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Testing the Efficiency of Capital Structure and Assets Structure in Bank

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Authors' contributions

This work was carried out in collaboration among all authors. Author AR designed the research, did the analysis, and wrote the first draft of the manuscript. Authors AM and ASK authors oversaw the research and analyzed the data. All writers manage the search for final manuscript literature.

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ABSTRACT

This study aims to examine and analyze the effect of capital and asset structure on the risk of financing and profitability of Islamic banks in Indonesia. This type of research is explanatory research, namely research that explains the relationship of the influence of the independent variable on the influence of the dependent variable through a hypothesis test using path analysis. The data used in this study is secondary data on capital structure, asset structure, risk, and profitability in Islamic banks for the 2014-2018 period. The data collection method used in this research is the documentation method. The results of the study conclude that capital structure has a significant effect on risk but does not have a significant effect on profitability, asset structure has no significant effect on risk and profitability and risk has a significant effect on profitability. The results of analysis and discussion can be advised the management of Islamic banks to improve the performance of Islamic banks, so the management of Islamic banks must be able to establish an efficient capital structure, namely by using temporary syirkah funds that use an efficient profit-sharing system and loans with the wadiah system.

Keywords: Risk; profitability; Islamic; fund; financing.

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1. INTRODUCTION

The optimal capital structure is a capital structure that is expected to produce the lowest weighted average cost of capital so that it will maximize firm value [1]. In general, maximizing company value is the main goal of every company, because high company value can increase prosperity for shareholders, can be a strong foundation for the company to run its operations, and can bring optimal profits for the company [2]. The importance of the problem of determining the capital structure for a company makes a manager better know what factors affect the capital structure of a company. One of the factors that influence the capital structure is profitability. According to [3] states that profitability shows the ratio between profit and assets or equity of a company that produces that profit. In other words, profitability is the company's ability to generate profits over a certain period. Profitability can be measured using three proxies, namely profit margin, return on assets (ROA) and return on equity (ROE).

If the company wants to use a loan, the company must compare the loan interest rate with the rate of return that will be obtained from using the loan funds. Conversely, if the company's capital needs are met with its capital, the company must take into account the rate of return on invested capital. However, in fulfilling funding needs, companies must look for efficient funding alternatives. Efficient funding will occur if the company has an optimal capital structure. According to [4], the optimal capital structure can be interpreted as a capital structure that minimizes the overall cost of using capital or the average cost of capital, thereby maximizing firm value.

Capital structure is always associated with firm value. The effect of capital structure on the acquisition or level of profit in the company. The reason is that having a good capital structure will affect the company's profitability. About the importance of ownership of the capital structure, the authors chose the object of research on Islamic banks listed on the Indonesia Stock Exchange. The importance of capital structure in the completion of the company's business unit, the company needs to pay attention to the capital structure. The reason is that the capital structure affects the level of profitability to be achieved by the company so that it can make it easier for companies to analyze the effect of using debt on the level of profitability so that it can be used as a means of making financial decisions. Companies that have a high level of profitability make these companies have good value in the company. The value of the company will be determined by a high share price, to obtain a high share price, it must be accompanied by a continuing increase in profits earned by the company. Therefore the company must continue to strive to maximize the capital structure, the optimal capital structure will have a good influence on the company's profit.

Previous research on the effect of capital structure on profitability has been conducted by other researchers. The results of [5] study show that capital structure has a significant effect on risk and [6] shows that capital structure has no significant effect on profitability. The results of research by [7] show that asset structure has a significant effect on risk and [8] shows that asset structure has no significant effect on risk. This research on the effect of capital structure on profitability was conducted by [9] who concluded that there was a significant influence between capital structures on profitability. Another study conducted by [10] concluded that the rate of working capital turnover and capital structure had no significant effect on profitability. The results of research by [11] show that capital structure has a significant effect on profitability and [12] shows that capital structure has no significant effect on profitability. The results of research by [13] show that asset structure has a significant effect on profitability and [14] shows that asset structure has no significant effect on profitability. This study aims to test the efficiency of the capital structure and assets of Islamic banks in Indonesia by testing and proving the effect of capital structure on financing risk and profitability, the effect of asset structure on financing risk and profitability, and the effect of risk on the profitability of Islamic banks in Indonesia.

2. LITERATURE REVIEW

2.1 Signaling Theory

Signaling theory is a theory that states how a company should provide signals to users of financial reports. This signal is in the form of information about what management has done to realize the owner's wishes. Companies with very bright prospects prefer to fund through new stock offerings, while companies with bad prospects will choose to fund with outside equity. If there is an announcement of a stock offering, it will usually be considered as a signal that the

company's prospects are not too bright. If the prospect of the company is bright this should be the company in normal times, using more equity and less debt [15]. Based on the signaling theory, companies that can generate profits tend to increase the amount of debt, because additional interest payments will be offset by profit before tax. A company that predicts low profit will tend to increase low debt levels. High corporate debt will increase the possibility of the company facing financial difficulties. The more successful the company is, the more likely it will use up debt. This company can use the additional interest to reduce the tax on larger corporate profits. The safer the company is in terms of financing, the increased debt only slightly increases the risk of bankruptcy. In other words, a rational company will increase debt if the additional debt can increase profits [16]. Based on the capital structure theory that has been described, it can be concluded that the pecking order theory is a theory that prefers to use internal funds first than external funds. As for the signal theory, companies that have made a profit can increase their debt because the additional food interest will reduce taxes.

2.2 Agency Theory

Agency theory suggests that optimal capital and ownership structures can be used to reduce agency costs. Agency fees or agency fees are costs that arise because the company uses debt and involves a relationship between the company owners (shareholders) and creditors. This agency cost arises from agency problems. If the company uses debt, there is a possibility that the company owner will take action that is detrimental to creditors, for example, the company invests in high-risk projects [17]. Agency theory [18] is a theory that explains the conflicting positions between management (as agents) and shareholders (as owners). The shareholders hope that the agents will act in their interest so that the company can increase in value while providing benefits to shareholders. To perform its function properly, management must be given adequate incentives, as well as good supervision. Supervision can be carried out using procedures such as binding agents, the examination of financial statements, and restrictions on decisions that management can take. Of course, surveillance activities cost money. These fees are called agency fees. The costs incurred must be borne by the shareholders.

2.3 Research Conceptual Framework

Based on the research background, problems, and research objectives as well as theoretical and empirical explanations, a conceptual research framework can be prepared. This research conceptual framework explains briefly in Fig. 1, the relationship between the influence of the capital structure and asset structure variables on risk and the influence of the capital structure and asset structure variables on risk and the influence of the capital structure, asset structure, and risk variables on profitability in syariah banks Indonesia.

3. RESEARCH METHODS

The type of research used in this research is explanatory research, which is research used to explain the causal relationship between variables through testing the hypothesis formulated or often referred to as explanatory research also serves to explain, predict, and also control a symptom with a quantitative approach. . The data used in this study is a secondary data on capital structure, asset structure, risk and profitability in Islamic banks for the 2014-2018 period. The data collection method used in this research is the documentation method. The documentation method is the collection of data with documents in the form of financial reports that have been collected and published. Data collection is taken through financial reports registered with Bank Indonesia. The population used in this study were all Islamic banks listed on the Indonesia Stock Exchange. The sample selection was carried out by purposive sampling method which aims to obtain a representative sample according to predetermined criteria [19]. Sampling was done by using a purposive sampling approach. The data analysis technique uses path analysis is a technique for analyzing the cause and effect relationship that occurs in multiple regression if the independent variable affects the dependent variable not only directly, but also indirectly.

4. RESEARCH RESULT

4.1 Classic Assumption Test

The classical assumption test aims to test the feasibility of the regression model by ensuring that the model is free from violations of classical assumptions. The data is said to be normally distributed if the data with a significance value> 0.05 then the residual value is normally distributed, whereas if the data value of the Kolmogorov-Smirnov Test significance <0.05, the

residual value is not distributed. Therefore, based on the results of the Kolmogorov-Smirnov test normality, it is known that the significance value is 0.098> 0.05, so it can be concluded that the residual value is normally distributed [20]. The multicollinearity test aims to test whether in a regression model there is a strong relationship between its endogenous variables. In a good regression model, there should be no correlation between endogenous variables. One way to find out whether there is multicollinearity is by looking at the value of the tolerance value or VIF. If the VIF value is less than 0.10 or greater than 10, then multicollinearity occurs, multicollinearity should not occur between exogenous variables if the VIF value is in the range of 0.10 to 10 [21]. The multicollinearity test results for the model in this study can be seen that the tolerant value is greater than> 0.10, multicollinearity does not occur, whereas if the VIF value is less than 10.00, multicollinearity does not occur.

Based on the output coefficients table in the Collinearity Statistics section, it is known that the tolerance value for the CAR variable is 0.629, the asset structure is 0.996, and the NPF 0.631 is greater than 0.10 while the VIF value for CAR is 1.590, Asset structure is 1.004, and NPF is 1.586 is greater than 10.00 meaning that there is no multicollinearity in the data regression model because the VIF value of all these variables is <10, it can be concluded that there is no multicollinearity disorder. The heteroscedasticity test aims to determine whether in a regression model there is an inequality of variance from one residual to another. A good regression model is one that does not occur heteroscedasticity. In this study, the way to detect the presence or absence of heteroscedasticity is by looking at the results of the SPSS output through a scatterplot graph between the predicted values of the dependent variable, namely ZPRED with the residual SRESID. Basic analysis to determine the presence or absence of heteroscedasticity can be done by looking at the presence or absence of certain patterns (wavy or widened then narrowed) on the scatterplot graph [20]. The Heteroscedasticity test with a scatterplot -data points spread above and below or around the number 0, the points cluster only above or below (flat), the distribution of the dots is not wavy (random), and the distribution of data points is not patterned. Thus it can be concluded that there is no heteroscedasticity problem until a good and ideal regression model can be fulfilled.

4.2 Path Analysis

This path analysis aims to analyze the path relationship between variables consisting of structural model 1 and structural model 2. The path test results for the path 1 model are shown in Table 1.

Based on Table 1, the results of the model 1 test show that the significance value of the influence of the capital structure variable on risk is 0.000 and less than 0.05 and the coefficient value is -0.120. This shows that the capital structure variable has a significant effect on risk. So the first hypothesis (H1) which states that the capital structure variable has a significant negative effect on risk is accepted. The significance value of the effect of the asset structure variable on risk is 0.993 and is greater than 0.05 and the coefficient value is -0,000. This shows that the

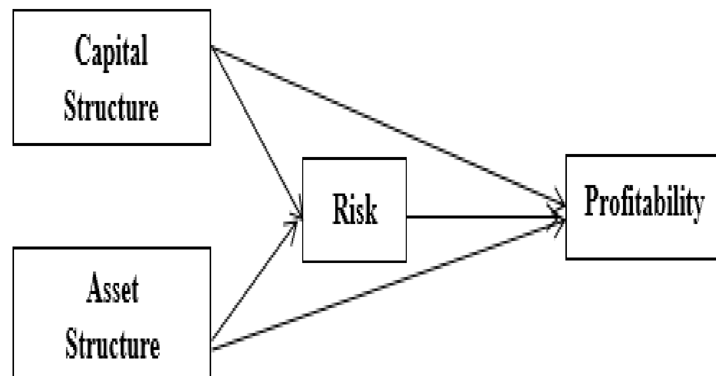

Fig. 1. Research conceptual framework

asset structure variable does not have a significant effect on risk. So the second hypothesis (H2) which states that the asset structure variable has a significant effect on risk is rejected. Based on the coefficient of determination test path model 1, it is known that the coefficient value on the adjusted R square is 0.323 or 32.3%. This shows that the contribution of the capital structure and asset structure variables to risk variability is only 32.3%, while the remaining 67.7% is explained by other variables that are not included or not examined in this study.

The path test results for the line 2 model are shown in Table 2 below. Based on Table 2, the results of the model 2 test show that the significance value of the influence of the capital structure variable on profitability is 0.044 and less than 0.05 and the coefficient value is 63,245. This shows that the capital structure variable has a significant positive effect on profitability. So the third hypothesis (H3) which states that the capital structure variable has a significant effect on profitability is accepted. The significance value of the effect of the asset structure variable on profitability is 0.702 and is greater than 0.05 and the coefficient value is 36,523. This shows that the asset structure variable does not have a significant effect on profitability.

So the fourth hypothesis (H4) which states that the asset structure variable has a significant effect on profitability is rejected. The significance value of the risk variable on profitability is 0.176 and is greater than 0.05 and the coefficient value is -500,977. This shows that the risk variable does not have a significant effect on profitability. So the fifth hypothesis (H5) which states that the risk variable has a significant effect on profitability is rejected. Based on the coefficient of determination test path model 2, it is known that the coefficient value on the adjusted R square is 0.120 or 12%. This shows that the contribution of the capital structure, asset structure and risk variables to the profitability variability is only 12% while the remaining 88% is explained by other variables that are not included or not examined in this study.

5. DISCUSSION

Based on the results of regression model 1 in Table 1 shows that the capital structure variable has a significant effect on risk. So the first hypothesis (H1) which states that the capital structure variable has a significant negative effect on risk is accepted. It means that the more capital a bank has, the smaller the chance for risk to occur. This is in accordance with the theory expressed by [22] which states that the higher the capital adequacy ratio will be able to function to minimize the risk of losses faced by banks due to an increase in problem financing. So capital adequacy is a very important factor for banks in order to accommodate the risk of loss, especially the risk of loss from not being paid. One of the objectives of capital structure management is to integrate the permanent sources of funds that the company uses for its operations which will maximize the value of the company itself. Finding the optimal capital structure is a very difficult job, because of the conflict that leads to agency costs. An old conflict occurred between shareholders and bondholders in determining the optimal capital structure of a company. So to reduce the possibility of management taking excessive risks on behalf of shareholders, it is necessary to include some protective restrictions. This study supports the results of a study conducted by [5] showing that there is a significant influence between capital structure and risk. This study rejects the results of [6] study entitled "the effect of capital structure, risk on profitability" shows that there is a significant effect of capital structure on risk. This study using quantitative methods with techniques using path analysis. This study rejects the results of research conducted by [6] showing that capital structure has no significant effect on risk.

Based on the results of regression model 1 in Table 1 shows that the asset structure variable does not have a significant effect on risk. So the second hypothesis (H2) which states that the asset structure variable has a significant effect on risk is rejected. It means that the results of this study mean that the higher the asset structure is reflected by comparing current assets with fixed assets, the company's risk will increase. This research supports the results of research conducted by [23] showing that there is a significant effect of capital structure on risk, entitled "The Effect of Capital Structure, Asset Structure, Profitability on Risk" using four variables, namely capital structure, asset structure, profitability, and risk. This study rejects the results of research conducted by [8] and also states the same opinion regarding his research results, namely that there is no influence between asset structure on risk. This means that most companies whose capital is mostly invested

in fixed assets will prioritize the fulfillment of their capital from their permanent capital, namely their capital, while debt is only a compliment. Thus the higher the asset structure (which means the bigger the fixed assets), the higher the use of own capital (less foreign capital), in other words, the lower the capital structure.

Based on the results of regression model 2 in Table 2 shows that the capital structure variable has a significant positive effect on profitability. So the third hypothesis (H3) which states that the capital structure variable has a significant effect on profitability is accepted. It means that the path analysis coefficient is significant. So, capital structure contributes significantly to profitability. It means that this study shows that the higher the capital structure, the higher the profitability. The higher the capital structure shows that the bank's capital is getting bigger so that it is more flexible and has a large enough opportunity to expand financing to increase profitability. The higher the profitability obtained by Islamic banks, the greater the profit-sharing obtained by the community so that it can increase public confidence in saving their funds so that they can improve the capital structure of Islamic banks. According to [24] states that if the capital structure is getting lower, it reflects the greater the company's ability to guarantee its debt with the equity it has or the increase/decrease in the capital structure should not be in the same direction (inversely) with profitability. This study rejects the results of research conducted by [12] showing that capital structure has no significant effect on profitability.

Based on the results of regression model 2 in Table 2 shows that asset structure variable does not have a significant effect on profitability. So the fourth hypothesis (H4) which states that the asset structure variable has a significant effect on profitability is rejected. It means that the composition of the asset structure will determine the effectiveness of the company's asset structure. Current assets are cash and other assets that can be realized into cash and used in operational activities in the near term, not more than one year. Meanwhile, fixed assets are tangible assets that are acquired in the form of ready-to-use or built-in advance that is used in company operations, to facilitate the company's operational activities, they are not included for sale in the framework of normal company activities and have a certain period. The size of the asset structure will affect the company's profitability. If the effect of asset structure on profitability is positive. So what happens in the company is the composition of current assets is greater than fixed assets. This research supports the results of research conducted by [14] showing that asset structure has no significant effect on profitability. This study rejects the results of research conducted by [12,7] which reveals that the structure of assets (current assets to total assets ratio) has a significant and positive effect on profitability.

Table 1. Coefficients[a]

Model	Unstandardized Coefficients		Standardized Coefficients	T	Sig
	B	Std. Error	Beta		
1 (Constant)	4.156	.693		5.993	.000
Capital Structure	-.120	.030	-.608	-3.970	.000
Asset Structure	.000	.050	.001	.009	.993

a. Dependent variable: Risk source: Output of SPSS

Table 2. Coefficients[b]

Model	Unstandardized coefficients		Standardized coefficients	T	Sig.
	B	Std. Error	Beta		
2 (Constant)	476.242	1981.821		240	812
Capital Structure	63.245	71.361	195	886	044
Asset Structure	36.523	94.301	068	387	702
Risk	-500.977	360.305	-305	-1.390	176

a. Dependent Variable: Profitability Source: Output of SPSS

Based on the results of regression model 2 in Table 2 shows that risk variable does not have a significant effect on profitability. So the fifth hypothesis (H5) which states that the risk variable has a significant effect on profitability is rejected. It means that it is by the theory developed in the theoretical study that the greater the risk value the worse the bank's performance and can affect the level of profitability, in this study risk has an insignificant effect because if risk has a significant effect it will reduce the level of profitability. The results of this study also explain that an increase in the number of financing problems and the possibility of uncollectible financing will make the bank's performance worse and affect its level of profitability. Companies that have high risk tend to be less able to use large debt, thus companies need to set an optimum level of debt ratio so that the profitability increases, companies with large business risks must use smaller debt than companies that have low business risk because it is getting bigger. Business risk, the use of large debt will make it difficult for companies to repay their debts and have an impact on decreased company profitability. This research supports the results of research conducted by [25] which shows that there is a significant negative effect on profitability. This study rejects the results of research conducted by [26] which shows a significant effect on profitability.

6. CONCLUSION

Based on the results of the analysis and discussion, it can be concluded that (a) capital structure has a significant negative effect on risk. This means that the greater the capital owned by Islamic banks originating from temporary syirkah funds, the smaller the non-performing finance (NPF).; (b) asset structure has no significant effect on risk; (c) risk has a significant effect on profitability. The results of this study also explain that an increase in the amount of non-performing and uncollectible financing will make the bank's performance worse and affect its level of profitability; (d) capital structure has no significant effect on profitability; (e) asset structure has no significant effect on profitability. The results of this study support the theory of an efficient capital structure that can reduce costs so as to improve company performance through prudent management. The findings of this study are different from the MM approach which states that the higher the capital from debt, the higher the risk faced by the company. This MM approach can apply to conventional banking that uses an interest system. However, this does not apply to Islamic banks, where the higher the capital structure does not result in higher risks. This is because the capital comes from temporary syirkah funds, not the debt and owner's equity categories. Based on the results of the analysis and discussion, advice can be given to the management of Islamic banks to improve the performance of Islamic banks, so the management of Islamic banks must be able to establish an efficient capital structure, namely by using temporary syirkah funds that use an efficient profit sharing system and loans with the wadiah system. Profit sharing and wadiah systems used in collecting third party funds, which are generally from the public.

COMPETING INTERESTS

Authors have declared that no competing interests exist.

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