Strengthening the Role of Sharia Public Banking in the Indonesian Construction Industry: Towards an Atmosphere of Sustainable Urban Development

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Abstract. The sharia public banking is one of the major financing methods in the Indonesian construction industry. The big sharia banks such as BTPN Syariah, Bank Syariah Mandiri, BNI Syariah, and BRI Syariah (named CR4) play a major role in financing the construction industry in Indonesia. The CR4 monopolize the construction industry that causes unfair competition, while the Financial Control Authority (called Otoritas Jasa Keuangan, OJK) has yet issued regulations that favor small-scale banks. As a result, this competition causes the impact on inequality in financing construction service projects. This paper analyzes the competition within the banking industry, especially sharia public banks, the factors that affect the level of competition, and the improved regulation by the OJK in order to mitigate the competitive fringe competition in the construction financing. This study emphasizes that the capital has a significant positive effect in the form of minimum capital limitation regulation. With this regulation, the small scale sharia public banking would be merged and financially stronger to support the construction projects. This revised regulation aims to achieve the distribution of sustainable urban development implementation in Indonesia.

Keywords: sharia banking competition, sustainable development, construction industry, urban development

1. Introduction

The concept of economic spatial planning is a major factor in the urban development environment. Based on historical developments, economic spatial planning always experiences change and growth. In this context, there are a number of spatial cases as reference, namely the occurrence of centralization of bank industry activities that occur in big cities in Indonesia. The system of construction financing works as planned in the big cities in Indonesia due to the proper control of the banking industry by the four large banks called Concentration Ratio Four (CR4). Banking is one of the main strengths in financing the construction industry, especially in implementing the sustainable urban development. The progress of the construction industry rapidly grows in big cities where the banking industry is well established in Indonesia. Thus, the banking industrial support is a key support in sustainable urban development.

The development of sharia commercial banks in Indonesia is influenced by competition in the industry. Each company pursues maximum profits by implementing a different strategy. The market condition of a country will be a major factor in the level of competition. In developing economic countries, the strategies used are more directed towards elements of collusion and cooperation between banks. In advanced economic countries, the competition is carried out by running operational efficiency and high work productivity. For the competition of the conventional banking industry in Indonesia, it is known that it tends to be in an imperfect oligopoly competition, with the market share controlled mostly by state banks [11].

The sustainability of the sharia commercial bank system in Indonesia is strongly influenced by the pattern of competition in the industry and the leadership strategy of a company. Competition in the business world is a dynamic that cannot be avoided. The more competitive the banking competition, the more it will have a positive impact on business actors. The leadership strategy has a positive and significant effect on competitive advantage in Indonesia [19]. Fair competition provides good things for business people and customers. One positive impact is the urge to always be creative and innovative. Uncompetitive conditions will have a negative impact on market participants. One of them is the creation of collusion between large companies. The competition is inseparable from the regulations...
implemented by the monetary authority, namely Bank Indonesia (BI) and OJK. The monitoring function of the regulator can create fair competition in business competition.

The Indonesian economy is currently experiencing a positive development trend, and the situation is utilized by the banking industry by expanding financing. One of the financing sectors that can maximize profits for sharia commercial banks is the housing finance. The Indonesian government currently supports sustainable urban development and has an impact on increasing demand for housing finance. The increasingly critical housing issues in big cities with high population and Urban Heat Island (UHI) are challenges for the sustainable city development agenda [20,21]. Regulators in Indonesia, namely the monetary authority and financial services authority, are expected to be able to overcome the UHI problem and the problem of financial inclusion in housing finance in Indonesia.

The issue of financial inclusion in Indonesia is currently a major concern of the regulator. Every bank competes to be able to distribute construction finance because of the long-term and profitable nature of the financing. Sharia commercial banks that will expand financing in order to increase profits will consider the liquidity element of the bank. They are total assets, total liability, and equity. If the three elements are supportive, then the bank will conduct financing expansively. There is financing that experiences an increasing trend every year, namely financing for the construction.

Table 1 Average Margin Level of Sharia Commercial Bank Financing (%)

| Konstruksi | 2015 | 2016 | 2017 | 2018 |
|-----------|------|------|------|------|
| Rupiah    | 13,65| 12,51| 10,21| 9,80 |
| Valas     | 3,56 | 5,84 | 5,63 | 5,96 |

Based on sharia commercial bank financing data, it can be seen that the types of financing, namely for the construction, has increased consistently every year. The rapid growth of the construction industry will have an impact on economic development. The increase in investment has a positive impact on Indonesia's economic growth [10]. A good economic drive will have a positive impact on the development of sharia commercial bank business in Indonesia.

The purpose of this study is to analyze the types of competition in sharia commercial banking industry in Indonesia. In addition, this study was also conducted to determine the effect of total assets, total liability, and equity on sharia banks' profit. Meanwhile, this research is useful as an illustration of the state of competition in the Indonesian banking industry. Therefore, the regulator can implement policies in maintaining the sustainability of Indonesia’s financial system and providing further development of study activities.

2. Literature Review

The economic spatial concept has a more operational meaning, for example, it is associated with capital investment, transportation networks, industry, and technology. The economic spatial concept considers that the environment as one of the factors that influences human activities that are complex and multi-dimensional [1].

Company's balance sheet financial statements are very important in analyzing business projections. Profit is difficult to be determined in companies with different managements and owners or companies that consist of many stakeholders with different interests. It results in the uncertainty of profits for other companies in the market. Company profit depends on the competitive structure in which the company operates [6].

Structural Conduct Performance (SCP) theory is a classical industrial economics theory approach in economic analysis. Edwards et al [9] illustrate that the behavioral framework and market structure performance (SCP) are derived from neoclassical market analysis. The SCP paradigm was an early thought of Harvard and was popularized from 1940 to 1960 with its empirical work involving the identification of correlations between industrial structure and performance. The SCP hypothesis has led to the implementation of most anti-trust laws. The Chicago school has contributed to the thinking in the 1960s to 1980s by emphasizing the rational aspects of large companies, price theory, and econometric estimates. During the 1980s, game theory became the center of attention with an emphasis on strategic decision making. After 1990, empirical industrial organizations with the use of economic and
econometric theories led to empirical modeling of complex technology, change, analysis of mergers, solutions, and identification of market forces.

Analysis of the SCP approach, related to the behavior and achievement of company performance, is determined by the structure of the industry in which the company operates. The essence of the SCP relationship is the series of sellers' concentration with the market's pricing behavior towards above-normal profits. Therefore, the concept of this theory shows that market structure has a positive relationship with bank performance assuming the market behavior without competition in the industry [16]. Furthermore, the perception of the SCP theory is based on the view that concentrated markets encourage collusion between companies to obtain maximum profits. According to this hypothesis, a high level of market concentration will directly affect the level of competition among banks in the industry. This theory clearly shows that the influence of market concentration on performance is positive and significant, and is no longer based on the level of efficiency of the bank itself [17].

The SCP paradigm consists of three elements. The first is a structure (refers to market structure), which is the variable used to describe the market structure, including seller concentration, level of product differentiation, and entry barriers. The second is behavior (refers to company behavior). The variables used to determine company behavior consist of pricing, collusion, advertising, research, and development, and capacity investment strategies. In fact, some have interpreted behavior as to whether companies collude or compete. While the third is the performance, which is the outcome or balance that is valued in terms of allocation efficiency. The variables most widely used to measure performance are profitability and price margins [4].

In analyzing the competition of the sharia commercial bank industry in Indonesia, the literature review was conducted and sourced from the author as well as from the other authors. The first exogenous variable is total assets, in which the research has been done by the author found that there is a positive relationship between total assets and banking profits. The coefficient of total assets on bank profits is positive. In other words, when there is an increase in total assets, it will cause an increase in bank income. Conversely, when there is a decrease in total assets, it will cause a decrease in bank profits [11]. Another opinion was expressed by Molyneux and Forbes [18] who have found a negative relationship between total assets and bank performance. The low total assets will have a high risk. If the total assets are high, the bank can choose an effective investment portfolio, even though the difference in assets between banks cannot be used to make a profit.

The second exogenous variable is the total liability, in which the research conducted by the author found that there is a positive relationship between total liability and bank profits. The coefficient of total liability is positive, meaning that when there is an increase in total liability, it will cause an increase in return on assets. Conversely, when there is a decrease in total liability, it will cause a decrease in bank profits [11]. Another opinion was expressed by Aguirre and Lee [3] who has examined the relationship between market structure and bank performance in different regimes in Europe, America, and Japan from 1986 to 1999 with 133 banks. The study found that total liabilities has a negative relationship with bank performance. The low total assets will increase the risk of bank operations as a result of the amount of debt, hence, it will reduce the profits.

The third variable is equity, where research conducted by Bei [8] has examined the positive relationship between equity and bank profits. When the Board of Director (BOD) remuneration increases, the impact will affect the shareholders' dividend yield and bank profits. Management will ensure a return on equity is achieved to produce effective profits. Another opinion was expressed by Adrian et al [2] who have found that there is a negative relationship between equity and corporate profits. Liquidity is a very important indicator in the management of a company. The business model has changed since the financial crisis, occurred as reflected in the size of the total balance sheet. Tighter capital regulation and asset contraction have a negative effect on income.

3. Methodology
This study uses secondary data with times series of quantitative descriptive analysis. This study also uses a structure conduct performance theory to determine the competition level of Indonesia's sharia commercial bank industry. The data used are time series to determine the effect of variable total assets, total liability, and equity on profits. In total, there are 12 active sharia commercial banks in Indonesia, consisting of several types of bank categories, namely foreign exchange banks, non-foreign exchange banks, and joint venture banks. The data used comes from the OJK website and research library. The
variables used in this study are profits (Endogenous), total assets, total liability, and equity (exogenous) variables.

This study uses a sample size of sharia banks, namely the census by collecting all elements of the population. Then, a thorough study of each bank is conducted (True value). The details of the data used consisted of 1 endogenous variable, 3 exogenous variables, 4 periods included, 12 cross-sectional included, and 48 total panels (Balanced) observations. Data analysis was carried out by pooling data in the form of a time series and cross-sectional (Panel data). The estimation of the equation model from this research is panel regression with the following equation:

\[ \text{logLB} = \alpha_0 + \beta_1 \text{logTA}_{it} + \beta_2 \text{logTL}_{it} + \beta_3 \text{logEQ}_{it} - \varepsilon \]  
(Equation 1)

Information:
- logLB : Profits are dependent variables (%)
- \( \alpha \) : Constants
- \( \beta (1 \ldots 3) \): Regression coefficient of each independent variables
- logTA : Total assets are independent variables (%)
- logTL : Total Liabilities are independent variables (%)
- logEQ : Equity is an independent variable (%)
- \( \varepsilon \) : Error term
- \( t \) : Time
- \( i \) : Company

Panel regression will be carried out with the classical assumption test equation consisting of normality testing, multicollinearity testing, and heteroscedasticity testing. Heteroscedasticity commonly occurs in cross-section data, where panel data is closer to the cross-section data characteristics than the time series [7].

4. Research Description

The competition of Indonesia’s sharia commercial bank industry can be measured using the calculation of concentration ratios by classifying the squared company (Herfindahl-Hirschman index) and the 4 largest market shares (N Companies). The Herfindahl-Hirschman Index (IHH) formula is described as follows:

\[ \text{IHH} = \sum_{i=1}^{N} S_i^2 \]  
(Equation 2)

Information:
- \( S_i \): The company's market share
- \( I \): Share company achievement \( i \) per total industry achievement, where \( i = 1, 2, \ldots, N \)
- \( N \): The number of companies in the (Industrial) market.

| NO | NAMA BANK 9 (IHH)       | S (%) | SaS |
|----|-------------------------|-------|-----|
| 1  | PT Btpn Syarifh (Non Dev) | 30,787,7435 | 1,383,05107 |
| 2  | PT Bank Syarifh Mandiri (Dev) | 28,669,6413 | 821,94068 |
| 3  | PT Bank Bni Syarifh (Dev) | 15,203,97285 | 231,09918 |
| 4  | PT Bank Bri Syarifh (Dev) | 7,541,32861 | 56,871638 |
| 5  | PT Bank Mmukkat Indonesia (Dev) | 4,469,9201 | 199,95076 |
| 6  | PT Bank Bca Syarifh (Non Dev) | 3,027,94721 | 9,168,46612 |
| 7  | PT Bank Meza Syarifh (Dev) | 2,108,71024 | 1,487,9213 |
| 8  | PT Bank Jbar Bntrn Syarifh (Non Dev) | 0,837,32944 | 0,750,3407 |
| 9  | PT Panin Dthsi Syarifh, Tb (Dev) | 0,715,480594 | 0,570,7093 |
| 10 | PT Bank Syarifh Bctpbn (Non Dev) | 0,444,535454 | 0,201,202 |
| 11 | PT Bank Victoria Syarifh (Non Dev) | 0,306,62722 | 0,095,9275 |
| 12 | PT Bank Maybank Syarifh Indonesia (Campany) | 31,177,9244 | 10,095,2826 |

The Herfindahl-Hirschman Index (IHH) serves to reflect the distribution of market share for all companies in the industry, both for a number of the largest n-companies as well as companies outside of the largest n-companies. Thus, the measurement of industrial concentration is more objective. The
Herfindahl Index gives more weight to companies with greater market share. To get the value of the Herfindahl-Hirschman Index, the profit of sharia banks (Nominal) is divided by the total profits of sharia banks (Nominal), then multiplied by 100%. After obtaining the results in the form of percent (%), then the results are turned into quadrants to get the value of the Herfindahl-Hirschman Index [5].

The result of the IHH calculation value is 2,738, which means the competition of Indonesia’s sharia commercial bank industry is a dominant company condition with a competitive fringe or monopoly. The second test using the company’s concentration ratio was conducted to determine the competition of sharia banking industry in Indonesia. The value of CRN can provide an overview of the role of the largest N-companies in the industry. The company’s concentration ratio formula is explained as follows:

\[
CRN = S_1 + S_2 + S_3 + S_4 + \ldots + S_N \quad \text{(Equation 3)}
\]

Where: 
\( S_i = \frac{X_i - X_S + M_i}{X_Q - X_S + M_Q} \)  \text{ (Equation 4)}

Information:
- \( CRN \) : A description of the role of the largest N-companies in the industry.
- \( S_i \) : Company market share i (Share of company i achievements per industry total achievement).
- \( X_i, X_S, M_i \) : Sales of company i in industry Q.
- \( X_Q, X_S, M_Q \) : Industry Q sales.

The ratio used is the concentration ratio of the 4 largest companies in the industry (CR4), because this ratio is most often used in measurements [14].

| CR  | NAMA BANK (CR4)                          | S           |
|-----|------------------------------------------|-------------|
| 1   | PT Bni Syariah (Non Devisa)              | 39.78737435 |
| 2   | PT Bank Syariah Mandiri (Devisa)         | 28.66965413 |
| 3   | PT Bank Bni Syariah (Devisa)             | 15.20197085 |
| 4   | PT Bank Bri Syariah (Devisa)             | 7.241235661 |
|     | **NILAI AKHIR**                          | **91.20052799** |

The results of the CR4 calculation value are 91.20052799, which means the competition of Indonesia's sharia commercial bank industry is in a dominant company condition with a competitive fringe or monopoly. Based on the results of the IHH and CR4 calculations, it can be concluded that the competition of Indonesia's sharia commercial bank industry is in an imperfect competition structure, and is close to a monopoly.

After knowing the competition conditions, interpretation of the research results will be carried out. Before explaining the effect of exogenous variables on endogenous variables, initial testing is carried out to avoid biased conclusions. The first test uses a data normality test using the Jarque-Bera probability value (JB). The results of the normality test data in this study are as shown below:

The decision to determine whether a residual is normally distributed is by comparing the value of the Jarque-Bera Probability (JB) with an alpha level of 0.05 (5%). If the Jarque-Bera Probability is equal to or greater than 0.05, it can be concluded that the residuals are normally distributed. Conversely, if the value is smaller, then there is not enough evidence to state that the residuals are normally distributed.
The results of normality test data for 2015 up to 2018 show that the Jarque-Bera probability value is 0.108027. Hence, it can be concluded that the residuals are normally distributed, which means the classic assumptions about normalcy have been fulfilled.

The second test uses heteroscedasticity test to find out whether in the regression model there is an inequality of variance from one observation to another observation. If the variance from the residue of observation to an observation remains the same, then it is homoscedasticity. A good regression method is if there is no heteroscedasticity [13]. The results of the normality test data in this study are as shown below:

Figure 2 (Weighted Statistics and Unweighted Statistics)

Heteroscedasticity is discovered by comparing the results of the unweighted model output and the weighted model output. From the results of the output, it is known that the significance is the same, which is 1 variable. Comparison of R-Squared was not much different, namely the weighted model output is 0.442630, while the unweighted model output is 0.484452. From these data, it can be concluded that heteroscedasticity did not occur.

The third test uses a multicollinearity test to find out whether in the regression model there is an inequality of variance from one observation to another. Multicollinearity is assumed to occur if the estimation produces a high as R squared value (more than 0.8). The results of this study note that the value of R squared is only 0.484773. Thus, it can be concluded that there is no multicollinearity.

After knowing that the data used is valid, the next step is the interpretation of the results. Based on the researcher’s initial hypothesis, the three exogenous variables had a significant positive effect on endogenous variables. The results of the test between exogenous and endogenous variables in this study can be seen as shown below:

Figure 3 (Evviews Results)

| Variable  | Coefficient | Std. Error | t-Statistic | Prob. |
|-----------|-------------|------------|-------------|-------|
| LOGTA     | 0.149425    | 1.300147   | 0.096394    | 0.9230|
| LOGTL     | 1.001567    | 1.304838   | 0.47855     | 0.6371|
| LOGEQ     | 4.096353    | 0.974112   | 4.174421    | 0.0091|
| C         | -27.20049   | 5.23099    | -5.217160   | 0.0000|

- R-squared: 0.484773, Mean dependent var 2.958333
- Adjusted R-squared: 0.494644, S.D. dependent var 3.446939
- S.E. of regression: 2.555983, Akaike info criterion 4.764484
- Sum squared resid: 287.4535, Schwarz criterion 4.960337
- Log likelihood: -111.6057, Hannan-Quinn criterion 4.853331
- F-statistic: 13.79977, Durbin-Watson stat 1.965524
- Prob(F-statistic): 0.000002
The coefficient of determination explains the effect of all independent variables on the dependent variable. The coefficient of determination can be measured by the value of R-Square or Adjusted R-Square. R-Square (R²) aims to measure to which extent the model is able to explain the variation of the dependent variable and the value ranges between zero and one [15]. The proportion of the effect of the total assets, total liability, and equity variables on profits is 0.484773, which means that the exogenous variables used have a proportion of influence on sharia commercial bank profits of 48.4773%, while the rest is influenced by other variables that are not in the regression model. The test results meet the model requirements.

The findings of the first variable show a positive relationship between total assets and profits. The coefficient of total assets is positive when there is an increase in total assets, and it will cause an increase in profits. Conversely, when there is a decrease in total assets, it will cause a decrease in profits. The first findings support the initial research conducted by Fatwa et al [11] and oppose the research conducted by Molyneux and Forbes [18]. Each bank makes various efforts in increasing total assets according to the bank's business interests. The ultimate goal of increasing total assets is to gain effective and maximum profits to support business sustainability in the Indonesian banking industry.

The findings of the second variable indicate that there is a positive relationship between total liability and earnings. The coefficient of total liability is positive. In other words, when there is an increase in total liability, it will cause an increase in profits. Conversely, when there is a decrease in total liability, it will cause a decrease in profits. The first findings support previous research conducted by Aguirre and Lee [3] and contradict the research conducted by Tairas et al [19]. Each bank makes various efforts in increasing total liability for the bank's business interests. Total liability is a debt that belongs to the banking sector sourced from the public. When the total liability is managed properly, it will have a positive impact on the bank. The ultimate goal of increasing total liability is to obtain effective and maximum profits to support business sustainability in the Indonesian banking industry.

The findings regarding the third variable indicate that there is a significant positive relationship between equity and earnings. Equity coefficient is positive, which means that when there is an increase in equity, it will cause an increase in profits. Conversely, when there is a decrease in equity, it will cause a decrease in profits. The first findings support previous research conducted by Bei [8] and contradict the research conducted by Tairas et al [19]. Banks will be freer to expand their businesses if supported by strong capital. Capital comes from the owners and shareholders who will be added at any time, based on the projected banking business. The ultimate goal of increasing equity is to obtain effective and maximum profits to support business sustainability in the Indonesian banking industry.

5. Conclusion
This study pinpoints that the fringe competition has taken place in the Indonesian sharia public banking industry. It has the essential potential to disrupt the process of construction projects as the market share is controlled by CR4 in big cities. Technically, the procurement of construction projects will not go as planned without the existence of CR4 in the small cities. The disruption in the implementation of construction projects in small cities is basically a real threat to the agenda and the implementation of sustainable urban development.

In this case, the role of the OJK is a solution to overcome the issue of unfair competition among sharia banks, especially in CR4. The regulation of limiting the bank's minimum equity limit needs to be revised to consolidate the small-scale bankings, therefore, their role in financing the construction industry could be elevated. Therefore, with a stable financial strength, the sharia public banking sector would be able to finance the construction industry. The revise of this regulation would be a significant contribution from the sharia public banking towards achieving the distribution of the sustainable urban development in Indonesia.

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