

Analysis of Capital Buffer In Mediation of The Influence of Competition, Size of The Bank and Credit Risk on Stability

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Abstract. The Central Bank of Indonesia defines financial system stability as a condition that enables the national financial system to function efficiently and effectively and is able to withstand internal and external vulnerabilities, so that the allocation of sources of funds or financing can contribute to national economic growth. This study aims to find the effect of competition, bank size and NPF on stability with capital buffer as an intervening variable. The method used is descriptive quantitative with panel data regression. This study uses secondary data obtained from the financial statements of Islamic Commercial Banks (BUS) for the 2012-2020 period. In processing the data, using Eviews analysis software using purposive sampling technique. The total sample used in this study amounted to 63. From the results of the tests conducted, it shows that competition has a positive and significant effect on stability, size of the bank has a positive and significant effect on stability, NPF has no effect on stability. Capital buffer is not able to mediate the effect of competition, bank size and NPF on stability. The difference between this study and previous research is that it uses a capital buffer as a mediating variable.

Keywords : Stability, Competition, Bank Size, NPF, Capital Buffer.

1 Introduction

Financial and banking institutions have important role in all _ sector economy in the current era this . That thing because of the role the functionality that becomes intermediary Among debtors and creditors in channel financing in general . Activity channel financing is part from destination raising funds in the bank. Activity the is contributor biggest income _ for banks (Husaeni, 2017).

This is Islamic banking present with function as intermediation Among Public have more funds with underfunded communities with _ _ destination benefit people . Islamic bank appear because urgency community in need service banking with use principles Islamic law . The beginning of the establishment of Islamic banks , its growth walk very slow because too late enforcement the law that regulates regarding Islamic Banks. Though Thus , in 2008 enforcement Constitution about banking sharia cause acceleration growth of Islamic banks in Indonesia with fast .



Fast growth banking sharia causing it to be spiky competition between Islamic banks in Indonesia. Condition the supported by the ASEAN Banking Integration Framework (ABIF) which states the period of competition free banking in Southeast Asia will started . height level competition later will influence Islamic bank stability . Reported from REPUBLIKA.CO.ID (2021) explained that competition strict banking at national and international levels , encouraging regulators to arrange institutions and products banking to keep can stable in follow such a digital development fast .

Influence competition banking on stability finance has Becomes issue debate active among _ academia and policy . Debate this the more intensive after global crisis 2008–09 crisis finance with growing concern among _ maker policy and academia about how far is the competition responsible answer on crisis finance at the moment that , while many banks fail and lose profitability as well as need capitalization additional . Though see competition as precondition for efficiency , innovation technology , development institutions , and inclusion finance , not yet there is consensus is competition tall leads to stability finance in system banking (Noman et al., 2017).

Statement that competition influence bank stability has been scrutinized by(Apriadi et al., 2017) as well as (Khattak et al., 2021) result say competition have negative influence _ significant on the stability of Islamic banks . That thing because height level competition make banks more enthusiastic for take high risk and result in no stable a bank. leave behind with research by Noman et al., (2017), the results state that proxy competition _ with panzar rose h-stat affects stability by positive as well as significant . Which means every increase level competition or drop market forces will create commercial banks more stable financially.

Not only competition, size a bank can also influence by significant and positive to stability (Rupeika-Apoga et al., 2018). Literature the explain that a bank measuring big very with easy for guard its stability. Different with Ali & Puah, (2018), Yudaruddin, (2017) and Djebali & Zaghdoudi, (2020) who found that size an influential bank negative significant meaning _ increase bank assets impact to no stable bank operations.

As for the risk lots of credit proxied as financing problem an Islamic bank (nonperforming financing) also affects bank stability . Statement the supported with existence findings earlier by Jayakumar et al., (2018) who said if growth credit excessive traffic jam will cause income from credit / financing provided by the bank experienced non-fluency cash flow and influence bad on bank stability . Then Saputra et al., (2020) and Djebali & Zaghdoudi , (2020) say same thing _ if financing problem caused bad to bank stability . Different with Setiawati , (2020) found that risk credit (non-performing loan) has an effect positive to stability .

Next influential _ to bank stability is a capital buffer. According to Rustendi , (2019) the difference between the capital adequacy ratio and the minimum capital adequacy ratio according to profile risk is called a capital buffer. Banks do reserve capital buffer use absorb possibility happening loss so that ratio obligation Minimum Capital Provision (KPMM) refers to the mechanism that has been set . cycle changing business . _ That thing take effect to stability by significant positive (Wibowo, 2016). Study the supported by research Korbi & Bougatef , (2017) who said Thing same . However , Bouheni & Hasnaoui , (2017) found different results _ that bank capital has an effect negative significant to stability bank finance in europe .

Next from third variables (competition , bank size and risk credit) which affects stability turns out to also have influence against capital buffers. Maharani & Setiyono , (2018) found competition capable significantly affect the capital buffer positive significant . It means height level competition will push banks in increase backup the capital . Research by Islam et al., (2020) found where are the other results connection Among market competition with negative capital ratio significant in the existing bank philippines .



The size of the bank can also be affect the capital buffer. Research by Andiani & Kurnia , (2017), Bougatef & Mgadmi , (2016) and Anggraini & Baskara , (2020) found that no there is influence Among the size of the bank with a capital buffer because big bank size nor small no will effect on banking capital . However , p the opposite with research carried out Hisan & Septiarini , (2020) and Purwati et al., (2016) where result find existence negative influence _ as well as significant size of the bank in the capital buffer. Because of the big bank will no easy experience loss and the bank will lower capital buffer reserves .

Hisan & Septiarini , (2020) found results from the research that risk proxied credit _ as non-performing financing has an effect significant and negative against capital buffers. It means height financing problem will make it difficult for banks in back up the capital . Then it is different from the findings made by Andiani & Kurnia , (2017) and Anggraini & Baskara , (2020) specifically consecutive find financing problem no have influence and influence significant in the bank's capital buffer.

Islamic bank stability must stay in control with fine , because the consequences if the bank does not stable bank will experience financial risk . Then, the importance reserve capital buffer in minimize the bank that will faced with the condition that the bank will experience loss . View findings before a number of variable that is competition , bank size , NPF and capital buffer have influence on bank stability . More from that , the possibility existence capital buffer capability in mediate influence competition , bank size and NPF against bank stability . So from explanation on obtained conclusion that title in study this is " Inner Capital Buffer Analysis " Mediate The Influence of Competition, Size Of The Bank And Credit Risk On Stability (Study Cases of Islamic Commercial Banks in Indonesia for the Period 2012-2020)". Next novelty in studies this that is with existence variables new and still seldom researcher use variable the in his studies . Next Another novelty is use capital buffer variable which becomes variable mediation influence variable free with variable tied.

2 Literature Review

2.1 Agency Theory

Agency theory is a theory whose contents explain the relationship between principal and agent. This theory discusses a contract between individuals or groups (principals) who cooperate with other parties (agents) to provide a service, where the agent is given the authority as a decision maker (Jensen & Meckling, 1976). In connection with the current study, this theory discusses the relationship between the owner of the interest (principal) and the bank as the manager or the recipient of the authority (agent). All responsibilities of either the agent or the principal have been agreed and regulated by both parties. However, the agent has more information than the principal. This can trigger an information imbalance between the two parties.

In practice, of course, conflicts between agents and principals cannot be avoided. This conflict between the agent and the principal usually occurs because there are differences in interests so that the agent can act against the will of the principal. This theory becomes important in carrying out business practices in companies, especially Islamic banking in order to handle conflicts created between agents and principals. The essence of agency theory or agency theory is the design of the right contract to align the interests of the principal and agent in the event of a conflict of interest (Scott, 2000).

2.2 Franchise Value Hypothesis

The franchise value hypothesis is one of the theories that explains the competition-fragility proposed by Marcus, (1984) and Chan et al., (1986). This theory explains that a decrease in franchise value will tend to make banks less careful and continue to take excessive risks intensively to achieve more profits. Banks can choose to allocate their funds to assets and



loans that have very high risk, and provide high returns. As a result of this, it can increase the risk of bank bankruptcy, the impact of which causes the bank's financial stability (Gani et al., 2017).

According to Berger N Alan, (2008) explains the benefits of franchise value only exist when the bank's business business is still ongoing so that banks try to avoid bankruptcy so as not to lose their franchise value. Therefore, the higher the franchise value, the less intensive the bank is to take excessive risk. The limitation of banks in taking aggressive risks causes banks to be conservative in maintaining the franchise value they have. The tendency of banks to be careful in their behavior is to reduce diversification risk and retain some of the capital that contributes to bank stability (Kocabay, 2009).

2.3 Risk-Shifting

Stiglitz & Weiss, (1981) developed a Risk-Shifting paradigm which assumes that the more competitive the competition between banks will create a lower rate of return on customer financing so that the possibility of adverse selection and moral hazard is reduced (Berger, 2008). In general, low competition will result in a tendency for banks to charge high rates of return to customers. The impact of this, the rate of defaulting customers will increase due to difficulties in paying off loans.

2.4 Charter Value Theory

This theory was developed by Marcus in 1984. The *charter value theory* predicts that banks face future losses if bankruptcy occurs. Keeley and Furlong in 1990 (Noreen et al., 2016) say that under such circumstances, banks tend to maintain a larger amount of capital than has been set.

2.5 Too-Big-To-Fail

The Wall Street Journal newspaper in 1984 first introduced the term Too-Big-To-Fail which is used to describe large US banks that are not allowed to fail in doing business by regulators. Systematic risk is very often owned by large banks so that it spans the banking system as a whole even to the country's economic problems so that the government is always assisted so as not to go bankrupt (Kaufman, 2002).

2.6 Bank Stability

The definition of bank stability is the same as the definition of financial system stability. This is because bank stability and financial system stability have a significant relationship. BI defines financial system stability as a condition that provides opportunities for the national financial system to function efficiently and effectively and can be robust from internal and external vulnerabilities, so that the allocation of sources of funds or financing can contribute to national economic growth. Meanwhile, previous literature by Saksonova & Solovjova, (2012) defines bank stability as the ability to maintain the company's future by continuing to run its business in an unequal economic sphere by not getting funds from outside sources.

So it can be concluded, bank stability is the ability of banks to carry out their operations as intermediary institutions properly and there are no problems of financial difficulties. A stable bank can minimize risk and allocate funds effectively and efficiently because bank stability is one of the most important elements of the growth of the bank itself and the macro economy (Rupeika-Apoga et al., 2018).

This study measures bank stability as a proxy for the *Z*-score. This proxy reflects the probability of a bank becoming insolvent. Therefore, the higher the z-score, the lower the bank will experience bankruptcy (Azmi et al., 2019). The Z-score was introduced for the first time by Roy, (1952) on the basis of being used to analyze the possibility of a company going bankrupt. The z-score is formulated as follows:

Z-score = (ROA+ (Equity)/(Total Assets))/(Standard Deviation of ROA)



2.7 Competition of The Islamic Bank

Competition can be interpreted as a competition to be the best. According to Whish & Bailey, (2012) competition is a follow-up to an effort to adapt to a market. Another definition is an effort between competing companies to get as many consumers as possible.

This study uses the Lerner index as a proxy for measuring competition because it offers a comprehensive assessment of market power by describing price increases above marginal cost. Islam et al., (2020). The advantages of this Lerner index according to (Demirguc-Kunt & Maritinez, 2010), namely the Lerner index can be calculated in a short research period and this Lerner index describes the *degree of competitiveness* of each bank. The Lerner index was first discovered by Abba Lerner in 1934 which was described in the paper the review of economic studies (Elzinga & David, 2011). The Lerner index is formulated by Hawtrey & Liang, (2008) as follows:

Lerner index = (Total Revenue – Total Cost)/(Total Revenue)

2.8 Size of The Islamic Bank

Judging from the research conducted by (Siringoringo, 2012) the size of a bank is the business scale of a bank seen from the total assets or assets of the bank. Thus, the size of the bank can be interpreted as the scale of the bank's business as seen from the assets owned by the bank.

This study measures the size of the bank, namely the total assets are transformed into logarithms. The goal is to narrow the diversity so that it can be an identical unit with other variables. The formula used is as follows:

Size of the bank = lognatura (Total Assets)

2.9 Credit Risk

Credit risk is the risk caused by the customer defaulting on the financing/credit provided by the bank (Capriani & Dana, 2016). The ratio that represents credit risk in this study is *non-performing financing* (NPF) because the sample used is Islamic banks. It is different with conventional banks that use non-performing loan ratios, because Islamic banks provide non-loan financing.

NPF shows the ability of bank managers to process non-performing financing caused by defaulting customers. The smaller the NPF, the better the performance of Islamic banks (Hasbi & Haruman, 2011). The formula for calculating NPF is:

NPF= (Total Non-performing Financing)/(Total Financing) x 100%

2.10 Capital Buffer

Noreen et al., (2016) describe the *charter value theory* that was discovered by Marcus in 1984. The theory explains that banks will maintain more capital in order to survive the decline in bank stability. This theory also explains that banks are faced with losses on their future income in the event of bankruptcy and this has an impact on shareholders. Therefore, the bank will maintain capital in excess of the required capital. The capital that has been maintained by the bank can then minimize the risk due to the changing business cycle (Wibowo, 2016).

Capital buffer is the difference between the minimum *capital adequacy ratio* according to the risk profile and the *capital adequacy ratio* (Rustendi, 2019). This study calculates the value of the *capital buffer* with the difference between the capital ratio of the bank and the minimum capital ratio according to the risk profile.

Capital buffer = CAR - minimum capital ratio according to risk profile



3 Research Method

The method used in the study this is with approach quantitative . Data used is secondary data obtained _ from report financial services of BUS registered with OJK in the period 2012-2020. Purposive sampling is technique taking sample on study this . Sample taken with use purposive sampling technique. Criteria sample in study this is the BUS that uploads report finance complete in period year research , BUS that has complete data related with variable research and not including into the new bank or have been merged. So that obtained eleven suitable and incoming BUS criteria . Data retrieved from report finance annual every BUS you get from the related bank's website .

In look for know significance influence mediation on study this tested using _ sobel test via enter number standard error as well indirect effect coefficient (Ghozali , 2018). Previously has conducted testing to statistical test, stationary and assumption test classic. More from that , testing is also done namely hypothesis testing , simultaneous test and coefficient test determination . Taking decision refers to the value of significance of 0.05. Equality regression in study this is as following :



Fig 1. Research Framework

4 Results and Discussion

4.1 Test Statistics Descriptive

Table 1. Descriptive Statistics					
	N	mean	Maximum	Minimum	Std. Dev.
Stability	66	1.470794	9.600000	-2.760000	3.057298
Competition	66	0.217778	0.370000	0.050000	0.105593
Bank Size	66	15.75603	17.95000	13.75000	1.041611
NPF	66	2.524286	4.950000	0.000000	1.559363
Capital Buffer	66	13.07921	37.26000	2.340000	7.941916



Variable	Level	Probability	Information
Stability	Level	0.0010	Stationary
Competition	Level	0.0000	Stationary
Bank Size	Level	0.0001	Stationary
NPF	Level	0.0000	Stationary
Capital Buffer	Level	0.0005	Stationary

4.2 Stationarity Test

Test this worn in test *time series* data so that the data is not *flat*, no there is component *trend*, with diversity constant and not occur fluctuation periodic. Test the data used is *Unit Root* test with Levin, Lin & Chu method. Taking stationarity test conclusion if value *probability* more small from alpha value 5%, then the data is stationary (Winarno, 2015). On the table on could seen that variables in the study this the data stationary at level level.

4.3 Selection of Regression Model

Table 3. Selection of Regression Model					
Equality	Chow	Hausman	LM test	Selected Model	
Equation 1	0.0000	0.0205	-	Fixed Effect Model (FEM)	
Equation 2	0.0001	0.0014	-	Fixed Effect Model (FEM)	

At this stage, the regression model was selected by conducting several tests on the data processed in this study. The Chow test is used to estimate a good panel data regression model between CEM and FEM (Bawono & Shina, 2018). If the probability is < 5%, then a good approach to use is FEM. Meanwhile, if probability > 5% then a good approach is CEM. Then, the Hasuman Test is used to estimate a good panel data regression model between FEM and REM (Bawono & Shina, 2018). If the probability is < 5%, then a good approach to use is FEM. Meanwhile, if probability is < 5%, then a good approach to use is FEM. Meanwhile, if probability is < 5%, then a good approach to use is FEM. Meanwhile, if probability is < 5%, then a good approach to use is FEM. Meanwhile, if probability > 5% then a good approach to use is FEM. Meanwhile, if probability > 5% then a good approach is REM.

Judging from the table above, the probability values for the Chow test of the two equations respectively are 0.0000 and 0.0001 < 0.05, which means that the best model for the Chow test is FEM. After performing the Chow test, then the Hausman test was carried out. Judging from the table above, the probability value of the Hausman test for the two equations is 0.0205 and 0.0014 < 0.05, which means the selected model is FEM.

4.4 Normality test



Fig 2. Normality Test 1

In the picture above, the probability value of Jarque-Bera equation 1 is 0.132346. This value is more than the alpha value of 0.05, it can be explained that the data is normally distributed.





Fig 3. Normality Test 2

In the graph above, the *probability value of* Jarque-Bera equation 2 is 0.556282. This value is more than the alpha value of 0.05, it can be explained that the data is normally distributed.

4.5 Multicollinearity Test

Table 4. Multicollinearity 1					
	Competition	Size_Bank	N PF	Capital_Buffer	
Competition	1.0000000	-0.130875	-0.299351	-0.164035	
Size_Bank	-0.130875	1.0000000	0.038177	-0.429299	
N PF	-0.299351	0.038177	1.0000000	-0.464752	
Capital_Buffer	-0.164035	-0.429299	-0.464752	1.0000000	

The correlation value between X and Z variables in equation 1 < 0.09, which means the data is not affected by multicollinearity problems.

Table 5. Multicollinearity 2					
	Competition	Size_Bank	N PF		
Competition	1.0000000	-0.130875	-0.299351		
Size_Bank	-0.130875	1.0000000	0.038177		
N PF	-0.299351	0.038177	1.0000000		

The correlation value between X variables in equation 2 < 0.09, which means the data is not affected by multicollinearity problems.

4.6 Heteroscedasticity Test

Heteroscedasticity means that in a model there is a residual variance for different observations. Good research certainly does not contain heteroscedasticity (Gujarati, 2006). In this test, the problem arises from the variation of the *cross section data* used. In this case, the heteroscedasticity test is used to test whether there is an inequality of residual variance from one observation to another.

I able 6. Heteroscedasticity 1					
Heteroskedasticity Test: White					
F-Statistics	1.902294	Prob. F (14.32)	0.0653		
Obs*R-Square	21.34853	Prob. Chi - Square (14)	0.0930		
Scale explained SS	15.05488	Prob. Chi - Square (14)	0.3744		

For detect problem heteroscedasticity in the data panel, can used White test with compare *Prob. Chi-Square* with level 5% significance. On the table on obtained score *Prob. Chi-Square* equation 1 is 0.0930 which means more big than the alpha value of 5%, then could concluded that the data is not caught problem heteroscedasticity.



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Table 7. Heteroscedasticity 2					
Heteroskedasticity Test: White					
F-Statistics	1.643277	Prob. F (14.32)	0.1292		
Obs*R-Square	13.67906	Prob. Chi - Square (14)	0.1342		
Scale explained SS	9.790699	Prob. Chi - Square (14)	0.3677		

In the table above, the value of *Prob is obtained*. *Chi-Square* equation 2 is 0.1342 which means it is greater than the 5% alpha value, it can be concluded that the data is not affected by heteroscedasticity problems.

4.7 Autocorrelation Test

Table 8. Autocorrelation 1				
Breusch-Godfrey Serial Correlation LM Test:				
F-Statistics	2.034168	Prob. F (14.32)	0.1441	
Obs*R-Square	4.338985	Prob. Chi - Square (14)	0.1142	
Obs A-square	4.556765	1 100. Chi - Square (14)	0.1142	

The autocorrelation test on the regression model of equation 1 with *the* Breusch-Godfrey method produces a Chi-Square probability value of 0.1142. the value is more than the alpha value of 0.05 which means the data is free from autocorrelation problems.

Table 9. Autocorrelation 2					
Breusch-Godfrey Serial Correlation LM Test:					
F-Statistics	1.160932	Prob. F (14.32)	0.3210		
Obs*R-Square	2.476236	Prob. Chi - Square (14)	0.2899		

Furthermore, the autocorrelation test on the regression model of equation 2 with *the* Breusch-Godfrey method resulted in a Chi-Square probability value of 0.2899. the value is more than the alpha value of 0.05 which means the data is free from autocorrelation problems.

4.8 Result of Regression Equation

Table 10. Regression Equation 1						
Variable	Coefficient	Std. Error t - Statisti	cs Prob.			
С	-10.11623	4.950304 -2.04355	59 0.0461			
COMPETITION	3.740302	1.204562 3.10511	0.0031			
BANK_SIZE	0.680729	0.309656 2.19833	0.0324			
NPF	-0.201981	0.115145 -1.75413	0.0853			
CAPITAL_BUFFER	0.042568	0.023402 1.81900	0.0747			
R- squared	0.942122Du	rbin-Watson stat	1.865255			
Adjusted R- squared	0.930991					
F- statistic	84.64345					
Prob(F- statistic)	0.000000					

Table 11. Regression Equation 2							
Variable	Coefficient	Std. Error	t - Statistics	Prob.			
С	0.318735	29.05690	0.010969	0.9913			
COMPETITION	-15.31122	6.750409	-2.268191	0.0274			
BANK_SIZE	1.184705	1.810296	0.654426	0.5157			
NPF	-1.018639	0.661230	-1.540521	0.1294			
R- squared	0.698803D	1.682397					
Adjusted R- squared	0.647657						
F- statistic	13.66275						
Prob(F- statistic)	0.000000						



4.9 Test F Statistics

Significance test simultaneous aim for knowing is variable free influence variable bound by together or no . For knowing Thing the so the value of Prob(F-statistic) must be not enough than 5%. If you see table the value of Prob(F-statistic) 0.0000 < 0.05, then could drawn conclusion that variable Competition, Bank Size, NPF and Capital Buffer together influence BUS stability in Indonesia for the period 2012-2020.

Then in equation 2 if see table score Prob(F-statistic) 0.0000 < 0.05, then could concluded that variable Competition, Bank Size and NPF together influence *Capital Buffer for* Islamic Commercial Banks in Indonesia for the period 2012-2020.

4.10 Coefficient of Determination Test

The coefficient of determination aims to determine the ability of the independent variables in the model to influence the dependent variable. Therefore, to be able to find out, it can be seen in table 4.9 the *adjusted R-Squared* value is 0.930991 or 93.1%. This means that variations in the variables of Competition, Bank Size, NPF and *Capital Buffer* in the model are able to affect the dependent variable by 93.1%, while the 6.9% is influenced by variables that are not included in the model.

Next, look at the table for the adjusted R-Squared value which is 0.647657 or 64.8%. This means that the variation of the variables Competition, Bank Size, NPF in the model is able to affect the *Capital Buffer variable* by 64.8%, while the remaining 35.2% is influenced by variables not included in the model.

4.11 Partial T Test

Referring to the table, the prob value is obtained. Equation 1 for the Competition variable is 0.0031 < 0.05. So it can be concluded that the competition variable has a significant effect on stability. Furthermore, the prob value is obtained. For the Bank Size variable, it is 0.0324 < 0.05. so that the variable Bank Size also has a significant effect on stability. Finally, the variables of NPF and *Capital Buffer* are 0.0853; 0.0747 > 0.05. So it can be concluded that the NPF and *Capital Buffer variables* have no significant effect on BUS stability in Indonesia.

Next, referring to the table, the prob values are obtained. Equation 2 for the Competition variable is 0.0274 < 0.05. So it can be concluded that the Competition variable has a significant effect on the *Capital Buffer of* BUS in Indonesia. Furthermore, the prob value is obtained. For the variables of Bank Size and NPF, respectively, they are 0.5157; 0.1294; > 0.05. So it can be concluded that the variables of Bank Size and NPF have no effect on the *Capital Buffer of* BUS in Indonesia.

4.12 Path Analysis

The purpose of path analysis is to calculate the direct effect of the antecedent variable to the consequent variable and also the indirect effect of the antecedent variable to the consequent variable through the intervening variable. This path analysis test was carried out with the version that was carried out with the version developed by Aroian.

The t-statistical figure is obtained by calculating the standard error values of the indirect effect and then used as the result of multiplying the coefficient of the variable x to z with the coefficient of x to y (indirect effect X to Y through Z) as follows:

			•		
Variable	a (coef. X	b (coef. Z	Sa (St. Error	Sb (St. Error	a*b
variable	to Z)	to Y)	X to Z)	Z to Y)	a · D
Competition	-15.3112	0.042568	6.750409	0.023402	-0.6517680130
Bank Size	1.18470	0.042568	1.810296	0.023402	0.05043052244
NPF	-1.01863	0.042568	0.661230	0.023402	-0.04336142495

Table 12. Path Analysis



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SEab	= 🗸	$(b)^2(Sa)^2 + (a)^2 + (Sa)^2(Sb)^2$
	=	$(0.042568)^2(6.750409)^2 + (-15.31122)^2 + (6.750409)^2(0.023402)^2$
	= 🗸	0.0825708330082 + 234.4334578884 + 0.0249554912932
	= 1	234.54098421270
SEab	= 15	5.314730954629
t	=	a * b
	\overline{S}	E.ab
	= _	-0.65176801296
	1	5.314730954629
t	= -0	0.042558241139
SEab	=	$\sqrt{(b)^2(Sa)^2 + (a)^2 + (Sa)^2(Sb)^2}$
	=	$\sqrt{(0.042568)^2(1.810296)^2 + (1.184705)^2 + (1.810296)^2(0.023402)^2}$
	=	$\sqrt{0.0059383484217 + 1.403525937025 + 0.0017947548418}$
	=	$\sqrt{1.4647041760838}$
SEab	=	1.2102496337879
t	=	$\frac{a * b}{a - b}$
	_	S.E.ab
	_	0.05043052244
		1.2102496337879
t	=	0.0416695209253
SEab	=	$\sqrt{(b)^2(Sa)^2 + (a)^2 + (Sa)^2(Sb)^2}$
	=	$\sqrt{(0.042568)^2(0.661230)^2 + (-1.018639)^2 + (0.661230)^2(0.023402)^2}$
	=	$\sqrt{0.0007922670430 + 1.037625412321 + 0.0002394479088}$
	=	$\sqrt{1.0386571272728}$
SEab	=	1.0191452925235
t	=	a * b
		$\overline{S.E.ab}$
	=	-0,043361424952
		1.0191452925235

Result of calculation then concluded with use method *critical value* for knowing is result of analysis the significant or no significant . Result of calculation on produce t - count which where result must is at outside interval from t table for showing is variable *Capital Buffer* can mediate influence variable antecedent to variable consequently . T table value on analysis this that is obtained from the number observation (n) is 63 and the level significance 0.025 then result of t table is 199834. limit above of value the is 1,99834 while limit underneath is -1.99834. If value of t table is at on range between 1.99834 and -1.99834 then H₀ (variable *Capital Buffer* no could mediate influence variable antecedent to variable consequently) is accepted . If outside range Among the value is 1.99834 with -1.99834 H₀ is rejected . The process of searching t count and t table obtained results as following:

Model	Path analysis T value	T table	Conclusion
Competition against Stability	-0.042558241139	-1.99834	Not significant
through Capital Buffer			
Bank Size on Stability through	0.0416695209253	199834	Not significant
Capital Buffer			
NPF on Stability through Capital	-0.0425468530052	-1.99834	Not significant
Buffer			



4.13 Competition and Stability

In the table, the coefficient and probability values for the Competition variable are 3.740302 and 0.0031, respectively. Competition coefficient value indicates that competition has a positive influence on stability, while the competition probability value is < 5%, competition has a significant effect on stability. The conclusion from the hypothesis test is that competition has a significant and positive effect on stability. The results of this study are supported by the results of previous studies by Noman et al., (2017) and Kabir & Worthington, (2017) which explain that competition has a significant positive effect on stability.

Moreover, this result supports the Risk Shifting paradigm which explains that the high level of competition in the competitive banking market will result in lower returns to customers and potentially reduce the risk of customers defaulting. The significance of the influence of competition on the stability of Islamic banks in Indonesia can occur because basically Islamic banks normatively position companies that uphold business ethics and morals based on Islamic values in the process of their business activities. More than that, Islamic banks prioritize healthy competition with the aim of creating perfect competition between Islamic banks.

4.14 Bank Size and Stability

In the table, the coefficient and probability values for the Bank Size variable are 0.680729 and 0.0324, respectively. The coefficient value indicates that Bank Size has a positive influence on stability, while the probability value is smaller than the significance value of 0.05, then Bank Size has a significant effect on Stability. The conclusion from the hypothesis test is that bank size has a positive and significant effect on stability. The results of this study are supported by the results of a previous study by Lestari & Suprayogi, (2020) Rupeika-Apoga et al., (2018) which states that Bank Size has a significant positive effect on Stability

The facts revealed in this study are in line with the previous literature by Rupeika-Apoga et al., (2018) which explains that large banks are very easy to maintain their stability. In general, banks with large total assets can manage risk well because they are familiar with asset management activities. Good asset management is a profitable thing for the bank itself because it can avoid liquidity and capital problems so that it can fully support operational activities and have an impact on increasing bank stability (Hasanatina & Mawardi, 2016).

Strict regulations designed by regulators make Islamic banks themselves not free to engage in business markets that are full of risks and take high risks just to increase profits. Moreover, Islamic banks in Indonesia with large assets tend to be more stable due to special treatment for Islamic banks classified in the BUKU 3 and BUKU 4 categories. in the ASIA region by including a capital of 25%. Then, Islamic banks in the BUKU 4 category are allowed to open branches throughout the world and can include 35% of their capital.

Furthermore, the significance of the positive effect of bank size on stability is supported by signaling theory which explains that companies can provide signals to users of financial statements. That is, the size of an Islamic bank can be a signal that the company has good performance and is able to face all risks in the future.

4.15 NPF and Stability

In the table, the coefficient and probability values for the NPF variable are -0.201981 and 0.0853 respectively. The coefficient value indicates that the NPF does not have a negative effect on stability, while the probability value is greater than the significance value of 0.05, so the NPF does not have a significant effect on stability. The conclusion from hypothesis testing is that NPF has no effect on stability. The results of this study are supported by the results of previous studies by Laksa et al., (2020) and Djebali & Zaghdoudi, (2020) which state that NPF has no effect on stability.



The result of the insignificant effect of NPF on stability in this study explains that in one period a high NPF level will not have a direct impact on the stability of Islamic banks. On the other hand, the high level of NPF will further disrupt the working capital turnover of banks. Therefore, banks that have high defaulting customers, banks will first evaluate their performance by temporarily stopping their financing until the NPF level decreases (Nugroho & Anisa, 2018).

Moreover, the insignificant effect of NPF is based on the fact that NPF is the impact of inflation on stability (LP et al., 2020). This means that inflation will lead to a high risk of default. If the financing is based on profit sharing, the losses incurred will be shared between the customer and the bank. Then if the type of financing is buying and selling, then high inflation will cause Islamic bank products to be expensive (Ichsan & Akhiroh, 2017).

4.16 Capital Buffer and Stability

In the table, the coefficient and probability values for the Capital Buffer variable are 0.042568 and 0.0747, respectively. The coefficient value indicates that the Capital Buffer has a positive effect on stability, while the probability value is greater than the significance value of 0.05, so the Capital Buffer does not have a significant effect on stability. The conclusion of the hypothesis test is that the Capital Buffer has no effect on stability.

The result of the insignificant effect of capital buffer on stability is due to the fact that the majority of Islamic banks in Indonesia have established a Allowance for Impairment Loss (CKPN) and Allowance for Earning Assets Losses (PPAP) which have the aim of absorbing risks arising from financing activities which are expected risks.

4.17 Competition and Capital Buffer

In the table, the coefficient and probability values for the Competition variable are -15.31122 and 0.0274, respectively. The coefficient value indicates that Competition has a negative effect on the *Capital Buffer*, while the *probability value* is smaller than the significance value of 0.05, so Competition has a significant effect on the *Capital Buffer*. The conclusion from the hypothesis test is that competition has a negative and significant effect on the Capital Buffer. The results of this study are supported by the results of a previous study by Islam et al., (2020) which stated that competition had a significant negative effect on *Capital Buffer*.

The negative effect of competition on the *capital buffer* supports the Franchise Value Hypothesis theory which explains the *competition-fragility*. Then, this theory explains that the decline in franchise value due to high competition will tend to make banks less careful and continue to take excessive risk intensively. Banks prefer to allocate their funds to assets and credit rather than saving some of their funds or capital.

4.18 Bank Size and Capital Buffer

In the table, the coefficient and probability values for the Bank Size variable are 1.184705 and 0.5157, respectively. The coefficient value indicates that Bank Size has a positive effect on the *Capital Buffer*, while the probability value is greater than the significance value of 0.05, so Bank Size does not have a significant effect on the *Capital Buffer*. The conclusion of the hypothesis test is that Bank Size has no effect on the Capital Buffer. The results of this study are supported by the results of previous studies by Andiani & Kurnia, (2017), Bougatef & Mgadmi, (2016) and Anggraini & Baskara, (2020) which state that Bank Size has no effect on Capital Buffer.

The insignificant effect of bank size on the capital buffer is because the amount of capital buffer in the long term is not affected by the total assets owned by the bank because large banks themselves have mastered the rhythm of capital allocation in various situations. The results of this study also contradict *Too Big Too Fail* which states that the larger the size of a bank, the risk of failure of the bank is relatively small because large banks tend to have stronger fundamentals and are guaranteed by the government.



4.19 NPF and Capital Buffer

In the table, the coefficient and *probability* values for the NPF variable are -1.018639 and 0.1294, respectively. The coefficient value indicates that the NPF has a negative effect on the Capital Buffer, while the probability value is greater than the significance value of 0.05, then the NPF does not have a significant effect on the Capital Buffer. The conclusion of the hypothesis test is that NPF has no effect on the Capital Buffer. The results of this study are supported by the results of a previous study by Andiani & Kurnia., (2017) which stated that NPF had no effect on Capital Buffer.

This is because the average NPF of Islamic banks in Indonesia is still within the safe limit of 2.5242266 or 2.5% in accordance with Bank Indonesia regulation Number 17/11/PBI/2015 concerning Amendments to Bank Indonesia Number 15/15/PBI/2013 concerning Statutory Reserves Minimum Commercial Banks in Rupiah and Foreign Exchange for Conventional Commercial Banks, the safe amount of the *Non-Performing Loan value* is below 5%.

4.20 Influence Mediated competition _ Capital Buffer To Stability

Is known value of t count of -0.042558241139 which is in the range the value of t table - 1.99834 and 1.99834 means no significant, thing the state that *Capital Buffer* no capable mediate influence Competition to Stability. as big as whatever *Capital Buffer* or reserved capital no could influence influence Competition to stability. This thing support theory *The Franchise Value Hypothesis* that explains that moment score franchise down consequence high competition, more banks choose for allocate funds in assets or credit that has risk very high, and gives high profit too.

4.21 Influence Mediated Bank Size Capital Buffer To Stability

Is known value of t count of 0.041669520923 which is in the range the value of t table - 1.99834 and 1.99834 means no significant, thing the state that *Capital Buffer* no capable mediate influence Bank Size against Stability. as big as whatever the reserved capital no could influence influence Bank Size against Stability. Research results this is also contradictory with *Too Big Too Fai* l which states that the more big size a bank then risk the failure of the bank relatively small because the big banks tend have more fundamentals strong and guaranteed by the government.

4.22 Influence NPF mediated _ Capital Buffer To Stability

Is known value of t count of -0.0425468530052 which is in the range the value of t table - 1.99834 and 1.99834 means no significant, thing the state that Capital Buffer is not capable mediate the effect of NPF on Stability. Hisan et al., 2020 explained There are 3 factors that cause no existence influence between the NPF and the Capital Buffer, namely (1) There is a moral hazard that can influence repayment financing provided by Islamic banks, so that the payment tend no stable or no significant, (2) Islamic banks could use collateral as alternative main in cover risk financing than use capital support so that capital support is not by direct caught or affected by NPF, and (3) Islamic banks possible wait reaction from financing risk before decide step next for mitigate risk that, so that need time for NPF for affect the modal buffer.

5 Conclusion

Based on the results of research that has been carried out directly through the stages of research which include searching and collecting data, processing data and then analyzing data using the Eviews 10 analysis tool on how the partial influence of the variables Competition, Bank Size and NPF on *Capital Buffer* and Stability. then also how is the ability of *Capital*



Buffer to mediate the influence of competition, bank size and NPF on stability. At the end of the analysis study above, the following conclusions can be drawn:

- 1. Competition (X1) has a significant positive effect on Stability. From the value obtained, it shows that if the competition has increased or decreased, it will have an effect on stability.
- 2. Bank size (X2) has a significant positive effect on stability. From the value obtained, it shows that if the size of the bank has increased or decreased, it will have an effect on stability.
- 3. NPF (X3) does not have a significant effect on stability. From the value obtained, it shows that if the NPF has increased or decreased, it will not affect stability, so H3 is rejected.
- 4. Competition (X1) has a significant negative effect on *Capital Buffer*. From the value obtained, it shows that if the competition increases or decreases, it will not affect the *Capital Buffer*.
- 5. Bank size (X2) does not have a significant effect on the *Capital Buffer*. From the value obtained, it shows that if the competition increases or decreases, it will not affect the *Capital Buffer*.
- 6. NPF(X3) does not have a significant effect on the *Capital Buffer*. From the value obtained, it shows that if the NPF increases or decreases, it will not affect the *Capital Buffer*.
- 7. *Capital Buffer* (Z) does not have the ability to mediate the effect of Competition (X1) on Stability (Y), meaning that it is not significant.
- 8. *Capital Buffer* (Z) does not have the ability to mediate the effect of Bank Size (X2) on Stability (Y), meaning that it is not significant.
- 9. *Capital Buffer* (Z) does not have the ability to mediate the effect of NPF (X3) on Stability (Y), meaning that it is not significant.

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