# BEHAVIOR ANALYSIS OF SAVINGS BETWEEN PRE-COVID19 ERA AND DURING COVID-19 ERA

ANALISIS PERILAKU MENABUNG ANTARA ERA PRA-COVID19 DAN SELAMA ERA COVID-19

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Abstract: Savings is the portion of income not spent on current expenditures, savings should help an individual or family become financially secure. The existence of the Covid-19 pandemic, limits the economic activities of the community and exacerbates economic development, which has an impact on reducing the income level of an individual or family. This condition requires a study that can identify, analyze, and provide solutions to the behavioral changes that occur. This study aims to identify changes in people's saving behavior before the covid19 pandemic occurred and temporarily occurred. This study uses a quantitative approach. Secondary data collected from Annual Reports of banks, data on customer deposits during 2009-2020 is analyzed in Panel Data Regression and Multiple Linear Regression, with the sample of 45 banks listed in the Indonesia Stock Exchange (IDX). The results of this study revealed Savings, and Operational Expense Ratio to Operational Income, partially and simultaneously have a positive and significant effect on Return on Assets.

**Keywords:** Savings, savings behavior, Return on Assets, Operational Expense Ratio

Abstrak: Tabungan adalah bagian dari pendapatan yang tidak dibelanjakan untuk pengeluaran saat ini, tabungan harus membantu individu atau keluarga menjadi aman secara finansial. Adanya pandemi Covid-19, membatasi kegiatan ekonomi masyarakat dan memperburuk pembangunan ekonomi, yang berdampak pada penurunan tingkat pendapatan individu atau keluarga. Kondisi ini memerlukan kajian yang dapat mengidentifikasi, menganalisis, dan memberikan solusi atas perubahan perilaku yang terjadi. Penelitian ini bertujuan untuk mengidentifikasi perubahan perilaku menabung masyarakat sebelum pandemi Covid19 terjadi dan sementara terjadi. Penelitian ini menggunakan pendekatan kuantitatif. Data sekunder dikumpulkan dari Laporan Tahunan bank, data simpanan nasabah selama 2009-2020 dianalisis dalam Regresi Data Panel dan Regresi Linier Berganda, dengan sampel 45 bank yang terdaftar di Bursa Efek Indonesia (BEI). Hasil penelitian ini mengungkapkan Tabungan, dan Rasio Beban Operasional terhadap Pendapatan Operasional, secara parsial dan simultan berpengaruh positif dan signifikan terhadap Return on Assets.

Kata Kunci: Tabungan, perilaku menabung, pengembalian aset, Rasio Beban Operasional

#### INTRODUCTION

## **Research Background**

Economic growth is an important indicator in analyzing economic development of a country. The factor of public savings play a role in economic growth. Savings creates capital formation and it further leads to technical innovation progress, which helps with the economies of large-scale production and increases specialization. It helps to accelerate the productivity of labor, it further resulting increased GDP. Harrod (1939) and Evsey Domar (1946) suggested that if a developing country wants to achieve economic growth, the government in that country need to encourage savings. Harrod and Domar model is suitable model to be used, to show such relationship because the theory describes the mechanism by which more savings leads to more economic growth. Savings leads to investment and it leads to capital formation, which generates economic growth. So, savings is most important factor for economy to grow and develop.

Indonesia is a developing country, which generally continues to make various efforts, to expand the inclusion of state finances. Especially during a particular situation or phenomenon. Financial inclusion means that individuals and businesses have access to useful and affordable financial products and services, which meet their

needs. Such as, transactions, payments, savings, credit and insurance delivered in a responsible and sustainable way (World Bank, 2016). One of the ways, to improve the development of financial inclusion in a country is by developing financial literacy in society. Financial literacy is knowledge, skills, and beliefs that influence attitudes and behavior to improve the quality of decision making and financial management, in order to achieve prosperity (OJK, 2016). It can be concluded that the importance of financial literacy for the community is to avoid wrong financial management. According to data released by the Financial Services Authority (OJK), the financial literacy index in 2019 reached 38.03 percent which has increased compared to the 2016 survey of 29.7 percent, Indonesia also recorded an increase in the financial inclusion index from 67.8 percent in 2016 to 76.19 percent in 2019. Understanding of saving among the community is still low, which is one of the obstacles in increasing the productivity of saving.

Covid-19 pandemic occurred in 2020, where many industries could not survive so they had to reduce the number of workers which resulted in many citizens lose their jobs and sources of income. Connected with the current situation where financial conditions and economic growth need to be considered, communities found a challenge in terms of savings when income are less stable or decline. With these obstacles of among the community, the current Covid-19 pandemic conditions, which impacted Indonesian companies by reducing the number of employee, that impacted people losing their job which lead to the decreasing of income. It will directly or indirectly have an impact on community's saving behavior.

# **Research Objective**

This research aims to identify the savings behavior between Pre-Covid-19 era and during Covid-19 era.

# THEORETICAL FRAMEWORK

## **Savings**

Savings can be defined as the share of income this year that is not spent on consumption (Nopirin, 1996). In Banking Law number 10 of 1998, savings are deposits whose withdrawals can only be made according to certain agreed conditions, but cannot be withdrawn by check, bill, and or other equivalent means.

#### **Savings Behavior**

Psychology views human behavior as a reaction that can be simple or complex. In fact, human behavior is not as simple to understand and predict. Many factors, both internal and external, in the past, at present, and in the future, also influence human behavior which will form a process that ultimately determines a person's behavior (Azwar, 1995). Saving behavior is defined as an understanding on how people save in a country in order to realize the economic condition of that country

# **Financial Literacy**

According to OJK (2016), financial literacy is knowledge, belief, and skills, which influence attitudes and behavior in decision making and financial management in order to achieve prosperity. According to Huston (2010), Financial Literacy is the ability to read, analyze, manage and communicate about personal financial conditions that affect economic well-being. This includes the ability to discern financial choices, discuss financial matters, the future and respond to life events that can affect financial decisions and the economy in general.

## **Financial Disruption**

The term "disruptive innovation" is used in a broader sense to designate any innovation that revolutionizes an industry and substantially changes its competitive patterns (Christensen, Raynor, and McDonald, 2015).

#### Income

According to Sukirno (2004), in an economic sense, income is remuneration for the use of production factors owned by the home sector and the corporate sector in the form of salaries / wages, rent, interest and profit.

#### Bank

According to Law No. 10 / 1998 on banking, a bank is a business that gathers funds from society in savings and distributes the fund to society in the form of credits to improve people's standard of living.

#### **Previous Research**

Palmié et al. (2019) defined disruptive innovation ecosystems and illustrates the impact that the financial technology (FinTech) ecosystem has had on disrupting the financial services industry. They offer an agenda for future research on disruptive innovations and ecosystems and discuss the evolution of the FinTech ecosystem. Their study shows that disruptive innovation ecosystems are not only in need of but also deserving of further attention.

Guven (2012) attempted to answer an interesting but empirically challenging question: Do changes in well-being (life satisfaction or happiness) lead to changes in consumption and savings behavior? The paper uses regional sunshine as an instrument for personal happiness using the Dutch Household Survey from the Netherlands. Sunshine improves happiness significantly. Instrumenting happiness with sunshine, happier people are found to save more, spend less, and have a lower marginal propensity to consume. Happier people take more time for making decisions and have more control over expenditures; they expect a longer life and (accordingly) seem more concerned about the future than the present; they also expect less inflation in the future.

Mardiyah (2020) explained the impact of the Covid-19 pandemic on increasing the unemployment rate in Indonesia. The significant increase in the number of open unemployment is not only caused by the slowdown in the pace of economic growth, which according to the projections of the Center of Reform on Economics (CORE) Indonesia will range from -2% to 2% this year, but also due to changes in people's behavior related to the Covid-19 pandemic and social restriction policies, both on a small and large scale. According to CORE, the impact of the COVID-19 pandemic on the loss of livelihoods in the informal sector needs to be more vigilant. This is because the economic resilience of workers in the informal sector is relatively fragile, especially those who depend on daily income, mobility of people, and the activities of people working in the formal sector. The government is currently making efforts to restore the situation, not only in the health sector but also in the economy. The government has prepared various kinds of assistance for people affected by this pandemic

# **Conceptual Framework**

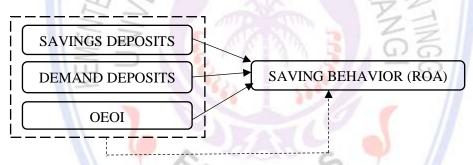


Figure 1. Conceptual Framework
Source: Data Processed (2021)

#### RESEARCH METHOD

# Research Approach

Based on the type of data and analysis, this research used quantitative approaches which aims to show the relationship between variables. According to Johnson and Christensen (2008), quantitative research is a descriptive type of research where the goal is to attempt to provide an accurate description or picture of a particular situation or phenomenon. According to Fraenkel and Wallen (2003), quantitative research can be classified as either descriptive or experimental research. As it explained, this research conduct the methodology to collect and process the data to determine the savings behavior between Pre-Covid19 Era 2009-2019 which the period of before Covid-19 and after Global Financial Crisis, 2016-2019 which the period of after financial disruption and before Covid-19 and 2020 which the period during Covid-19) during the changes that happened on savings behavior. To analyzing the changing either up and down of Savings Behavior, writer divided the period into Pre and During Covid-19 as explained before.

# Population, Sample Size, and Sampling Technique

According to Sugiyono (2010), Population is a generalization area consisting of objects / subjects that have certain qualities and characteristics that are determined by researchers to study and then draw conclusions. The population in this study were all of Indonesian citizens' savings. The sample is part of the population that represents the number and characteristics of the population (Sugiyono, 2010). Knowing that the population is huge in number, therefore, for this research the sample is 45 banks listed in IDX.

#### **Data Collection Method**

Data collection method in this research is secondary data, by gathering the annual report of the listed bank to gain information of costumers' savings, OEOI and Return on Asset (ROA) Secondary data are data that is not collected by the researcher himself, for example taken from the Statistics Agency, company or organization documents, letters newspapers and magazines, or other publications. Secondary data used is time series data (time-series data) for a period of time 2009-2019 as well as cross-section data covering 45 banks listed on IDX and also 2020 data. The data in this study obtained from the annual financial statements of each bank.

#### **Operational Definition and Measurement of Research Variable**

- 1. Saving Deposits (X1) Savings Deposits is an account at a bank in which the customer deposits money for any non-immediate use
- 2. Demand Deposits (X2) A demand deposit is money deposited into a bank account with funds that can be withdrawn on-demand at any time
- 3. OEOI (X3) Operating Expenses Ratio to Operating Income is a ratio referred to as the efficiency ratio used to measure the ability of bank management to control operational costs against operating income
- 4. ROA (Y1) Return on assets (ROA) is an indicator of how profitable a company is relative to its total assets

# **Data Analysis Method**

Multiple Regression Analysis and Panel Data Regression Analysis. Panel Data is combines cross-section type data and time series collected in a specific period (Rosadi, 2012). Writer use 2 kind of data which is cross-section and time series, so writer going to use Multiple Regression Analysis for 2020 Data and Panel Data Regression for 2009-2019 Data. Writer use two regression analysis which is Multiple Linear Regression and Panel Data Regression Analysis because both have same characters. Multiple Linear Regression is cross-section, and cross-section is a part of Panel Data Regression, but because the data of Pre-covid19 period which is 2009-2019 is time series while data during covid-19 is just 2020, writer could not just use Panel Data Regression Analysis. In principle, the Panel Data Regression uses Ordinary Least Square (OLS). To be more accurate, the OLS used uses the treatment of controlling for fixed effects, the same effect every year, so that the variance is visible. If the variance is visible between banks, it can be the same for data used with MLR. Variance is the core of beta (coefficient) calculations, in the end we can compare the data that is run with Multiple Linear Regression and Panel Data Regression. Multiple linear regression (MLR) known simply as multiple regression, is a statistical technique that uses several explanatory variables to predict the outcome of a response variable. The goal of multiple linear regression (MLR) is to model the linear relationship between the explanatory (independent) variables and response (dependent) variable.

## RESULT AND DISCUSSION

#### Result

#### **Classical Assumption Test**

Data analysis used to determine the effect of Saving Deposits, Demand Deposits and OEOI on ROA in Banks listed on the Indonesia Stock Exchange in 2020 by entering the calculation results into the SPPS for Windows version 25.

# **Multicolinearity Test**

Table 1. Multicolinearity Test of 2009-2019 Period

#### Coefficients<sup>a</sup>

Model		Collinearity		
		Tolerance	VIF	
1	X1_SD	.204	4.908	
	X2_DD	.206	4.861	
	X3_OEOI	.979	1.022	

a. Dependent Variable: Y1\_ROA Source: SPSS Output 2021

Table 2. Multicolinearity Test of 2016-2019 Period

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Model		Collinearity S	tatistics
		Tolerance	VIF
1	X1_SD	.215	4.652
	X2_DD	.217	4.612
	X3_OEOI	.981	1.020

a. Dependent Variable: Y1\_ROA Source: SPSS Output 2021

Table 3. Multicolinearity Test of 2020

Coefficients

Mod	el		Collinearity	Statistics
			Tolerance	VIF
1	X1_SD	5 9	.177	5.641
	X2_DD	22	.212	4.718
	X3_OEOI		.669	1.494

a. Dependent Variable: Y1\_ROA Source: SPSS Output 2021

Table 1, table 2 and table 3 show that the tolerance value of the two independent variables is more than 0.100 and the VIF value of the two independent variables is below 10.00, so it can be stated that the regression model does not have a Multicollinearity problem.

# **Heteroscedasticity Test**

The Heteroscedasticity tests whether there is a similarity of variance between one observation and another in a regression model. A regression model is said to be good if there is no heteroscedasticity. Heteroscedasticity-free regression model can be seen through a scatterplot graph. According to Santoso (2012), the basis for decision making is as follows:

- 1. If there is a certain pattern such as the existing dots forming a certain regular pattern (wavy, widened, then narrowed), then Heteroscedasticity occurs.
- 2. If there is no clear pattern, and the dots spread above and below the 0 on the Y axis, there is no Heteroscedasticity. Heteroscedasticity test was performed using SPSS 25 software.

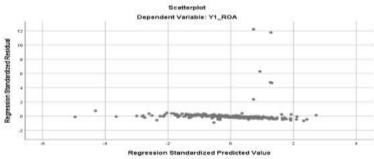


Figure 1. Scatterplot of 2009-2019 Period

Source: SPSS Output 2021

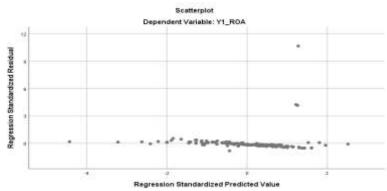


Figure 2. Scatterplot of 2016-2019 period Source: SPSS Output 2021

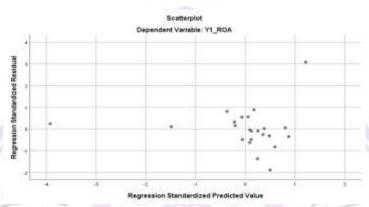


Figure 3. Scatterplot of 2020 data Source: SPSS Output 2021

The scatterplot graph in Figure 1 and 2 show that there is heteroscedasticity or there is a similarity of variance, while in Figure 3 can be concluded that there is no Heteroscedasticity because the points spread randomly both above and below 0 on the Y-axis.

# Hypothesis Testing T-Test Result

The t-test was used to measure each independent variable's effect on the dependent variable. The results of the t-test can be interpreted as follow:

Table 4. Regression Result Fixed Effect Model of 2009-2019 Period Estimates of Fixed Effects<sup>a</sup>

						95% Confide	ence Interval
Parameter	<b>Estimate</b>	Std. Error	df	t	Sig.	<b>Lower Bound</b>	<b>Upper Bound</b>
Intercept	-2.316891	7.253205	384.000	319	.750	-16.577860	11.944078
X1_SD	1.964705	.629941	384.000	3.119	.002	.726139	3.203270
X2_DD	-1.396283	.609205	384	-2.292	.022	-2.594077	198488
X3_OEOI	095658	.030229	384.000	-3.164	.002	155094	036222

a. Dependent Variable: Y1\_ROA.

Source: SPSS Output 2021

# 2009-2019 Period

1. Based on the table 4 above, the results with panel data regression analysis show that Saving Deposits t-test value is positive 3.119 with a significance value of 0.002 which means below 0.05. The hypotheses for Savings Deposits for this study are:

H0: Savings Deposits has no positive and significant effect on ROA

H1: Saving Deposits has a positive and significant effect on ROA

Based on the explanation above, shows that H1 is accepted and reject H0. So it can be concluded that Saving Deposits has a positive and significant effect on ROA.

2. Based on the table 4 above, the results with panel data regression analysis show that Demand Deposits t-test value is -2.292 with a significance value of 0.022 which means below 0.05. The hypotheses for Savings Deposits for this study are:

H0: Demand Deposits has no positive and significant effect on ROA

H1: Demand Deposits has a positive and significant effect on ROA

Based on the explanation above, shows that H1 is accepted and reject H0. So it can be concluded that Demand Deposits has a negative and significant effect on ROA.

3. Based on the table 4 above, the results with panel data regression analysis show that OEOI t-test value is - 3.164 with a significance value of 0.002 which means below 0.05. the hypotheses for OEOI for this study are: H0: OEOI has no positive and significant effect on ROA

H1: OEOI has a positive and significant effect on ROA

Based on the explanation above, shows that H1 is accepted and reject H0. So it can be concluded that OEOI has a negative and significant effect on ROA.

Table 5. Regression Result Fixed Effect Model of 2016-2019 Period Estimates of Fixed Effects<sup>a</sup>

						95% Confide	ence Interval
Parameter	<b>Estimate</b>	Std. Error	df	t	Sig.	<b>Lower Bound</b>	<b>Upper Bound</b>
Intercept	-4.718046	11.547374	156.000	409	.683	-27.527430	18.091338
X1_SD	2.517933	1.055296	156	2.386	.018	.433421	4.602445
X2_DD	-1.720640	1.003978	156	-1.714	.089	-3.703785	.262505
X3_OEOI	121674	.042040	156.000	-2.894	.004	204716	038632

a. Dependent Variable: Y1\_ROA.

Source: SPSS Output 2021

## 2016-2019 period

- 1. Based on the table 5 above, the results with panel data regression analysis show that Saving Deposits t-test value is positive 2.386 with a significance value of 0.018 which means below 0.05. The hypotheses for Savings Deposits for this study are:
  - H0: Savings Deposits has no positive and significant effect on ROA
  - H1: Saving Deposits has a positive and significant effect on ROA
  - Based on the explanation above, shows that H1 is accepted and reject H0. So it can be concluded that Saving Deposits has a positive and significant effect on ROA.
- 2. Based on the table 5 above, the results with panel data regression analysis show that Demand Deposits t-test value is -1.714 with a significance value of 0.089 which means above 0.05. The hypotheses for Demand Deposits for this study are:
  - H0: Demand Deposits has no positive and significant effect on ROA
  - H1: Demand Deposits has a positive and significant effect on ROA
  - Based on the explanation above, shows that H1 is rejected and accepts H0. So it can be concluded that Demand Deposits has a negative and significant effect on ROA.
- 3. Based on the table 5 above, the results with panel data regression analysis show that OEOI t-test value is -3.164 with a significance value of 0.002 which means below 0.05. the hypotheses for OEOI for this study are:
  - H0: OEOI has no positive and significant effect on ROA
  - H1: OEOI has a positive and significant effect on ROA

Based on the explanation above, shows that H1 is accepted and reject H0. So it can be concluded that OEOI has a negative and significant effect on ROA.

Table 6. Regression Result of 2020

				Coefficients	ı			
		Standardized Coefficients			,	onfidence al for B		
Model		В	Std. Error	Beta	t	Sig.	Lower Bound	Upper Bound
1	(Constant)	7.275	2.298		3.165	.005	2.464	12.086
	X1_SD	.626	.201	.418	3.118	.006	.206	1.046
	X2_DD	631	.170	456	-3.720	.001	987	276
	X3_OEOI	068	.005	851	-12.323	.000	079	056

a. Dependent Variable: Y\_ROA

## 2020 period

- 1. Based on the table 6 above, the results with Multiple Linear Regression analysis show that Savings Demand ttest value is 3.118 with a significance value of 0.006 which means below 0.05. the hypotheses for Savings Deposits for this study are:
  - H0: Savings Deposits has no positive and significant effect on ROA
  - H1: Saving Deposits has a positive and significant effect on ROA
  - Based on the explanation above, shows that H1 is accepted and reject H0. So it can be concluded that Saving Deposits has a positive and significant effect on ROA.
- 2. Based on the table 6 above, the results with Multiple Linear Regression analysis show that Demands Deposits t-test value is -3.720 with a significance value of 0.001 which means below 0.05. the hypotheses for Demands Deposits for this study are:
  - H0: Demands Deposits has no positive and significant effect on ROA
  - H1: Demands Deposits has a positive and significant effect on ROA
  - Based on the explanation above, shows that H1 is accepted and reject H0. So it can be concluded that Demand Deposits has a negative and significant effect on ROA.
- 3. Based on the table 6 above, the results with Multiple Linear Regression analysis show that OEOI t-test value is -12.323 with a significance value of 0.00 which means below 0.05. the hypotheses for Demands Deposits for this study are:
  - H0: OEOI has no positive and significant effect on ROA
  - H1: OEOI has a positive and significant effect on ROA

Based on the explanation above, shows that H1 is accepted and reject H0. So it can be concluded that Saving Deposits has a negative and significant effect on ROA.

## F-Test Result

The f-test is applied to determine the effect of independent variables on the dependent variable jointly or simultaneously.

Table 7. F-Test Result of 2009-2019 Period

			ANOVA"			
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	4686.845	3	1562.282	9.126	.000 <sup>b</sup>
	Residual	67448.326	394	171.189		
	Total	72135.170	397			

a. Dependent Variable: Y1\_ROA

b. Predictors: (Constant), X3\_OEOI, X2\_DD, X1\_SD

Source: SPSS Output 2021

Based on the F-test results concluded that Fcount is 9.126 with the level of significance is 0.000 and smaller than 0.05, so it can be concluded that Saving Deposits, Demand Deposits and OEOI simultaneously affect ROA.

Table 8. F-Test Result of 2016-2019 Period

Δ	N	O	V	Δ	a

Mod	el	Sum of Squares	df	Mean Square	F	Sig.
1	Regression	3713.795	3	1237.932	6.090	.001 <sup>b</sup>
	Residual	32322.060	159	203.283		
	Total	36035.855	162			

a. Dependent Variable: Y1 ROA

b. Predictors: (Constant), X3\_OEOI, X2\_DD, X1\_SD

Source: SPSS Output 2021

Based on the F-test results concluded that Fcount is 6.090 with the level of significance is 0.001 and smaller than 0.05, so it can be concluded that Saving Deposits, Demand Deposits and OEOI simultaneously affect ROA.

Table 9. F-Test Result of 2020

**ANOVA**<sup>a</sup>

Mod	lel	Sum of Squares	df	Mean Square	F	Sig.
1	Regression	213.957	3	71.319	98.147	.000 <sup>b</sup>
	Residual	13.806	19	.727		
	Total	227.763	22			

a. Dependent Variable: Y1 ROA

b. Predictors: (Constant), X3\_OEOI, X2\_DD, X1\_SD

Source: SPSS Output 2021

Based on the F-test results concluded that Fcount is 98.147 with the level of significance is 0.000 and smaller than 0.05, so it can be concluded that Saving Deposits, Demand Deposits and OEOI simultaneously affect ROA.

Table 10. Different of Coefficient (Beta) of 2020 and 2009-2019 Period

VARIABLES	MLR 2020	PANEL 2009-2019	DIFFERENT
X1_SAVINGS DEPOSITS	0.626	1.964	-1.338
X2_DEMAND DEPOSITS	-0.631	-1.396	0.765
X3_OEOI	-0.068	-0.095	0.027

Source: SPSS Output 2021

Table 11. Different of Coefficient (Beta) of 2020 and 2016-2019 Period

VARIABLES	MLR 2020	PANEL 2016-2019	DIFFERENT
X1_SAVINGS DEPOSITS	0.626	2.571	-3.143
X2_DEMAND DEPOSITS	-0.631	-1.720	1.089
X3_OEOI	-0.068	-0.121	0.053

Source: SPSS Output 2021

From the result from Table 10 and Table 11above, it can be concluded that there are a changing in Savings Behavior, and it is decreasing. Savings affecting ROA because of the decreasing on public savings, and decreasing on public savings affecting decreasing on credit and that is affecting banks gross profit result on decreasing on ROA. OEOI affects ROA because of the decreasing on interest income which part of operating income. The smaller the percentage of OEOI, the efficient for the banks' profitability, and if operating income lower than operating expenses, means the bigger the OEOI percentage will impact their profitability and could decrease banks profit, and it is decrease ROA because the lower the gross profit, the lower ROA would be.

#### Discussion

## The Influence of Saving Deposit towards ROA

Based on the result of t-test (2009-2019 period) can be explained that the Saving Deposits towards ROA the t result 3.119 and the significance level is 0.002 which is lower than 0.05. Based on the result of t-test (2016-2019 period) can be explained that the Saving Deposits towards ROA the t result 2.386 and the significance level is 0.018 which is lower than 0.05, which means Saving Deposits has significant positive effect on ROA in Banks.

# The Influence of Demand Deposit towards ROA

Based on the result of t-test (2009-2019 period) can be explained that the Demand Deposits towards ROA the t result -2.292 and the significance level is 0.022 which is lower than 0.05. Based on the result of t-test (2016-2019 period) can be explained that the Demand Deposits towards ROA the t result -1.714 and the significance level is 0.089 which is higher than 0.05, which means Demand Deposits has significant positive effect on ROA in Banks in 2009-2019 period but does not have a significant and positive effect on ROA in banks in 2016-2019 period due to several factors and condition.

## The Influence of OEOI towards ROA

Based on the result of t-test (2009-2019 period) can be explained that the OEOI towards ROA the t result -3.164 and the significance level is 0.002 which is lower than 0.05. Based on the result of t-test (2016-2019 period) can be explained that the OEOI towards ROA the t result -2.894 and the significance level is 0.004 which is lower than 0.05, which means OEOI has significant positive effect on ROA in Banks.

## CONCLUSION AND RECOMMENDATION

#### Conclusion

Based on the analysis result and discussion in the previous chapter, the data analysis and interpretation of the result, the conclusion could be said as follows:

- 1. Regarding the F-test result, the independent variables, Saving Deposits, Demand Deposits and OEOI significantly affect ROA. It means that every increase or decrease of Saving Deposits, Demand Deposits and OEOI simultaneously or together can affect the ROA on Banks.
- 2. Based on t-test on 2009-2019 and 2016-2019 Period also 2020, Saving Deposits partially have significant effect to ROA. On the t-test showed that H1 is accepted and rejects H0. So, it can be concluded that Saving Deposits has a positive and significant effect on ROA.
- 3. Based on t-test on 2016-2019 Period, Demand Deposits partially have significant effect to ROA. On the t-test showed that H1 is rejected and accepts H0. So, it can be concluded that Demand Deposits has a negative and significant effect on ROA. While on t-test on 2020 and 2009-2019 Period, Demand Deposits can be concluded has a positive and significant effect on ROA showed that H1 is accepted and rejects H0.
- 4. Based on t-test on 2009-2019 and 2016-2019 Period also 2020, OEOI partially have significant effect to ROA. On the t-test showed that H1 is accepted and rejects H0. So, it can be concluded that OEOI has a positive and significant effect on ROA.
- 5. There are changing on Saving Behavior, it can be seen on Table. 4.16 and Table 4.17, how the different of coefficient (Beta) between 2009-2019 period and 2020, also between 2016-2019 period and 2020, the changing on Savings Behavior is decreasing.

#### Recommendation

- 1. Banking Industry needs to concern about Savings Behavior; in this pandemic situation, because the savings indicators could affect Return on Asset. By predicting the behavior of customers, banking industry can anticipate and prevent the problem or threats that exist and could happen as the previous financial crisis.
- 2. People or Community must consider in anticipating the financial crisis that could happen as the previous crisis. In this case, have an emergency savings is one of the way for community to anticipate threats from existing and future crises.
- 3. The next researcher is expected to research more specifically or try to use other savings indicators to find if there is another indicator that could influence the savings behavior of the Costumer. Perhaps the following research taken by other researchers can also improve the quality of the research. They can use the extended period, or the next researcher tries this savings behavior on other industries.

#### **REFERENCES**

- Azwar, S. (1995). Sikap Manusia Teori dan Pengukurannya. Edisi Kedua. Yogyakarta: Pustaka Pelajar.
- Christensen, C. M., Raynor, M. E., & McDonald, R. (2015). What Is Disruptive Innovation?. *Harvard Business Review*. Available at: <a href="https://hbr.org/2015/12/what-is-disruptive-innovation">https://hbr.org/2015/12/what-is-disruptive-innovation</a>. Retrieved on: November 23, 2021
- Domar, E.D. (1946). Capital Expansion, Rate of Growth, and Employment. *Econometrica*, 14, 137-147. Available at: <a href="https://www.jstor.org/stable/1905364">https://www.jstor.org/stable/1905364</a>. Retrieved on: September 3, 2021
- Fraenkel, J. K., & Wallen, N. E. (2003). *How to Design and Evaluate Research in Education*. New York: The McGraw-Hill Company, Inc
- Guven, C. (2021). Reversing the question: Does Happiness Affect Consumption and Savings Behavior?. *Journal of Economic Psychology*, 33, 701-717. Available at: <a href="https://econpapers.repec.org/article/eeejoepsy/v/3a33/3ay/3a2012/3ai/3a4/3ap/3a701-717.htm">https://econpapers.repec.org/article/eeejoepsy/v/3a33/3ay/3a2012/3ai/3a4/3ap/3a701-717.htm</a>. Retrieved on: October 7, 2021
- Harrod, R. F. (1939). An Essay in Dynamic Theory. *The Economic Journal*, 49 (193), 14–33. Available at: <a href="http://piketty.pse.ens.fr/files/Harrod1939.pdf">http://piketty.pse.ens.fr/files/Harrod1939.pdf</a>. Retrieved on: November 5, 2021
- Huston, S. (2010). Measuring Financial Literacy. *The Journal of Consumer Affairs*, Vol. 44, No. 2, 296-316. Available at: <a href="https://onlinelibrary.wiley.com/doi/full/10.1111/j.1745-6606.2010.01170.x">https://onlinelibrary.wiley.com/doi/full/10.1111/j.1745-6606.2010.01170.x</a>. Retrieved on: September 17, 2021
- Johnson, R. B. & Christensen, L. (2008). *Educational Research: Quantitative, Qualitative, and Mixed Approaches*. 3rd Edition. Thousand Oaks, CA: Sage
- Mardiyah, R. A., & Nurwati, R. N. (2020). Dampak Pandemia Covid-19 terhadap Peningkatan Angka Pengangguran di Indonesia. Available at: <a href="https://www.academia.edu/42890039/DAMPAK PANDEMI COVID 19 TERHADAP PENINGKAT">https://www.academia.edu/42890039/DAMPAK PANDEMI COVID 19 TERHADAP PENINGKAT AN\_ANGKA\_PENGANGGURAN\_DI\_INDONESIA. Retrieved on: September 3, 2021</a>
- Nopirin, P. (1996). Ekonomi Moneter. Buku 2. Edisi 1. Yogyakarta: BPFE.
- OJK. (2016). Survei Nasional Literasi dan Inklusi Keuangan. Available at: <a href="https://sikapiuangmu.ojk.go.id/FrontEnd/images/Document/buku%20statistik\_2016.pdf">https://sikapiuangmu.ojk.go.id/FrontEnd/images/Document/buku%20statistik\_2016.pdf</a>. Retrieved on: October 10, 2021
- Palmie, M., Wincent, J., Parida, V., & Caglar, U. (2020). The Evolution of the Financial Technology Ecosystem: An Introduction and Agenda for Future Research on Disruptive Innovations in Ecosystems. *Technological Forecasting* & *Social Change*, Vol. 151. Available at: <a href="https://www.sciencedirect.com/science/article/abs/pii/S0040162519310595">https://www.sciencedirect.com/science/article/abs/pii/S0040162519310595</a>. Retrieved on: August 21, 2021
- Rosadi, D. (2012). Ekonometrika & Runtut Waktu Terapan dengan EVviews: Aplikasi untuk Bidang Ekonomi, Bisnis dan Keuangan. Edisi 2. Yogyakarta: Andi.
- Sugiyono. (2010). Metode Penelitian Pendidikan Pendekatan Kuantitatif, Kualitatif, dan R&D. Bandung: Alfabeta.
- World Bank. (2018). *Financial Inclusion*. Available at: <a href="https://www.worldbank.org/en/topic/financialinclusion/overview#1">https://www.worldbank.org/en/topic/financialinclusion/overview#1</a>. Retrieved on: August 21, 2021