ANALYZING THE DETERMINANTS OF FINANCIAL DISTRESS IN INDONESIAN SHARIA BANKING WITH ISR AS A MODERATING VARIABLE

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Abstract: This study aims at analyzing the determinants of financial distress in Indonesian Islamic banking with ISR as a moderating variable. The data in this study were secondary data obtained from the financial statements of Islamic banks listed on the Indonesia Stock Exchange. This study was conducted to examine several hypotheses. In this study, 11 of the 14 banks listed on the Indonesia Stock Exchange were observed. The selected observation period was from 2016 to 2020 (5 years) using cross-sections and time series methods. The analytical method used to test the hypothesis was data panel regression analysis. The results of this study indicated that a corporate governance score had a negative effect on financial distress. Meanwhile, the board director, board shariah director, and ISR have a positive effect on financial distress.

Keywords: Financial Distress; Corporate Governance Score; Islamic Social Report


Kata Kunci: Kesulitan keuangan; Skor Tata Kelola Perusahaan; Laporan Sosial Islam.
INTRODUCTION

Islamic banking is a sector whose business activities are highly dependent on customer trust. Thus, banks in this sector must maintain performance stability to remain in good and healthy condition. This is because if their performance declines, it will certainly reduce customer confidence. Islamic banks with performance that continues to decline will experience financial difficulties or also called financial distress. Financial distress is a condition in which banks will experience bankruptcy if they do not immediately improve their performance. This may occur because the bank’s finances are in a state of crisis due to a decrease in profits that is not proportional to the total obligations or debts that are due (Marlistiara, 2019).

The concept of how to know a company’s bankruptcy was first put forward by Beaver in 1966, using financial ratios in the five years before the company’s bankruptcy as an instrument of measurement. The concept was refined by Altman 2 years later, namely in 1968. Altman used the z-score method in predicting bankruptcy. The aim is to find out which companies are most indicated to bankrupt and how high the probability of bankruptcy is. In this study, the financial distress of sharia banks is measured by the Altman z-score model. The Altman model is considered appropriate to analyze and predict the bankruptcy of a company. The model can be used for analyzing private and/or government-owned companies, both in the manufacturing and non-manufacturing sectors, in this case, the banking sector, specifically Islamic banks (Marlistiara, 2019).

Based on the 2020 Islamic Financial Development Report, the growth of Indonesian Islamic banking assets for the last 4 years has continued to decline from year to year, except in 2020, in which they increased. In 2016, the growth of Islamic banking assets was 20.28% higher than the growth in 2017 which was 18.97%. Furthermore, in 2018, there was another decline to 12.57%. In 2019, it declined again to 9.93%. However, in 2020, there was an increase of 13.11%. In other words, there has been a decline for 3 years. The growth spurt has just occurred in 2020. After the decline in the growth of Islamic banking assets for 3 consecutive years and an anticipation of the development of Islamic finance, the Indonesian government through the Ministry of State-Owned Enterprises (Indonesian: Kementerian Badan Usaha Milik Negara) conducted a merger of Islamic banks consisting of PT Bank BRI Syariah, PT Bank BNI Syariah, and PT Bank Syariah Mandiri. This was carried out as an effort to utilize and develop Islamic finance which has a very high potential in Indonesia. In addition, this effort
was also to make Indonesia the center of the Islamic economy and finance in the world (Directorate of Regulation and Licensing of Sharia Banking, 2020). This phenomenon (conditions of decline and increase in Islamic banking assets) shows that some Islamic banks experience a decline in performance and some experience an increase in performance. In addition, some of their financial stabilities are experiencing difficulties or financial distress and others are in a healthy financial condition. Therefore, the assets that grow from these banks vary in value depending on their size and performance. The performance of sharia banks cannot be separated from the role of their leadership board (i.e., the board of directors). They are responsible for all banking activities to run well. There is also such a thing as a sharia supervisory board. They are responsible for ensuring that all banking business activities are based on sharia principles and do not experience deviations. For this reason, this study focuses on the factors that influence financial distress in Indonesian Islamic banking (Yuliani & Rahmatiasari, 2021).

Financial distress can be viewed in various conditions, such as declining financial performance, the inability of banks to pay their obligations, cessation of dividend payments, problems with banking cash flows, liquidity difficulties, layoffs of workers, and other conditions that indicate financial distress faced by banking companies. Based on the aforementioned phenomenon, the researchers focus on observing the condition of banking financial distress by considering corporate governance and the size of the board in each of these banks. Several studies that explain the influence of good corporate governance on financial distress are those conducted by Chairunesia (2018), Mulansari & Setiyorini (2019), and Satria (2013). They concluded that good corporate governance affects financial distress. This result is contrary to the findings of Hazami-Ammar (2021) that corporate governance does not affect financial distress. Furthermore, the study that examines the influence of the board of directors proxied by the size of the board of directors on financial distress has been conducted once by Freitas (2019). She found that the board of directors affects the financial distress of Brazilian companies. This is similar to the results of studies conducted by Rahmawati & Khoiruddin (2017) and Hazami-Ammar (2021). However, it is contrary to a study conducted by Yuliani & Rahmatiasari (2021) that the board of directors has a negative and insignificant effect on financial distress. Islamic Social Report (ISR) is a sharia banking instrument to reveal the social responsibilities of sharia banks to society. This report consists of a collection of standard
Corporate Social Responsibility (CSR) items set by AAOIFI (Accounting and Auditing Organizing for Islamic Financial), thereby containing Islamic principles. In measuring the Islamic Social Report (ISR) of Indonesian Islamic banking, researchers conducted indexing in line with the Corporate Social Responsibility (CSR) standards set by AAOIFI (Accounting and Auditing Organizing for Islamic Financial). With the Islamic Social Report (ISR) reporting, investors will be interested in investing and believe that the business entities are carrying out their social responsibilities. Thus, if investors invest, it will increase the value of the company which will also increase the company’s assets, profits, and business performance. Poor management indicated by the ISR index value is the main cause of company failure which in this case is financial distress supported by findings of Fich, E. M. & Slezak (2008). Meanwhile, research conducted by Cahyani (2020) proves that the Islamic Social Report (ISR) does not affect financial distress.

Based on the background that has been described, the novelty of this study is the analysis of the determinants of financial distress in Indonesian Islamic banking with ISR as a moderating variable. In this study, the dependent variable is financial distress which is proxied by the Altman z-score model. Meanwhile, the independent variables are good corporate governance (proxied by the GCG score ranking) and board size (proxied by the size of the board of directors and the sharia supervisory board). Then, the two variables are moderated by Islamic Social Report (ISR). Moreover, the year period examined is from 2016 to 2020.

In linking the size of the company, the board of directors, and the sharia supervisory board to the financial distress of Indonesian sharia banking, the roles of management and bank administrators must be separated. This is because the achievement of bank goals and efforts to minimize all risks that exist in the bank cannot be separated from the performance of the bank’s management. Agency theory is the basic thing used to understand the concept of bank performance from its corporate mechanism. The agent theory can be even broader because this theory is considered to better reflect the existing reality in which banking management must be supervised and controlled to ensure that management is carried out in full compliance with various applicable rules and regulations (Marlistiara, 2019). Jensen & Meckling in Marlistiara (2019) stated that agency theory is a relationship between the agent (management) and the principal (investor). The rights and responsibilities of the agent and the principal are regulated in the work contract upon mutual agreement. Proper planning of employment contracts is made
to align the interests of managers and investors in terms of conflicts of interest which is the core of agency theory. As is well known, the purpose and interest of a bank are to maximize shareholder prosperity. In reality, it is known that many managers of a company have other goals. This is what results in a conflict of interest and the emergence of agent fees. The large agency fees will have an impact on the company’s declining performance and eventually will result in a worsening financial condition. Minimizing agent fees arising from conflicts of interest demands the role of managers in Islamic banking. They are the board of directors. The role of this board is to minimize agent fees. This is highly needed as an effort to save banks from bad conditions, especially financial distress (Marlistiara, 2019).

Financial distress is a condition of financial difficulty of an entity that is experienced for a certain period so that it can result in bankruptcy (Asutay and Othman, 2020), (Sumani, 2019), (Zulpahmi, 2020). The thing that causes financial distress is when an entity experiences a decrease in sales and operating productivity to generate profits. It is added by the condition that the income or results obtained are not proportional to the total obligations or debts that are due (Marlistiara, 2019; Hassan Al-Tamimi, 2012). According to Chairunesia (2018), financial distress can be seen in many ways, such as declining financial performance, the inability of banks to pay their obligations, cessation of dividend payments, problems with banking cash flows, liquidity difficulties, layoffs of workers, and other conditions that indicate financial distress faced by banking companies. In this study, researchers measured the financial distress of a bank using the Altman z-score. It is a calculation model developed by Altman who combines traditional analysis with strict statistics based on discriminant analysis (Marlistiara, 2019). Mathematically, the prediction model of financial distress using the Altman z-score can be formulated as follows (Shahwan, 2020).

\[
Z = 3.25 + 6.56A + 3.26B + 6.72C + 1.05D
\]

Where:

- \( A = (\text{Current Assets} – \text{Current Liabilities}) / \text{Total Assets} \)
- \( B = \text{Retained Earnings} / \text{Total Assets} \)
- \( C = \text{Profit Before Tax} / \text{Total Assets} \)
- \( D = (\text{Number of Shares} \times \text{Price Per Share}) / \text{Total Debt} \)

In the Altman z-score, the potential for bankruptcy can be seen in the Z value. If the Z value is \( \geq 5.85 \), then the company is in the green zone or free from distress. If the value is \( 4.15 \leq Z < 5.85 \), the company is in the yellow zone or at risk of distress.
5.85, then the company is in the gray zone. Furthermore, if the Z value is < 4.15, then the company is in the red zone or the distress zone.

Corporate governance can be defined as a process and structure used by corporate organs (shareholders/capital owners, commissioners/supervisory boards, and directors) to improve business success and corporate accountability to realize shareholder value in the long term while taking into account the interests of other stakeholders based on statutory regulations and ethical values (Sunardi & Holiamati, 2016; Mulansari & Setiyorini, 2019; Udin et al., 2017). There are 6 principles of corporate governance set in the Financial Services Authority Regulation No. 55/POJK.03/2016. The first is transparency. It is intended to maintain objectivity in running the business. This is realized by the company by providing material and relevant information in a way that is easily accessible and understood by stakeholders.

The second is accountability. In this principle, the company must be able to account for its performance transparently and fairly. For this reason, the company must be managed properly, measurably, and following the interests of the company while taking into account the interests of shareholders and other stakeholders. The third is responsibility. In this principle, the company must comply with laws and regulations and carry out responsibilities to the community and the environment so that long-term business continuity can be maintained and be recognized as a good corporate citizen. The fourth is independence. It is intended to expedite the implementation of GCG principles. In this principle, the company must be managed independently so that each company organ does not dominate the other and cannot be intervened by other parties. The fifth is fairness and equality. In carrying out its activities, the company must always pay attention to the interests of shareholders and other stakeholders based on the principles of fairness and equality. The sixth is disclosure. This principle focuses on the presentation of information to stakeholders, both requested and unsolicited, regarding the company’s operational, financial, and business risk performance (OJK, 2016).

The board size in this study is proxied by the number of boards of directors and the number of sharia supervisory boards in Islamic banking entities. The board of directors is a company board that has full duty and authority over the company’s business activities (Putri & Latrini, 2018). Meanwhile, the sharia supervisory board is fully responsible for the management of sharia commercial banks based on prudential and sharia principles. In addition, in managing sharia commercial banks, this sharia supervisory board must fully carry out its
authorities and responsibilities as stipulated in the Articles of Association of the Sharia Commercial Banks and the prevailing laws and regulations (Bank Indonesia, 2009). The sharia supervisory board is a corporate board that must be formed in a sharia entity that supervises and provides advice to the entity on all its business activities based on sharia principles. This board has the duties and responsibilities of fulfilling sharia standards in all business activities of the entity (Bank Indonesia, 2009).

Theoretical studies that discuss ethical values in the view of Islam use a stable foundation that is not affected by changing times and other views. Islam is considered a religion that ensures its adherents uphold humanity and social responsibility. Islamic social reporting is a medium to inform the social responsibility that has been implemented by sharia entities. These indices emerged and were expanded based on the AAOIFI reporting criteria while being further expanded by several studies (Milenia & Syafei, 2021; Nugraheni & Khasanah, 2019). Islamic social report (ISR) is a sharia banking instrument to reveal the social responsibilities of sharia banks to society. This report consists of a collection of standard Corporate Social Responsibility (CSR) items set by AAOIFI (Accounting and Auditing Organizing for Islamic Financial), thereby containing Islamic principles. In measuring the Islamic Social Report (ISR) of Indonesian Islamic banking, researchers conducted indexing in line with the Corporate Social Responsibility (CSR) standards set by AAOIFI (Accounting and Auditing Organizing for Islamic Financial). With the Islamic Social Report (ISR), investors will be interested in investing and believe that the business entities are carrying out their social responsibilities. Thus, if investors invest, it will increase the value of the company which will also increase the company’s assets, profits, and business performance (Sulistiyo et al., 2019).

METHOD

The design of this study aims at providing empirical evidence of the effect of good corporate governance (X1), size of the board of directors (X2), and size of the sharia supervisory board (X3) with Islamic social reporting (Z) as a moderating variable on financial distress (Y). This study was conducted to test several hypotheses using a multiple linear regression model to find out the effects of the variables examined. In addition, the data in this study were secondary data in the form of quantitative data. Multiple regression analysis was used to examine the relationship between the independent and dependent variables. The data sources in this study were the annual reports of companies in the Islamic banking sector for the period 2016-2020.
The employed data collection technique was the documentation method by collecting and storing data obtained from existing sources. These data were secondary data in the form of annual and audited financial reports, GCG reports, and social performance reports published by Islamic banks on the stock exchange websites and respective bank’s websites. The population in this study was Indonesian Islamic banks in the form of Islamic commercial banks, totaling 14 banks. In this study, the researchers also used the purposive sampling method in determining the sample. The sample criteria in this study were: (1) sharia banks listed on the stock exchange, and (2) banks that have complete financial data, GCG reports, and social performance reports for 2016-2020 which were required for the measurement of all variables.

<table>
<thead>
<tr>
<th>No</th>
<th>Criteria</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Islamic banks listed on the Stock Exchange for 2016-2020</td>
<td>14</td>
</tr>
<tr>
<td>2.</td>
<td>Islamic banks that do not publish their annual reports consistently and provide incomplete data</td>
<td>(3)</td>
</tr>
</tbody>
</table>

Number of Islamic banks that meet the requirements 11

Source: Processed by researchers, 2021

**Dependent Variable**

The dependent variable in this study is financial distress (Y) which is measured using the Altman z-score. Mathematically, the prediction model of financial difficulties using the Altman z-score can be formulated as follows (Shahwan, 2020).

\[
\text{Financial Distress (Y) } = 3.25 + 6.56A + 3.26B + 6.72C + 1.05D
\]

Where:

A = \((\text{Current Assets} - \text{Current Liabilities}) / \text{Total Assets}\)

B = \(\text{Retained Earnings} / \text{Total Assets}\)

C = \(\text{Profit Before Tax} / \text{Total Assets}\)

D = \((\text{Number of Shares} \times \text{Price Per Share}) / \text{Total Debt}\)

In the Altman z-score, the potential for bankruptcy can be seen in the Y value. If the Y value is \(\geq 5.85\), then the company is in the green zone or free from distress. If the value is \(4.15 \leq Y < 5.85\), then the company is in the gray zone. Furthermore, if the Y value is \(Y < 4.15\), then the company is in the red zone or the distress zone.

**Independent Variables**
Corporate Governance Perception Index (X1)

The Corporate Governance Perception Index (CGPI) is the first independent variable (X1) in this study. This variable is measured using the GCG implementation score published by the Indonesia Stock Exchange and the sharia banks’ annual GCG report with an assessment and ranking system based on the Corporate Governance Perception Index.

**Table 2 Corporate Governance Perception Index (CGPI)**

<table>
<thead>
<tr>
<th>Score 1</th>
<th>Highly Trusted</th>
<th>85 – 100</th>
</tr>
</thead>
<tbody>
<tr>
<td>Score 2</td>
<td>Trusted</td>
<td>70 – 84</td>
</tr>
<tr>
<td>Score 3</td>
<td>Sufficiently Trusted</td>
<td>55 – 69</td>
</tr>
<tr>
<td>Score 4</td>
<td>Less Trusted</td>
<td>40 – 54</td>
</tr>
<tr>
<td>Score 5</td>
<td>Untrusted</td>
<td>25 – 39</td>
</tr>
</tbody>
</table>

Source: The Indonesian Institute for Corporate Governance (IICG)

Size of Board of Directors (X2)

The board of directors is a company board that has full duty and authority over the company’s business activities. This board is fully responsible for the management of sharia commercial banks based on prudential and sharia principles. In addition, in managing sharia commercial banks, this board must fully carry out their authorities and responsibilities as stipulated in the Articles of Association of the Sharia Commercial Banks and the prevailing laws and regulations (Bank Indonesia, 2009). The size of the board of directors is systematically measured using the following formula.

\[
\text{Size of Board of Directors} = \sum \text{members of the board of directors in period } t
\]

Size of Sharia Supervisory Board (X3)

If the board of directors is a company board that has full duty and authority over the company's business activities, the sharia supervisory board is a corporate board that must be formed in a sharia entity that supervises and provides advice to the entity on all its business activities based on sharia principles. In other words, the sharia supervisory board has the duties and responsibilities of fulfilling sharia standards in all business activities of the entity (Bank Indonesia, 2009). Systematically, the size of the sharia supervisory board is measured using the following formula.

\[
\text{Size of Sharia Supervisory Board} = \sum \text{members of the sharia supervisory board in period } t
\]
Islamic Social Report (ISR) is a sharia banking instrument to reveal the social responsibilities of sharia banks to society. This report consists of a collection of standard Corporate Social Responsibility (CSR) items set by AAOIFI (Accounting and Auditing Organizing for Islamic Financial), thereby containing Islamic principles (Sulistio et al., 2019). Systematically, the ISR is measured using the following formula.

\[
\text{ISR INDEX} = \frac{\text{Total Score Gained}}{\text{Maximum Score}} \times 100\%
\]

Table 3 Indicators of Research Variables

<table>
<thead>
<tr>
<th>No</th>
<th>Variables</th>
<th>Indicators</th>
<th>Scale</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Financial Distress (Y)</td>
<td>Financial Distress (Y) = 3.25 + 6.56A + 3.26B + 6.72C + 1.05D</td>
<td>Ratio</td>
</tr>
<tr>
<td>2</td>
<td>Corporate Governance Perception Index (X₁)</td>
<td><strong>Score 1</strong> Highly Trusted 85-100</td>
<td>Ratio</td>
</tr>
<tr>
<td></td>
<td></td>
<td><strong>Score 2</strong> Trusted 70-84</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td><strong>Score 3</strong> Sufficiency Trusted 55-69</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td><strong>Score 4</strong> Less Trusted 40-54</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td><strong>Score 5</strong> Untrusted 25-39</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Size of Board of Directors (X₂)</td>
<td>Size of Board of Directors = ( \sum ) members of the board of directors in period ( t )</td>
<td>Nominal</td>
</tr>
<tr>
<td>4</td>
<td>Size of Sharia Supervisory Board (X₃)</td>
<td>Size of Sharia Supervisory Board = ( \sum ) members of the sharia supervisory board in period ( t )</td>
<td>Nominal</td>
</tr>
</tbody>
</table>
| 5  | ISR (Z) | \[
\text{ISR INDEX} = \frac{\text{Total Score Gained}}{\text{Maximum Score}} \times 100\% 
\]

Source: Processed by researchers, 2021

Descriptive statistical tests were employed to determine the mean, maximum, minimum, and standard deviation. By using descriptive statistics, the data can be presented concisely. Therefore, the information from the data becomes clear. Furthermore, the data processed can be in the form of qualitative and quantitative data (Ghozali, 2018).

The classical assumption test aims at finding out whether the estimator in the regression is a linear estimator that cannot be regressed. To obtain the most appropriate parameter to use,
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the regression parameter was searched with ordinary least square (OLS). The ordinary least square (OLS) method can be used as an estimation tool. However, it cannot be used if the variable meets Best Linear Unbiased Estimates (BLUE) requirements. Therefore, it is necessary to test the classical assumptions on the formulated model, which includes tests for normality, multicollinearity, heteroscedasticity, and autocorrelation.

Data panel regression analysis is a statistical technique that can be used to combine cross-section data and time-series data, in which the same cross-section unit is measured at different times. Moreover, the data panel regression variables in this study are the corporate governance perception index (X1), size of the board of directors (X2), and size of the sharia supervisory board (X3) on financial distress (Y) moderated by ISR (Z).

\[ y = b_1 + a_0 + b_1 \text{Skor GCG}_{1t} + b_2 \text{UKDIR}_{2t} + b_3 \text{UKDPS}_{3t} + b_4 \text{ISR}_{4t} + e \]

Where:
\( y \) = Financial distress
\( b_i \) = Different individual effects for each \( i \)-th individual
\( a_0 \) = Constant of the regression equation
\( b_1 \) = The regression coefficient of the GCG score
\( b_2 \) = The regression coefficient of the size of the board of directors
\( b_3 \) = The regression coefficient of the size of the sharia supervisory board
\( b_4 \) = The regression coefficient of ISR
\( t \) = Period
\( i \) = Banks
\( e \) = Error

According to Ekananda (2016), the regression model estimation method using panel data can be carried out through three approaches, namely as follows.

1. Common Effect Model (CEM) or Pooled Least Square (PLS)

This is the simplest panel data model approach because it only combines time series and cross-section data. This model does not pay attention to the dimensions of time and individuals. For this reason, it is assumed that the behavior of the company’s data is the same in various periods of time. This method can use the Ordinary Least Square (OLS) approach or the small squares technique to estimate the panel data model. For the panel data model, it is often assumed as \( \beta_{it} = \beta \), meaning that the effect of changes in \( X \) is assumed to
be constant in the cross-section category. In general, the form of linear models that can be used to model panel data is as follows.

\[ Y_{it} = X_{it} \beta + e_{it} \]

Where:

- \( Y_{it} \) is the observation of the \( i \)-th unit and is observed in the \( t \)-th period (i.e., the dependent variable which is a panel data);
- \( X_{it} \) is the independent variable of the \( i \)-th unit and is observed in the \( t \)-th period (it is assumed that \( X_{it} \) contains a constant variable);
- \( e_{it} \) is the error component which is assumed to have a mean value of 0 and the homogeneous variance in time and is independent of \( X_{it} \).

2. Fixed Effect Model (FEM)

This model assumes that differences between individuals can be accommodated from differences in intercepts. A fixed-effect model is a technique for estimating panel data using dummy variables to capture differences in intercepts. Concerning intercepts between companies, differences in intercepts can occur due to differences in work culture, management, and incentives. In addition, this model also assumes that the regression coefficient is fixed between firm and time. This approach with dummy variables is known as least square dummy variables (LSDV). The fixed-effect model equation can be formulated as follows.

\[ Y_{it} = X_{it} \beta + C_i + ... + e_{it} \]

Where:

- \( C_i \) = Dummy variable

3. Random Effect Model (REM)

This model estimates panel data, in which the disturbance variables may be interrelated over time and between individuals. In the random effect model (REM), the differences in intercepts are accommodated by the error terms of each company. The advantage of using the REM is that it eliminates heteroscedasticity. This model is also called the Generalized Least Square (GLS) technique.

To analyze panel data, it is necessary to test the right model specifications to describe the data. According to Ekananda (2016), the tests are as follows.

1. Model Specification Test Using the Chow Test
The Chow test is used to choose whether to use the fixed effects model or the general effects model.

Ha0 : Common Effect Model
Ha1 : Fixed Effect Model

If the results of this specification test show a chi-square probability of more than 0.05, the model chosen is the common effect. On the other hand, if the chi-square probability is less than 0.05, the model that should be used is the fixed effect. When the selected model is the fixed effect, it is necessary to do another test, namely the Hausman test to find out whether it is better to use the fixed-effect model (FEM) or the random effect model (REM). Apart from that, when the selected model is the common effect, it is necessary to do the Lagrange Multiplier test. The test is carried out to determine the best method whether to use the common effect model (CEM) or the random effect model (REM) (Ekananda, 2016).

2. Model Specification Test Using the Hausman Test

This test aims at determining which model should be used either the fixed-effect model (FEM) or the random effect model (REM). In FEM, each object has a different intercept. However, the intercept of each object does not change over time. This is called time-invariant. Meanwhile, in REM, the intercept (shared) represents the average value of all intercepts (cross-section) and the component represents the deviation (random) from individual intercepts to the average value (Gujarati, 2013). The hypotheses in the Hausmann test are as follows (Ekananda, 2016).

Ha0 : Random Effect Model
Ha1 : Fixed Effect Model

If the results of this specification test show a chi-square probability of more than 0.05, the model chosen is the random effect model (REM). On the other hand, if the chi-square probability is less than 0.05, the model that should be used is the fixed effect model (FEM).

3. Model Specification Test Using the Lagrange Multiplier Test

This test aims to choose between the random effect model (REM) or the common effect model (CEM) as the most appropriate model to use. This significance test was developed by Breusch Pagan. The Breusch Pagan method for this significance test is based on the residual value of the OLS method. The hypotheses in the Lagrange Multiplier Test are as follows.
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Hypothesis Testing:

- Ha0: Common Effect Model
- Ha1: Random Effect Model

If the obtained p-value is less than 0.05, then H1 is accepted, meaning that the best estimation method is the random effect model (REM). Conversely, if the p-value is greater than 0.05, then H0 is accepted, meaning that the best estimation method is the common effect model (CEM) (Ekananda, 2016).

The coefficient of determination test aims to find out to what extent the effect of the independent variable on the dependent variable. The value of adjusted R² ranges from greater than 0 to less than 1. If the value obtained is closer to 0, this indicates that the ability of the independent variable as a whole in explaining the dependent variable is very limited. Furthermore, if the value of the coefficient of determination is equal to the value of 1, this indicates that the independent variable has a perfect effect on the dependent variable (Ghozali, 2018).

The F test is comprehensive or is called a simultaneous test. According to Ghozali (2018), the F test examines whether all independent variables included in the model have a simultaneous effect on the dependent variable. In this test, the significance level is set at 0.05 (α = 5%). According to Sugiyono (2018), the F-test formula is as follows.

1. If the significance value is ≥ 0.05 and the F count is ≤ F table, then H0 is accepted or H1 is rejected. This means that the independent variables simultaneously do not affect the dependent variable.
2. If the significance value is < 0.05 and the F count is > F table, then H0 is rejected or H1 is accepted. This means that the independent variables simultaneously affect the dependent variable.

The T-test is conducted to determine the effect of each independent variable on the dependent variable. In this test, the significance level is set at 0.05 (α = 5%) (Ghozali, 2018).

1. If the significance value is ≥ 0.05 and obtaining \(-t\) table ≤ \(t\) count ≤ \(t\) table, then the independent variable partially does not affect the dependent variable. Therefore, it can be concluded that H0 is accepted and H1 is rejected.
2. If the significance value is < 0.05 and obtaining \(t\) count > \(t\) table or \(t\) count < \(-t\) table, then the independent variable partially has a significant effect on the dependent variable. Therefore, it can be concluded that H1 is accepted and H0 is rejected.
RESULTS

Coefficient of Determination Test (Adjusted R2)

The coefficient of determination test aims to find out to what extent the effect of the independent variable on the dependent variable. The result of the coefficient of determination test can be seen through the value of adjusted R2. Based on the table above, it can be seen that the coefficient of determination (adjusted R2) is 0.88 or 88%. This means that the variable of financial distress can be explained 88% by the variables of GCG score, the size of the board of directors, and the size of the sharia supervisory board moderated by ISR. Meanwhile, the remaining 12% is explained by other factors not examined in this study.

Simultaneous Test (F Test)

The F test is comprehensive or is called a simultaneous test. According to Ghozali (2018), the F test examines whether all independent variables included in the model have a simultaneous effect on the dependent variable. In this test, the significance level is set at 0.05 ($\alpha = 5\%$). The table above shows that the F-probability value is 0.00007 (< 0.05), which means that all independent variables simultaneously or jointly have a significant effect on the dependent variable, namely financial distress.

Partial Test (T-Test)

The T-test is conducted to determine the effect of each independent variable on the dependent variable. In this test, the significance level is set at 0.05 ($\alpha = 5\%$) (Ghozali, 2018). The obtained coefficient values are -0.182179 for the GCG score, 0.115838 for the size of the board of directors, -0.085875 for the size of the sharia supervisory board, and -2.578514 for the ISR. The regression equation can be seen in the following.

$$FD = b_i + 20.09 - 0.1822 \text{ Skor GCG} + 0.1158 \text{ UKDIR} + 0.0859 \text{ UKDPS} - 2.578 \text{ ISR} + e$$

The regression equation above indicates as follows.

1. The constant value is 20.09. This means that if there is no increase in the overall independent variable or the proportion of the independent variable is 0, then the financial distress value will be equal to a constant, namely 20.09.

2. The value of $b_1$ is 0.1822. In addition, the value of the regression coefficient on the variable of GCG score is negative. Therefore, every one-unit increase in financial distress will increase the GCG score by 0.1822.
3. The value of $\beta_2$ is 0.1158. In addition, the value of the regression coefficient on the variable of the size of the board of directors is positive. Therefore, every one-unit increase in financial distress will increase the size of the board of directors by 0.1158.

4. The value of $\beta_3$ is 0.0859. In addition, the value of the regression coefficient on the variable of the size of the sharia supervisory board is positive. Therefore, every one-unit increase in financial distress will increase the size of the sharia supervisory board by 0.0859.

5. The value of $\beta_4$ is 2.578. In addition, the value of the regression coefficient on the variable of ISR is negative. Therefore, every one-unit increase in financial distress will decrease the ISR by 2.578.

**Good corporate governance has a negative effect on financial distress**

In this study, the first hypothesis states that the GCG score has a positive effect on financial distress. After partial testing, shows that the negative coefficient value is 0.1822 and the probability value is 0.0452. When compared with an alpha of 0.05 or 5%, the probability value is smaller than the alpha value ($0.0452 < 0.05$). This indicates that the GCG score has a significant negative effect. Therefore, $H_{a1}$ is accepted. In this case, it means that good governance will prevent an Islamic bank from being in distress. The same thing is shown by the mean value in descriptive statistics. The mean value for good governance is 2. In addition, this finding is also in line with what was found by Chairunesia (2018), Mulansari & Setiyorini (2019), and Satria (2013) that good corporate governance has an effect on financial distress.

**Board size has a negative effect on financial distress**

In this study, the second hypothesis states that board size has a positive effect on financial distress. After partial testing, shows that the positive coefficient value for the size of the board of directors is 0.1158 and the probability value is 0.0003. When compared with an alpha of 0.05 or 5%, the probability value is smaller than the alpha value ($0.0003 < 0.05$). In addition, the value of the size of the sharia supervisory board indicates a negative coefficient value of 0.085 with a probability value of 0.0038. When compared with an alpha of 0.05 or 5%, the probability value is smaller than the alpha value ($0.0038 < 0.05$). This indicates that the board size has a significant positive effect. Therefore, $H_{a2}$ is rejected. Based on descriptive statistics, the condition of banks that become samples in this study are not in a state of distress. For this reason, a high board size indicates that banks are getting healthier and avoiding financial
conditions. This is certainly different from the study conducted by Freitas (2019) that the board of directors has a negative effect on financial distress in Brazilian companies. Freitas’s finding is similar to the results of studies conducted by Rahmawati & Khoiruddin (2017), Hazami-Ammar (2021), and Yuliani & Rahmatiasari (2021) that the board size has a negative and insignificant effect on financial distress.

**Islamic social reporting can moderate the relationship between good corporate governance and financial distress**

In this study, the third hypothesis states that ISR can moderate the relationship between good corporate governance and financial distress. The result shows that the probability value is 0.0031. When compared with an alpha of 0.05 or 5%, the probability value is smaller than the alpha value (0.0031 < 0.05). This indicates that the variable of Islamic social reporting (ISR) interacts with good corporate governance (independent variable) and financial distress (dependent variable). Therefore, Islamic social reporting (ISR) serves as a quasi-moderator variable, and H3 is accepted.

**Islamic social reporting can moderate the relationship between board size and financial distress**

In this study, the fourth hypothesis states that ISR can moderate the relationship between board size and financial distress. The result shows that the probability values are 0.0034 for the size of the board of directors and 0.0027 for the size of the sharia supervisory board. When compared with an alpha of 0.05 or 5%, the probability value is smaller than the alpha value. This indicates that the variable of Islamic social reporting (ISR) can moderate the board size (independent variable) (proxied by the size of the board of directors and the sharia supervisory board) and financial distress (the dependent variable). Therefore, Islamic social reporting (ISR) may serve as a quasi-moderator variable, and H3 is accepted. This is in line with a study conducted by Milenia & Syafei (2021) that the size of the board of directors and the sharia supervisory board has a significant positive effect on ISR disclosure.

**CONCLUSION**

The conclusion of this study is that good corporate governance as proxied by the GCG score has a significant negative effect on financial distress, which means that good governance will avoid the distress condition of an Islamic bank. The same thing is shown by the mean value in descriptive statistics. The mean value for good governance is 2. This finding is also in line with
what was found by Chairunesia (2018), Mulansari & Setiyorini (2019), and Satria (2013) that good corporate governance has an effect on financial distress. Furthermore, the variable of board size proxied by the size of the board of directors and the sharia supervisory board has a significant positive effect on financial distress which is proxied by the Altman z-score. This is certainly different from the study conducted by Freitas (2019) that the board of directors has a negative effect on financial distress in Brazilian companies. Freitas’s finding is similar to the results of studies conducted by Rahmawati & Khoiruddin (2017), Hazami-Ammar (2021), and Yuliani & Rahmatiasari (2021) that the board size has a negative and insignificant effect on financial distress. Furthermore, the variable of Islamic social reporting (ISR) can interact with good corporate governance & board size (independent variable) and financial distress (dependent variable). Therefore, Islamic social reporting (ISR) can serve as a quasi-moderator variable or can moderate the independent variable towards the dependent variable.

REFERENCES


