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Volume 1, Year 2023

"Entrepreneurship on Global Economics Development in the Era of Society 5.0"

**Health of Indonesian SOE Banking in Facing the Society 5.0 Era to Support the Technopreneur Intention Program****Ganang Ikhwanudin<sup>1\*</sup>, Henri Dwi Wahyudi<sup>1</sup>, Windi Ayu Andriyani<sup>1</sup>**<sup>1</sup> Universitas Muhammadiyah Surakarta\*Email: [b100200531@student.ums.ac.id](mailto:b100200531@student.ums.ac.id),**ABSTRACT**

The purpose of this study is to compile state-owned banking readiness in the era of society 5.0 in supporting the technopreneurship intention program. The research method used is descriptive quantitative. The results of this study indicate that judging from the NPL and LDR, BRI and Mandiri have the criteria of being healthy. In contrast, BNI has the requirements of being fit or relatively healthy. Generally, good corporate governance has good standards, each of which has received several awards. Earning ratio ROA, BRI and Mandiri have a soundness level with a very healthy predicate. In contrast, BNI has an unhealthy predicate. The NIM earning ratio have a very healthy level of soundness. Capital banks also have a very healthy level of fitness. From the results of this study, BUMN banking is in a healthy condition. It is considered ready to support the technopreneurship intention program in society 5.0.

**Keywords:** Bank Health, RGEC Method, Society 5.0 era, Technopreneurship

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**INTRODUCTION**

Various technological concepts also developed rapidly. One of them is the concept of society 5.0 which was first initiated by the Japanese state. This concept aims to facilitate human needs with the use of modern technology-based science. Examples are Internet on Things, Artificial Intelligence, Big Data, and robots to improve the quality of life. Society 5.0 (Society 5.0) follows Industry 4.0 to some extent, while Industry 4.0 focuses on production. Society 5.0 seeks to place humans at the centre of innovation. As well as utilizing the results and impacts of Industry 4.0 technology by deepening technology integration to improve the quality of life, social responsibility and sustainability (i-SCOOP, n/d, Serpanos, 2018). Wang, Yuan, Yong, Wang, Xiao, and Qin (2018) and Wang, Li, Yuan, Ye, and Wang (2016) show that the concept of Society 5.0 emerged in 2015 in Japan (Abreu, 2018) as a political initiative strategy national level (Keidanren, 2016; Harayama, 2017; Center for Research and Development Strategy: Japan Science and Technology Agency, 2017). According to Hayashi et al. (2017), with Society 5.0, Japan is trying [...] [to] create new values by collaborating and cooperating with several different systems, planning standardization of data formats, models, system architecture, etc., and developing necessary human resources. In addition, it is expected that enhancements of intellectual property development, international standardization, IoT system construction technologies, big data analysis technologies, artificial intelligence technologies and so on encourage Japan's competitiveness in a "super smart society" (p. 264).

Namely creating new values by collaborating and cooperating with several different systems, planning standardized data formats, models, system architecture systems, and developing the necessary human resources. In addition, it is hoped that there will be increased intellectual property development, international standardization, IoT technology construction systems, big data analysis technology, artificial intelligence technology. And so on, which drives Japan's competitiveness in a "super smart society" p.264 (Hamka, 2020: 6). One area that follows current technological developments is the economics sector. The story of the digital economy has had an impact on various economic sectors, one of which is the banking sector, banking in the homeland has carried out multiple innovations that have had a significant impact on the growth of banking in the country, especially in terms of services (Sumaryanto, 2022). The banking sector is an industry that relies on technology, information and communication to provide services to customers (Ministry of Communication and Information, 2019).

According to Kholis (2018), digital technology-based financial services are developing rapidly in line with advances in digital technology. Banks have also begun to shift from relying on conventional offices and services to digital application services, namely adopting various technologies to make it easier for customers to conduct banking transactions with the facilities provided by banks, such as Mandiri Teller Machines (ATMs), mobile banking, internet banking, and sms banking. This is a transformation or change that cannot be avoided in the current era. An example of a transforming banking service is what Bank BTPN has done through its products called "BTPN Jenius" and "BTPN Wow !" and is currently being followed by several other banks, such as BCA, BNI, and others. Bank BTPN has two digital banking platforms to serve two different segments. First, BTPN Wow! is for the lower middle class and the two Jenius platforms are for the consuming-class segment.

The current development of science and technology has also given rise to an entrepreneurial model that is developed into a technology-based entrepreneur known as a technopreneur, where new-age entrepreneurs collaborate between technology, creativity,

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innovative, and dynamic (Mintardjo, 2008). According to Hoque et al. (2017) define technopreneurs' intention as a state of mind that directs and influences a person's actions to Developing and implementing business concepts with the latest technology. So that in the development of technopreneur intention, business people will explain their business ideas to financial institutions such as banks to get loans for the business to be run. This is very necessary if the company to be run requires significant capital (Mariana et al., 2021)

The preparation of conventional banks, namely the State Savings Bank (BTN), to deal with technopreneur intentions is to provide working capital MSME loans as a working capital solution in business fields ranging from construction, trade, industry, or services, on a Micro, Small, and Medium Enterprise scale (MSMEs). Working Capital MSME loans can be used for business financing starting from the procurement of goods, the production process, sales and distribution, and financing other current assets. In addition, conventional banks have introduced a fintech (financial technology) system, namely technological innovations developed in the financial sector so that financial transactions can be carried out practically, quickly and effectively. Fintech is a business field that integrates financial management, storage, distribution of money and technology. Examples are e-wallets, digital banks, payment gateways, investments, etc.

With many banks in Indonesia, researchers took several state-owned banks such as BRI, MANDIRI, and BNI. These three banks are influential in supporting technopreneurs' progress in Indonesia. Bank BRI, established in Purwokerto, also helps the community by boosting creativity and improving productivity, efficiency, and quality of life by creating helpful application technologies. Meanwhile, Bank Mandiri also supports the technopreneur program, such as funding up to billions of rupiah in 2011 to realize the results of entrepreneurship engaged in technology. PT Bank Negara Indonesia (Persero) Tbk (BNI) is also participating in the progress of banking which is multiplying thanks to digitalization which customers are increasingly relying on amid the co-19 pandemic. The convenience of BNI digital banking is one of the attractions for customers to save their funds at BNI. This will lead to a dominant ratio of low-cost funds maintained at BNI, and the cost of funds can be reduced," said the Corporate Secretary of BNI, Mucharom. Mucharom added that in the future, BNI would invest more in banking digitization to accommodate customer needs that are growing with the times.

The entry of foreign banks into Indonesia is a global challenge, so in an increasingly fierce competition, Indonesian banks need to improve the effectiveness of Good Corporate Governance and risk management that the emergence of these foreign banks will face. By increasing the effectiveness of Good Corporate Governance, banking is expected to survive in various conditions. Bank Indonesia (BI) has the task of regulating and supervising bank operational activities. Analysis of financial statements can be used to evaluate a bank's performance. The soundness level of a bank can be measured by looking at the bank's financial statements. Bank Indonesia continues to improve its method for assessing soundness from the CAMELS method (Capital, Assets Quality, Management, Earning, Liquidity, Sensitivity) to the RGEC (Risk Profile, GCG (Good Corporate Governance), Earnings and Capital) method, and this method changes because the bank Indonesia considers the RGEC method to be more comprehensive in assessing the soundness of a bank using a risk-based approach. Bank Indonesia Regulation No.13/1/PBI/2011 regulates changes to the method of determining the strength of a bank regarding the assessment of the health of Commercial Banks.

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Several studies that support the re-examination of the soundness level of banks using the RGEC method include research from Rini Dwiastutiningsih (2022) on the soundness level of PT Bank Central Asia (BCA), Tbk using the RGEC method (Risk Profile, Good Corporate Governance, Earnings, and Capital) in the 2017-2021 period. In a "Very Healthy" condition. Judging from the Risk Profile factor as assessed by the Gross NPL ratio, it gets the title "Very Healthy", and the LDR ratio of PT Bank Central Asia (BCA), Tbk receives the title "Healthy". On the factor of Good Corporate Governance (GCG) at PT Bank Central Asia (BCA), Tbk can implement GCG assessments with "Very Good" and Management has implemented self-assessment. On the Earnings factor, as assessed by the ratio of Return on Assets (ROA) and the percentage of Net Interest Margin (NIM) PT Bank Central Asia (BCA), Tbk gets the title of "Very Healthy". The Capital factor, assessed by the Capital Adequacy Ratio (CAR), receives the title "Very Healthy".

Fatimah Syam (2022) Analysis of Bank Soundness Level Using the RGEC Method (Risk Profile, Good Corporate Governance, Earning, Capital) at State-Owned Commercial Banks Listed on the Indonesia Stock Exchange for the 2017-2022 period. The results showed that during the 2017-2021 period: (1) the Risk Profile aspect of state-owned commercial banks is in good health because the NPL value is by the established regulations for state-owned commercial banks, and the average value is very healthy. The LDR value is by the established commercial bank regulations, and the average value is very healthy. (2) GCG aspects were not in good condition during the 2017 – 2021 period. (3) the Earnings aspect for the period 2017 – 2021 is in a very healthy condition with an average ROA value following the established BUMN commercial bank regulations, and the average value is very healthy. The NIM value is by the BUMN commercial bank regulations that have been determined, and the average value is very healthy. (4) the Capital aspect is unhealthy because the CAR is not by the stipulated regulations for state-owned commercial banks. Based on the problems described in the previous discussion, this study aims to determine the soundness level of bank Mandiri, BNI, and BRI in the 2020-2022 period in facing the era of society 5.0 to support technopreneur intentions.

### METHOD

This research is descriptive research with a quantitative approach. Explain the object under study by providing a description or description of the problems identified and carried out intensively and in detail at Indonesian state-owned banking companies, namely Bank BRI, Bank BNI and Bank MANDIRI. According to Bungin (2015, pp. 48-49), quantitative descriptive research is a method used to describe, explain, or summarize various conditions, situations, phenomena, or different research variables according to events as they exist, can be photographed, interviewed, observed, and expressed through documentary materials. The RGEC method emphasizes the importance of the quality of the bank's management financial performance. The RGEC method has criteria determined by Bank Indonesia, which has set regulatory requirements. A bank can meet the requirements as a healthy bank and not hurt stakeholders.

The RGEC method is a development of the previous method, namely CAMELS. In the RGEC method, there is inherent risk management. Quality assurance in bank operations is carried out on eight (8) factors: credit risk, market risk, liquidity risk, operational risk, legal risk, strategic risk, compliance risk and reputation risk. The disclosure (disclosure) management is accurate, timely, and transparent to all information on company performance,

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ownership, and stakeholders. In GCG, there are three main theories related to corporate governance: agency, stewardship, and stakeholder (Chinn, 2000; Shaw, 2004).

**1. NPL and LDR risk profiles**

Covers market risk, credit risk and liquidity risk because credit risk is the backbone of a bank's financial stability that depends on the counterparty's performance.

$$\text{NPL} = \frac{\text{Problem credit}}{\text{Total credits}} \times 100\%$$

$$\text{LDR} = \frac{\text{Total credits}}{\text{Third-Party Funds}} \times 100\%$$

**2. Good Corporate Governance Factor**

Based on PBI No 13/1/2011 requires every commercial bank to pay attention to the GCC factor. This factor is necessary to ensure sound management governance and improve employee performance.

**3. Factor profitability (earnings)**

On a consolidated basis, the ranking of profitability factors is determined based on a comprehensive and structured analysis of specific profitability parameters resulting from the bank's consolidated financial statements and other financial information that affect bank capital.

$$\text{ROA} = \frac{\text{Net Income}}{\text{Average total aset}} \times 100\%$$

$$\text{NIM} = \frac{\text{Net Interest Income}}{\text{Average Earning Assets}} \times 100\%$$

**4. Capital factor (capital)**

This study uses the CAR ratio to assess the factor capital in the RGEC component. Banks use this analysis to see whether the bank's capital is sufficient to carry out bank activities efficiently. The greater the money owned by the bank compared to customer funds indicates that customer security is increasingly guaranteed.

$$\text{CAR} = \frac{\text{Capital}}{\text{Risk-Weighted Assets}} \times 100\%$$

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Bank Soundness Level Based on the RGEC Method. Calculating the Risk Profile as measured by the ratio of NPL and LDR. Calculating GCG as measured from three aspects of GCG. Calculating earnings as measured by the percentage of ROA and NIM. Calculating Capital as measured by the CAR ratio.

**RESULT AND DISCUSSION****A. Risk Profile****1. NPL Ratio**

Non-Performing Loans are an indicator that shows the health of a financial institution's assets, whether in the form of a bank or fintech. These indicators can be in the form of

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fundamental financial ratios that can provide Information on evaluating capital conditions, profitability, credit risk, market risk, and liquidity (Ibnu, 2022).

**Table 1.** Bank BRI NPL Composite Assessment

Year	Ratio	Bank Health Criteria	Predicate
2020	2,94%	2% <b>Error! Reference source not found.</b> NPL < 5%	Healthy
2021	3,08%	2% <b>Error! Reference source not found.</b> NPL < 5%	Healthy
2022	3,14%	2% <b>Error! Reference source not found.</b> NPL < 5%	Healthy

Source : Data processed 2022

NPL value of PT. Bank BRI in 2020-2022 has experienced an increase but is still classified as healthy because it is below 5% of OJK regulations. In 2020 it will get a ratio of 2,94%. In 2021, it will get a percentage of 3,08%. And in 2022, it will get a ratio of 3,14%.

**Table 2.** Bank BNI NPL Composite Assessment

Year	Ratio	Bank Health Criteria	Predicate
2020	4,30%	2% <b>Error! Reference source not found.</b> NPL < 5%	Healthy
2021	3,70%	2% <b>Error! Reference source not found.</b> NPL < 5%	Healthy
2022	3,04%	2% <b>Error! Reference source not found.</b> NPL < 5%	Healthy

Source : Data processed 2022

PT. Bank BNI experienced a decrease in the NPL value because it was careful in disbursing credit. In 2020 the NPL ratio reached 4,30%. This is close to OJK regulations which limit banks not to exceed 5%. In 2021 and 2022, PT. Bank BNI obtained figures of 3,70% and 3,04% and received a healthy predicate due to PT. Bank BNI focuses on the low-risk segment.

**Table 3.** Bank Mandiri NPL Composite Assessment

Ratio	Year	Bank Health Criteria	Predicate
3,29%	2020	2% <b>Error! Reference source not found.</b> NPL < 5%	Healthy
2,81%	2021	2% <b>Error! Reference source not found.</b> NPL < 5%	Healthy
2,26%	2022	2% <b>Error! Reference source not found.</b> NPL < 5%	Healthy

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2020-2022 PT. Bank Mandiri also experienced a significant decline. In 2020, it scored 3,29% with a healthy predicate. In 2021, there was a decrease of 0,48% with a value of 2,81%, which received the beneficial title. The following year, he received a healthy predicate of 2,26%. The lower NPL indicates that the quality of bank financing is getting better.

### 2. LDR Ratio

The Loan Deposit Ratio (LDR) is used to measure and describe the comparison between the amount of credit (financing) extended to customers and the number of funds received. According to government regulations, the maximum ratio is 110%. Through this ratio, it can be seen that the bank can pay back withdrawals made by customers by relying on the credit provided as a source of liquidity (Riadi, 2020).

**Table 4.** Bank BRI LDR Composite Assessment

Year	Ratio	Bank Health Criteria	Predicate
2020	83,66%	75% < LDR ≤ 85%	Healthy
2021	83,67%	75% < LDR ≤ 85%	Healthy
2022	88,92%	85% < LDR ≤ 100%	Healthy Enough

Source : Data processed 2022

LDR is a ratio that compares the total loan paid to the total funds received from various sources. LDR Value of PT. Bank BRI in 2020-2021 is 83,66% and 83,67%, respectively, with a healthy predicate. However, it will experience a decrease in 2022 to get a reasonably healthy predicate with a ratio of 88,92%.

**Table 5.** Bank BNI LDR Composite Assessment

Year	Ratio	Bank Health Criteria	Predicate
2020	79,70%	75% < LDR ≤ 85%	Healthy
2021	87,30%	85% < LDR ≤ 100%	Healthy Enough
2022	91,18%	85% < LDR ≤ 100%	Healthy Enough

Source : Data processed 2022

LDR Value of PT. Bank BNI has experienced an increase in 2020-2022. In 2020 the LDR value was 79,70% with a healthy predicate. In the following year, the ratio increased to 87,30% in 2021 and 91,18% in 2022, with a reasonably healthy predicate because it is more than 85%. Seeing the increasing LDR ratio, banks are expected to maintain their credit correctly.

**Table 6.** Bank Mandiri LDR Composite Assessment

Year	Ratio	Bank Health Criteria	Predicate
2020	82,95%	75% < LDR ≤ 85%	Healthy
2021	80,04%	75% < LDR ≤ 85%	Healthy
2022	83,18%	75% < LDR ≤ 85%	Healthy

Source : Data processed 2022

Compared to the previous bank, PT. Bank Mandiri experienced relatively stable growth. In 2020 with a value of 82.95 PT. Bank Mandiri received a healthy predicate. In 2021 there was a decrease of 2.91% in the value ratio of 80.04% with a healthy predicate. However, in

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2022 it will increase with a ratio value of 83.18%, obtaining a healthy predicate because it is still below the 85%.

### **B. Good Corporate Governance (GCG)**

#### 1. BRI Bank (2020 to 2022)

Implementing BRI's consolidated Good Corporate Governance to support BRI's sustainability by carrying out business activities that reflect the principles of Good Corporate Governance has been adequate. Three aspects of the governance system, namely governance structure, governance process and governance outcome. Contemplating that the management of BRI and its Subsidiaries has implemented Good Corporate Governance in governance structure, governance processes and governance outcomes which are generally good. This is reflected in the adequate fulfilment of the principles of Good Corporate Governance. Suppose there are areas for improvement in applying the principles of Good Corporate Governance in general. In that case, these weaknesses are less significant and can be resolved by standard actions by the Bank's management.

#### 2. Bank BNI (2020 to 2022)

The effectiveness of GCG implementation can be seen from the alignment of 3 (three) governance system aspects: governance structure, governance process and governance outcome. The Governance Structure is related to the adequacy of the Corporate Governance Structure and Infrastructure so that the process of implementing the principles of Good Governance produces effects that align with the expectations of the Company's Stakeholders. The structure of the Governance organs includes the Board of Commissioners, Directors, Committees and Company Work Units. Meanwhile, what is included in the Governance infrastructure contains policies and procedures, management information systems and each organisational structure's main tasks and functions. Meanwhile, the Governance Process is the effectiveness of implementing the principles of good governance, which is supported by the adequacy of the system and infrastructure of Corporate Governance to produce outcomes that follow the expectations of all stakeholders. As a result, Governance Outcomes that meet stakeholder expectations are achieved through implementing the principles of Good Governance and are supported by adequate Governance structures and infrastructure. Thus, the Governance Outcome is the final result of implementing the Governance Process and adequately sustaining the Governance Structure. Continuous GCG implementation has been proven to influence BNI's performance positively. This is demonstrated by BNI's various achievements throughout 2020-2022, which achieved good performance in finance, operations and the awards it won. The increase in GCG implementation is directly proportional to the rise in BNI's overall performance.

#### 1. Bank MANDIRI (2020 to 2022)

Bank Mandiri is always committed to implementing corporate governance by referring to various relevant regulations and guidelines for implementing Good Corporate Governance developed by national and international institutions. In carrying out operations, Bank Mandiri applies 5 (five) principles of good corporate governance (GCG), namely Transparency, Accountability, Responsibility, Independence, and Fairness. Bank Mandiri won various awards with good to excellent ratings.

### **C. Earning**

Earnings determine the soundness level of conventional banks in obtaining profits.

#### 1. ROA ratio

Return on Assets is a profitability ratio that shows the percentage of profits (net income) earned by the company from the comprehensive resources or the average number of assets.

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In other words, ROA is a ratio that measures how efficiently a company manages its assets to generate profits over a period (Budi, 2018).

**Table 7.** Bank BRI ROA Composite Assessment

Year	Ratio	Bank Health Criteria	Predicate
2020	1,98%	1,5% < ROA	Very Healthy
2021	2,72%	1,5% < ROA	Very Healthy
2022	3,56%	1,5% < ROA	Very Healthy

Source : Data processed 2022

ROA measures a company's efficiency in generating profits using its resources or assets. The year 2020–2022 PT. Bank BRI is doing very well in utilizing its help to get the title of very healthy. Over the last three years, it has continued to increase, starting in 2020 with a value of 1,98%, in 2021 with a value of 2,72, and 3,56%

**Table 8.** Bank BNI ROA Composite Assessment

Year	Ratio	Bank Health Criteria	Predicate
2020	0,5%	0% < ROA ≤ 0,5%	Unhealthy
2021	1,4%	1,25% < ROA ≤ 1,5%	Healthy
2022	2,48%	1,5% < ROA	Very Healthy

Source : Data processed 2022

PT. Bank BNI experienced a decrease in ROA in 2020, reaching 0,5% with an unhealthy predicate. In the following year, it experienced an increase with a healthy predicate and earned a rate of 1,4%. In 2022 it increased with a value of 2,48%, obtaining a very beneficial predicate. PT. Bank BNI needs three years to improve its assets to get net profit.

**Table 9.** Bank Mandiri ROA Composite Assessment

Year	Ratio	Bank Health Criteria	Predicate
2020	1,64%	1,5% < ROA	Very Healthy
2021	2,53%	1,5% < ROA	Very Healthy
2022	3,40%	1,5% < ROA	Very Healthy

Source : Data processed 2022

Berdasarkan Based on the calculation of ROA at PT. Bank Mandiri experienced a significant increase in bank performance in measuring bank profitability on its assets. From 2020 the ROA is calculated at 1,64%. In 2021 it was 2,53%, and in 2022 it will be 3,40%. During the last three years, the ROA assessment of PT. Bank Mandiri is said to be good with a Very Healthy predicate because the ROA is more than 1,5%.

### 2. NIM ratio

Net Interest Margin or net interest margin can be interpreted as a measure used to distinguish between interest earned by banks and financial institutions with interest given to lenders. (Muzak L, 2021)

**Table 10.** Bank BRI NIM Composite Assessment

Year	Ratio	Bank Health Criteria	Predicate
2020	6,00%	3% < NIM	Very Healthy
2021	6,89%	3% < NIM	Very Healthy

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2022	7,23%	3% < NIM	Very healthy
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Source : Data processed 2022

Based on NIM calculations at PT. BRI Bank obtained a very satisfactory score because it exceeded 3%. In 2020, it scored 6% with a very healthy predicate. In 2021 the ratio increased by 0,89% with a value of 6,89%. In 2022 a weight of 7,23% was obtained with a very healthy predicate. It is expected that banks will be able to increase their ability to get net interest.

**Table 11.** Bank BNI NIM Composite Assessment

Year	Ratio	Bank Health Criteria	Predicate
2020	4,50%	3% < NIM	Very Healthy
2021	4,70%	3% < NIM	Very Healthy
2022	4,80%	3% < NIM	Very Healthy

Source : Data processed 2022

Same with the previous bank PT. Bank BNI also experienced a significant increase. In 2020 the NIM was calculated at 4,50% with a very healthy predicate, and in 2021 it increased by 0,20% with a value of 4,70%, getting a very beneficial predicate. The following year it experienced an increase with a value of 4,80% with a very healthy predicate.

**Table 12.** Bank Mandiri NIM Composite Assessment

Year	Ratio	Bank Health Criteria	Predicate
2020	4,48%	3% < NIM	Very Healthy
2021	4,73%	3% < NIM	Very Healthy
2022	5,12%	3% < NIM	Very Healthy

Source : Data processed 2022

Based on NIM calculations for 2020-2022 PT. Bank Mandiri received the title of very healthy. In 2020-2021, the scores were 4,48% and 4,73, with the title very beneficial. In 2022, it will increase with a value of 5,12%, with a very healthy predicate.

### D. Capital

(CAR) to assess capital adequacy in absorbing the risk of future placement of funds. According to Wardiah (2013), CAR is the ratio of bank capital adequacy or the ability of a bank in existing capital to cover possible losses in credit or securities trading.

**Table 13.** Bank BRI CAR Composite Assessment

Year	Ratio	Bank Health Criteria	Predicate
2020	20,61%	12% < CAR	Very Healthy
2021	25,28%	12% < CAR	Very Healthy
2022	24,00%	12% < CAR	Very Healthy

Source : Data processed 2022

Based on the CAR calculation of PT. BRI Bank in 2020-2022 is considered very good with a healthy predicate. Starting in 2020 with a ratio of 20,61%, 2021 with a balance of 25,28% and in 2022 with a ratio of 24,00%. This proves that PT. Bank BRI can provide sufficient bank capital to cover possible losses in giving credit.

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**Table 14.** Bank BNI CAR Composite Assessment

Year	Ratio	Bank Health Criteria	Predicate
2020	16,80%	12% < CAR	Very Healthy
2021	19,70%	12% < CAR	Very Healthy
2022	20,18%	12% < CAR	Very Healthy

Source : Data processed 2022

Judging from table 14 PT. Bank BNI in 2020-2022, on average, obtains a ratio value above 12%. In 2020 it got a score of 16,80% with a very healthy predicate, and in 2021 it increased with a score of 19,70%. In 2022, the ratio will be 20,18% with a healthy predicate. This shows that the bank has sufficient capital to deal with current and future risks.

**Table 15.** Penilaian komposit CAR Bank MANDIRI

Year	Ratio	Bank Health Criteria	Predicate
2020	19,90%	12% < CAR	Very Healthy
2021	19,60%	12% < CAR	Very Healthy
2022	19,32%	12% < CAR	Very Healthy

Source : Data processed 2022

Based on the CAR assessment of PT. Bank Mandiri in 2020 received a ratio value of 19,90% but experienced a decrease in the ratio value of 0,30% with a discount of 19,60%, and in 2022 again decreased with a value of 19,32%. Despite experiencing a decrease in the predicate obtained by PT. Bank Mandiri is still classified as very healthy. To overcome current and future risks, improvements are needed in managing capital.

## DISCUSSION

### A. Risk Profile

Indicators of financial ratios, namely credit risk factors using the NPL formula and liquidity risk using the LDR formula

#### 1. NPL (Non-Performing Loan)

The NPL ratio reflects how much the Bank bears the default rate in a certain period. The OJK currently regulates banks to maintain the NPL ratio below 5%. BRI bank's average NPL value was 2,75% in 2020-2022. It can be seen that there is an increase every year; this proves that BRI bank has few obstacles in its performance. With this figure, BRI bank is still said to be healthy in terms of management. BNI bank's average NPL value was 3,68% in 2020-2022. Bank BNI has experienced a decrease in the NPL value, which proves that it can improve its performance every year. The average value of 2,79% in the period 2020-2022. Following the BNI bank, MANDIRI bank also experienced a decrease in the NPL value, so it was said that bank Mandiri could improve its performance. If the ratio of non-performing loans gets lower, this indicates an improvement in the quality of bank financing. In terms of financial risk management, policies and procedures for granting funds have been implemented appropriately and by the scope of the Bank's business, support safe and sound operations, and are properly documented and managed. When broken down from the NPL position of healthy banks, BUMN Banks such as BRI, BNI and Mandiri can become MSME credit distributors in supporting technology-based business programs.

#### 1. LDR (Loan To Deposit Ratio)

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Loan To Deposit Ratio measures the percentage of the Bank's value. If the comparison level is too high, the Bank's liquidity is low or illiquid. Conversely, if the ratio is too low, the Bank's income will not reach the target. The average value of LDR PT. Bank BRI in the 2020-2022 period is 85,42%; this value has earned the title of relatively healthy. This continuously increasing number allows Bank BRI to be experiencing low bank liquidity. The average weight of LDR PT. Bank BNI is 86,06%. LDR Criteria PT. Bank BNI received the title of relatively healthy, meaning that PT. Bank BNI still has limited liquidity. The average value of LDR PT. Bank Mandiri is 82,05% with a healthy predicate.

The credit-to-deposit ratio illustrates the quality of the Bank in caring for and supporting its customers. If deposits increase, so do customers. On the other hand, banks lend money to customers, lowering the income level. Banks that lend money to their customers generate low-profit margins. However, balanced loan-to-deposit is the way to go for banks. If deposits are borrowed too much, the economical rate may fall. If the deposits taken are too small, the funds are usually stable and do not grow. One of the commitments to encourage credit growth so that LDR reaches the optimal level of BUMN banking is to create new sources of growth and empower Micro, Small and Medium Enterprises through ultra-micro holding; this ecosystem further encourages performance, both in terms of lending and also liabilities..

**B. Good Corporate Governance**

Three aspects of the governance system, namely governance structure, governance process and governance outcome. Reflecting that the Management of BRI and its Subsidiaries have implemented Good Corporate Governance in the governance structure, governance processes and governance outcomes which are generally good. Continuous GCG implementation has been proven to influence BNI's performance positively. This is demonstrated by BNI's various achievements throughout 2020-2022, which achieved good performance in finance, operations and the awards it won. The increase in GCG implementation is directly proportional to the rise in BNI's overall performance. In carrying out operations, Bank Mandiri applies 5 (five) principles of good corporate governance (GCG), namely Transparency, Accountability, Responsibility, Independence, and Fairness. Bank Mandiri won various awards with good to excellent ratings.

**C. Earning**

Earnings determine the soundness level of conventional banks in obtaining profits.

**1. ROA**

Over the last three years, it has continued to increase, starting in 2020 with a value of 1,98%, in 2021 with a value of 2,72, and 3,56% and BRI received a perfect title. PT. Bank BNI experienced a decrease in ROA in 2020, reaching 0,5% with an unhealthy predicate. In the following year, BNI received the title of very healthy. Meanwhile, Mandiri from 2020 calculated a ROA of 1,64%. In 2021 it was 2,53%, and in 2022, it was 3,40%. During the last three years, the ROA assessment of PT. Bank Mandiri is said to be good with a Very Healthy predicate because the ROA is more than 1,5%.

**2. NIM**

Net Interest Margin or net interest margin can be interpreted as a measure used to distinguish between interest earned by banks and financial institutions with interest given to lenders. BRI received the title of very healthy health from 2020-2022. In addition, BNI will also have a very beneficial bank in 2020-2022. And Mandiri is also the same as BRI and BNI banks which have very helpful NIMs in 2020-2022.

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**D. Capital**

Bank BRI, BNI and Mandiri in 2020 to 2022 will have a very healthy level of health. Starting in 2020 with a ratio of 20,61%, 2021 with a balance of 25,28% and 2022 with a proportion of 24,00%. In 2020 it got a score of 16,80% with a very healthy predicate, and in 2021 it increased with a score of 19,70%. In 2022, the ratio will be 20,18% with a healthy predicate. Bank Mandiri in 2020 got a ratio value of 19,90% but experienced a decrease in the ratio value of 0,30% with a discount of 19,60%, and in 2022 again decreased with a value of 19,32%.

**IMPLICATIONS**

This research examines the readiness of Indonesian banking to face the era of society 5.0 to support the technopreneur intention program by discussing the soundness level of banks and the period of society 5.0. This research shows the readiness of conventional banking banks BRI, BNI and Mandiri in facing the progress of the times in the 5.0 era.

**CONCLUSION**

In this discussion, it can be seen that NPL and LDR calculate the risk profile to determine the soundness of a bank. Bank BRI, seen from NPL and LDR, generally has healthy criteria. Bank BNI, in general, has the requirements of being fit or relatively healthy. At the same time, Mandiri generally has nutritional standards. BRI, BNI, and Mandiri banks generally have good corporate governance criteria, each of which has received several awards. Earning ROA ratio, bank BRI has a soundness level with a very healthy predicate, and bank BNI has an unhealthy predicate.

In contrast, Bank Mandiri has a soundness level with a very beneficial predicate. In the NIM earning ratio, banks BRI, BNI, and Mandiri have a very healthy level of soundness. Capital banks BRI, BNI, and Mandiri also have a very healthy level of health. Judging from the health of the BRI bank in the last three periods, the criteria are fit. The results of this study can be concluded that BUMN banking is in a healthy condition and is considered ready to support the technopreneurship intention program in the era of society 5.0. With a healthy predicate, the banking system has sufficient funds to support sales-based business programs through technology.

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