Effect of Capital Structure on Financial Sustainability of Sharia Public Financing Bank (BPRS)

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ABSTRACT
The study aims to see the direct effect of capital structure on the financial sustainability of a BPRS. The second objective is to see the indirect effect of capital structure on financial sustainability with the value of profitability as a mediating variable. The population in this study were all BPRS that uploaded their financial reports through the OJK website. The results showed that the capital structure had a direct and indirect effect on the financial sustainability of a BPRS. The higher the level of capital structure, the higher the profitability, and it supports the achievement of BPRS financial sustainability.

Keywords: Financial sustainability, Logistic Regression, Profitability, Capital, Financial Self-Sufficiency, BPRS
A. INTRODUCTION

The economic development at the end of the first quarter of 2020 was a surprising moment for the Indonesian economy (Sumadi, 2020). This condition is also supported by statements from the International Monetary Fund and the World Bank, which predict that by the end of the first quarter of 2020, the global economy will enter a recession with a considerable correction (Liu et al., 2020). Global economic growth could decline to negative 2.8% or down to 6% from global economic growth in the previous period. The two institutions had previously projected that the global economy at the end of the first quarter of 2020 would grow at a percentage growth of 3% (Carrillo-Larco & Castillo-Cara, 2020).

Indonesia, a developing country, constantly carries out various economic activities to continuously support the sustainability of national development (Oktarina & Asnaini, 2020; Siagian et al., 2020). One element in development that has a strategic role is banking (Oktarina & Asnaini, 2020). This weakening economic performance impacts the current condition of banking in Indonesia. This condition is of course, also experienced by Islamic People's Financing Banks (BPRS) as part of Indonesian banking.

Pradipta (2021) stated that at the age of 28, the development of BPRS had not experienced a significant increase. This condition is supported by the fact that BPRS is still vulnerable to bankruptcy (Maulana, 2017; Mustafa & Musari, 2019). The assumption that Islamic banks are more shock-resistant, let alone able to brave the storm of the financial crisis, is in stark contrast to the (Jan et al., 2019). Observations show that in 2015-2016 4 BPRS had been liquidated. Meanwhile, in 2019, 4 BPRS are being liquidated by the Deposit Insurance Corporation (LPS) (Pradipta, 2021). The financial sustainability of Microfinance Institutions (MFIs) such as BPRS is necessary for the sustainability of an institution (Sumadi, 2020). The sustainability of the BPRS can be maintained by maintaining the sustainability of operational finances continuously (Marwa & Aziakpono, 2015; Nasfi et al., 2019; Thapa, 2006).

Financial sustainability is an important factor for a microfinance institution's sustainability and future going concern capability (Hollis & Sweetman, 1998; S. Wahyuni & Fakhruddin, 2014). The main objective of the entity is to maximize the prosperity of the entity and, at the same time, ensure the company's financial sustainability (Keay, 2008). Parmar et al. (2010) stated that the company's main goal is to provide sustainable value for the common interest of all stakeholders or stakeholders. Consequently, to foster corporate sustainability with adopting a long-term perspective (Bénabou & Tirole, 2009). Companies should set financial goals and try to reduce the overall risk.

Dehejia et al. (2012) emphasized the importance of financial sustainability for microfinance institutions. So far, Microfinance Institutions have experienced a lack of capital, which has prevented the Institution from meeting the massive demand while funding is inelastic (Bogan, 2012). Dehejia et al. (2012) require Microfinance Institutions to expand their funding sources. Microfinance Institutions have been transformed into formal, independent institutions and operate as profit-oriented institutions Christen & Drake, (2002); Khanam et al. (2018) and directing Microfinance Institutions to utilize market-based funding (Frank, 2008; Rahman & Mazlan, 2014). This leads to a more complex transformation of the microfinance institution's capital structure.

Bogan (2012); Cantino, Valter Devalle & Fiandrino (2017); Hidayat et al., (2019); Oktaviana & Miranti, (2020) found that capital structure has a positive effect on financial sustainability in microfinance institutions. It means that the composition of the capital structure has a positive impact on the company's financial sustainability. Research Fauziah et al. (2020) shows that Islamic bank managers in Indonesia prefer a capital structure sourced from internal funds to obtain company sustainability in the future.

In contrast, Chung et al. (2013) show that the capital structure policy has a small role in the company's sustainability. The relationship between capital structure and profitability cannot be
ignored because the company's survival depends on increasing the company's profitability in the long term. At the company level, capital structure decisions impact company profitability, growth, and viability (Nasimi, 2016). The survival and sustainability of a company is highly dependent on profitability (Bodhanwala & Bodhanwala, 2018; Umobong & FCA, 2015). However, Oktaviana & Miranti (2020) found that profitability has no significant effect on the financial sustainability of Islamic microfinance institutions or BPRS. Several studies have equated financial sustainability with current and future natural profitability and measured it with long-term profitability ratios such as returns on assets (Chari et al., 2012; Karaca & Eksi, 2011; Uchenna et al., 2017; Umobong & FCA, 2015). Therefore, researchers make profitability as an intervening variable in the effect of capital structure on financial sustainability.

Uchenna et al. (2017) also state that profitability and capital structure are good predictors that can help categorize Islamic banks. Therefore researchers include capital structure and profitability to predict their role in corporate sustainability. Previous studies have reported mixed and contradictory results; there are contradictory empirical findings on the relationship between capital structure and financial sustainability and profitability with financial sustainability. For this reason, the researcher re-examines the role of BPRS capital structure in Indonesia on financial sustainability with profitability as an intervening variable.

**B. LITERATURE REVIEW**

Hartarska (2005) also defines microfinance as providing small-scale financial services to low-income people. Microfinance is an effective tool for fighting poverty by providing financial assistance to those who have no access to or are neglected by commercial banks and other financial institutions (Dokulilová et al., 2009). However, for sustainable poverty alleviation, the MFI itself must be sustainable because it is not sustainable MFI will not help the poor in the future because MFIs will disappear (Schreiner, 2000). The definition of sustainability has been given various interpretations. Recently, however, scholars and experts have come together to identify two levels of sustainability from the initial three or four—operational self-sufficiency (OSS) and financial independence (SKJ) (Van Khanh et al., 2020).

Sustainability is a broad concept that focuses on the capacity or ability of a company or institution to continue to operate continuously (Spodick, 2016). (Vinodh et al., 2014) states that sustainability includes many things such as impact sustainability, environmental sustainability legal policies, market sustainability, mission sustainability, sustainability programs, institutional sustainability, financial sustainability, and human resource sustainability. Thapa (2006) explains that sustainability can also be categorized as organizational, managerial, and financial. According to Marwa & Aziakpono (2015), financial sustainability or short-term financial sustainability can indirectly affect long-term financial sustainability. Marwa & Aziakpono (2015); Yazdanfar (2013). Multiple period logit regression has previously been used by Prastyo et al. (2017) for survival analysis of manufacturing companies listed on the Indonesia Stock Exchange. Some of the theories that discuss capital structure include Modigliani-Miller (MM) I, II & III Propositions: The first theory about the capital structure was proposed by MM in 1958. Their first proposition assumes a fully efficient market state that the value of the firm does not depend on Its capital structure. The company's value depends on its previous income, interest, and taxes in relation to the company's business risk. Agency Cost Theory: The concept of agency costs was first introduced by Ross (1973) and Mitnick (1973) but based on the work of Jensen and Meckling (1976), it focuses on conflicts of interest between firm managers and equity and external debt holders.

The company's profitability ratio benchmark can be seen from the amount of return received by the company based on the calculation of Return on Assets (ROA) or Return on Investment (ROI). The higher the ROA value owned by the company, it indicates that the company has an effective and efficient performance in the use of assets owned by the company so that it is able
to generate a high level of profit (Wahyuni, 2018). In another study, Khediri et al. (2015); Sholikah & Miranti (2020) state that ROA has a significant effect on banking financial sustainability. Based on this, it can be seen that there is an indirect effect given by ROA on capital structure and financial sustainability. Return on Assets (ROA) is the return on investment or better known as Return On Investment (ROI) or Return On Total Assets, which is a ratio that shows the return on investment. (return) on the total assets used in the company.

### C. METHOD

This research is quantitative research, where the results and conclusions of the research are obtained from statistical analysis, hypothesis testing, and structure Hamdi & Bahruddin, 2014). The population used in this study were all BPRS in Indonesia. The sampling technique used is purposive sampling (Silalahi et al., 2020) provided that the BPRS uploads its financial statements on the OJK website. Table 1 shows the research variables.

This analysis of mediating variables can measure the extent to which the role of mediating variables in seeing the direct and indirect effects of predictor variables on the response variable (Baron & Kenny (1986), Lacobuci (2012), James & Breet (1984). However, it should be noted that the response variable in this study is categorical. Thus, in this study, a logistic regression analysis is needed. Research conducted by Rijnhart et al. (2019) states that the analysis of mediating variables involving categorical data response variables can be carried out using logistic regression analysis and mediating variables. This research is also supported by (Iacobucci, 2012; Steen et al., 2017). The formation of the research model formed in the equation (1), (2), and (3).

<table>
<thead>
<tr>
<th>Variable</th>
<th>Formula</th>
</tr>
</thead>
<tbody>
<tr>
<td>Y (FSS)</td>
<td>( \frac{\text{Total Revenue}}{\text{Total expenses} + \text{Loans loss}} )</td>
</tr>
<tr>
<td></td>
<td>1: BPRS sustain</td>
</tr>
<tr>
<td></td>
<td>0: BPRS unsustain</td>
</tr>
<tr>
<td></td>
<td>** if the FSS &gt;= 100% sustain dan &lt;100% unsustain. (Bayai &amp; Ikhide, 2016)</td>
</tr>
<tr>
<td>X1 (ER) Equity Ratio</td>
<td>( \frac{\text{Total Equity}}{\text{Total Asset}} )</td>
</tr>
<tr>
<td>X2 (EM) Equity Multiplier</td>
<td>( \frac{\text{Shareholder Equity}}{\text{Total Asset}} )</td>
</tr>
<tr>
<td>X3 Debt Ratio (DR)</td>
<td>( \frac{\text{Total Liabilities}}{\text{Total Asset}} )</td>
</tr>
<tr>
<td>X4 Debt to Equity Ratio (DER)</td>
<td>( \frac{\text{Total Liabilities}}{\text{Total Equity}} )</td>
</tr>
<tr>
<td>M Return on Asset (ROA)</td>
<td>( \frac{\text{Net income}}{\text{Total Asset}} )</td>
</tr>
</tbody>
</table>

\[ FSS = \alpha + \beta_1 \text{ER} + \beta_2 \text{EM} + \beta_3 \text{DR} + \beta_4 \text{DER} \quad (1) \]

\[ \text{ROA} = \alpha_1 + \beta_1 \text{ER} + \beta_2 \text{EM} + \beta_3 \text{DR} + \beta_4 \text{DER} \quad (2) \]

Table 1. Research Variable

### D. RESULT AND DISCUSSION

#### a. RESULT

There are three types of variables used in this study. The first variable is the dependent variable, which uses the Financial Self Sufficiency (FSS) value. This FSS value is further categorized into two categories. The first category is sustainable companies if the FSS value is more than or equal to 100%. This category is symbolized by the number 0. The second category
is companies that are not sustainable if the FSS value is less than 100%. Companies belonging to the unsustainable category are symbolized by the number 1 (Mwangi et al). The second variable is the capital structure variable which in this study acts as an independent variable or an independent variable. The capital structure variables are divided into four ratios, namely Equity Ratio (ER), Equity multiplier (EM), Debt Ratio (DR), and Debt Equity Ratio (DER) variable (mediating/intervening variable). The mediating variable used is the profitability ratio which the Return approximates on Assets (ROA). The financial ratios presented include the ratio of capital structure and profitability. The statistical value of the financial ratios of the research data is shown in Table 2.

The COVID-19 pandemic that occurred in early 2020 also impacted the country's economic conditions. It resulted in changes also in the value of profitability obtained by the company. Research conducted by Nasution et al. (2020) shows that the covid pandemic has weakened the global economy, which in turn has a significant effect on the decline in Indonesia's economic conditions. The research was supported by oleh Junaedi & Salistia (2020), who stated that the COVID-19 pandemic impacted multisectoral countries, including the country's economy.

The responding to the COVID-19 pandemic in this study, the researchers tried to identify the ROA value of each BPRS in the last three years. The distribution of ROA values for each BPRS is shown in Figure 1. Figure 1 shows the ROA value in 2020. It tends to be below 0 or negative. A negative ROA value indicates that several BPRS have suffered losses. This condition will certainly affect the financial health of the BPRS.

![Figure 1. Value of ROA in 2018 - 2020](image)

![Figure 2. Firm with Financial unsustainability](image)
The value of Financial Self Sufficiency (FSS) is a value that indicates the financial sustainability status of the BPRS. The result describes several sustainable and non-sustainable BPRS during the research period (Figure 2). It looks at the number of increasing trends. The number of BPRS that fail to experience financial sustainability is increasing from year to year. However, in 2020, the impact of Indonesia’s economic conditions caused by the COVID-19 pandemic is quite significant. The need contrasts Figure 3, which shows a downward trend in the number of BPRS experiencing financial sustainability. This means that the number of sustainable BPRS is decreasing in the research period.

Capital structure is approximated on the value of ER, EM, DR, and DER. The FSS value indicates the sustainability value. The FSS value is categorical data, where a BPRS will be given a value of 0 if it experiences financial sustainability, while 1 for a BPRS that fails to experience financial sustainability. The analysis used is logistic regression. The coefficient values and the significance of the effect of capital structure on financial sustainability are shown in Table 2. The impact of capital structure on the profitability value can be seen in Table 3.

This stage aims to determine whether the ROA value can mediate the influence of the capital structure on the financial sustainability (FSS) of the BPRS. At this stage, logistic regression is performed where the dependent variable is the value of FSS, and the dependent variable is the value of ER, EM, DR, DER, and ROA. After analyzing the data using regression, a mediation test is carried out using the "mediate" function on the mediation package in R. The data processing results are shown in solid Table 4 and Table 5. Table 4 shows the coefficients and significance of the value of capital structure and ROA on FSS. Table 5 shows the relevance of the ROA variable in mediating the effect of capital structure on FSS.

Based on Table 4, it can be seen that the ROA value and capital structure, namely ER, EM, DR, and DER, have a significant influence on the FSS value. This can be seen from the probability value of each research variable under the degree of error (alpha = 10%). Significant coefficient values such as ROA, ER, EM, and DR indicate the relationship between variables is positive or unidirectional.

Table 5 shows several measures to see the effect of the mediating variable. Average Causal Mediation Effects (ACME) is the average value of the estimated model or equation on the mediating effect. If the probability value of ACME is smaller than the actual level, then the mediation effect is significant. The second measure is Average Direct Effects (ADE), a deal that shows the average coefficient of the direct effect test. If the probability value of the ADE value is smaller than the fundamental level, then the immediate effect is declared good.
b. DISCUSSION
Companies certainly want to generate maximum profits in today's increasingly competitive business world. Changes in information technology are developing very quickly, encouraging companies to adapt and anticipate these changes. To make a profit, the company needs funds that can be used for investment or to run its business. The need for funds can come from internal sources or external sources of the company. Internal sources are sources of funds that come from within the company itself, such as the company's capital. At the same time, external sources are sources of funds obtained from outside the company, not owned by the company, for example, debt, both long-term debt and short-term debt.

Table 2. The Effect of Capital to the FSS

<table>
<thead>
<tr>
<th>Koefisien</th>
<th>Exp(koef)</th>
<th>Std. Error</th>
<th>Nilai Z</th>
<th>Prop.</th>
</tr>
</thead>
<tbody>
<tr>
<td>(Intercept)</td>
<td>-2.72554</td>
<td>0.06551</td>
<td>0.58597</td>
<td>-4.651</td>
</tr>
<tr>
<td>ER</td>
<td>2.47018</td>
<td>11.82457</td>
<td>0.63049</td>
<td>3.918</td>
</tr>
<tr>
<td>EM</td>
<td>0.08212</td>
<td>1.08558</td>
<td>0.03646</td>
<td>2.252</td>
</tr>
<tr>
<td>DR</td>
<td>1.68158</td>
<td>5.37404</td>
<td>0.57576</td>
<td>2.921</td>
</tr>
<tr>
<td>DER</td>
<td>-0.06361</td>
<td>0.93837</td>
<td>0.03589</td>
<td>-1.772</td>
</tr>
</tbody>
</table>

Table 3. The Effect of Capital to the ROA

<table>
<thead>
<tr>
<th>Koefisien</th>
<th>Std. Error</th>
<th>Nilai Z</th>
<th>Prop.</th>
</tr>
</thead>
<tbody>
<tr>
<td>(Intercept)</td>
<td>0.053088</td>
<td>0.017907</td>
<td>2.965</td>
</tr>
<tr>
<td>ER</td>
<td>-0.02734</td>
<td>0.020171</td>
<td>-1.356</td>
</tr>
<tr>
<td>EM</td>
<td>-0.001</td>
<td>0.001245</td>
<td>-0.806</td>
</tr>
<tr>
<td>DR</td>
<td>-0.03929</td>
<td>0.017649</td>
<td>-2.226</td>
</tr>
<tr>
<td>DER</td>
<td>0.000385</td>
<td>0.001251</td>
<td>0.308</td>
</tr>
</tbody>
</table>

Table 4. The Effect of ROA and Capital to the FSS

<table>
<thead>
<tr>
<th>Koefisien</th>
<th>Std. Error</th>
<th>Nilai Z</th>
<th>Prop.</th>
<th>Exp(Koef.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intercept</td>
<td>-1.98475</td>
<td>0.57188</td>
<td>-3.471</td>
<td>0.000519</td>
</tr>
<tr>
<td>ROA</td>
<td>1.73621</td>
<td>1.91328</td>
<td>-9.075</td>
<td>&lt; 2e-16</td>
</tr>
<tr>
<td>ER</td>
<td>2.12375</td>
<td>0.63339</td>
<td>3.353</td>
<td>7.99E-04</td>
</tr>
<tr>
<td>EM</td>
<td>0.07864</td>
<td>0.03763</td>
<td>2.09</td>
<td>0.036612</td>
</tr>
<tr>
<td>DR</td>
<td>1.07531</td>
<td>0.55653</td>
<td>1.932</td>
<td>0.053338</td>
</tr>
<tr>
<td>DER</td>
<td>-0.06362</td>
<td>0.0369</td>
<td>-1.724</td>
<td>0.084639</td>
</tr>
</tbody>
</table>

Table 5. Test of Mediation Signification

<table>
<thead>
<tr>
<th>Estimasi</th>
<th>95% CI Lower</th>
<th>95% CI Upper</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACME</td>
<td>0.17181</td>
<td>0.04468</td>
<td>0.3</td>
</tr>
<tr>
<td>ADE</td>
<td>0.22634</td>
<td>0.01257</td>
<td>0.39</td>
</tr>
<tr>
<td>Total Effect</td>
<td>0.31726</td>
<td>0.10686</td>
<td>0.45</td>
</tr>
<tr>
<td>Prob. Mediasi</td>
<td>0.52853</td>
<td>0.2139</td>
<td>0.976</td>
</tr>
</tbody>
</table>

Capital structure is one of the essential factors for developing and resilience of the company's health. In this case, it is the BPRS. The capital structure has a strategic effect on
achieving the long-term goals of the BPRS. However, decisions in terms of funding at a BPRS and other companies are generally a complicated process. There are several stages of variation and funding options that can affect the condition of the company in the future.

Optimization of the capital structure using selecting the right source of funds. The capital structure has a significant effect on the burden and availability of capital so that it affects the company’s performance. Based on Table 2, it is known that the \( \exp(\beta) \) value of the ER variable is 11.82457. It means that every one-unit increase in the ER value will cause a BPRS tendency to experience financial sustainability 11 times higher when compared to a BPRS whose ER value does not increase. The EM value in this study shows an odds ratio of 1.0855, meaning that any increase in the EM value will increase the chances of the BPRS to tend to experience financial sustainability compared to BPRS that do not experience an increase in the EM value. The magnitude of the opportunity to experience financial sustainability is 1.08558 times higher. The DR value in this study shows an odds ratio of 5.37404, meaning that the magnitude of the opportunity to experience financial sustainability is 5.37404 times higher. The DER value in this study shows an odds ratio of 0.93837. This value can be interpreted that every increase in the DER value will increase the opportunity for the BPRS to tend to experience financial sustainability compared to BPRS that do not experience an increase in the DER value. The magnitude of the opportunity to experience financial sustainability is 0.93837 times higher. On the other hand, a BPRS that does not experience an increase in the DER ratio will have a lower chance of financial sustainability. In another sense, the options of a BPRS achieving financial sustainability will be higher for a BPRS that does not experience an increase in the DER ratio.

Sources of capital formation come from two types, namely internal sources, and external sources. Internal capital is funds or capital that is formed and produced by itself. External capital is the company's capital or funds obtained from outside the company. Therefore, selecting optimal sources of capital is essential for the company's finances and financial sustainability (Hafeez et al., 2018).

Choosing a good and optimal capital structure is essential because this ratio will affect the costs to be incurred by the company. In fact, in the company's financial ratios is a ratio of the level of the cost of capital or known as the cost of capital. Research Fauziah et al. (2020) shows that banking managers in Indonesia prefer a capital structure sourced from internal funds to obtain company sustainability in the future. The results of this study differ from the opinion of previous studies, which found that the level of leverage plays a role in increasing profitability (Sarkar and Zapatero (2003) because the capital structure of a BPRS with a low debt portion still plays a role in increasing profitability.

ROA has a positive and significant impact on the financial sustainability of a BPRS. It can be seen from the value of the ROA coefficient in Table 4. It interpreted that an increase in the ROA value will increase the chances of a BPRS to experience financial sustainability. The results support Notoadmojo & Rahmawaty (2017), which state that ROA has a significant positive effect on financial sustainability. However, the ROA of BPRS is still low. It is due to the relatively high comparison between the profit earned and the assets. If it is associated with other capital structures, it can be seen that high assets come from debt or loans and another financing, which is the main component of forming asset.

The results show the higher the profitability makes, the more significant the role of capital structure on the sustainability of the BPRS. Profitability for any company is the primary goal, and with a company that initially has no investors or financing, profit may be the only capital of the company. No business can last for a long time without making a profit or profit. The company's financial sustainability depends on how it manages its capital to generate profits. The policy implication of the BPRS in maintaining its sustainability is that it is necessary to increase the effectiveness and efficiency of its capital management to increase the ability to earn profits so that the viability of its business will remain alive. Further research can focus on
the pattern of capital management in increasing the sustainability of financial and non-financial entities.

Business sustainability is an increasingly important concept, which has been found to affect the financial performance of companies in many ways. Therefore, entities, especially BPRS, need to consider it in competition in the financial industry seriously. Optimization of capital management is important to support the sustainability of the BPRS. The government has responded by issuing the minimum core capital for Rural Banks, as stated in POJK Number 5/POJK. 03/20215. The minimum core capital of a BPRS is set at Rp6 billion, which must be met no later than December 31, 2024. Sufficient capital is expected to minimize the risk of bank bankruptcy. Therefore, studying the mediating effect of earnings provides a wealth of evidence and enhances understanding of the relationship between SRB sustainability and capital structure. Empirical results of studies can provide important insights and policy implications for decision-makers.

E. CONCLUSION

Based on the results of the research and discussion presented in the previous chapter, it can be concluded that: 1) The company's capital structure is important for the company's financial sustainability. The company's capital structure is obtained through two events, namely internal and external. The overall capital structure, which is approximated by the value of Equity Ratio (ER), Equity multiplier (EM), Debt Ratio (DR), and Debt Equity Ratio (DER), have a significant effect on the financial sustainability of BPRS. 2) The profitability ratio, which the Return approximates on Assets (ROA) value, is stated to be able to mediate the effect of capital structure on the financial sustainability of the BPRS. Thus, the capital structure has a more significant influence on the financial sustainability of the BPRS if the ROA value is included in the BPRS finances.

F. ACKNOWLEDGE

The research condition causes the data obtained to be quite heterogeneous. Some BPRS do not report their finances on the OJK website. So for further research, it might be improved by looking at the homogeneity of research data acquisition. Moreover, the Covid pandemic in 2020 caused the world economy, both micro and macro, to experience turmoil. It also needs to be taken into account in further research. The researcher would like to thank the Chancellor and Chair of LP2M UIN Maulana Malik Ibrahim Malang, who supported this research. Hopefully, the results of this research can provide benefits for institutions and academics.
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