Profitability: Third Party Funds and Credit Risk Study on Indonesian Digital Banking

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Abstract

With advances in technological development, people's needs for fast and readily available services are on the rise. Therefore, many conventional banks started to develop their own brand of digital banking to accommodate these needs. This research is aimed to analyze the effect of third party funds (TPF) toward profitability and credit risk, effect of credit risk toward profitability, and indirect effect of third party funds toward profitability through credit risk by using path analysis method. This research shows that TPF do have a significantly negative effect toward credit risk and similar result of TPF toward profitability, a positive but insignificant effect of credit risk toward profitability, and lastly, TPF shows a direct effect toward profitability, which means that credit risk functioned as a partial mediation effect between TPF and profitability.

Keywords*: credit risk, profitability, third party funds*

1.   Introduction

On this era, technologies development are very fast, people needed fast services and company need to accommodate this needs, including in banking sector. Bank as a financial intermediary institution have a task to collect funding from people and distributed it, need to adapt with this tight competitive era. Many conventional bank today make corporate action with acquisitions small banking with core capital less than 3 trillion rupiah to change them to be digital banking.

Digital banking is bank incorporated in Indonesia who offer and operate their business with electronic channel without physical office or using limited physical office (Peraturan OJK No 12/2021). Today being digital is necessity. Indonesia is a market with high digital banking transactions opportunities due to its population, which mostly does not have bank accounts and high cellular penetration rate (Yunita, 2021). Internet users in Indonesia are 143.26 million or 54.8% of the total population of Indonesia, and 177.9 million are smart phone user. Internet users in Indonesia around the age 19-34 years, coupled with 33.75% of the total population in 2017 is millennial generation (The Financial Authority Service, 2018). It's a huge opportunities and challenges to old business model banking to stay relevant with changes. Even though, bank need to maintain their profitability as main purposes of business with digital as new source of

profitability to bank. Actually with digitalization bank have benefit with reduce their cost and opportunities to maximize profitability.

Profitability is a parameter that can be used to show how far the management is able to bring the bank's business to survive in the midst of increasingly tough bank competition today (Sidharta et al., 2021). Profitability is ability bank to gain level of healthiness to do their business is depend on the condition of the bank's own profitability (Leaven et al., 2014). Profitability is an important factor in assessment of commercial bank soundness level (Financial Service Authority of Indonesia, 2017). Bank profitability is mainly obatained from the banking intermediation process, namely the process of raising funds and channeling funds, especially credit (Buchory, 2021). When raising funds, the bank pays interest costs and when distributing funds, the bank earns interest income. It shows that third party funds is one of the important part for bank gain their profitability.

According to Undang-Undang RI No 10 1998 concerning banking, third party funds (deposits) are funds entrusted by the public to banks based on fund storage agreement. Third party fund is source funding bank that come from public in form demand deposits, saving and time deposits. In order to support bank operational activities related to fund distributions, banks need obtain sufficient sources of funds to support these activities. Dendawijaya (2003) states that for banks as financial institutions, funds are the pulse in a business entity which is the main problem. Without funds, banks cannot move at all, the funds owned by the largest and most reliable banks is carrying out their business activities come from third party funds or funds from the public. Therefore, the amount of third party funds collected by the bank determines the level of profitability.

Actually third party fund reflect digital banking users with the amount of demand deposits, saving and time deposits. Third party funds greatly affect the high or low profitability, the profit of third party funds when customers add or reduce their savings, this incident will then be a risk or profitin earning profit or can reduce profits (Mudrajad Kuncoro and Suhardjono, 2002). According to bank theory, there are six main risk that bank need maintain such as credit risk, interest risk, portofolio risk, operating risk, credit deficiency risk and trade union risk. However, the most vital of these risk is the credit risk and therefore, it demands special attention and treatment (Boahene et al., 2012). According to Bank Indonesia regulations number 11/25/PBI/2009 credit risk is risk due to the failure of the debtor and/or parties others in fulfilling obligations to the bank. As central bank in Indonesia, Bank Indonesia require all bank in Indonesia to maintain their credit risk not above 5% and this applies to digital banking too. Credit risk is one factor that can not avoid to relations between third party funds and profitability (Hakimi et al., 2020)

According to Indonesia Financial Authorities Service (OJK) in 2021 there are 14 bank that claimed as digital banking in Indonesia such as Bank Digital BCA, Bank Neo Commerce, Bank Harda Internasional (Allo Bank), Bank QNB Indonesia, BRI Agroniaga, Bank Capital, LINE Bank, Jenius, Wokee, Digibank, Bank Aladin Syariah, TMRW, Bank Jago dan Motionbanking. These digital banking within 2017-2021 period showing decreased profitability as follows :
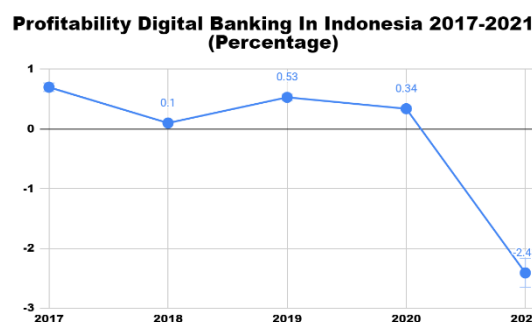
Graphic 1. Processed data

Graphic 1, show us fluctuative or down trend profitability of digital banking in Indonesia that shown with return on assets. From 2017 to 2018 profitability digital bank in Indonesia decrease from 0.7% to 0.1%, from 2018 to 2019 profitability show positive trend increase from 0.1% to 0.53% but from 2019 to 2021 profitability digital banking in Indonesia decrease from 0.53% to 0.34% and even touch -2.41% in 2021. This phenomena shows that digital banking in Indonesia need improvement in every aspects.

Research conducted by Nitasari and Murni (2016) shows third party funds have no effect towards profitability but result research by Hermuningsih (2019) show third party funds have positive effect on profitability. Research conducted by jorion and zhang (2009), third party funds have effect towards credit risk but another results shown by Mairani and Patrisia (2020) show third party fund have no effect towards credit risk in bank. Research by Yousuf and Felföldi (2018) shown that Credit risk did not have effect towards profitability bank but another results shown by Rahmanulah (2021), credit risk have effect towards profitability.

2.   Literature Review

The theory of financial innovation explains that the placement of third party funds by customers is an alternative to digital money that generates non-interest income such as topping up credit, paying bills and others (Frame and White, 2004). This theory state that the presence of technologies are big opportunities and challenges for banking to adopt and maximize their profit through reduce cost and provide their audience convenience. This theory also confirm that when bank adopt with technologies it can affect on how they manage their risk, for example with respect to lending, asymmetric information problems imply that lenders have difficulties determining who is a creditworthy borrower (adverse selection) and also have difficulties monitoring borrowers after a loan has been made (Moral hazard). Therefore, used in technologies, bank can create a behavior scoring that trustworthy customers and can reducing credit risk and stay focus on reach maximum profitability (Frame and White, 2004).

Profitability is a measure used to assess the ability of a company, in this case how digital banking seek for profit. The profitability ratio is a measure that shows the effectiveness of creating profits (Pradana,2021). It can be said that the larger the ratio number, the more profitable digital bank are, and the smaller ratio number indicates the less profitable the digital banking. In this study, return on assests (ROA) is used to measure profitability. ROA shows the return on all assets under management, and this ratio is usually measure by percentage. The higher the ROA of a bank, the higher the profit of the bank and the higher the position of the bank in the use of assets (Romdhoni and Yozika, 2018).

$$ROA = (Net\ Profit\ After\ Tax/Average\ Wealth) \times 100\%$$

According to Bank Indonesia regulation No.10/19/PBI/2008 explained the bank third party funds is the bank liabilities was to residents in rupiah and foreign exchange. Generally, the funds collected by banks from the public will be used to fund real sector activities through lending (Kustina, et al., 2019). Third party funds (TPF) are public funds, both individuals and business entities, which are obtained by bank using various deposit product instruments owned by banks. Public fund are the largest funds owned by banks and this is in accordance with the bank's function as an intermediary institution between community groups or economic units experiencing excess funds (surplus units) and other units experiencing shortages of funds (deficit units). Through the bank, the excess funds will be channeled to parties who need it and provide benefits to both parties (Kasmir, 2014).

$$Third\ party\ funds = Demand\ deposits + saving + time\ deposits + certificates\ of\ deposits + guarantee\ deposits$$

Credit risks is become the biggest reasons why banking failure. Therefore, credit risk management become one of the important things to do to minimize non performing loan. Credit risk management is very vital to measuring and optimizing the profitability of banks (Boahene et al., 2012). Credit risks define as the risk of loss in relation to borrower (counterparty) unable to and or unwilling to fulfill the obligation to repay the borrowed funds in full at maturity or afterwards. Credit risk can be defined as the losses incurred due to the borrower fails or unwilling to fulfill or pay its obligation at the due date (Sondakh and Tulung, 2021).

Bank business will be always facing a risk. Main activities of banking is to lend fund to borrower and this activities contain credit risks. Non-performing loan (NPL) is a comparison between total non-performing loan and total loan. Sinaga et al., (2020) states that non performing loan or problem loan can be interpreted as loans that have difficulty in repayment due to deliberate factors and/or due to external factors beyond the control capabilities of the debtor. Kasmir (2014) revealed that granting a credit facility carriers a risk. As a result credit cannot be billed.

NPL = Total Non-Performing Loan/Total Loans x100%

3.   Research Method

This type of research is quantitative research. The object of this study is the Digital banking companies who registered in Indonesia Financial Authorities (OJK), which has published a financial report and annual report period 2017-2021. Types of data that used in this study are secondary data, namely in the form of panel data for all related variable.

There are 3 types of variable in this study which can be explained as follows : Independent variables are usually considered as predictor variable or causes because they predict the dependent variable. The Independent variable in this study is Third Party Funds (X).

Intervening variables theoretically can affect relations between independent variable with dependent variable who can be observed by direct effect and indirect effect. This variable located in middle of relations between independent variable and dependent variable therefore independent variable not direct affect dependent variable. The Intervening variable in this study is Credit Risk (Z)

Dependent variables where this variable will be influenced or explained by the independent and intervening variable. Dependent variables in this study is Profitability (Y)

The population and sample in this study is 14 digital banking, who registered in Indonesia Financial Authorities (OJK), which has published a financial report and annual report period 2017-2021. A census method was used in this study. Sensus is sample technique which used all population. Sensus was used due to according to Indonesia Financial Authorities (OJK) there are only 14 digital bank in Indonesia which publish there financial report and annual report period 2017-2021 with complete proxy as follows :

1) Bank Digital BCA,
2) Bank Neo Commerce,
3) Bank Harda Internasional (Allo Bank),
4) Bank QNB Indonesia,
5) BRI Agroniaga,
6) Bank Capital,
7) LINE Bank,
8) Jenius
9) Wokee,
10) Digibank,
11) Bank Aladin Syariah,
12) TMRW,
13) Bank Jago
14) Motionbanking.

In this study, the analysis method is carried out by path analysis which is a development of regression model, and PLS was used to analysis the data.

4.   Data Analyze and Results
4.1.   Structural Model Analysis
Assessment of the structural model or inner model carried out to see the relationship between construct, significance value and R-square research model

Table 1. Results of R-Square Value

Variabel	R-Square
Credit Risk (Z)	0.89
Profitability (Y)	0.99

Results of value Q-Square as follows :

$Q2 = 1 – (1 – R12) (1 – R2\ 2)\ …..\ (1 – Rp2).$

$Q2 = 1 – (1 – 0.89\ 2) (1 – 0.99\ 2)$

$Q2 = 1 – (0.2079) (0.0199)$

$Q2 = 1 – 0.0041$

$Q2 = 0.99$

$Q = 99\%$

Q Square value shows that this research model can explain as much as 99% of the value, while the other 1% can be explained by other variables which aren't being covered by this research model.

4.2.   Path Coefficient Test
Correlation between variables can be seen from path analysis result is as follow

Table 2. Correlation Between Variables

No	Variable	Path Coefficient	T-Statistic	Result
1	DPK NPL	-0.945	156.669	Significant
2	DPK ROA	-0.875	11.173	Significant
3	NPL ROA	0.128	1.591	Not significant
Indirect Effect				
4	DPK -> NPL -> ROA	-0,945 x 0,128 = -0.120		

It is shown from the result above that correlation between third party fund and non performing loans shown a significant correlation, with t-statistic of 156.669>1.680, with negative path coefficient value of -0.945. It means that third party fund shows a significant negative correlation toward non performing loans.

Third party fund and return on asset value shown a significant correlation with t-statistic value of 11.173>1.680. based on its path coefficient , third party fund and return on asset shown a negative correlation, with its value of -0.875. this findings means that third party fund shows a significant negative correlation toward return on assets.

non performing loan and return on asset value shown an insignificant correlation with t-statistic value of 1.591<1.680 and positive path coefficient value of 0.128. this finding means that non performing loan shows a positive but insignificant correlation toward return on asset.

Indirect effect of third party fund toward return on asset through non performing loan can be found by multiplying the path Coefficient value of third party fund toward non performing loan (-0.945) and non performing loan toward return on asset (0.128), which is -0.12. the indirect value is lower than direct effect between third party fund toward return on asset, which means that third party fund has a direct effect toward return on asset, and therefore non performing loan have function as a partial mediation effect between third party fund and return on asset which means third party fund able to affect return on asset without non performing loan.

5.   Conclusion

Based on the result, it can be concluded that third party fund has a negative and significant effect toward non performing loan. It can be implied that the higher third party funds collect by digital banking it can lower non performing loan due to high numbers of fund that successfully collected it can be "ammunition" of digital banking to manage and lowered their non performing loan through increasing their capital.

From this results also can conclude that third party funds has a negative and significant effect towards profitability. The higher third party funds it can be lowered their profitability digital banking. It implied that digital banking need to pay attention to quality of fund that collected. Digital banking can not only collect fund only with small numbers of fund but digital banking needs to seek funds with high numbers too.

Credit risk have not significant effect towards profitability digital banking. For today condition, credit risk have not significant effect to profitability digital banking due to numbers of credit risk that shows by average non-performing loan   below 1 percent, it shows that digital banking have healthy performance according to numbers of non-performing loan indicators. Also in this paper shows that non performing loan have function as partial mediaton which means third party fund can affect profitability digital banking without through credit risk.

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