistics</i>	<i>Prob</i>
CSR	-1.21628	0.551368	-2.205931	0.0284
GEN_D	0.13031	0.123912	1.051633	0.2941
B_MEET	0.001559	0.000619	2.517311	0.0126
B_EDU	0.114804	0.034881	3.291341	0.0012
AVG_AGE	0.002815	0.005519	0.510094	0.6105
B_SIZE	0.031125	0.010015	3.107743	0.0021
F_SIZE	0.026937	0.017727	1.519518	0.1301
PROFIT	0.116496	0.184066	0.632904	0.5275
S_GROWTH	0.02727	0.064884	0.420286	0.6747

Source: Eviews Data Processing, 2022

From the results above, the following equation is obtained.

$$CSR = -1.2116 + 0.1303 GD + 0.0015 BM + 0.1148 BE + 0.0028 AVB$$

4.1.4 Simultaneous Test (F Test)

The simultaneous test will show whether all independent variables entered together or simultaneously will have an influence on the dependent variable. This hypothesis testing is often called overall significance testing for regression which wants to test whether Y is linearly related. Based on the output results, the following results can be concluded:

- $H_0 \geq 0.05$ (rejected) the independent variable has no simultaneous effect on the dependent variable.
- $H_1 \leq 0.05$ (accepted) the independent variables together have an effect on the dependent variable.

Table 4.8 F Test Analysis

<i>R-squared</i>	<i>0.609905</i>	<i>Mean dependent var</i>	<i>0.349153</i>
------------------	-----------------	---------------------------	-----------------

Adjusted R-squared	0.580642	SD dependent var	0.300053
SE of regression	0.271603	Akaike info criterion	0.270229
Sum squared resid	15.93396	Schwarz criterion	0.406873
Log likelihood	-21.40079	Hannan-Quinn Criter	0.406873
F-statistic	7.173104	Durbin-Waston stat	0.397029

Source: Eviews Data Processing, 2022

Based on the test results in table 5.10, it can be seen that the Prob (F-statistic) value is $0.000 < 0.05$, so H_0 is rejected and H_1 is accepted so it can be concluded that the independent variable has an influence on CSR.

4.1.5 Partial Test (t Test)

The partial test or t test is a test used to determine the linear relationship between two or more independent variables and the dependent variable. The partial test (t-test) is used to determine the influence of variable X (independent variable) on DAR (Y) in companies in several countries. The partial test can be concluded based on the following hypothesis:

1. If the probability value is ≥ 0.05 then variable X (independent) has no partial influence on variable Y (dependent) in the sense that it is not significant.
2. If the probability value is ≤ 0.05 then variable X (independent) has a partial effect on variable Y (dependent) in the sense that the independent variable has a significant influence. The following is the t-test output taken from the Random Regression selection

Table 4.9 Partial t test

<i>Variables</i>	<i>Coefficient</i>	<i>Std. error</i>	<i>t-Statistics</i>	<i>Prob</i>
CSR	-1.21628	0.551368	-2.205931	0.0284
GEN_D	0.13031	0.123912	1.051633	0.2941
B_MEET	0.001559	0.000619	2.517311	0.0126
B_EDU	0.114804	0.034881	3.291341	0.0012
AVG_AGE	0.002815	0.005519	0.510094	0.6105
B_SIZE	0.031125	0.010015	3.107743	0.0021
F_SIZE	0.026937	0.017727	1.519518	0.1301
PROFIT	0.116496	0.184066	0.632904	0.5275
S_GROWTH	0.02727	0.064884	0.420286	0.6747

Source: Eviews Data Processing, 2022

Based on the test results in table 5.12 t test it can be said that:

1. The GD variable has a probability value of 0.2941 because > 0.05 can be stated that GD has no effect on CSR and has a positive direction (not significant).
2. The BM variable has a probability value of 0.0126 because it is < 0.05 . It can be stated that BM has an effect on CSR and has a positive direction because the partial t value has a positive sign (significant).

3. The BE variable has a probability value of 0.0126 because it is < 0.05 . It can be stated that BE has an effect on CSR and has a positive direction because the partial t value has a positive sign (significant).
4. The AAB variable has a probability value of 0.615 because > 0.05 can be stated that AAB has no effect on CSR and has a positive direction (not significant).
5. The BS variable has a probability value of 0.0221 because it is < 0.05 . It can be stated that BS has an effect on CSR and has a positive direction because the partial t value has a positive sign (significant).

4.1.6 Coefficient of Determination Test

It is a value (proportion value) that measures how far the ability of the independent variables used in the regression equation is to explain variations in the dependent variable. The coefficient of determination value is between zero and one. A small Adjusted R Square value means that the ability of the independent variables to explain variations in the dependent variable is very limited. A small value of the Adjusted R Square coefficient of determination (close to zero) means that the ability of the independent variables simultaneously to explain variations in the dependent variable is very limited. An Adjusted R Square coefficient of determination value that is close to one means that the independent variables provide almost all the information needed to predict variations in the dependent variable.

Table 4.10 Analysis of Determination Coefficient

<i>R-squared</i>	<i>0.609905</i>	<i>Mean dependent var</i>	<i>0.349153</i>
Adjusted R-squared	0.580642	SD dependent var	0.300053
SE of regression	0.271603	Akaike info criterion	0.270229
Sum squared resid	15.93396	Schwarz criterion	0.406873
Log likelihood	-21.40079	Hannan-Quinn Criter	0.406873
F-statistic	7.173104	Durbin-Waston stat	0.397029

Source: Eviews Data Processing, 2022

Based on Table 4.10, it is known that the R-Squared value is 0.6099. This value can be interpreted to mean that the independent and moderating variables are able to influence the dependent variable simultaneously or together by 60.9%, and the remaining 30.1% is influenced by other factors not explained in this research.

4.1.7 Classic assumption test

The classical assumption is a prerequisite test that must be carried out first before carrying out data analysis. The classical assumption test aims to determine the condition of the data that will be used in the research. The classical assumption test consists of normality, heteroscedasticity, autocorrelation and multicollinearity tests. The following are the results of each classical assumption test in this research.

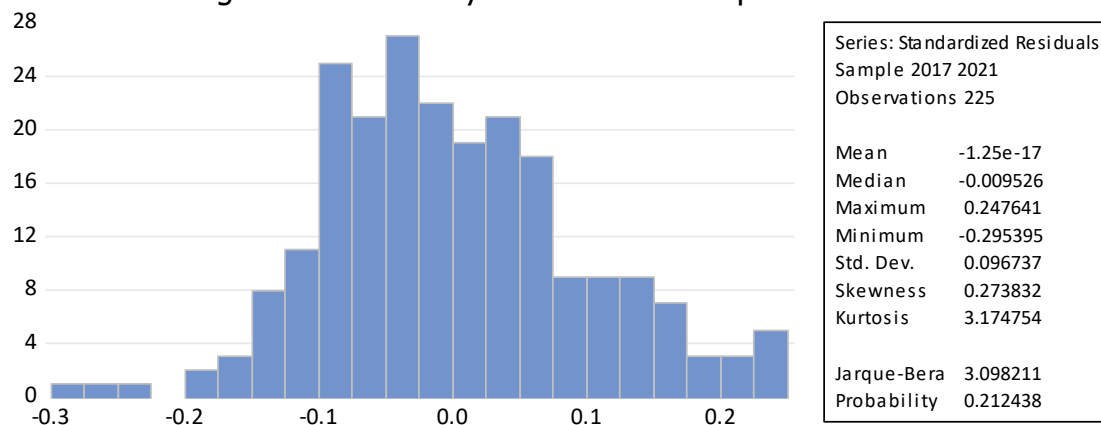
1. Normality test

The normality test is used to test whether in the research regression model the confounding or residual variables have a normal distribution. The normality

test can be carried out using the Kolmogorov-Smirnov test. One of the test requirements that must be met is the population data normality test. A good normality test result is a normal or close to normal distribution. In this study, the normality test for residuals used the JarqueBera (JB) test, with a significance level used in this study of $\alpha = 0.05$. The basis for decision making is to look at the probability figures from JB statistics, with the following conditions:

- a. If the probability value is ≥ 0.05 , then the normality assumption is met.
- b. If the probability value is ≤ 0.05 , then the normality assumption is not met.

Figure 4.1 Normality Test with the Jarque-Bera Test



Based on Figure 4.1, a classical assumption test was carried out and produced data that met the normality test. Based on Figure 5.1, it is known that the value of the Jarque-Bera statistic is 3.0982, while the probability value of 0.212 has a value greater than the significance level, namely 0.05. This means that the normality assumption is met.

2. Multicollinearity Test

The multicollinearity test is a situation that shows the existence of a strong relationship between independent variables in a multiple regression model. According to Ghazali (2016), multicollinearity testing aims to find out whether the regression model found any correlation between independent variables. The effect of this multicollinearity is that it causes high variability in the sample. This means that the standard error is large, as a result, when the coefficient is tested, the t-count will be a smaller value than the t-table. The results of the multicollinearity test are presented in table 4.11 below:

Table 4.11 Muticolinearity Test

	GEN_D	B_MEE T	B_EDU	AVG_A GE	B_SIZE	F_SIZE	PROFI T	S_GRO WTH
GEN_D	1	0.0329 9	0.0786 75	- 25	- 05	- 42	0.1998 81	0.00557 81

B_MEET	0.0329 9	1	0.1413 25	- 0.1717 12	0.2450 92	0.3711 09	- 0.1307 36	0.04254 1
B_EDU	0.0786 75	0.1413 25	1	- 0.2682 3	0.0105 17	0.0048 4	0.1301 57	- 0.03364 3
AVG_AGE	- 0.1927 25	- 0.1717 12	- 0.2682 3	1	- 0.0039 95	0.1890 22	- 0.1211 35	0.03154
B_SIZE	-0. 121705	0.2450 92	0.0105 17	- 0.0039 95	1	0.4974 93	- 0.0202 06	- 0.00749 7
F_SIZE	- 0.0997 42	0.3711 09	- 0.0048 4	0.1890 22	0.4974 93	1	- 0.2180 19	0.07793 7
PROFIT	0.1998 81	- 0.1307 36	0.1301 57	- 0.1211 35	- 0.0202 06	- 0.2180 19	1	0.33176 1
S_GROWTH	0.0057 81	0.0425 41	- 0.0336 43	0.0315 4	- 0.0074 97	0.0779 37	0.3317 61	1

Source: Eviews Data Processing, 2022

Based on table 4.11, it shows that the correlation value for each data is less than 10. Therefore, from the results of the multicollinearity test in Table 4.11, it can be concluded that there are no symptoms of multicollinearity between the independent variables.

2. Heteroscedasticity Test

The heteroscedasticity test aims to determine whether there is inequality of residual variance for all observations in the linear regression model. Testing whether there is heteroscedasticity in this study can be done using the Glejser test. The following are the results of the heteroscedasticity test.

Table 4.12 Glejser method heteroscedasticity test

Test Equations:

Dependent Variable: ARESID

Method: Least squares

Date : 12/29/22 time : 23:16

Sample: 1225

Included observations : 225

<i>Variables</i>	<i>Coefficient</i>	<i>Std. error</i>	<i>t-Statistics</i>	<i>Prob</i>
CSR	0.207641	0.24291	0.854808	0.3936
GEN_D	0.046093	0.054591	0.844336	0.3994
B_MEET	-0.000264	0.000273	-0.966531	0.3339
B_EDU	-0.012854	0.015367	-0.836476	0.4038

AVG_AGE	0.002451	0.002432	1.008001	0.3146
B_SIZE	-0.00515	0.004412	-1.167171	0.2444
F_SIZE	-0.001292	0.00781	-0.165377	0.8688
PROFIT	0.17194	0.081092	2.1203	0.1351
S_GROWTH	-0.037581	0.028585	-1.314712	0.29

Source: Eviews Data Processing, 2022

The results of the heteroscedasticity test in table 4.12 show that the prob value shows ≥ 0.05 , so the assumption of heteroscedasticity does not occur in the residuals.

3. Autocorrelation Test

Autocorrelation Test This autocorrelation test is used to test the classic assumption of regression regarding the presence of autocorrelation. A good regression model is a model that does not contain autocorrelation. The autocorrelation test aims to test whether there is a correlation between residual errors in period t and the previous period $t - 1$ (previous). If there is a problem, it can be called an autocorrelation problem. To find out the assumption regarding the independence of the residuals (non-autocorrelation), it can be tested using the Durbin - Watson test. The statistical value of this test ranges between 0 and 4. If the value of the Durbin Watson test result is smaller than 1 or greater than 3, it is indicated that autocorrelation is occurring.

Table 4.13 Autocorrelation Test with Durbin Watson

<i>R-squared</i>	<i>0.457643</i>	<i>Mean dependent var</i>	<i>3.64E-16</i>
Adjusted R-squared	0.4323	SD dependent var	0.266709
SE of regression	0.200954	Akaike info criterion	-0.323824
Sum squared resid	8.641889	Schwarz criterion	-0.156815
Log likelihood	47.43024	Hannan-Quinn Criter	-0.256419
F-statistic	18.05743	Durbin-Waston stat	1.940831
Prob (F-statistic)	0		

Source: Eviews Data Processing, 2022

Based on table 4.13, the value of the Durbin-Watson statistic shows the number 1.77. Because the Durbin-Watson value is greater than one, namely $1 > 1.940 < 3$, and also has a dU value $< 1.940 < 4-dU$, the model does not experience autocorrelation symptoms.

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