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Analysis of the banking industry in Indonesia through the Structure-Conduct-Performance approach

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Abstract
The economy is the leading indicator of a country's progress, as seen from the financial services sector. The role of banking is to help the community and accelerate economic turnover. This study aims to determine the structure, behavior, and performance of the banking industry in Indonesia. The data in this study used the Annual Financial Statements of Banks in Indonesia in 2020. The analytical tools used are the Concentration Ratio (CR), the Herfindahl Hirschman Index (HHI), and Market Entry Barriers. The results of the SCP analysis show that the Indonesian banking industry has a high oligopoly market structure where the decision-making of a company can affect other companies; the MES value of the Banking industry between 49.38 percent and 53.48 percent indicates that in the banking industry, it is tough for new competitors to compete with banking companies that already control the market. Regarding behavioral strategies, the banking industry should pay attention to technological innovation, ease of access, and determination of community market share. In terms of company performance, based on the return on asset data and return on equity, PT Bank Central Asia is the company with the best and most stable profitability performance.

Keywords: Banking, Structure-conduct performance, Concentration ratio, Herfindahl Hirschman Index.

Abstrak
Perekonomian menjadi indikator utama kemajuan suatu negara yang dilihat dari sektor jasa keuangan. Peran perbankan dapat membantu masyarakat dan mempercepat perputaran perekonomian. Tujuan penelitian ini untuk mengetahui struktur, perilaku, dan kinerja industri perbankan di Indonesia. Data yang dalam penelitian ini menggunakan Laporan Keuangan Tahunan Perbankan di Indonesia pada tahun 2020. Alat analisis yang digunakan adalah Rasio Konsentrasi (CR), *Herfindahl Hirschman Index* (HHI), dan Hambatan Keluar Masuk Pasar. Hasil analisa SCP menunjukkan menunjukkan bahwa industri perbankan Indonesia memiliki struktur pasar oligopoli tinggi dimana pengambilan keputusan suatu perusahaan dapat berpengaruh bagi perusahaan lainnya, nilai MES industri Perbankan antara 49,38 persen - 53,48 persen mengindikasikan bahwa dalam industri perbankan sangat sulit bagi kompetitor baru untuk bersaing dengan perusahaan perbankan yang sudah menguasai pasar. dalam hal strategi perilaku, hal-hal yang harus di diperhatikan industri perbankan adalah inovasi teknologi, kemudahan akses, dan penetapan pangsa pasar masyarakat. Sedangkan dalam hal kinerja perusahaan, dari data *Return on Asset*, dan *Return on Equity*, Bank Central Asia adalah perusahaan dengan kinerja profitabilitas paling baik dan stabil.

Kata kunci: Perbankan, Structure-conduct performance, Rasio Konsentrasi, Herfindahl Hirschman Index (HHI).

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1. Introduction

Economic growth can be defined as the process of increasing production output in one period. Economic growth is measured using the acquisition of Gross Domestic Product (GDP) as a process of increasing the amount of output (Homma et al., 2014; Khan et al., 2018). The process of economic growth reflects the state of a country's economy on its way to better conditions over some time. It can also reflect the increase in national income earned by all family households in a country in one period. Economic development can also be described as the process of increasing production capacity, which is realized in the form of national income as an indication of economic development (Shaban & James, 2018).

A country's economic growth cannot be separated from its industrial sector growth. Both are interrelated and have a positive relationship, indicated by an increase in the industrial sector's growth, which can directly encourage a country's economic growth. Of course, GDP growth is also followed by the sectors that make up GDP.

Figure 1. National GDP Sector Contribution 2020
Source: BPS Indonesia, 2023

The Financial Services and Insurance sector, according to Figure 1, contributed around 4 percent to Indonesia's GDP in 2020. Although it looks small compared to the manufacturing sector or other sectors, such as the Manufacturing Industry Sector at 20 percent, the Agriculture and Trade sector is more than 13 percent of Car and Motorcycle Repair with a figure above 13 percent. While the Water Procurement, Health & Social Services, Electricity and Gas Procurement sectors are the smallest with contributions below 1 percent. But consistently since 2017 has always shown its contribution to GDP (Badan Pusat Statistik, 2023).

The financial services sector cannot be separated from the role of banking which plays a very important role in running the wheels of the Indonesian economy. The role of banking itself is one of helping people who have difficulties in business financing and also as a means of storing personal assets. Without the role of banking, the

economic turnover in Indonesia would not have been this massive. The growth in the number of commercial banks in Indonesia, according to OJK data in banking statistics, has increased. Until 2020, the number of commercial banks was 109, with more than 30,700 offices. Meanwhile, the overall assets of commercial banks alone can reach more than 9000 Trillion (Otoritas Jasa Keuangan, 2021).

The development of the banking industry in Indonesia can be seen based on the banking market share itself. Based on the market share in Table 1, the largest market share is dominated by state-owned banks, namely BRI (2021), Bank Mandiri (2021), BNI (2020), and BTN. Private banks with a large market share are only represented by Bank Central Asia (2021) the rest are below 3 percent. the following data are 10 banks with the largest market share in Indonesia.

Table 1. Banking Industry Market Share Data in 2020

Company	Total Assets (Million)	Total Market Share
PT. Bank Rakyat Indonesia	1511804628	16.47 %
PT. Bank Mandiri	1429334484	15.58 %
PT. Bank Central Asia	1075570000	11.71 %
PT. Bank Negara Indonesia	891337000	9.71 %
PT. Bank Tabungan Negara	361208406	3.94 %
PT. Bank CIMB Niaga	280943605	3.06 %
PT. Bank Syariah Indonesia	239581524	2.61 %
PT. Bank OCBC NISP	206297200	2.25 %
PT. Bank Danamon Indonesia	200890000	2.19 %
PT. Bank Pan Indonesia	32381721	0.35 %
Bank Umum Lainnya	2948545432	32.13 %
Total	9177894000	100%

Source: Company's Annual Financial Report (data processed)

Based on the Structure-Conduct-Performance (SCP) paradigm, the industry structure will affect the behavior of each company in the industry. Furthermore, to be able to continue to survive in increasingly fierce competition, companies in the industry must perform several behaviors that will ultimately affect the performance of the industry (Sugiyanto & Jumono, 2012). The Structure Conduct Performance (SCP) paradigm was developed by Edward S. Mason (1949) and Joe S. Bain. (1956). Mason and Bain stated that there is a direct and strong relationship between the market structure of an industry (market structure), business practices and behavior of the parties forming the market (market conduct) and the performance of the industry itself (market performance) (Bain, 1956)Based on the dominance of the market controlled by banks in Indonesia and the ability of the banking industry to withstand the economic crisis, it is important to examine the structure-behavior-performance relationship in the banking industry in Indonesia and the factors that affect its performance.

2. Literature Review

Structure-Conduct-Performance (SCP) Approach

The Structure-Conduct-Performance (SCP) paradigm is a common approach widely used to examine the relationship between the competitive dynamics of an industry and

its performance (Hannan, 1991). According to industrial organization theory, there is a concept of SCP or Structure-Conduct-Performance. The theory explains that the performance of an industry is influenced by the market structure (Giorgis Sahile et al., 2015; Jaya, 2019). Industry structure is defined in terms of the distribution of the number and size of firms. Industry structure is a reflection of the market structure of an industry (Kuncoro, 2016). Market structure indicates market attributes that affect the nature of competition. Market structure is usually expressed in terms of the size distribution of competing firms. Elements of market structure are market share, concentration, and barriers (Jaya, 2019; Silva et al., 2016).

Market behavior is the pattern of behavior of market participants in making adjustments to the market structure faced, which can be in the form of commodity pricing practices, uniform marketing costs, non-price competition practices such as collusion, black markets, dishonest practices and pricing policies that do not encourage quality improvement. Market security is largely determined by market structure and market behavior (Jaya, 2019). The performance of a market is the last element in the concept of industrial organization theory besides structure and behavior. Performance can be measured through price cost margin and profit pattern, efficiency, technological progress, equity distribution (Jaya, 2019). An industrial organization can be analyzed by observing the overall structure, behavior, and performance. The relationship between structure, behavior and performance that interact with each other affects the process of allocating production results to the community effectively and efficiently (Hasibuan, 2013).

Structure Analysis with Market Concentration

Market Concentration Ratio (CR)

Concentration ratio (CR) is widely used to measure the market share of output, turnover, number of employees, or asset value of the total industry (Giorgis Sahile et al., 2015). The concentration ratio can be used to measure structural power because it involves the absolute number of firms and the distribution size. CR is defined as the percentage of total industry output produced by the largest firm (Khan et al., 2018). Usually the number of firms N for which the proportion of market share is calculated is 4, so it is known as CR4. If Pi represents market share, and if the proportion of output, turnover, number of employees, or asset value of the total industry represented by firm i = 1,2, ..., with P1 >= P2 >= P3 >= ..., then the Concentration Ratio, CRN, for N firms is calculated as:

$$CRN = P1 + P2 + P3 + \ldots + N$$

The concentration ratio is formulated as follows:

$$Ratio\ Consentration = \sum_{k=0}^{n} \frac{Xi}{T}$$

Note:

n = The number of companies selected is based on the largest sales rank.

Xi = The sales figures of the selected company

T = Total sales in the industry.

The concentration ratio ranges from zero to one and is usually expressed as a percentage. A concentration value close to zero indicates that n firms have a relatively small market share. Conversely, a concentration ratio close to one indicates a relatively high level of concentration.

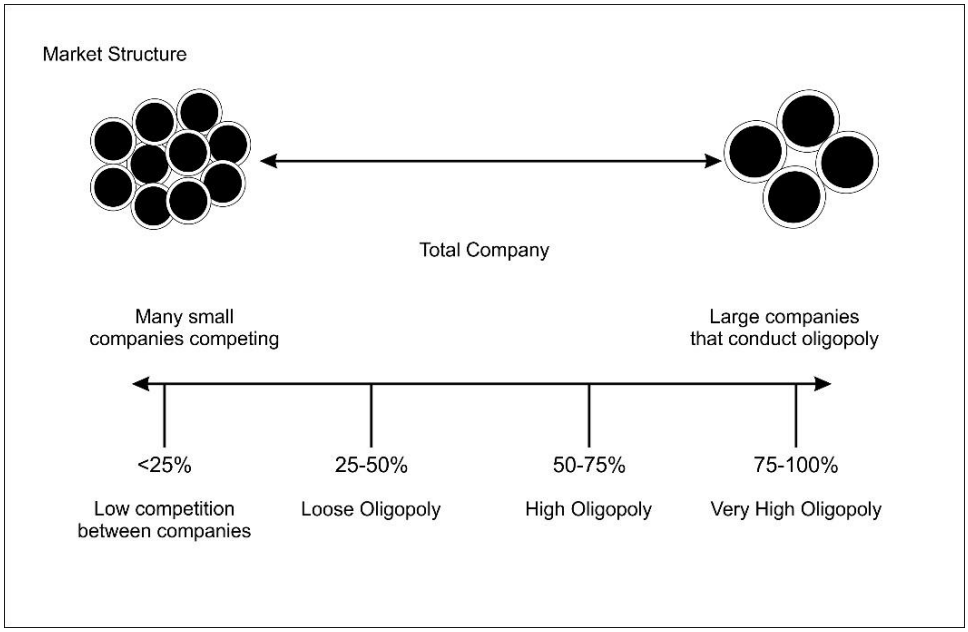

Figure 2. Level of Competition using CR4
Source: Rekarti, et al. (2016)

Meanwhile, according to Bain (1956), the types of ologopoly say that oligopolies with high concentration are divided into three types IA, IB and type II. Types IA and IB are full oligopolies. The characteristics are as follows (Goldberg & Anoop, 1996; Khan et al., 2018; Lartey et al., 2023):

1. Type IA Full oligopoly:
   a. The number of firms in the industry is very small.
   b. Concentration of the 3 largest firms controlling more than 87 percent of the market share.
   c. Concentration of the 9 largest firms controlling more than 99 percent of the market share.
2. Type IB Full oligopoly:
   a. A small number of firms in the industry compete with each other.
   b. Concentration of the 4 largest firms controlling 90 percent of the market share.
   c. Concentration of the 8 largest firms controlling 95 percent of the market share.
   d. Concentration of the 20 largest firms controlling more than 99 percent of the market share.
3. Type II Full oligopoly:
   a. Concentration of the 4 largest firms controlling 65-75 percent of the market share.
   b. Concentration of 8 largest firms controlling 85-90 percent of the market share.

c. The concentration of the 20 largest firms controls more than 90 percent of the market share.

Meanwhile, the oligopoly group with moderate concentration is divided into two types, namely type III and type IV. The characteristics are as follows (Goldberg & Anoop, 1996; Khan et al., 2018; Lartey et al., 2023):

1. Type III High moderate oligopoly:
   a. The 4 largest companies control 50-65 percent of the market share.
   b. Concentration of 8 largest firms controlling 70-85 percent of the market share.
   c. Concentration of the 20 largest firms controlling 90 percent of the market share.
2. Type IV low moderate oligopoly:
   a. Concentration of the 4 largest firms controlling 35-50 percent of the market share.
   b. Concentration of 8 largest firms controlling less than 45-0 percent of the market share.
   c. Concentration of the 20 largest firms controlling more than 70 percent of the market share.
3. Type V Oligopoly with low concentration / Low-grade oligopoly:
   a. Concentration of the 4 largest firms controlling less than 35 percent of the market share.
   b. Concentration of 8 largest firms controlling less than 45 percent of the market share.
4. Type VI Oligopoly that is close to a competitive market:
   a. No seller can influence other sellers.

Herfindahl Hirschman Index (HHI)

The Herfindhal index is another important type of concentration measure (Chiang et al., 2001). The Herfindhal Hirschman index is defined as the sum of the market shares of all firms in the industry and is formulated as:

$$HHI = P12 + P22 + P32 + \ldots + PN2$$

The HHI value ranges from zero to one. The HHI value is equal to 1/n if there are n companies of the same size. If the HHI is close to zero, it means that there are a large number of firms of similar size in the industry, and market concentration is low. Conversely, the industry is monopolistic if the HHI is equal to one. The higher the HHI, the higher the size dispersion of the firms(Lartey et al., 2023).

The data provided does not reflect the total assets or market share percentage of each bank as a legal entity as required to calculate market concentration using the HHI and CR methods. The data provided is the total assets of each group of bank types. Therefore, to use the HHI and CR methods, it will be assumed that the total assets, as shown in the data, are the average total assets of each bank type group (Chiang et al., 2001; Shepherd, 1993).

The Hirschman-Herfindhal Index is formulated as follows:

$$HHI = \sum_{k=0}^{n} Si^2$$

Note:

Si = 1,2,3.....N (market share of each bank)

Si = The percentage of total market share in an industry or the percentage of market share at the end of a specified market share ranking.

N = Number of companies observed.

According to Shepherd (1993), HHI focuses on the proportion of a particular market share in an industry. An indicator to determine the level of competition is done by grouping based on the highest sales rank to categorize the form of structure and behavior. The results shown by HHI have an identical pattern to the concentration ratio analysis approach.

Market Entry and Exit Barriers

Barriers to market entry can be seen in whether or not it is easy for potential competitors to enter the market. The higher the barrier to entry, the weaker the threat of new entrants into an industry. The method used to see barriers to entry is using economies of scale, which are approached through the output of companies that control more than 50 percent of the market. The output value is then divided by the total industry output. This data is referred to as the Minimum Efficiency Scale (MES), (Jaya, 2019).

$$MES = \frac{largest\ company\ output}{Total\ Output}\ X\ 100\%$$

The higher the MES value, the more difficult the market entry barrier. MES values of more than 10 percent represent high market entry barriers in an industry.

Conduct Analysis with Company Behavior

Conduct is the behavior of firms in determining prices, production levels, products, advertising, and behavior towards their competitors (collusion/cartel) according to (Church & Ware, 2000)Firm behavior focuses on how firms react to market structure conditions and competitor interactions. Price behavior is the most important aspect.

Industrial economics explains that behavior can be interpreted as a way for companies to get the market, meaning that behavior is a pattern of responses and adjustments of various companies in an industry to achieve their goals and face competition. Behavior can be seen in how companies determine selling prices, product promotion or advertising, coordination of activities in the market, and research and development. The behavior of one industry is different from another. One of them is caused by differences in the industry's market structure. Behavior usually refers to the behavior (actions or actions) of companies in a market, the decisions they make and the way in which those decisions are made (Apriyanti & Ramadhani, 2018; Rekarti & Nurhayati, 2016).

Performance Analysis by Measuring Profit and Company Performance

Caves (1982) Performance is defined as an assessment of how far activities in an industry achieve desired goals, where good performance means optimal goal achievement. Performance is the result of work that is influenced by the structure and behavior of the industry, and results are usually identified with the amount of market share or the amount of profit of a company in an industry. However, to be more detailed, performance can also be seen through efficiency, growth (including market expansion), employment opportunities, professional prestige, personnel welfare, and group pride.

The definition of profit is the difference between revenue and costs incurred, which is generally reflected in net income after tax. Some indicators of the level of profit used according to Kasmir (2002) are: ROA compares operating profit with all input resources (total assets) owned by the company. This ratio is considered the best and is more widely used to assess the performance of a company. Another indicator, namely Return On Equity (ROE), Equity is the sum of sales and retained earnings. Equity capital reflects decision-making control by the owner, in the banking industry ROE is the division between net income and equity. The definition of profit is the difference between revenue and costs incurred, which is generally reflected in net income.

According to Arianto (2004)ROA is the most objective measurement method based on available accounting data, and the amount of ROA can reflect the results of a series of company policies, especially banking policies. As Berger expressed, the ROA variable is the most appropriate variable for describing performance in the banking industry.

3. Research Method

The research method used here is descriptive and qualitative analysis using secondary data. According to Ghozali (2016) Descriptive research describes a phenomenon by describing a number of variables related to the problem under study. Qualitative research uses empirical, measurable, and observable data in the form of numbers.

This study analyzes the 10 largest banks in Indonesia in 2020, namely Bank Rakyat Indonesia (BRI), Bank Mandiri, Bank Central Asia (BCA), Bank Negara Indonesia (BNI), Bank Tabungan Negara (BTN), Bank CIMB Niaga, Bank Syariah Indonesia (BSI), Bank OCBC NISP, Bank Danamon, and Bank Panin. The data in this study were obtained from each bank's annual financial statements. The qualitative approach in this study was conducted using the SCP (Structure-Conduct-Performance) approach to analyze the structure and performance of the Banking Industry in Indonesia.

Market Structure Analysis can be seen from:

Market Concentration Ratio (CR)

In calculating market concentration (CR), the firm's asset value of the total industry represented by firm i = 1,2, ..., with P1 >= P2 >= P3 >= ... is calculated as:

$$CRN = P1 + P2 + P3 + ... + PN$$

The market concentration ratio is formulated as follows:

$$CR4 = \frac{Assets\ of\ the\ 4\ Largest\ Banking\ Companies}{Total\ Assets\ of\ All\ Bank\ Companies}\ X\ 100\%$$

With the following market concentration criteria.

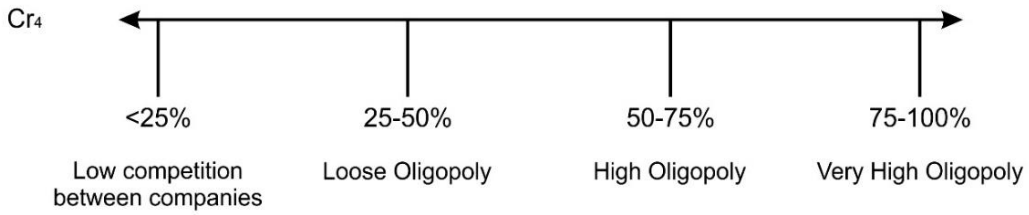

Figure 3. Market Concentration Criteria

Market Entry Barriers

Market entry barriers can be seen from whether or not it is easy for potential competitors to enter the market. The higher the barrier to entry, the weaker the threat of new entrants into an industry. The method used to see barriers to entry is using economies of scale, which are approached through the output of companies that control more than 50 percent of the market. The output value is then divided by the total industry output. This data is referred to as the Minimum Efficiency Scale (MES), (Jaya, 2019).

$$MES = \frac{Largest\ Banking\ Asset}{Asset\ Perbankan\ Total}\ X\ 100\%$$

The higher the MES value, the more difficult the market entry barrier. An MES value of more than 10 percent illustrates high market entry barriers in an industry. Meanwhile, the Conduct Analysis uses analysis related to company policies related to prices and products as well as strategies in developing amid the challenges of the global crisis. As for Performance Analysis or company performance, it is mainly seen from the company's financial performance, where when a company has good financial performance, it means that the company can run company operations more efficiently to generate profits and reduce costs. To measure profitability in this study, researchers used several approaches, including the following:

1. Return on Assets (ROA) shows the company's ability to generate profits from the total assets used.
2. Return on Equity (ROE) is the ratio between net income and equity.

4. Results and Discussion

Structure Analysis

The structure of the banking industry in Indonesia can be seen with the following parameters:

Rasio Konsentrasi (CR)

The total market share value can be calculated by calculating the squared market share of each cellular industry. The calculation of the CR value can be seen in Table 2.

Table 2. Banking Industry CR4 Value Data

Company	Total Assets (Million)	Total Market Share
PT. Bank Rakyat Indonesia	1511804628	16.47 %
PT. Bank Mandiri	1429334484	15.58 %
PT. Bank Central Asia	1075570000	11.71 %
PT. Bank Negara Indonesia	891337000	9.71 %
Total	4908046112	53.47%

Source: Company's Annual Financial Report (data processed)

Based on the data listed in Table 2, it can be seen that the four largest companies in this industry have varying market shares, with a total of 53.47%. The banking statistics released by OJK state that in Indonesia, there are 109 commercial banks, but of these, the largest market share is found in 4 banks alone, whose total market share is more than half of the market share of 109 banks. From this figure, it can also be seen that the banking industry has a high oligopoly market structure; this is reflected in the market share of the four companies themselves being between 50% and 75%; this causes the opportunity between them to set prices relatively easier.

Market Entry Barriers

The MES value can be obtained from the ratio of the largest company's output to the total output. PT Bank Rakyat Indonesia is the largest company in Indonesia's banking industry. Below is a table showing the telecommunications industry's minimum efficiency of scale (MES) value from 2014 to 2019.

Table 3. MES Data Banking Industry

Year	Asset value of the largest company (million)	Total Asset Value (million)	MES (%)
2020	4908048132	9177894000	53.48
2019	4499601194	8562974000	52.55
2018	4132512404	7913491000	52.22
2017	3711800353	7387634000	50.24
2016	3323280698	6729799000	49.38

Source: Company's Annual Financial Report (data processed)

The Minimum Scale Efficiency (MES) approach can determine the percentage of market entry barriers. The MES value is obtained by dividing the value of the firm's largest output by the total output in the industry. Over the last five years, from 2016 to 2020, the average MES value of the banking industry in Indonesia moved from 49 percent to 53 percent. The largest MES value occurred in 2020, which amounted to 53.48 percent.

The high MES value shows the level of banking efficiency in Indonesia is getting better. On the other hand, the high level of MES indicates that in the banking industry, it is very difficult for new competitors to compete with banking companies that already dominate the Indonesian market. The trend of MES value in the banking industry in Indonesia in the last five years has increased every year due to high public demand supported by financial literacy, which is also increasing.

Conduct Analysis

Based on the analysis, Indonesia's banking industry's market structure is oligopolistic. This leads to several behaviors carried out by companies in the industry. The behaviors include:

Price Policy

The banking industry in Indonesia, when viewed from the analysis of market structure, is included in the oligopoly market because more than half of the market share is only controlled by 4 Bank Companies out of 109 commercial banks in Indonesia, namely Bank Rakyat Indonesia (BRI), Bank Mandiri, Bank Central Asia (BCA) and Bank Negara Indonesia (BNI). Interestingly, the four banks have different class shares in the community. BRI, which has the largest share, has a share in the grassroots community; this can be seen from BRI branch offices that even exist in every sub-district in Indonesia, which target the lower community. This lower community market share gives Bank BRI a large share because of the ease of access for rural communities and is certainly a differentiator from other banking companies.

In contrast to BRI, Bank Mandiri certainly does not have as many branch offices as BRI, which reaches all sub-districts; Bank Mandiri is mostly found in economic centers because its market share is middle to upper class. Bank Mandiri has large assets and a loyal market share because Bank Mandiri was realized from the results of the merger of several state-owned banks, namely the Indonesian Import Export Bank (Exim Bank), Bank Dagang Negara (BDN), Bank Bumi Daya (BBD), and Bank Pembangunan Indonesia (Bapindo). Based on the merger results, Bank Mandiri has an asset foundation that is superior to that of other state-owned banks. Meanwhile, Bank Negara Indonesia (BNI) also has a different share: state financial transactions, civil servant salaries, etc. At the same time, Bank Central Asia (BCA) is the largest private bank in Indonesia. BCA's market share is in the elite community (conglomerate). Almost all wealthy people have BCA accounts and use them in every financial transaction because BCA Bank prioritizes service and quality as well as financial convenience, which gives its customers flexibility in managing finances. This distinguishes between BRI, Bank Mandiri, BCA, and BNI, all of which have their respective market shares, of course, with different price guarantees and quality.

The price here is not interpreted as selling goods but as a reward for customer banking services. The quality of service provided by BRI, Mandiri, BNI, and BCA is certainly different. Likewise, in terms of service, regular customers certainly have much different access and convenience when compared to priority customers. Silva (2016) I also verified the same thing: each bank has its own cluster that suits its market share. With the cluster, each bank can freely maximize its performance.

Product Policy

Talking about products, it cannot be separated from the word product innovation itself; this is in line with the needs and desires of service users, where the increasing customer needs for a service, the company will certainly continue to make innovations and improvements so that the company can continue to exist and develop. Some of the product policies carried out by the Banking industry in Indonesia are as follows:

a. All Banks in Indonesia have begun to transform into the digital world, starting with accessibility through mobile applications and easy access to banking activities through one application. Opening new accounts, transfers, and even cash withdrawals no longer need to use ATM cards.
b. For Himbara Bank, transaction rates across Himbara banks are very light and far below the transaction rates of commercial banks.
c. c. Bank Indonesia's QRIS policy encourages all banks to access digital payments and conducts socialization and cooperation with MSMEs.

Performance Analysis

Performance analysis can be done to see the company's financial performance; in this case, the data to be analyzed is Return On Asset (ROA) and Return On Equity (ROE) from the four largest banks in Indonesia, namely Bank Rakyat Indonesia (BRI), Bank Mandiri, Bank Central Asia (BCA) and Bank Negara Indonesia (BNI).

Return On Asset (ROA)

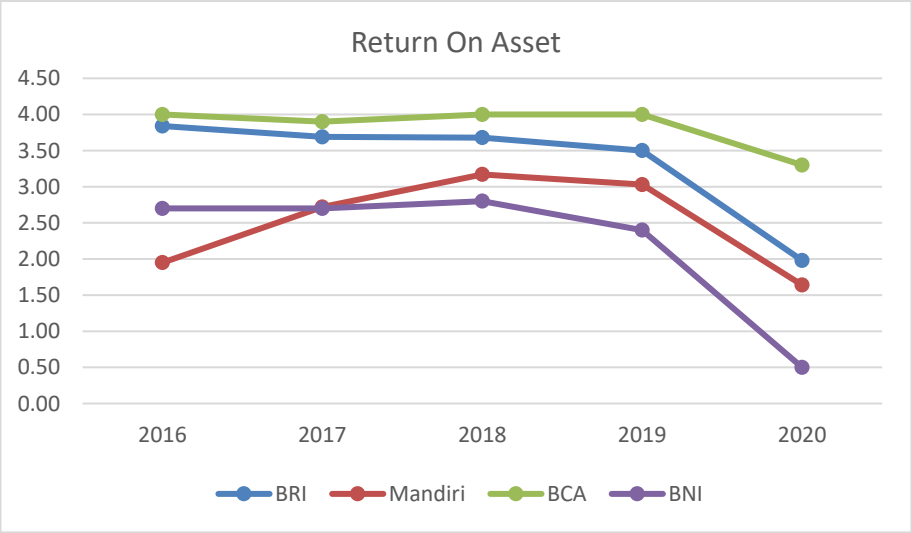

Figure 4. Banking Industry ROA Indicator (2016-2020)
Source: Company's Annual Financial Report (data processed)

Return on Assets is a ratio that compares net income with total assets. The higher the Return on Asset ratio value, the better. This ratio shows the company's ability to manage each asset's value to generate net profit after tax.

Table 4. Banking Industry ROA Indicator (2016-2020)

Data	2020	2019	2018	2017	2016
Mean	1.86	3.23	3.41	3.25	3.12
Standard Deviation	1.15	0.68	0.53	0.63	0.97
Minimum	0.50	2.40	2.80	2.70	1.95
Maximum	3.30	4.00	4.00	3.90	4.00

Source: Company's Annual Financial Report (data processed)

Figure 4 shows that from 2016 to 2020, BNI had the lowest ROA. The setback started in 2017 and continued until its peak in 2020, which was only 0.50 percent. This

indicates that the company is in poor condition. Meanwhile, the highest ROA is BCA, which is relatively stable compared to Bank BRI and Mandiri.

Based on Table 4. above, in general, the Banking industry has a positive average value for the last five years, meaning that the business is profitable (making a profit) because it generates a positive return on assets over several years, with the highest ROA average value in 2018 of 3.41 percent, the highest standard deviation value is 2020 of 1.15. The maximum value of ROA itself was obtained in 2019, 2018, and 2016 with a value of 4.00 percent.

***Return On Equity* (ROE)**

Return on equity (ROE) is the amount of return from net income to equity expressed in percent. It measures a business entity's ability to generate profits by capitalizing on the equity invested by shareholders.

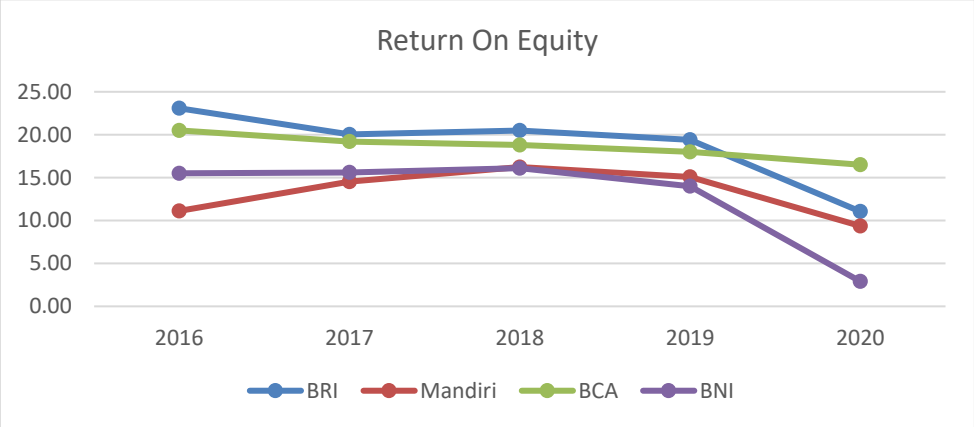

Figure 5. Banking Industry ROE Indicator (2016-2020)
Source: Company's Annual Financial Report (data processed)

Based on Figure 5. In 2016-2019, the highest ROE value was BRI, but in 2020, BRI's ROE value fell due to the impact of the COVID-19 pandemic; this also happened to Bank Negara Indonesia (BNI) and Bank Mandiri. Meanwhile, BCA tends to be stable even though the trend is decreasing.

Table 5. Banking Industry ROE Indicator (2016-2020)

Data	2020	2019	2018	2017	2016
Mean	9.95	16.62	17.91	17.34	17.55
Standard Deviation	5.60	2.51	2.13	2.68	5.32
Minimum	2.90	14.00	16.10	14.53	11.12
Maximum	16.50	19.41	20.49	20.03	23.08

Source: Company's Annual Financial Report (data processed)

Based on Table 5, the Banking industry has had a positive average value for the last five years, meaning that the business is profitable (making a profit) because it has generated a positive return on assets for several years. The highest average ROE value was 17.91 percent in 2018, and the highest standard deviation value was 5.60 in 2020. The maximum value of ROA itself was obtained in 2016, with a value of 23.08 percent.

These results are also in line with Tregenna (2009) Research has revealed that increasing profitability cannot be separated from the role of concentration and the power of banks to maximize their performance. In addition, Khan (2018) His research shows that higher profits in the concentrated banking industry are partly due to anti-competitive behavior carried out by banks, meaning that the results in this study are confirmed in addition to tight competition as banks with a large market, but behind that, they have different shares so that anti-competition occurs between banks because they have different market share orientations. This makes it difficult for new competitors to enter the banking industry.

5. Conclusion

The conclusion obtained from the SCP analysis in the Banking industry in Indonesia is that the company with the largest market share is Bank Rakyat Indonesia, with a market share value 2020 of 16.47 percent. CR4 value to determine the market structure of the banking industry. Based on the data, it can be seen that the four largest companies in this industry have varying market shares, with a total of 53.47 percent. So, it can be said that the market structure of the banking industry in Indonesia is a high oligopoly, with the CR4 value being between 50 percent and 75 percent. Because some products can be homogeneous, a company's decision-making can affect other companies; the MES value of the Banking industry is between 49.38 percent and -53.48 percent. In terms of behavioral strategies, the things that the banking industry should pay attention to are technological innovation, ease of access, and determination of the market share of the community. In terms of company performance, based on the return on asset data and return on equity, PT Bank Central Asia is the company with the best and most stable profitability performance.

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