

## The Analysis Of Health Level Difference Between BPR And BPRS During Post-New Normal Era in Greater Malang

Fadilla Cahyaningtyas Institut Teknologi dan Bisnis Asia Malang JI. Malik Dalam Perumahan GBP No. A 59, Malang 65136 +6283848781123 fadillacahyaningtyas@asia.ac.id Justita Dura Institut Teknologi dan Bisnis Asia Malang JI arjuna no 16 Tumpang, Malang 65156 +628111122373 justitadura@asia.ac.id

#### ABSTRACT

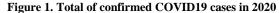
COVID-19 pandemic affects all of economic aspects in Indonesia. Banking, including BPR (Rural Bank) and BPRS (Sharia Rural Bank), is one of the affected economic sectors. Therefore, the researchers believe that an analysis on the health level of BPR and BPRS prior and subsequent to COVID19 pandemic should be conducted. This research uses CAMEL method to carry out the analysis of Bank Health. Based on the purposive sampling technique utilized, the researchers obtained samples taken from 26 BPR and BPRS in Greater Malang. The research data is quantitative, in the form of quarterly financial reports published via Financial Services Authority (OJK)'s website. The data taken respectively are financial data of 2019 (prior to the pandemic) and 2020 (subsequent to the announcement of Indonesia's first COVID-19 case, dated 2 March 2020). The researchers further process the data by using paired sample t-test for normally distributed data and Wilcoxon test as the alternative for abnormally distributed one. Based on the aforementioned test, the authors figure out that there is significant difference in the Capital Health prior and subsequent to COVID-19 pandemic. Meanwhile, the health level of asset quality, management, earnings, and liquidity do not show any critical difference pre- and post-COVID-19 pandemic.

Keywords : Health Level, Rural Bank, CAMEL, Covid 19 Pandemic.

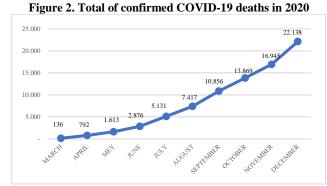
### 1. INTRODUCTION

Monday, March 20th 2020, is the beginning of COVID-19 outbreak in Indonesia. Coronavirus is a serious lung infectious disease by SARS-COV-2 (Shereen et al., 2020), which WHO later names it as COVID-19 (Sun et al., 2020). This virus is firstly discovered in Wuhan, Hubei Province, China (Lupia et al., 2020; Shereen et al., 2020; Sun et al., 2020) in December 2019 and spread quickly to the entire world (Lupia et al., 2020). In Indonesia, COVID-19 was rapidly growing (see Figure 1). Until December 2020, Indonesia confirmed to have constantly increasing COVID-19 cases each month. Figure 1 shows how the increasing trend of COVID-19 reached up to minimum 23% each month. In fact, the confirmed cases of COVID-19 increased up to 85% in April 2019.





Furthermore, the mortal rate raised along with the significant growth of confirmed COVID-19 cases. By observing Figure 2, it is clear that there were 22,138 of fatalities due to COVID-19 infection during the beginning of March to the end of December 2020, to which it represented 3% of the total confirmed COVID-19 cases in Indonesia.



Source: (Worldometer, 2020), processed by researchers.

In response to the accrual cases of COVID-19 in Indonesia, Indonesian government issues Large-scale Social Restrictions (PSBB) decision that limited certain activities by residents in regions where COVID-19 infection are suspected so as to prevent the possibility of spreading the disease (PP RI Number 21, 2020). The restriction is firstly implemented in Jakarta (Mashabi, 2020), later followed by other provinces and cities in Indonesia, including Greater Malang, East Java, which consists of Malang city and Batu city. These two cities have consecutively implemented this restriction twice. The first PSBB was implemented for 14 days, from 17 to 30 May 2020 (Governor of East Java's Decision No. 242, 2020). Meanwhile, the second one was conducted for seven days, from 7 to 13 of June 2020 (Jatim.id, 2020). Generally, there are rules required to be adhered by the society during PSBB, they are: (1) teaching and learning activities directly at school, campus and other educational institutions are put on halt and substituted by distance learning methods; (2) work activities in offices or workplaces are temporarily stopped but replaced with work activities from home or residence; (3) activities in public facilities are temporarily suspended; (4) special conditions for entrepreneurs in the field of food and beverages, hospitality and constructions (PMK RI No. 9, 2020; Governor of East Java's Java's Regulation No. 18, 2020).

The implementation of PSBB or commonly known as lockdown has staggeringly impacted on the economy (Goddard & Patel, 2021) of both developed and developing countries. Countries around the globe have to deal with the effects of lockdown, such as schools, businesses and public facilities closures (Omary et al., 2020) that eventually affect the decrease of consumption, demand and utilization of products and services (Nicola et al., 2020). The social restriction during lockdown then surely affects the significantly lowered economic growth, resulting in long-term economic recession (Barua, 2020; Goddard & Patel, 2021). In 2020, previous researchers predicted that the global GDP would decrease from 0.3% up to 0.7% (Craven et al., 2020). Previous studies also state that this pandemic affected the whole core economy, including G7 countries (Barua, 2020), such as the United States of America and United Kingdom. Lockdown has resulted in the decrease of GDP to 11.2% in the USA and 20.4% in the UK (Altig et al., 2020). Meanwhile, previous researchers affirm that this pandemic also hit India in several aspects severely, i.e. in the growth of poverty and deterioration of social economy gap (Gopalan & Misra, 2020).

Likewise, in Indonesia, the pandemic and lockdown decision in some regions cause extreme impact on economy and life. In 2020, Indonesia's GDP decreased to 2.07% (BPS, 2020a). The GDP drop resulted in the increasing unemployment in Indonesia during 2020, boosted up to 6.18% from 2019 (BPS, 2020b). This happened due to permanent bankruptcy and constrained shutdown of companies (Donthu & Gustafsson, 2020). Due to lockdown as well, most of companies' employees are working from home (Crick & Crick, 2020) to prevent the possibility of spreading COVID-19. There are numerous labor-intensive manufacturing companies that have to minimize their operations and even temporarily be closed down (Seetharaman, 2020). In addition, global tourism and hospitality sector is truly suffering from the disease's bad impacts as well (Seetharaman, 2020). Most airline companies have to lay off 90% of their employees, while 80% of hotel rooms are empty, and all tourism destinations are closed (Donthu & Gustafsson, 2020). Restaurants or cafés can only provide take away service (Lai et al., 2020) since people prefer to not dine in (Craven et al., 2020), stay away from such places (Seetharaman, 2020), and stay at home (Donthu & Gustafsson, 2020).

Not only big companies, COVID-19 and the decision of lockdown have also impacted SMEs vigorously, given that they play significant role in every country's economy. SMEs contribute dominantly to the economic growth, regional and rural development, employment, poverty alleviation (James & Navaneethakrishnan, 2020) and export and innovation (Saturwa et al., 2021). With such impressive role, COVID-19 pandemic also affects SMEs' activities negatively. According to Marcus (2020), SMEs are predicted to face bankruptcy due to COVID-19 pandemic (Lai et al., 2020). There are 43% of SMEs that are temporarily closed along with 39% reduction of active works in the USA. Also, 54% companies are closed and job vacancies are significantly reduced to 47% in Mid-Atlantic Region (Bartik et al., 2020). Malaysia has reported that its food and beverages business are facing 90% of revenue loss compared to the previous year (Lai et al., 2020). Furthermore, COVID-19 pandemic also causes Sri Lanka's SMEs to experience financial difficulties and several challenges such as: shortage of raw materials, national and global decreased demand,

difficulties in paying loans and their interests, payroll issues, paying utility bills, limitations of re-recruiting past employees and the absence of new orders (James & Navaneethakrishnan, 2020).

Moreover, although Indonesia's SMEs dominantly contributes toward the 99.99% of economy growth along with 96.92% of employment and more than 60% of Indonesia's GDP in 2019 (Kemenkopukm, 2019), a study by Tairas (2020) states that the implemented PSBB results in the remarkably income decrease that it forces companies to stop operating their business due to cash flow issues (Saturwa et al., 2021). The Ministry of Cooperatives and SMEs states that, during the pandemic, there are 37,000 SMEs reportedly experiencing appalling impacts (Resmi et al., 2020). According to the study by Thaha (2020), there are 56% SMEs experience decline in sales, 22% are facing difficulties in financing aspects, 15% are experiencing disruption in product distribution, and 4% are having difficulties in obtaining raw materials (Saturwa et al., 2021).

Normally, SMEs tend to have small cash buffers, high dependency to bank loans and limited access to new loans (Gourinchas et al., 2020). In fact, in accordance with Jindrichovska (2014), cash flow is one of the most crucial SMEs' non-human assets and the government needs to put more attention to this matter (Saturwa et al., 2021). Hence, in Indonesia, Rural Bank (BPR) and Sharia Rural Bank (BPRS) are established to facilitate those SMEs' financing problems. Rural Bank (BPR) is a bank that carries out its business activities conventionally and imposes charge for payment activities. Meanwhile, Sharia Rural Bank (BPRS) is a sharia-based bank that does not impose charge to its customers (POJK No. 62/ POJK.03/2020, 2020). In Indonesia, BPR and BPRS' main target market is SMEs (OJK, 2020). However, the COVID-19 pandemic puts SMEs in worse condition. One of adversities experienced by SMEs is the degradation of their debtor payment capacity funded by BPR and BPRS (OJK, 2020). The struggle of SMEs in paying their loans eventually affects BPR and BPRS performance, such as the increased non-performing loan (NPL) or decreased profitability (Figure 3 and Figure 4).

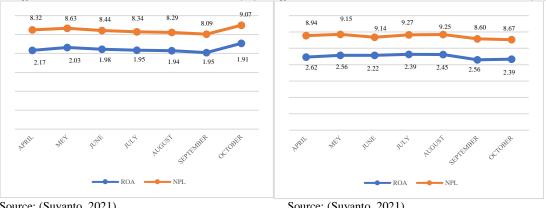


Figure 3. Rural Bank Finance Ratio in 2020 (%) Figure 4. Sharia Rural Bank Finance Ratio in 2020 (%)

Source: (Suyanto, 2021)

Based on the figure above, it shows that the value of NPL level for BPR and BPRS during COVID-19 pandemic is more likely to increase, which means there are more non-performing credits by customers. In contrast, the profitability level represented by Return on Assets (ROA) value tends to climb down. This indicates that non-performing credits affect the profitability level gained by BPR or BPRS. On top of that, COVID-19 also impacts BPR and BPRS customers' habit where they tend to withdraw funds for fulfilling both their domestic and business needs during the pandemic, which then influences BPR and BPRS liquidity.

Thus, based on the aforementioned background, the researchers are interested to conduct further research regarding to the difference of BPR and BPRS health level prior and subsequent to the pandemic. Generally, banking health level is the result of both qualitative and quantitative assessment on various aspects affecting the banking performance and condition (POJK RI No. 20/POJK.03/2019, 2019). This research is conducted in BPR or BPRS in Greater Malang (Malang city and Batu city), given that BPR and BPRS have a noteworthy role for SMEs and the economy of Greater Malang. In this research, the bank health level is measured by using factors of Capital, Assets, Management, Earning, and Liquidity (CAMEL).

#### 2. LITERATURE REVIEW

#### 2.1 Bank Health Level

Bank health is the ability of a bank to operate its activities normally, and to carry out its function properly to fulfill all of its responsibility in appropriate manner and under banking regulations. Hence, it is able to maintain its credibility and to perform government's intermediary function in implementing monetary policies (Apip et al., 2019; Yuliawati & Dana, 2020). Furthermore, according to regulation issued by Bank Indonesia, the result of Bank Health

Source: (Suyanto, 2021)

assessment is carried out towards the bank risks and performance (BI Regulation No.13/1/PBI/2011, 2011). Bank health level becomes the interest of all parties, e.g. bank owners, managers, customers, society, central bank, or government (Hamolin & Nuzula, 2018; Yuliawati & Dana, 2020). Bank Health Level can be measured by using various indicators. One of the main indicators that can be used as assessment basis is bank's financial report (Peters et al., 2018). Based on such financial report, financial ratio as the commonly-used basis of Bank Health assessment can be calculated (Apip et al., 2019).

#### 2.2 CAMEL Method

Generally, there are five assessment aspects used in measuring Bank Health level, i.e., CAMEL, which stands for Capital, Asset, Management, Earnings, and Liquidity (Apip et al., 2019). This CAMEL framework was developed by the US at the beginning of 1970s with an eye to arrange bank inspection process and was later adopted by the Federal Financial Institutions Examination Council in 1979 for classifying bank condition aggregately (Muhmad & Hashim, 2015; Zedan & Daas, 2017). Because of its international standard and flexibility, CAMEL analysis becomes the prime model in assessing bank performance (Muhmad & Hashim, 2015). CAMEL criteria ends up to be the practical and essential assessing tool for assessors and regulators as it measures bank health level by reviewing various bank aspects based on accountable information (Majumder & Rahman, 2016). In Indonesia, terms on Bank Health assessment are regulated in the Bank Indonesia Regulation Number 6/10/PBI/2004 regarding the Health Level Assessment System of Commercial Bank that is mandatory for all banks operated in Indonesia. The CAMEL method is also used in the aforementioned regulation. Article 3 in the regulation states that the Bank Health level assessment covers these factors: capital, asset quality, management, earnings, liquidity, and sensitivity to market risk (PBI No. 6/10/PBI/2004, 2004).

#### 2.2.1 Capital

Capital is one of the most essential factors for a bank to develop its business (Ichsan et al., 2021). It is assessed to know the adequacy of the bank's capital. The capital adequacy per se refers to whether a bank owns sufficient capital to cover unexpected loss (Karri et al., 2015; Kumar & Malhotra, 2017; Majumder & Rahman, 2016). The adequacy is based on any capital anticipated to maintain bank's risk exposure, such as credit, market, and operational risks to cover potential loss and to protect creditor (Zedan & Daas, 2017). Besides, capital adequacy is able to maintain depositor's trust and to prevent bank from insolvency (Karri et al., 2015). In this research, capital adequacy is measured by using Capital Adequacy Ratio (CAR). CAR is the capital ratio that shows bank's ability in supplying fund for business development covering possible risk of loss caused by its operations (Harahap, 2018). The CAR ratio indicates that the whole bank assets are exposed to risks, e.g. participation, bill to other banks, credit and securities, as well as granted financing from internal capital fund (Ichsan et al., 2021). CAR measurement can be calculated by using the following formula:

 $CAR = rac{Capital}{Risk Weighted Assets} x 100\%$ 

Source: (Ilhami & Thamrin, 2021; Sullivan & Widoatmodjo, 2021)

Table 1. Capital Adequacy Ratio (CAR)

Based on the Circular Letter of Bank Indonesia, the criteria of capital assessment to CAR are as follows:

Description	Criteria
Very Healthy	CAR > 12%
Healthy	$9\% \le CAR < 12\%$
Fairly Healthy	$8\% \leq CAR < 9\%$
Less Healthy	6% < CAR < 8%
Unhealthy	$CAR \le 6\%$

Source: (Circular Letter of BI No. 6/23/DPNP, 2004)

#### 2.2.2 Asset Ouality

Asset quality is one of the important indicators in measuring financial capabilities (Kumar & Malhotra, 2017) where it considers asset performance, especially bank's loan (Muhmad & Hashim, 2015). The leading factor affecting asset quality is loan portfolio where the highest risk faced by bank is risk of loan loss from bad debt (Zedan & Daas, 2017). In this research, the researchers measure asset quality by using Non-Performing Loan (NPL) value. The higher the NPL value is, the worse the bank's credit quality, which results in bigger bad debt and subsequently requires the bank to cover its operational loss (Harahap, 2018). NPL can be calculated by using this following formula.

$$NPL = \frac{Total \ of \ Bad \ Debt}{Credit \ Total} \ x \ 100\%$$
  
Source: (Sullivan & Widoatmodjo, 2021)

Based on the circular letter of Bank Indonesia, the criteria of NPL ranking are as follow:

Description	Criteria
Very Healthy	NPL < 2%
Healthy	$2\% \le NPL < 5\%$
Fairly Healthy	$5\% \le NPL < 8\%$
Less Healthy	8% ≤ NPL 12%
Unhealthy	$NPL \ge 12\%$

Table 2. Criteria of Asset Quality Assessment (NPL)

Source: (Circular Letter of BI No. 6/23/DPNP, 2004)

#### 2.2.3 Management

As a financial firm that manages great resources, manager's quality yields a great impact in bank performance (Lelissa & Kuhil, 2018). Thus, some previous studies state that the management quality is a critical element in measuring bank performance where it determines bank sustainability and growth (Kumar & Malhotra, 2017; Muhmad & Hashim, 2015). Substantially, management quality refers to the directors' and managers' capability in identifying, measuring, and controlling organization activities risks as well as to ensure safe, sound, and efficient operation under the applicable regulations (Zedan & Daas, 2017). A good management practice can result in stable profit (Sullivan & Widoatmodjo, 2021). To measure the management quality, the researchers use Return on Equity (ROE) ratio. According to Kavita (2019), ROE ratio estimates whether management is able to provide incremental values for stakeholders (Sullivan & Widoatmodjo, 2021). The value of ROE can be calculated by using this following formula.

# $ROE = \frac{Net Operating Profit After Tax}{Total of Equity} \times 100\%$

Source: (Sullivan & Widoatmodjo, 2021)

According to the Circular Letter of Bank Indonesia, the Criteria of ROE assessment can be seen in table 3 below.

Table 3. Criteria of Asset Quality Assessment (NPL)

Description	Criteria		
Very Healthy	ROE > 23%		
Healthy	$18\% < ROE \le 23\%$		
Fairly Healthy	$13\% < ROE \le 18\%$		
Less Healthy	$8\% < ROE \le 13\%$		
Unhealthy	$ROE \le 8\%$		
Source: (Circular Letter of BI No. 13/24/DPNP, 2011)			

#### 2.2.4 Earnings

Profit quality is also one of the considerable factors that determines bank capability to obtain consistent earnings (Kumar & Malhotra, 2017). It does not only reflect the amount of income and its trend, but also presents the influencing factors of income sustainability (Zedan & Daas, 2017). The profit performance growth can increase the depositors, investors, creditors and public trust (Muhmad & Hashim, 2015). In this research, a BOPO ratio, i.e. operational costs and operational income, is used by the researchers to measure the bank capability level (Supeno, 2021). Whenever operational cost increases, the cost incurred results in lower profit before tax and eventually leads to the decrease of bank profit (Ichsan et al., 2021). BOPO is calculated by using this following formula:

$$BOPO = \frac{Operational Cost}{Operational Income} x \ 100\%$$

Source: (Ichsan et al., 2021; Sullivan & Widoatmodjo, 2021)

Furthermore, these are the assessment criteria of BOPO based on Bank Indonesia's circular letter:

Table 4. Earnings Assessment Criteria (BOPO)

8	
Description	Criteria
Very Healthy	ROA ≤ 94%
Healthy	$94\% < ROA \le 95\%$
Fairly Healthy	$95\% < ROA \le 96\%$
Less Healthy	$96\% < ROA \le 97\%$
Unhealthy	ROA > 97 %

Source: (Circular Letter of BI No. 6/23/DPNP, 2004)

#### 2.2.5 Liquidity

Bank liquidity indicates the ability to meet its responsibility timely and effectively (Lelissa & Kuhil, 2018), such as paying short-term debt and handling unforeseen withdrawal of deposits (Kumar & Malhotra, 2017). One of major purposes faced by management team is to assure that adequate liquidity is achieved at any time, regardless of possible urgent conditions (Zedan & Daas, 2017). Liquidity is considered essential since bank need to meet its short-term finance and to fulfill their customers' loan demand (Muhmad & Hashim, 2015). In this research, the researchers measure the level of liquidity by using Cash Ratio (CR) where it assesses bank ability to settle customers' deposit (Depositors) whenever they withdraw it by using their liquid mean. Cash Ratio (CR) is calculated by using this following formula:

 $Cash Ratio = \frac{Current Asset}{Current Debt} \times 100\%$ Source: (Rabuisa et al., 2018)

Moreover, the criteria for Cash Ratio assessment are based on the circular letter of Bank Indonesia as follow.

Table 5. Cash Ratio (CR) Assessment Criteria

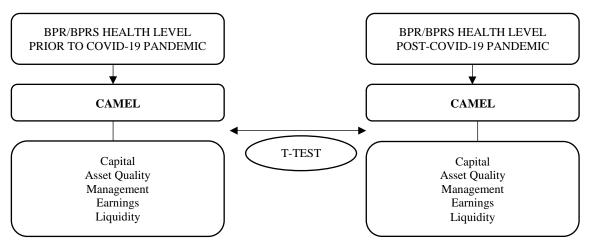
Description	Criteria
Very Healthy	$CR \ge 4.80\%$
Sound	$4.05\% \le CR < 4.80\%$
Fairly Healthy	$3.30\% \le CR < 4.05\%$
Less Healthy	$2.55\% \le CR < 3.30\%$
Unhealthy	CR < 2.55%
Source: (Circular Letter	of BI No. 6/23/DPNP, 2004)

Source: (Circular Letter of BI No. 6/25/DPNP, 2004

#### 2.3 Theoretical Framework

The theoretical framework used in this research is as follow:

#### Figure 5. Theoretical Framework



Based on the theoretical framework above, the hypotheses of this research are as follows:

- H1: There is difference in the BPR/S Health level when measured by using capital ratio between prior and subsequent to COVID-19 pandemic
- H2: There is difference in the BPR/S Health level when measured by using asset quality ratio between prior and subsequent to COVID-19 pandemic
- H3: There is difference in the BPR/S Health level when measured by using management ratio between prior and subsequent to COVID-19 pandemic
- H4: There is difference in the BPR/S Health level when measured by using earnings ratio between prior and subsequent to COVID-19 pandemic
- H5: There is difference in the BPR/S Health level when measured by using liquidity ratio between prior and subsequent to COVID-19 pandemic

#### **3. METHODOLOGY**

This research used quantitative method with comparative descriptive approach that compares the existence of one or more variables on two or more different samples or at different times (Sugiyono, 2013). The population of this research was BPR/BPRS operating in the region of Greater Malang (Malang city, Malang Regency and Batu city). There were 43 BPR/BPRS taken as research population. Purposive sampling technique as used in sampling technique that relies on specific consideration in determining the sample (Sugiyono, 2013). The criteria for the sample utilized in this research were as follows:

- 1. BPR/BPRS that publish quarterly financial reports during 2019-2020 consecutively
- 2. BPR/BPRS that gain profit during 2019-2020 consecutively

Based on the above criteria, there were 26 BPR/BPRS in Greater Malang selected as this research sample. Hence, the total of data sample was obtained by multiplying 26 BPR/BPRS with 8 financial reports, i.e., 208 data sample. Such data sample followed the requirement of the amount of sample according to Roscoe (1982), i.e. when the sample is divided into categories, each category needs to have at least 30 samples (Sugiyono, 2013). The categories presented in this research were as follow: (1) Financial report prior to COVID-19 pandemic, and (2) Financial report subsequent to COVID-19 pandemic; where each category contained 104 sample data. This research used secondary data, i.e., quarterly financial report of BPR/BPRS published on the web page of Financial Services Authority (OJK). The data used were quarterly financial reports of BPR/BPRS before COVID-19 pandemic (March, June, September and December 2019) and after the COVID-19 pandemic, i.e., after the announcement of the first case of COVID-19 on March 2nd, 2020 (March, June, September and December 2020). As this was a comparative research, the researchers used paired T-test (only if the data is normally distributed). If there were any data that were not normally distributed, then the researchers used Wilcoxon test as the alternative. The decision guideline for the hypotheses results was as follows:

- 1. If the p-value is below 0.05, there is difference in the level of Health BPR/BPRS prior and subsequent to COVID-19 pandemic.
- 2.If the p-value is above 0.05, there is no difference in the level of Health BPR/BPRS prior and subsequent to COVID-19 pandemic.

### 4. RESULTS AND DISCUSSION

#### 4.1 Capital

After carrying out data transformation, the researchers figure out that the data normality requirements of CAR are met. Therefore, the researchers are able to conduct the paired samples t-test in CAR variable.

Remarks	Mean	Ν	Std. Deviation	Std. Error Mean
CAR_SebCvd	6.9666	104	2.32975	.22845
CAR_SesCvd	8.0084	104	2.34570	.23002

**Table 6. Paired Samples Statistics of CAR** 

Source: Processed data, SPSS (2021)

#### Table 7. Paired Samples Test CAR Prior and Subsequent to Covid-19 Pandemic

Remarks	95% Confid of Dif			Sig. (2-	
	Lower	Upper	t	df	tailed)
CAR_SebCvd-CAR_SesCvd	-1.36697	71661	-6.354	103	.000

Source: Processed data, SPSS (2021)

The calculation result in table 7 showed that this research's first hypothesis is accepted, i.e., there is bank Health level difference in BPR/S when it is measured by capital ratio prior and subsequent to COVID-19 pandemic. This is supported by the increase of CAR average value to 14.95% subsequent to COVID-19 pandemic. Based on that average value (see table 6), the researchers state that Bank Health level prior to COVID-19 matches the criteria of less healthy category, while it changes to fairly healthy after the pandemic (Circular Letter of BI No. 6/23/DPNP, 2004). This proves that, despite of COVID-19 pandemic, BPR/S in Greater Malang are able to maintain, even improve the ability to provide capital. This improvement is in line with the previous study showing that the total asset of BPR and BPRS in Indonesia consecutively raises to 3.08% and 4.74% in October 2020 (Sofyan, 2021). Furthermore, the researchers believe that one of the supporting factors on the value boost of BPR/S' CAR in Greater Malang is the OJK regulation in mitigating COVID-19 pandemic, where BPR/S can utilize the percentage of acquired collateral value as reducing factor of main capital in the measurement of the minimum capital provision obligation (Copy of POJK No. 34/POJK.03, 2020). In spite of the CAR value raised, it is 12% below the expected number in 2020. Therefore, according to OJK regulation, BPR/S in Greater Malang remains in need of incentive monitoring ( Copy POJK No. 32/POJK.03, 2019).

#### 4.2 Asset Quality

After transformation performed, the researchers determine that the NPL data meets the normality assumption so paired t-test need to be carried out properly.

Remarks	Mean	N	Std. Deviation	Std. Error Mean
NPL_SebCvd	.7100	102	.44766	.04432
NPL_SesCvd	.7506	102	.41302	.04089

Table 8. Paired Samples Statistic of NPL

Source: Processed data, SPSS (2021)

Table 9. Paired Samples Test of NPL Prior and Subsequent to COVID-19 pandemic

Remarks	95% Confic of Dif			Sig. (2-	
	Lower	Upper	t	df	tailed)
NPL_SebCvd-NPL_SesCvd	13512	.05390	852	101	.396
Source: Processed data, SPSS (2021)					

Moreover, table 9 indicates that the second hypothesis is rejected, where there is no difference in bank Health level of BPR/S when it is measured by using asset quality ratio prior as well as subsequent to COVID-19 pandemic. This can be seen from description in table 8, with the average value of NPL after COVID-19 pandemic surprisingly increases to approximately 5.72%. This is consistent with the previous study, which states that the NPL value of BPR/S in Indonesia raises in October 2020 (Sofyan, 2021). Eventhough the credit quality is getting worse, the NPL value before and after COVID-19 pandemic is classified in healthy category (Circular Letter BI No. 6/23/DPNP, 2004). In other words, after the pandemic, BPR/S in Greater Malang are still able to preserve their bank health level when it is measured by NPL. To the researchers, such ability is the impact of OJK regulation on credit restructuring or funding for affected debtor, including SMEs (Copy of POJK No. 11/POJK.03, 2020). With this regulation, banks should be able to push down bad debt that can disrupt their health level and financial system stability, and BPR/S in Greater Malang prove this matter.

#### 4.3 Management

After data transformation performed, ROE data has met the normality test so the paired sample t-test can be executed.

Remarks	Mean	Ν	Std. Deviation	Std. Error Mean
ROE_SebCvd	2.6390	104	1.16470	.11421
ROE_SesCvd	2.7949	104	1.21516	.11916
Source: Processed data	a. SPSS (2021)			

Table 10.	Paired	Samples	Statistic	of ROE
-----------	--------	---------	-----------	--------

a, s

Table 11. Paired Samples Test of ROE Prior and Subsequent to COVID-19 Pandemic

Remarks	95% Confidence Interval of Difference				Sig. (2-
	Lower	Upper	t	df	tailed)
ROE_SebCvd-ROE_SesCvd	35902	.04709	-1.523	103	.131
Source: Processed data SPSS (2021)					

Source: Processed data, SPSS (2021)

Measurement in table 11 expresses that the third hypothesis is rejected, which means that there is no difference in bank health level in BPR/S when it is measured by management ratio, for both prior and subsequent to COVID-19 pandemic. Although the ROE value increases to 5.90% (see table 10) after the pandemic begins, that value of BPR/S in Greater Malang is included in unhealthy category before and after the COVID-19 pandemic (Circular Letter of BI No. 13/24/DPNP, 2011). This finding is supported by PERBARINDO'S data that reveals that the growth of provided credit, savings, and deposit in BPR/S sector are more likely to continuously decrease both in 2019 and 2020 (Suyanto, 2021). This condition is endorsed with the negative effect of COVID-19 pandemic, where customers believe that performing transaction is harmful and that they doubt banks' credibility on prioritizing customer's interest (Suyanto, 2021). Finally, this proves that BPR/S management in Greater Malang do not have proper ability to manage their banks yet. Even more, BPR/S currently focus on credit relaxation strategy or in maintaining their stability of liquidity.

#### 4.4 Earnings

After the transformation performed, BOPO data cannot fulfill the normality test so the paired sample t-test cannot be conducted. Alternatively, the researchers use Wilcoxon Test.

	BOPOSebCvd - BOPOSesCvd
Ζ	-1.440 <sup>b</sup>
Asymp. Sig. (2-tailed)	.150

**Table 12. Test Statistics of BOPO** 

Based on table 12, it can be found that the fourth hypothesis is rejected, meaning that there is no difference in bank health level of BPR/S both prior and subsequent to COVID-19 pandemic. Despite of the COVID-19 pandemic, BOPO value in BPR/S has been decreased to 5.12% (see table 13), but that value is classified as very healthy during the aforementioned times (Circular Letter of BI No. 6/23/DPNP, 2004).

Remarks	Ν	Minimum	Maximum	Mean
SebCovBOPO	104	.00	116.80	77.6116
SesCovBOPO	104	.00	169.97	73.6361
Valid N (listwise)	104			

Table 13. Descriptive Statistics of BOPO

Source: Processed data, SPSS (2021)

Such decreased BOPO value indicates that BPR/S Greater Malang operate in a better way, eventhough they have to deal with challenges during COVID-19 pandemic. This is against the previous study that figures out that BOPO value for banking sector is decreased to 5.18% in quarter III-2020 (Sullivan & Widoatmodjo, 2021). Additionally, this can indicate that OJK regulation on national economic stimulus towards COVID-19 has been executed properly by BPR/S in Greater Malang, such as in debtor relaxation, credit restructuring, new funding provision, or risk management implementation (OJK Regulation Number 48/POJK.03, 2020). At last, BPR/S in Greater Malang are able to suppress the high rate of default risk, maintain bank's operational cost efficiency or income continuity.

#### 4.5 Liquidty

CR data does not meet normality test requirement so the researchers use Wilcoxon test. Based on the statistic test in table 14, the researchers discover that the fifth hypothesis is rejected. In other words, there is no difference in health bank level on BPR/S when it is measured by liquidity ratio, both prior and subsequent to COVID-19 pandemic. Although the CR value decreased to 5.2% in 2020, the BPR/S liquidity before and after COVID-19 pandemic can be considered as very healthy (Circular Letter of BI No. 6/23/DPNP, 2004).

	CRSebCvd - CRSesCvd			
Ζ	387 <sup>b</sup>			
Asymp. Sig. (2-tailed) .699				
Sumber: Processed data, SPSS (2021)				

Table 14. Test Statistics of CR

: Processed data, SPSS (2021)	
-------------------------------	--

	Remarks	Ν	Minimum	Maximum	Mean		
Se	bCovCR	104	.00	162.92	40.7753		
Se	sCovCR	104	.00	145.59	38.6528		
Va	alid N (listwise)	104					
Sour	Source: Processed data, SPSS (2021)						

Table 15. Descriptive Statistics of CR

This finding represents that BPR/S in Greater Malang still have the proper ability to fulfill short-term debt, deposit withdrawal, or to meet the demand on customer loan eventhough they have to face the negative effect of COVID-19 pandemic. Thus, the researchers state that BPR/S in Greater Malang are able to maintain their Health level. Other than that, the CR value, both before and after COVID-19 pandemic, still meet OJK standard value, so the BPR/S liquidity do not need to be intensively monitored (Copy of POJK No. 32/POJK.03, 2019). This is believed to happen since BPR/S in Greater Malang are able to perfectly implement one of policies in OJK regulation, i.e. BPR/S can provide funding in the form of fund placement among banks in other BPR/S for liquidity mitigation (Copy of POJK No. 34/POJK.03, 2020).

#### 5. CONCLUSIONS AND SUGGESTIONS

According to the above research result, the researchers conclude that there is no difference in BPR/S health level in Greater Malang, both before and after COVID-19 pandemic, in terms of asset quality, management ability, earnings, and liquidity. However, there is Health level difference before and after COVID-19 pandemic in terms of capital adequacy, where BPR/S in Greater Malang are able to preserve and improve their capital adequacy as it is classified as fairly healthy after COVID-19 pandemic. Based on the five indicators of bank health measured by using CAMEL method, the researchers affirm that management needs to intensively be monitored by OJK. This is caused by the unhealthy management quality, which means that BPR/S' management in Greater Malang do not have the proper ability to manage banks' operations. At last, BPR/S in Greater Malang is considered to have a great ability in maintaining bank health in terms of asset quality, earnings, and liquidity in very healthy category eventhough they have to deal with the negative impact of COVID-19 pandemic. The researchers expect that the next research may extend its research scope, such as BPR/S in East Java or Indonesia. In addition, the researchers believe that it is essential to the subsequent research to measure the health level of BPR/S by using other risk-based method based such as, CAMELS or RGEC.

#### 6. REFERENCES

Apip, M., Prawiranegara, B., Herlina, E., & Rudiana, I. F. (2019). Bank Health Ratio, The Profitability And CSR Disclosure In Indonesia Islamic Bank. Medan International Conference Economics and Business Applied 2019 (MICEBA 2019), 2019(May 2011). https://www.ajhssr.com/wp-content/uploads/2020/02/X2042175182.pdf PBI No. 6/10/PBI/2004, Pub. L. No. 6/10/PBI/2004, 1 Peraturan bank Indonesia 1 (2004). www.bi.go.id

Hamolin, T. V., & Nuzula, N. F. (2018). Analisis Tingkat Kesehatan Bank Berdasarkan Metode Risk Based Bank Rating (Studi pada Bank Umum Konvensional di Indonesia Periode 2014-2016). Jurnal Administrasi Bisnis (JAB) Universitas Brawijaya, 57(1), 218–226.

Harahap, I. M. (2018). Impact of Bank Performance on Profitability. Sch. J. Econ. Bus. Manag, 5(8), 727-733. https://doi.org/10.21276/sjebm.2018.5.8.3

Ichsan, R. N., Suparmin, S., Yusuf, M., Ismal, R., & Sitompul, S. (2021). Determinant of Sharia Bank's Financial

16

Performance during the Covid-19 Pandemic. Budapest International Research and Critics Institute (BIRCI-Journal): Humanities and Social Sciences, 4(1), 298–309. https://doi.org/10.33258/birci.v4i1.1594

- Ilhami, & Thamrin, H. (2021). Analisis Dampak Covid 19 Terhadap Kinerja Keuangan Perbankan Syariah Di Indonesia. Jurnal Tabarru': Islamic Banking and Finance, 4(1), 37–45. https://doi.org/10.25299/jtb.2021.vol4(1).6068
- Surat Edaran BI no. 6/23/DPNP, 39 (2004).
- BI Regulation No.13/1/PBI, Pub. L. No. 13/1/PBI/2011, Peraturan Bank Indonesia 1 (2011).
- Surat Edaran BI No. 13/24/DPNP, (2011).
- Karri, H. K., Meghani, K., & Mishra, B. M. (2015). A Study on Financial Performance of Commercial Banks in India: Application of Camel Model. Arabian Journal of Business and Managemen Review, 5(2), 18–35. http://www.indianjournals.com/ijor.aspx?target=ijor:abjfm&volume=5&issue=2&article=005
- Kumar, V., & Malhotra, B. (2017). A CAMEL MODEL ANALYSIS OF PRIVATE BANKS IN INDIA. International Journal of Economic and Business Review, 5(7), 153–162.
- Lelissa, T. B., & Kuhil, A. M. (2018). Empirical Evidence of the Impact of Bank-Specific Factors on the Commercial Banks Performance: The CAMEL Model and the case of Ethiopian Banks. *GIS Business*, 18(4), 1–14. https://doi.org/10.26643/gis.v13i3.3287
- Majumder, M. T. H., & Rahman, M. M. (2016). A CAMEL Model Analysis of Selected Banks in Bangladesh. SSRN Electronic Journal, 6(2), 233–266. https://doi.org/10.2139/ssrn.3068004
- Muhmad, S. N., & Hashim, H. A. (2015). Using the Camel Framework in Assessing Bank Performance in Malaysia. International Journal of Economics, Management and Accounting, 23(1), 109–127.
- Salinan POJK No. 32/POJK.03, Pub. L. No. 32/POJK.03/2019, 11 (2019).
- Salinan POJK No. 11/POJK.03, Pub. L. No. No. 11/POJK.03/2020, 1 (2020).
- Salinan POJK No. 34/POJK.03, Pub. L. No. 34/POJK.02/2020, 23 (2020).
- Peraturan OJK Nomor 48/POJK.03, Pub. L. No. 48/POJK.03/2020 (2020).
- Peters, A. W., Pyda, J., Menon, G., Suzuki, E., & Meara, J. G. (2018). The World Bank Group: Innovative financing for health and opportunities for global surgery. *Surgery (United States)*, 165(2), 263–272. https://doi.org/10.1016/j.surg.2018.07.040
- Rabuisa, W. F., Runtu, T., & Wokas, H. R. N. (2018). Analisis Laporan Keuangan Dalam Menilai Kinerja Keuangan Perusahaan Pada Bank Perkreditan Rakyat (BPR) Dana Raya Manado. *Going Concern : Jurnal Riset Akuntansi*, 13(02), 325–333. https://doi.org/10.32400/gc.13.02.19518.2018
- Shereen, M. A., Khan, S., Kazmi, A., Bashir, N., & Siddique, R. (2020). COVID-19 infection: Origin, transmission, and characteristics of human coronaviruses. *Journal of Advanced Research*, 24, 91–98. https://doi.org/10.1016/j.jare.2020.03.005
- Sofyan, M. (2021). Kinerja BPR dan BPRS Pada Masa Pandemi COVID-19. The 2nd Seminar Nasional ADPI Mengabdi Untuk Negeri Pengabdian Masyarakat Di Era New Normal, 2(2), 6–12.
- Sugiyono. (2013). Metodelogi Penelitian Kuantitatif Kualitatif dan R&D. ALFABETA, CV.
- Sullivan, V. S., & Widoatmodjo, S. (2021). Kinerja Keuangan Bank Sebelum Dan Selama Pandemi (Covid 19). Jurnal Manajerial Dan Kewirausahaan, III(1), 257–266.
- Supeno, W. (2021). Analysis of Profitability Performance: the Comparison of Bpr Kota Baru and Bpr in South Kalimantan Province During Covid-19 Pandemic Period. Accountability, 10(1), 7. https://doi.org/10.32400/ja.33213.10.1.2021.7-15
- Suyanto, J. (2021). Inovasi Kegiatan Usaha BPR dan BPRS. Perbarindo.
- Worldometer. (2020). Daily New Cases in Indonesia. https://www.worldometers.info/coronavirus/country/indonesia.
- Yuliawati, K. A., & Dana, I. M. (2020). Assessment of the Bank's Financial Health Level at Pt. Bank Central Asia, TBK. Based on Risk Approach. American Journal of Humanities and Social Sciences Research (AJHSSR), 4(2), 175–182. https://www.ajhssr.com/wp-content/uploads/2020/02/X2042175182.pdf
- Zedan, K. A., & Daas, G. (2017). Palestinian Banks Analysis Using CAMEL Model. International Journal of Economics and Financial Issues, 7(1), 351–357. http://oAwww.econjournals.com