Does Capital Structure Impact Financial Performance? (Banking Enterprise in ASEAN 2017- 2021)

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ABSTRACT: This study intends to investigate how capital structure affects the financial health of ASEAN banking organizations. Demands for improving banking performance must always be carried out so that their survival can be maintained properly. A company's financial performance is influenced by various factors, and capital structure is one of them. The sample used in this study is the ranking of the top 10 banking companies with the largest assets in ASEAN in 2021 during the 2017-2021 period. The dependent variable in this study is financial performance which is proxied by ROA, ROE, and Tobin's Q. Leverage, DER, and collateralizable assets are used as proxies for the independent variable, capital structure. The method used in this research is panel data regression analysis. The results of this study are that there is a negative effect of leverage on ROA, DER has no effect on ROA, CA has a positive effect on ROA, Leverage has a positive effect on ROE, DER has a negative effect on ROE, CA has a positive effect on ROE, leverage has a positive effect on Tobin's q, DER and CA has no effect on Tobin's q.

KEYWORDS: Capital Structure, Financial Performance, ASEAN Banking Company

INTRODUCTION
ASEAN has successfully integrated its economic system in this era of globalization, making it one of the regions that has done so. The Association of Southeast Asian Nations is known by the initials ASEAN. In order to build an ASEAN Economic Community (AEC), the ASEAN countries have been pushed to integrate their economies through tighter collaboration as a result of the creation of a number of agreements within the ASEAN framework (Primadiana, 2019). The development of the banking sector in the ASEAN area will face intense competition as a result of the founding of the AEC. The economy of a nation will suffer if banks have issues. So that its survival can be adequately maintained, the demands for enhancing banking performance must continually be carried out (Astuti, 2022).

In order to be deemed a healthy bank, a bank must have a minimum ROA ratio of 1.5% and a minimum ROE ratio of 12%, according to Bank Indonesia (generic bank indicators that can be used as a benchmark for global banks). While Dzahabiyya,J., et.al. (2020) outline the standardization of the Tobin's q and state that’s a value greater than 1 indicates that a company is successful in managing its assets, a value lower than 1 indicates that a company is failing to manage its assets, and a value equal to 1 indicates that a company is stagnant in managing its assets. However, in practice, there are still instances that demonstrate that the financial performance indicators of banking organizations have not quite satisfied the criterion for healthy banks. The available data on ASEAN banking financial statements demonstrates this. Based on the financial statements of ASEAN's banking sector that have been collected in the top ten countries with the greatest assets, the following information for return on asset (ROA), return on equity (ROE), and Tobin's q ratio:

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>DBS Bank / Singapore</td>
<td>ROA</td>
<td>0.87%</td>
<td>0.86%</td>
<td>0.98%</td>
<td>0.99%</td>
<td>0.99%</td>
</tr>
</tbody>
</table>

Table 1. Data on ASEAN Banking Performance Source: Financial Statement Data
Does Capital Structure Impact Financial Performance? (Banking Enterprise in ASEAN 2017 - 2021)

<table>
<thead>
<tr>
<th>Bank / Country</th>
<th>Year</th>
<th>ROE</th>
<th>Tobin’s q</th>
<th>ROA</th>
</tr>
</thead>
<tbody>
<tr>
<td>OCBC Bank / Singapore</td>
<td>2017</td>
<td>12.11%</td>
<td>1.0853%</td>
<td>0.82%</td>
</tr>
<tr>
<td></td>
<td>2018</td>
<td>12.28%</td>
<td>1.0870%</td>
<td>0.88%</td>
</tr>
<tr>
<td>Maybank / Malaysia</td>
<td>2017</td>
<td>8.27%</td>
<td>1.0358%</td>
<td>0.73%</td>
</tr>
<tr>
<td></td>
<td>2018</td>
<td>8.72%</td>
<td>1.1449%</td>
<td>0.86%</td>
</tr>
<tr>
<td>CIMB / Malaysia</td>
<td>2017</td>
<td>46.66%</td>
<td>0.73%</td>
<td>0.69%</td>
</tr>
<tr>
<td></td>
<td>2018</td>
<td>16.54%</td>
<td>1.0771%</td>
<td>0.87%</td>
</tr>
<tr>
<td>Bangkok Bank / Thailand</td>
<td>2017</td>
<td>9.64%</td>
<td>1.0384%</td>
<td>1.16%</td>
</tr>
<tr>
<td></td>
<td>2018</td>
<td>9.15%</td>
<td>1.071%</td>
<td>1.26%</td>
</tr>
<tr>
<td>Kasikorn Bank / Thailand</td>
<td>2017</td>
<td>4.48%</td>
<td>0.7981%</td>
<td>1.25%</td>
</tr>
<tr>
<td></td>
<td>2018</td>
<td>4.81%</td>
<td>0.8174%</td>
<td>1.32%</td>
</tr>
<tr>
<td>Public Bank Berhad / Malaysia</td>
<td>2017</td>
<td>4.05%</td>
<td>0.7155%</td>
<td>0.98%</td>
</tr>
<tr>
<td></td>
<td>2018</td>
<td>4.04%</td>
<td>0.6928%</td>
<td>0.96%</td>
</tr>
<tr>
<td>Krung Thai Bank / Thailand</td>
<td>2017</td>
<td>6.20%</td>
<td>0.7155%</td>
<td>0.98%</td>
</tr>
<tr>
<td></td>
<td>2018</td>
<td>6.60%</td>
<td>0.7155%</td>
<td>0.98%</td>
</tr>
<tr>
<td>Siam Commercial Bank / Thailand</td>
<td>2017</td>
<td>4.94%</td>
<td>0.9493%</td>
<td>1.09%</td>
</tr>
<tr>
<td></td>
<td>2018</td>
<td>4.81%</td>
<td>0.9694%</td>
<td>1.11%</td>
</tr>
</tbody>
</table>

Table 1 lists the ROA, ROE, and Tobin's q measuring indicators for the 10 ASEAN banks with the biggest assets. It should be noted that even with the movement of the period from 2017 to 2021, the aggregate ROA ratio of ten banks is still below the 1.5% mark. This demonstrates that a bank's overall performance, as determined by the ROA ratio, is subpar. Only a few banks, including OCBC Bank in 2017–2018, United Overseas Bank in 2017, CIMB in 2017–2019, and Bangkok Bank in 2018, were able to reach levels above 12%, according to the ROE ratio in the table above. This demonstrates that, overall, the bank has to re-evaluate its degree of health using the ROE ratio. The Tobin's q value in the data table above reveals various banks with a level above 1, including DBS Bank in 2017–2018, OCBC Bank in 2017–2018, United Overseas Bank in 2017, 2018 and 2021, Maybank in 2017 and CIMB in 2017–2021, Bangkok Bank in 2017–2019 and 2021, and Krung Thai Bank in 2019 and 2021. Given that certain banks have not risen above level 1, this demonstrates that bank performance as determined by the Tobin's q is still in unhealthy category.

The following issues are put out by the author in light of the phenomenon and research gap mentioned above:

1. Does leverage have an impact on return on assets?
2. Does the ratio of debt to equity have an impact on the return on assets?
3. Does collateralizable assets have an impact on the return on assets?
4. Does leverage have an impact on return on equity?
5. Does the ratio of debt to equity affect the return on equity?
6. Does collateralizable assets have an impact on the return on equity?
Does Capital Structure Impact Financial Performance? (Banking Enterprise in ASEAN 2017-2021)

7. Does leverage effect on Tobin’s Q?
8. Does the debt to equity ratio affect Tobin’s Q?
9. Does collateralizable assets affect Tobin’s Q?

LITERATURE REVIEW

Agency Theory
The separation between a company’s owner (principal) and manager (agent), can result in agency problems, in accordance with the agency hypothesis first advanced by Jensen and Meckling (1976). The agency issue at hand is one of information asymmetry between those who are owned by the manager and the owner. According to Sudarno (2022), agency theory refers to a legal agreement between a principle and an agent. Agency theory refers to the permission given by the business owner to the management team to conduct business operations in accordance with the specified terms of the contract. Management will operate in the owner’s interests if there is a shared goal in growing the value of the company. The principal’s investment goals include obtaining a satisfactory return on their capital. As a result, it is fair for the agent to be held responsible for all of his acts involving the principal’s investment funds.

Company Financial Performance
The work that has been done is evaluated, and the results are compared to the defined standards to determine the company’s financial performance. There are two methods for analyzing a company’s financial performance: reevaluating the past to enhance the company’s financial performance moving ahead, and predicting the company’s future prospects (Hutabarat, 2022). The following are some of the indicators used to gauge financial performance:

1. Return on Asset
A measure of a company’s capacity to generate profits from its assets is called return on assets. Return on assets is one of the profitability measures used to assess how successfully a firm is constructing its business by analyzing its financial results. According to Siregar (2021), the higher the return on assets, the more effectively firm assets are used; in other words, bigger profits may be made with the same amount of assets and vice versa.

2. Return on Equity
Return on equity is a measure that assesses how much control a business has over the capital it receives from investors. Return on equity is the company’s profit result during a certain period. Shareholders are shareholders, and they receive dividends as a return on capital invested through the distribution of shares (Indrawati, 2019).

3. Tobin’s q
Tobin’s q ratio is a ratio that is used to evaluate the wealth of a company, claims Burda (2022). The price necessary to acquire the worth of the business, its properties, and its assets, or its capital stock, is also known as Tobin’s Q ratio.

Capital Structure
The term capital structure was originally used by Weston & Copeland in 1992, who defined it as permanent financing made up of long term liabilities, preference share, and equity. The debt to equity ratio of the capital structure that maximizes the value of the company’s price and shares is often lower than the debt-to-equity ratio of the capital structure that maximizes expected earnings per share (Yanti, 2022). The following are the variables considered when calculating capital structure:

1. Leverage
The proportion of debt to assets in a firm is called leverage. Another way to think about leverage is the degree to which fixed income in a company’s capital structure can pay for its fixed costs (debt and preferred shares). According to Yanti (2022) the risk put on the organization increases as debt levels in the capital structure increase.

2. The Debt to Equity Ratio
The ratio used to evaluate debt to equity is called the debt to equity ratio. Comparing the company’s debt and equity will help you determine this ratio (Sufyati, 2021). More money is obtained from outside the company when this percentage is higher.

3. Collateralizable Asset
Assets that can be used as collateral for loan requests to creditors are known as collateralizable assets. The agency conflict that arises between shareholders and creditors is reduced in proportion to the amount of assets employed as collateral for the company, allowing it to freely deliver sizable dividends (Mauris & Rizal, 2021).
Does Capital Structure Impact Financial Performance? (Banking Enterprise in ASEAN 2017 - 2021)

Figure 1. Framework

Effect Leverage of Return on Asset
Leverage certainly has an impact on financial performance, according to numerous research. Research by Bahri et al. (2022), Li et al. (2019), and Nasution et al. (2022) demonstrates that’s leverage has a negative affect on a company’s financial performance. A corporation is more likely to pay interest when it has more debt because more debt means less cash is available, which increases the risk that high-growth debt will be unprofitable. It is possible to construct the following hypotheses from the description of the relationship between the studied variables:

H1: Leverage has a negative effect on the return on assets.

Effect Debt to Equity Ratio of Return on Asset
Numerous studies have found that the debt to equity ratio is a factor that affects financial success. Studies by Irman and Purwati (2020) and Hertina et al. (2021) show that the debt to equity ratio negatively affects return on assets. However, the results of a study by Januri (2021), which assert that the debt-to-equity ratio affects the return on assets, disagree with the results of this study. The description of the relationship between these study factors could lead to the creation of the following hypotheses: H2: Debt to equity ratio has a negative effect on return on assets.

Effect Collateralizable Asset of Return on Asset
Asset guarantees will provide the business more confidence to try to borrow more money to raise revenue and boost returns to shareholders (Wahjudi, 2020). The number of initial assets available for use as collateral for the business may have an impact on investor confidence in the rate of return on assets (Rizal & Triyanto, 2021). Financial performance is impacted by collateralizable assets; the greater the amount, the poorer the performance. However, when the amount of collateralizable assets is modest, the financial performance is strong. The following hypothesis development can be suggested based on the description of the connection between the research variables:

H3: The return on assets is positively impacted by collateralizable assets.

Effect Leverage of Return on Equity
Leverage has been shown in numerous earlier research to have an impact on financial performance. Leverage has a detrimental impact on return on equity, according to studies by Onyebuchi and Lebari (2022), Shafiq (2022), and Zelalem (2020). Outside financing may result in higher financial debt and substantially lower profitability for the company. Return on equity (ROE), a metric used to assess bank performance, is significantly impacted by financial leverage. The creation of the following hypotheses might be suggested based on the description of the relationship between the research variables:

H4: Leverage has a negative impact on the return on equity.
Does Capital Structure Impact Financial Performance? (Banking Enterprise in ASEAN 2017-2021)

Effect Debt to Equity Ratio of Return on Equity

Financial performance is influenced by a number of factors, including the debt to equity ratio. Aniyah et al. (2020) and Efendi et al. (2019) conducted studies that demonstrate the detrimental impact of the debt to equity ratio. The research of Siregar and Harahap (2021), which claims that the debt-to-equity ratio has no impact and is unimportant to return on equity, is in direct conflict with this study. This is conceivable because businesses with a lot of debt have said they must fulfill their obligations to third parties. The creation of the following hypotheses might be suggested based on the description of the relationship between the research variables:

H5: Return on equity is negatively impacted by the debt to equity ratio.

Effect Collateralizable Asset of Return on Equity

The guaranteed worth of the firm’s assets and the degree of sales activity that the company engages in are typically used to gauge the company’s capacity to produce predicted profits. A corporation will be better equipped to turn a profit if its assets are worth a lot and it has a lot of sales activity, according to Maurise and Rizal (2021). The creation of the following hypotheses is possible in light of the previous description of the relationship between the research variables:

H6: A collateralizable asset influences return on equity in a good way.

Effect Leverage of Tobin’s Q

Too much leverage is bad for a firm because it makes it difficult to employ financial resources effectively and efficiently (Gurnita et al., 2021). As a result, the more debt a company has, the more its value will decline. Leverage can impact Tobin’s Q, according to a number of studies. Leverage has a detrimental impact on Tobin’s Q, according to research by Gurnita et al. (2021), Al-Shehat (2019), and Ibrahim (2020). The following hypothesis formulation can be suggested based on the description of the link between these study variables:

H7: Tobin’s q is negatively impacted by leverage.

Effect Debt to Equity Ratio of Tobin’s Q

According to Simorangkir’s research from 2021, DER increases business value, which is equivalent to Tobin’s q. Companies with a high DER show little financial risk taken on by the business. Investor interest in purchasing and selecting businesses with greater DER ratios is impacted by this. However, this study deviates from the findings of Suhendry (2021), Alifia and Sanusi (2021), and others who found that DER has no impact on Tobin’s q. The following statement can be made using the explanation of the link between these study variables:

H8: Debt to equity ratio has a positively affect on the tobin’s q.

Effect Collateralizable Asset of Tobin’s q

Collateralizable assets has an impact on how financial performance of the business has improved (Tobin’s q indicator) as a proxy for capital structure. Businesses are more inclined to actively seek out ways to increase the productivity of their financial performance when they use valuable assets as debt collateral. This is due to increased accountability among the organization’s management, claims Wahjudi (2020). The following hypotheses could be made based on the context of the relationship between the research variables:

H9: A collateralizable asset affects Tobin’s q favorably.

METHODS

The verification research method and a quantitative descriptive methodology are both used in this study. Research that depicts symptoms or occurrences that take place and can be quantified using numbers is known as a quantitative descriptive approach (Zakariah, 2020). The population of this study is conventional banking, which includes 100 banks from ASEAN member countries.

The sampling method makes use of purposeful sampling (sample criteria). The top 10 banks in ASEAN by ranking and readily available financial statement information for the years 2017 to 2021 were used as the selection criteria. Singapore, Malaysia, and Thailand each have one of the top ten banks. In the data analysis process, both descriptive and inferential statistics are used. Examples of inferential statistics include conventional assumption tests, multiple regression analyses, t tests, and coefficients of determination. The following three regression model equations:

Model 1: \( \text{ROA} = \alpha + \beta_1 \text{LV} + \beta_2 \text{DER} + \beta_3 \text{CA} + \epsilon_{it} \)  
Model 2: \( \text{ROE} = \alpha + \beta_1 \text{LV} + \beta_2 \text{DER} + \beta_3 \text{CA} + \epsilon_{it} \)  
Model 3: \( \text{Tobin’s Q} = \alpha + \beta_1 \text{LV} + \beta_2 \text{DER} + \beta_3 \text{CA} + \epsilon_{it} \)  

Description: ROA = Return On Assets
Does Capital Structure Impact Financial Performance? (Banking Enterprise in ASEAN 2017-2021)

ROE = Return On Equity
LV = Leverage
DER = Debt to Equity Ratio
CA = Collateralizable Assets
\( \epsilon_{it} \) = Error regresi

This model selection procedure selects the ideal regression model’s from the Common Effect Model (PLS), Fixed Effect Model (FEM), and Random Effect Model (REM).

RESULTS

Descriptive Statistics

Table 2. Descriptive Statistics Source: Eviews Output Descriptive Statistics

<table>
<thead>
<tr>
<th></th>
<th>X1_LV</th>
<th>X2_DER</th>
<th>X3_CA</th>
<th>Y1_ROA</th>
<th>Y2_ROE</th>
<th>Y3_TOBIN’S Q</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mean</td>
<td>0.832738</td>
<td>8.532170</td>
<td>0.020035</td>
<td>0.010015</td>
<td>1.917318</td>
<td>0.938670</td>
</tr>
<tr>
<td>Median</td>
<td>0.857600</td>
<td>6.022715</td>
<td>0.017635</td>
<td>0.009555</td>
<td>1.817560</td>
<td>0.976065</td>
</tr>
<tr>
<td>Maximum</td>
<td>0.984440</td>
<td>63.26735</td>
<td>0.039710</td>
<td>0.013530</td>
<td>3.687090</td>
<td>1.144860</td>
</tr>
<tr>
<td>Minimum</td>
<td>0.526280</td>
<td>1.110950</td>
<td>0.005160</td>
<td>0.007260</td>
<td>0.710740</td>
<td>0.547030</td>
</tr>
<tr>
<td>Std. Dev.</td>
<td>0.101707</td>
<td>9.704455</td>
<td>0.009249</td>
<td>0.001672</td>
<td>0.606322</td>
<td>0.144193</td>
</tr>
<tr>
<td>Observations</td>
<td>50</td>
<td>50</td>
<td>50</td>
<td>50</td>
<td>50</td>
<td>50</td>
</tr>
</tbody>
</table>

Output result summary:
1. The highest and lowest values of leverage are 0.984440 and 0.526280, respectively, with a mean value of 0.832738 and a median value of 0.857600. The standard deviation is 0.101707.
2. The debt-to-equity ratio's mean, average, median, minimum, maximum, and standard deviation values are 8.532170, 6.022715, 63.26735, 1.110950, and 9.704455, respectively.
3. The median or middle value of the assets that can be used as collateral is 0.017635, the maximum value is 0.039710, the lowest value is 0.005160, and the standard deviation is 0.009249. The mean or average value of the assets that can be used as collateral is 0.020035.
4. ROA has the following values: a mean or average of 0.010015, a median or center of 0.009555, a maximum of 0.013530, a lowest of 0.007260, and a standard deviation of 0.001672.
5. ROE has the following values: a mean or average of 1.917318, a median or middle of 1.817560, a maximum or highest value of 3.687090, a minimum of 0.710740, and a standard deviation of 0.606322.
6. The mean or average value of Tobin’s Q is 0.938670. The median or middle value is 0.976065. The highest and minimum values are 1.144860 and 0.547030, respectively. The standard deviation is 0.144193.

Panel Data Regression Model Selection Model Equation I

Chow test output results:

Table 3. Chow Test

<table>
<thead>
<tr>
<th></th>
<th>Statistic</th>
<th>d.f.</th>
<th>Prob.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cross-section F</td>
<td>1.001739</td>
<td>(9,37)</td>
<td>0.4559</td>
</tr>
<tr>
<td>Cross-section Chi-square</td>
<td>10.903185</td>
<td>9</td>
<td>0.2824</td>
</tr>
</tbody>
</table>

Source: Eviews Output Chow Test Model Equation I

The first equation model's eviews output results are displayed in the table above. The cross section Chi-Square probability value is displayed in the table as being 0.2824 > 0.05. This demonstrates that the Common Effect Model (CEM) is superior to the Fixed Effect Model (FEM) as a research model.

Hausman test output results:
Does Capital Structure Impact Financial Performance? (Banking Enterprise in ASEAN 2017-2021)

Table 4. Hausman Test

<table>
<thead>
<tr>
<th>Test Summary</th>
<th>Chi-Sq. Statistic</th>
<th>Chi-Sq. d.f.</th>
<th>Prob.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cross-section random</td>
<td>3.850635</td>
<td>3</td>
<td>0.2781</td>
</tr>
</tbody>
</table>

Source: Eviews Output Hausman Test Model Equation I

The output of the Hausman test on the first equation model from Eviews is summarized in the table above. The number 0.2781 > 0.05 is given in the table above as the cross section random probability. This demonstrates that the Random Effect Model (REM) is the superior research model to both the Fixed Effect Model (FEM) and the Fixed Effect Model (REM).

Lagrange Multiplier test output results:

Table 5. Lagrange Multiplier Test

<table>
<thead>
<tr>
<th>Test Hypothesis</th>
<th>Cross-section</th>
<th>Time</th>
<th>Both</th>
</tr>
</thead>
<tbody>
<tr>
<td>Breusch-Pagan</td>
<td>0.32338</td>
<td>0.000300</td>
<td>0.323638</td>
</tr>
<tr>
<td>(0.5696)</td>
<td>(0.9862)</td>
<td>(0.5694)</td>
<td></td>
</tr>
<tr>
<td>Honda</td>
<td>-0.568628</td>
<td>0.017329</td>
<td>-0.389827</td>
</tr>
<tr>
<td>(0.7152)</td>
<td>(0.4931)</td>
<td>(0.6517)</td>
<td></td>
</tr>
<tr>
<td>King-Wu</td>
<td>-0.568628</td>
<td>0.017329</td>
<td>-0.300999</td>
</tr>
<tr>
<td>(0.7152)</td>
<td>(0.4931)</td>
<td>(0.6183)</td>
<td></td>
</tr>
<tr>
<td>Standardized Honda</td>
<td>-0.151497</td>
<td>0.363296</td>
<td>-3.307788</td>
</tr>
<tr>
<td>(0.5602)</td>
<td>(0.3582)</td>
<td>(0.9995)</td>
<td></td>
</tr>
<tr>
<td>Standardized King-Wu</td>
<td>-0.151497</td>
<td>0.363296</td>
<td>-3.027984</td>
</tr>
<tr>
<td>(0.5602)</td>
<td>(0.3582)</td>
<td>(0.9988)</td>
<td></td>
</tr>
<tr>
<td>Gourieroux, et al.</td>
<td>--</td>
<td>--</td>
<td>0.000300</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>(0.7430)</td>
</tr>
</tbody>
</table>

Source: Eviews Output Lagrange Multiplier Test Model Equation I

The findings of the lagrange multiplier test on the first equation model are explained in the table above for the eviews output. The probable value for the Breush-Pagan cross section is given as 0.32338 > 0.05 in the table above. This demonstrates that the Common Effect Model (CEM) is the superior research model than the Random Effect Model (REM).

Model Equation II

Chow test output results:

Table 6. Chow Test

<table>
<thead>
<tr>
<th>Effects Test</th>
<th>Statistic</th>
<th>d.f.</th>
<th>Prob.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cross-section F</td>
<td>2.274839</td>
<td>(9,37)</td>
<td>0.0382</td>
</tr>
<tr>
<td>Cross-section Chi-square</td>
<td>22.020351</td>
<td>9</td>
<td>0.0088</td>
</tr>
</tbody>
</table>

Source: Eviews Output Chow Test Model Equation II
Does Capital Structure Impact Financial Performance? (Banking Enterprise in ASEAN 2017-2021)

The Common Effect Model (CEM) and the Fixed Effect Model (FEM) can be chosen based on the Chow test findings, which are shown in the table above. The table displays the cross section Chi-Square probability value of 0.0088>0.05. This demonstrates that the Common Effect Model (CEM) is the most effective study model.

Results of the Hausman test output:

**Table 7. Hausman Test**

<table>
<thead>
<tr>
<th>Test Summary</th>
<th>Chi-Sq. Statistic</th>
<th>Chi-Sq. d.f.</th>
<th>Prob.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cross-section random</td>
<td>4.555659</td>
<td>3</td>
<td>0.2074</td>
</tr>
</tbody>
</table>

*Source: Eviews Output Hausman Test Model Equation II*

The cross-section's at random value of probability is 0.2074>0.05 in the table above. This illustrates that the Fixed Effect Model (FEM) is inferior to the Random Effect Model (REM), which is the better research model.

Lagrange Multiplier test output results:

**Table 8. Lagrange Multiplier Test**

<table>
<thead>
<tr>
<th>Test Hypothesis</th>
<th>Test Statistic</th>
<th>Time</th>
<th>Both</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cross-section</td>
<td>1.631157</td>
<td>0.641278</td>
<td>2.272435</td>
</tr>
<tr>
<td>Breusch-Pagan</td>
<td>(0.2015)</td>
<td>(0.4232)</td>
<td>(0.1317)</td>
</tr>
<tr>
<td>Honda</td>
<td>1.277168</td>
<td>-0.800799</td>
<td>0.336844</td>
</tr>
<tr>
<td>(0.1008)</td>
<td>(0.7884)</td>
<td>(0.3681)</td>
<td></td>
</tr>
<tr>
<td>King-Wu</td>
<td>1.277168</td>
<td>-0.800799</td>
<td>0.042140</td>
</tr>
<tr>
<td>(0.1008)</td>
<td>(0.7884)</td>
<td>(0.4832)</td>
<td></td>
</tr>
<tr>
<td>Standardized Honda</td>
<td>1.858684</td>
<td>-0.545270</td>
<td>-2.453399</td>
</tr>
<tr>
<td>(0.0315)</td>
<td>(0.7072)</td>
<td>(0.9929)</td>
<td></td>
</tr>
<tr>
<td>Standardized King-Wu</td>
<td>1.858684</td>
<td>-0.545270</td>
<td>-2.625024</td>
</tr>
<tr>
<td>(0.0315)</td>
<td>(0.7072)</td>
<td>(0.9957)</td>
<td></td>
</tr>
<tr>
<td>Gourieroux, et al.</td>
<td>-</td>
<td>-</td>
<td>1.631157</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>(0.2114)</td>
</tr>
</tbody>
</table>

*Source: Eviews Output Lagrange Multiplier Test Model Equation II*

According to the table above, the probability value for the breush-pagan cross section is 1.631157 > 0.05. This illustrates that the Common Effect Model (CEM) outperforms the Random Effect Model (REM) as a research model.

Model Equation III

Results of the Chow test:

**Table 9. Chow Test**

<table>
<thead>
<tr>
<th>Effects Test</th>
<th>Statistic</th>
<th>d.f.</th>
<th>Prob.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cross-section F</td>
<td>4.120976</td>
<td>9,37</td>
<td>0.0010</td>
</tr>
<tr>
<td>Cross-section Chi-square</td>
<td>34.717310</td>
<td>9</td>
<td>0.0001</td>
</tr>
</tbody>
</table>

*Source: Eviews Output Chow Test Model Equation III*
Does Capital Structure Impact Financial Performance? (Banking Enterprise in ASEAN 2017-2021)

The table above is the result of the chow test on equation III to choose the best model between the Common Effect Model (CEM) and the Fixed Effect Model (FEM). The table shows that the cross section Chi-Square probability value is 0.0001 < 0.05. This indicates that the best research model is the Fixed Effect Model (FEM).

Hausman test output results:

Table 10. Hausman Test

<table>
<thead>
<tr>
<th>Summary Test</th>
<th>Chi-Sq. Statistic</th>
<th>Chi-Sq. d.f.</th>
<th>Prob.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cross-section random</td>
<td>28.652729</td>
<td>3</td>
<td>0.0000</td>
</tr>
</tbody>
</table>

Source: Eviews Output Hausman Test Model Equation III

In the above table, the cross section random probability value is given as 0.000 < 0.05. This demonstrates that the Fixed Effect Model (FEM) is the superior research model when compared to the Random Effect Model (REM).

Lagrange Multiplier test output results:

Table 11. Lagrange Multiplier Test

<table>
<thead>
<tr>
<th>Test Hypothesis</th>
<th>Cross-section</th>
<th>Time</th>
<th>Both</th>
</tr>
</thead>
<tbody>
<tr>
<td>Breusch-Pagan</td>
<td>0.030632</td>
<td>3.580417</td>
<td>3.611049</td>
</tr>
<tr>
<td>Honda</td>
<td>0.175020</td>
<td>1.892199</td>
<td>1.461744</td>
</tr>
<tr>
<td>King-Wu</td>
<td>0.175020</td>
<td>1.892199</td>
<td>1.671488</td>
</tr>
<tr>
<td>Standardized Honda</td>
<td>0.658380</td>
<td>2.445420</td>
<td>-1.130788</td>
</tr>
<tr>
<td>Standardized King-Wu</td>
<td>0.658380</td>
<td>2.445420</td>
<td>-0.711628</td>
</tr>
<tr>
<td>Gourieroux, et al.</td>
<td>--</td>
<td>--</td>
<td>3.611049</td>
</tr>
</tbody>
</table>

Source: Reviews Output Lagrange Multiplier Test Model Equation III

The Breusch-Pagan cross section's probability value is given in the table above as 0.030632 > 0.05. This demonstrates that the Common Effect Model (CEM), as opposed to the Random Effect Model (REM), is the superior research model.

DISCUSSIONS

Leverage’s Impact on Return on Asset

Leverage was determined to have a coefficient with a value of -0.00779 (negative) and a probability score of 0.00000 0.05 (significant) according to the results. This demonstrates that leverage significantly reduces Return on Asset (ROA). The unidirectional nature of the relationship is indicated by the effect's negative value, which suggests that the more a bank's leverage, the lower its return on assets. In contrast, a bank's Return on Asset increases when its amount of leverage decreases.

Debt to Equity Ratio’s Impact on Return on Asset

The hypothesis test findings indicate that the probability value is 0.7237 > 0.05 (insignificant) and the coefficient’s value is - 2.9900 (negative). As a result, it is clear that Return on Asset (ROA) is unaffected by the Debt to Equity Ratio. No effect is the definition of a change in the debt to equity ratio in banking firms as having no impact on the ratio of return on assets.
Does Capital Structure Impact Financial Performance? (Banking Enterprise in ASEAN 2017-2021)

**Collateralizable assets’ impact on asset returns**

Collateralizable Assets were discovered through measurement in equation model three with a coefficient value of 0.0911 (positive) and a probability value of 0.0000<0.05 (significant). This demonstrates that the presence of Collateralizable Assets significantly improves Return on Asset (ROA). The effect has a positive value and is unidirectional, therefore the bigger the amount of debt collateral or collateralizable assets, the higher the Return on Asset (ROA) will be. Conversely, the Return on Asset (ROA) is inversely correlated to the amount of Collateralizable Assets or Collateral for Debt.

**Leverage’s Impact on Return on Equity**

Leverage was found to have a significant probability value of 0.000005 and a positive coefficient value of 1.9219. This shows that using leverage effectively raises Return on Equity (ROE). Positive connotation only affects one person. The claim is that when debt levels rise, the Return on Equity rises. In contrast, as debt levels rise, the Return on Equity declines.

**The Impact of Debt to Equity Ratio on Return on Equity**

The findings indicated that the Debt to Equity Ratio had a coefficient value of -0.0076 (negative) and a probability value of 0.0013<0.05 (significant). This indicates that the debt to equity ratio significantly lowers return on equity (ROE). The definition of negative influence is a unidirectional influence that the degree of return on equity decreases as the debt to equity ratio increases. In contrast, the Return on Equity is higher the lower the Debt to Equity Ratio.

**The Effect of Collateralizable Assets on Return on Equity**

According to hypothesis testing, the Collateralizable Assets variable has a positive coefficient value of 77.3621 and a significant probabilities value of 0.0000 0.05. As a result, Collateralizable Assets are clearly beneficial to Return on Equity (ROE). Positive influences are unidirectional, which means that the amount of Return on Equity will increase in direct proportion to the value of Collateralizable Assets or Collateral for Debt. In contrast, the Return on Equity level decreases as the value of Collateralizable Assets or Debt Collateral increases.

**The Impact of Leverage on Tobin’s q**

Leverage has a coefficient value of 1.1283 (positive) and a probability value of 0.0000 0.05 (significant) according to the calculations for hypothesis testing. This suggests that using leverage greatly raises Tobin’s q. The positive result suggests a unidirectional effect, which means that the Tobin’s Q Return in banking enterprises increases in proportion to the degree of leverage. In contrast, the Tobin’s q Return level in banking enterprises decreases as leverage increases.

**The Impact of Debt to Equity Ratio on Tobin’s q**

A probability value of 0.6148> 0.05 (not significant) and a coefficient value of 0.0002 (positive) were found during the calculation of the Debt to Equity Ratio (DER) hypothesis testing. This indicates that Tobin’s q is unaffected by the debt-to-equity ratio. No effect suggests that the high and low levels of Tobin’s Q in banking companies are unaffected by changes in the Debt to Equity Ratio.

**The Impact of Collateralizable Assets on Tobin’s q**

The results of hypothesis testing found Collateralizable Assets with a coefficient value of -0.1633 (negative) and a probability value of 0.7785> 0.05 (insignificant). This means that Collateralizable Assets has no impact on Tobin’s Q. No effect implies that the movement of Collateralizable Assets has no impact on the high and low levels of Tobin's Q on banking companies.

**CONCLUSIONS**

The following conclusions can be reached from the management and analysis of all study data:

1. The return on assets is significantly impacted negatively by leverage.
2. Return on assets is unaffected by the debt-to-assets ratio.
3. The return on assets is significantly influenced favorably by collateralizable assets.
4. Return on equity is significantly impacted favorably by leverage.
5. Return on equity is significantly affected negatively by the debt-to-equity ratio.
6. The return on equity is significantly boosted by collateralizable assets.
7. Tobin’s Q is significantly impacted favorably by leverage.
8. Tobin’s Q is not affected by the debt-to-income ratio.
9. Assets that are collateralizable have no impact on Tobin’s Q.
REFERENCES


Does Capital Structure Impact Financial Performance? (Banking Enterprise in ASEAN 2017-2021)


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