The Influence of Leverage Ratio, Capital Intensity Ratio, and Market Share on the Profitability of Cooperatives in Kediri City

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Article Information		Abstract
Submission date	10 December 2023	***Research objectives:*** *This research is motivated by the fact that the profitability obtained in cooperatives varies. This is what attracts investors when they want to invest. Stable profitability will attract investors to invest their capital by seeing how profitability develops each year. To achieve the expected profitability, it is necessary to know the factors that influence profitability. This research aims to determine the effect of the leverage ratio, capital intensity ratio, and market share on the profitability of cooperatives in the city of Kediri.*
Revision date	10 February 2024	
Date received	7 March 2024	

Design/Method/Approach: *This research is a type of quantitative causality research. The population used in the research was 317 cooperatives using a purposive sampling technique which used several criteria to obtain a sample of 30. This research used the classical assumption test, multiple linear regression, coefficient of determination test, and hypothesis testing using the SPSS application.*

Research Findings: *The research results show that leverage, capital intensity, and market share partially have a significant effect on profitability. Simultaneously, leverage, capital intensity, and market share have a significant effect on profitability. Based on the results of the analysis and conclusions, the author provides suggestions for investors to pay attention to before investing, for cooperatives it can be used as a guide in increasing cooperative profitability, and for further researchers they can add other variables that can influence cooperative profitability.*

Keywords: *Leverage, Capital Intensity, Market Share, Profitability*

1. Introduction

Investment requires careful consideration of various aspects, and one of the main factors that attracts investors' attention is the level of profitability of the institution, organization or company that is the object of investment. The entity's success in achieving high or stable profitability can motivate investors to provide additional capital or make further capital deposits. An investor makes the belief in significant returns the main factor in the decision to invest capital in an agency. This view encourages investors to always assess investments from a profitability perspective. The willingness to invest capital consistently is closely related to the hope of getting maximum results in the future.

Profitability in cooperatives is influenced by the leverage ratio. This ratio is called the cooperative's funding requirements which are financed with debt. This leverage ratio is useful for increasing profitability in cooperatives by using funds originating from debt.[1] This debt can be used as an investment, the results of which will provide greater profits for cooperative

members, thereby increasing profits for the cooperative. The higher the leverage, the higher the profit can be obtained [1]. Cooperatives in generating profitability are also influenced by other factors, these other factors are capital intensity. The existence of capital intensity has a big impact on cooperative profits. Capital intensity affects profitability because capital turnover is used to purchase company assets, which will increase the profitability ratio[2]. The existence of market competition in cooperatives can also affect the level of cooperative profitability. The existence of market competition is important for the level of profitability of Sharia banking, Sharia banks must be more careful in channeling financing to achieve financing targets. This will increase profitability because loan interest will be earned by the company[3].

Several previous studies reflect the opposite, where leverage does not affect profitability, capital intensity also does not affect profitability and market share does not affect profitability. This is explained by several studies where there are leverage does not affect the level of profitability of the company, the presence of a high level of leverage will of course result in high interest for the company. This will have an impact on interest payments so that the profitability of the company is reduced [4]. Capital intensity, where capital intensity is too high, will impact a lot of the company's assets, this will reduce the amount of profitability, which it will increase the burden so that the profitability generated by the company is minimal [5]. The existence of market share is also shown not to affect the level of productivity, this is because there is a large market share, but if good credit analysis is not carried out, this will create a *non performing loan* where this will have an impact on the burden of unpaid receivables so that it will reduce the profitability of the company or financing institution [6].

Several previous studies showed that the results of the research were inconsistent or contradictory results. This gave rise to the initiative for researchers to carry out research again so that the research results could be used as the latest reference for leverage, capital intensity, and market share on the profitability of the institution. financing. This research aims to determine the influence of leverage, capital intensity, and market share on the profitability of cooperatives in the city of Kediri.

1.1. Problem statement

The problem in this research is the lack of clarity regarding the specific relationship between factors such as leverage, capital intensity, and market share and the profitability of cooperatives in Kediri City, which is the main challenge in financial management. The lack of details regarding the impact of high leverage on decreasing profits, high capital intensity on business risk, and high market share on increasing profitability requires a deeper understanding to design effective strategies in improving the financial performance of cooperatives in Kediri City.

1.2. Research purposes

The aim of the problems identified regarding cooperatives in Kediri City is to understand in more depth the relationship between critical factors such as leverage, capital intensity, and market share with the profitability of cooperatives in Kediri City. By clarifying the impact of high leverage on decreasing profits, high capital intensity on business risk, and high market

share on increasing profitability, this aim aims to provide a stronger knowledge base. This also includes designing appropriate strategies to improve the financial performance of cooperatives in Kediri City by effectively managing the factors that have been identified.

2. Method

This research uses a quantitative causality research approach and was carried out at the Kediri City Cooperative Service. This research took place for approximately 4 months with the research period starting from September 2023 to January 2024. The population in focus was 317 cooperatives registered with the Kediri City Cooperative Service. The sampling method used is non-probability sampling with a purposive sampling technique, with criteria including, the cooperative is registered with the Kediri City Cooperative Service for the 2022 period, having active financial reporting status for that period, and obtaining a positive Business Results Surplus (SHU). The number of samples taken was 30 cooperatives. Primary data sources were obtained directly from the research field, especially from the Kediri City Cooperative Service. Data collection techniques involve documentation and literature study, while data analysis uses classical assumption tests and multiple linear regression tests.

The research model will explain how this research can be described in several or individual variables, namely independent and dependent. The researcher's research model is presented in the following picture:
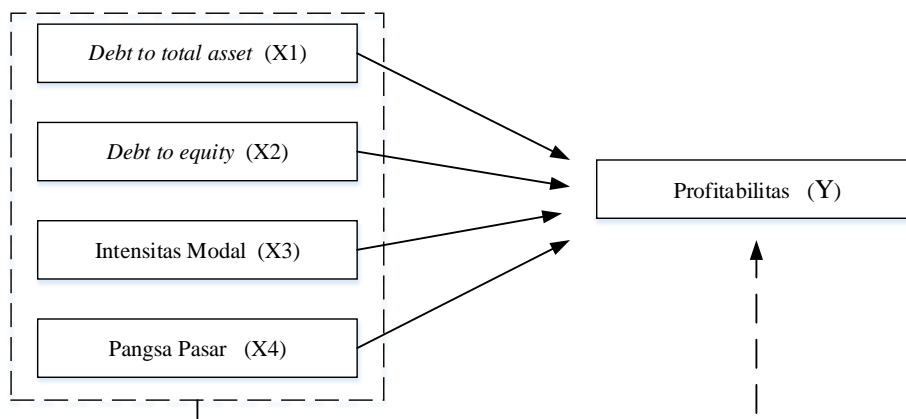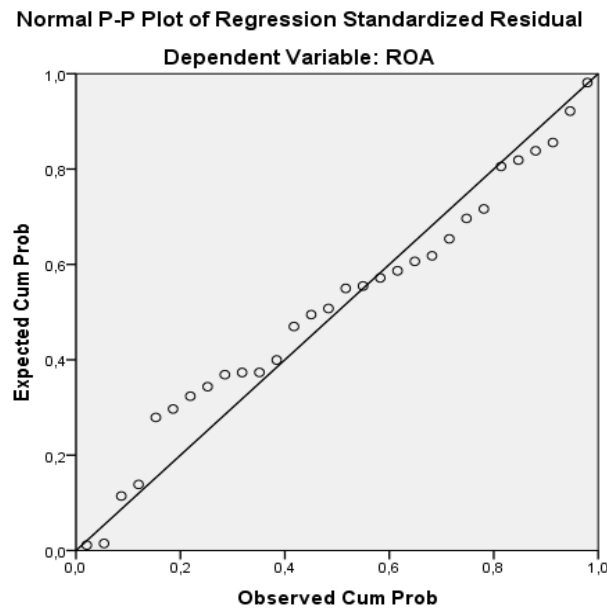

Figure 1. Research Model

Information :

→ = Partial influence

----→ = Simultaneous influence

3.Results and Discussion /Results and Discussion
Classic assumption test
Normality test

The normality test is a test that explains how the distribution of data used by researchers in a study can be used in regression testing. The results of the normality test are as follows:

Source: SPSS Version 21 output
Figure 1. Normality P plot

Table 1. Kolmogorov Sumirnov Normality Test

Keterangan	Nilai
Asymp. Sig. (2-tailed)	0,684

Source: SPSS Version 21 output

Based on the image and results of statistical analysis, it can be concluded that the data shows a normal distribution. Kolmogorov-Smirnov analysis produces a value of 0.716 with a significance of 0.684 > 0.05, indicating that the data is normally distributed. This conclusion meets the classic assumptions of normality tests in regression models, confirming that the data used in the research has a distribution that meets statistical prerequisites.

Multicollinearity Test

The multicollinearity test is a test carried out as a prerequisite test before a regression test is carried out, where this test is required if there is more than one independent variable. The test results from this research data are as follows:

Table 2 Multicollinearity Test

Informasion	Tolerance	VIF
DAR	0,794	1,259
DER	0,208	4,810
Intensitas_Modal	0,231	4,335
Pangsa_Pasar	0,931	1,074

Source: SPSS Version 21 output.

Based on the results of the VIF (Variance Inflation Factor) and Tolerance analysis, it can be concluded that there are no symptoms of multicollinearity in the variables in the regression model. The VIF values for the DAR (debt to total assets), DER (debt to equity ratio), Capital Intensity, and Market Share variables are all below the threshold of 10, namely 1.259, 4.810, 4.335, and 1.074 respectively. Apart from that, the Tolerance value for each variable also exceeds the minimum limit of 0.10, with values of 0.794, 0.208, 0.231, and 0.931 respectively. Thus, it can be concluded that there is no multicollinearity problem between variables in the regression model, validating the reliability of the results of the regression analysis carried out.

Heteroscedasticity Test

Before carrying out the regression test, a prerequisite test is carried out in the form of a heteroscedasticity test. This test aims to determine whether the residual variance in the regression model changes significantly throughout the range of predicted values. The results of the heteroscedasticity test are as follows
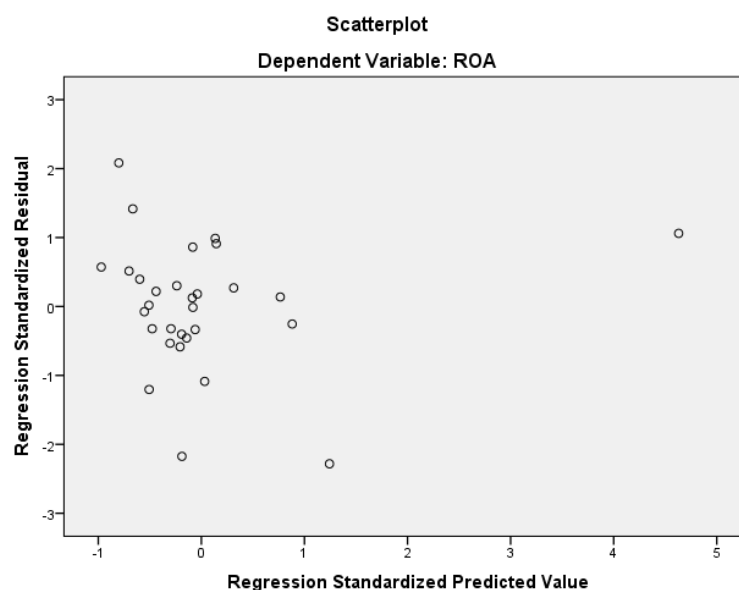
Source: SPSS Version 21 output

Figure 2. Heteroscedasticity test

Based on the visualization in Figure 2, there is no clear pattern and the points spread above and below the number 0 on the Y axis. Therefore, it can be concluded that there are no symptoms of heteroscedasticity in the regression model used. This conclusion shows that the assumption of homoscedasticity, namely the lack of variation in residual variance throughout the range of predicted values, is met in this regression analysis.

Autocorrelation Test

Regression testing in determining the prerequisite tests includes an autocorrelation test, where the data used is time series data, of course this test is required, before assessing whether the data is suitable for regression testing or not. The results of the autocorrelation test are as follows:

Table 3. Durbin Watson Autocorrelation Test

Information	Result
Durbin Watson	1,751

Source: SPSS Version 21 output

Based on table 3 above the value*Durbin Watson* is 1.751. This value will be compared with the table value*Durbin Watson* using 5% significance, it is known that in the research the number of samples (n) there are 30 data with a number of independent variables 4 (K4), then the table*Durbin Watson* The upper limit (du) is obtained at 1.7386. Based on the table above, the DW value is 1.751, which is greater than the du value of 1.7386 and less than 4-1.7386 (4-du) which is 2.2614. For the equation, namely du < d < 4 – du = 1.7386 < 1.751 < 2.2614. So the basis for decision making in the test*Durbin Watson* above, it can be concluded that there are no problems or symptoms of autocorrelation.

Multiple Linear Regression Test

The multiple linear regression test explains the magnitude of the changes caused by changes in the independent variable to the dependent variable. The results of multiple linear regression testing can be explained by researchers in the following table:

Table 4 Multiple Linear Test

Information	Result
Konstan	-0,251
DAR	0,036
DER	-1,408
Intensitas_Modal	2,059
Pangsa_Pasar	-0,251

Source: SPSS Version 21 output

Based on the analysis of table 4 of the multiple linear regression model, the regression results can be explained as follows. The constant value is 8.572 with a positive sign, indicating that if the independent variables (DAR, DER, capital intensity and market share) are assumed to be constant, then the dependent variable profitability will increase by 8.572. The DAR variable coefficient of -0.251 indicates that every increase in DAR of 1 will reduce profitability by 0.251, assuming other variables are constant. The DER variable coefficient of 0.036

indicates that every increase in DER by 1 will increase profitability by 0.036, assuming other variables are constant. The capital intensity variable coefficient of -1.408 indicates that every increase in capital intensity of 1 will result in a decrease in profitability of 1.408, assuming other variables are constant. The market share variable coefficient of 2.059 indicates that every increase in market share of 1 will increase profitability by 2.059, assuming other variables are constant.

Coefficient of Determination

The coefficient of determination explains how much influence the independent variable has on the dependent variable, expressed in percent. The results of the researcher's coefficient of determination test are explained in the following table:

Table 5 Coefficient of Determination

Information	Result
Adjusted R Square	0,901

Source: SPSS Version 21 output

Based on table 5, the adjusted R Square coefficient value is 0.901. Adjusted R Square value 0.901. Meanwhile, the determinant coefficient (Adjusted R Square) is 0.901 or equal to 90.1%. This figure means that the variables DAR (X1), DER (X2), capital intensity (X3), market share (X4) are able to explain the profitability variable (Y) of 91.5%. Meanwhile, the remainder (100% - 90.1% = 9.9%) is explained by other variables outside this regression equation or variables that are not studied, such as debt to capital ratio, interest coverage ratio, fixed charge coverage ratio.

Partial T Test

Partial testing shows the influence of the independent variable on the dependent variable separately, whether it has a significant influence or not. This is explained from the significance value obtained from the test results in the following table. The researchers explain the test results in the following table:

Table 6 Partial T Test

Information	Result Sig.
DAR	,000
DER	,000
Intensitas_Modal	,000
Pangsa_Pasar	,000

Source: SPSS Version 21 output

Based on the results of the t-test in the table above, several conclusions can be drawn that are consistent with the basis for decision-making in the t-test as follows: the first hypothesis regarding the DAR (debt to total assets) variable with a significance value of 0.000 (< 0.05) indicates that H0 rejected and Ha accepted, implying that the DAR variable partially has a significant effect on profitability (Y). The second hypothesis regarding the DER (debt to equity ratio) variable with a significance value of 0.000 (< 0.05) shows that H0 is rejected and Ha is accepted, indicating that the DER variable partially has a significant effect on profitability (Y).

The third hypothesis regarding the capital intensity variable with a significance value of 0.000 (< 0.05) shows that H0 is rejected and Ha is accepted, confirming that capital intensity partially has a significant effect on profitability (Y). The fourth hypothesis regarding the market share variable with a significance value of 0.000 (< 0.05) shows that H0 is rejected and Ha is accepted, confirming that market share partially has a significant effect on profitability (Y).

Simultaneous F Test

Simultaneous testing or F-test explains the influence of all independent variables on the dependent variable if the tests are carried out together. Whether the test has a simultaneous influence or not, the researchers explain as follows

Table 7 Simultaneous F Test

Information	Result Sig.
Model 1	,000

Source: SPSS Version 21 output

Based on the F test results in the table above with a significance value (Sig.) of 0.000 (< 0.05), it can be concluded that H0 is rejected. This conclusion indicates that simultaneously, the variables DAR (debt to total assets), DER (debt to equity ratio), Capital Intensity, and Market Share have a significant influence on profitability. These results indicate that a regression model involving all independent variables together can be used to explain variations in the dependent variable profitability in this study.

Based on the calculations and analysis carried out above regarding the influence of independent variables partially and simultaneously on the dependent variable, it can be concluded as follows:

The effect of debt to total assets (DAR) on profitability states that DAR has a significant effect on profitability which is assessed as significant at 0.000 <0.05 significance level. If sig < 0.05 then H0 is rejected and Ha is accepted, which means that the DAR variable partially has a significant effect on profitability. The regression coefficient value is -0.251 which has a negative direction. The statement can be explained that the presence of the DAR variable used in this research has an impact on reducing the level of company profitability. This can be rationalized as if the company has debt compared to a large number of assets, it will reduce the company's profitability. This is because having a large amount of assets owned by the company will affect the size of the operational costs used to operate a company's assets. Based on this, a high DAR will decrease profitability due to the use of high operational costs. The results of this research are in line with research from [7] which shows that DAR has a negative direction towards profitability. This result is in line with theory [7] which states that if the DAR value is high then the profit obtained will also be low.

The effect of the debt-to-equity ratio on profitability states that DER has a significant effect on profitability which is assessed as significant at 0.000 <0.05 significance level. If sig < 0.05 then H0 is rejected and Ha is accepted, which means that the DER variable partially has a significant effect on profitability. The regression coefficient value is 0.036 which is positive. The statement can be explained that the DER variable influences increasing profitability in the

company. This can be explained if the debt compared to equity can enhance the company's profitability, as having a balanced debt-to-equity ratio means the company only bears 50% of the interest expenses, which does not incur operational costs. Therefore, it can be concluded that the presence of DER can increase the level of profitability. The results are in line with Sartono's (2010) theory in quote [8] explaining that the greater the use of debt in the capital structure, the profit of a cooperative will increase. The results of this research are in line with research [9], namely that DER has a significant influence on profitability in a positive direction.

The effect of capital intensity on profitability states that capital intensity has a significant effect on profitability, which is assessed as significant at 0.000 < 0.05. If sig < 0.05 then H0 is rejected and Ha is accepted, which means that the capital intensity variable partially has a significant effect on profitability. The regression coefficient value is -1.408 which is negative. The statement explains that the intensity of capital (or the use of own capital) reduces the profitability of the company. This can be explained if a cooperative company is more focused on using its capital, the company will be limited in utilizing capital for contractual activities or customer financing. A reduction in contractual and financing activities undertaken by the company, it will impact the turnover of the cooperative, thus affecting the profitability of the company. Conversely, if the company is not intense in the use of its own capital and can use borrowed capital, the company will have more flexibility in conducting contractual activities or providing financing to cooperative members. This will impact the cooperative interest, leading to increased profitability. The results of this research are in line with research [2] namely that the capital intensity variable has a significant effect on profitability which is negative because the turnover of capital purchased for large assets as investment will cause a decrease in profitability so that sales will be hampered because of the capital purchased for assets. This result is in line with the theory according to Dwiyanti & Jati (2019) in quote [10] that the greater the asset depreciation costs, the smaller the level of cooperative income obtained.

The effect of market share on profitability states that market share has a significant effect on profitability which is assessed as significant at 0.000 <0.05 significance level. If sig < 0.05 then H0 is rejected and Ha is accepted, which means that the market share variable partially has a significant effect on profitability. The regression coefficient value is 2.059 which is positive. This indicates that the higher the market share value, the increase in profitability will occur. This can be explained that if a cooperative has a wider or larger customer base, it will certainly impact the profitability of the company. The expansion of market share or the increase in members can contribute to additional financing activities for customers or add fresh funds from customer deposits, which can be reinvested to generate company profitability. Therefore, it is understood that an increase in market share enhances profitability. The results of this research are in line with [3], namely that market share has a significant influence on profitability in a positive direction. The results are in line with the theory according to [11] that high market share will result in an increase in profitability.

The effect of DAR, DER, capital intensity and market share on profitability

simultaneously. DAR, DER, capital intensity, and market share have a significant effect on cooperative profitability. The results of this research show that the F test significance value is $0.000 < 0.05$ significance level, so it can be concluded that simultaneously DAR, DER, capital intensity, and market share influence profitability. Based on the calculation results *Adjusted R Square* is 0.901 indicating the ability of the independent/dependent variables simultaneously to explain the independent variables. Big *Adjusted R^2* 90.1% indicates that the variables DAR, DER, capital intensity, and market share have a strong influence on profitability. This is in line with research from [12] whose results show that leverage, Capital intensity, and market share simultaneously influence profitability.

4. Conclusion

Based on the results of the regression analysis, it can be concluded that partially, debt to total assets, debt to equity ratio, capital intensity, and market share have a significant effect on the profitability of the Kediri City Cooperative. A significance value of less than 0.05 for each variable indicates a significant influence. Debt to total assets has a negative influence, indicating that an increase in this ratio has the potential to reduce profitability. On the other hand, debt to-equity ratio and market share have a positive influence, which means that an increase in these two variables can increase profitability. Capital intensity also has a negative influence, indicating that increasing capital intensity can cause a decrease in profitability. Overall, these four variables, namely debt to total assets, debt to equity ratio, capital intensity, and market share, together have a significant influence on profitability, with an Adjusted R Square value reaching 90.1%.

This research makes an important contribution to cooperatives in Kediri City by identifying crucial factors that influence profitability. The analysis shows that debt to total assets, debt to equity ratio, capital intensity, and market share significantly influence cooperative profitability. These findings provide practical guidance for cooperative managers to effectively manage financial structure, capital intensity, and market share strategies. The Adjusted R Square value is 90.1%, this research provides a strong basis for strategic planning and decision-making at the cooperative management level, with the potential to improve the financial performance and resilience of the cooperative.

Limitations of this research include a small focus on cooperatives in Kediri City, a limited sample of 30 cooperatives, and dependence on data from the Kediri City Cooperative Service. This can limit the results and accuracy of findings. The next research suggestion is to increase the number of samples, and expand the research area to other cities.

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