Comparative Analysis of Financial Performance Before and After The Implementation of Branchless Banking in Conventional Commercial Banks

Frisca Widya Lestari[1]
(friscasep2015@gmail.com)
Management major; Faculty of Economics, University of Bangka Belitung

Nizwan Zukhri[2]

(nizwan_ubb@yahoo.com)
Management major; Faculty of Economics, University of Bangka Belitung

Darman Saputra[3]
(darmansaputraubb88@gmail.com)
Management major; Faculty of Economics, University of Bangka Belitung

This study aims to analyze the comparison of the financial performance of conventional commercial banks before and after the implementation of branchless banks, namely by measuring the ratios of Return on Assets (ROA), Operational Costs and Operating Income (BOPO), Loan to Deposit Ratio (LDR) and Capital Adequacy Ratio (CAR). This research is a comparative study with a total sample of 7 conventional commercial banks, the samples taken using a purposive sampling technique. The object of research is conventional commercial banks that have not implemented Branchless Banking for five years (2010-2014) and five years after the implementation of Branchless Banking (2015-2019). The analysis technique used is paired sample t-test and Wilcoxon signed rank test. The results of this study based on the Paired Sample T-test on the ROA variable decreased by 0.76 percent. The BOPO variable experienced an increase of 4.3 percent and also the CAR variable experienced an increase of 11.36 percent. Furthermore, based on the Wilcoxon Signed Rank test on the LDR variable, it experienced an increase of 4.13 percent after the implementation of Branchless Banking.

Keywords*: Branchless Banking; ROA; BOPO; LDR; CAR

1. INTRODUCTION

Efforts to encourage economic development in the financial sector are through optimizing human resources so that the community takes part. Economic growth is not only the task of the central government but has become the whole community's responsibility (Ayuningrum, 2019). According to OJK (2016), efforts to create inclusive finance need to be encouraged by the level of financial literacy in society in a well-literate manner, so that it is easy to understand. So people want to use financial products or services and also protect against losses due to crime. Based on OECD data or the Organization for Economic Co-operation and Development (2010), the link between financial literacy and financial inclusion plays an important role in improving the economy and social welfare.

According to the OJK survey (2019), the level of financial inclusion reaches 76.19 percent of Indonesia's population who have access to formal financial institutions and the majority of users access banking institutions around 73.88 percent but only around 60 percent of people have accounts at banks and this is increasing. from the previous year only 38.4 percent of the public became bank customers. This shows that there are improvements in financial services so that they

have the potential to encourage growth in financial inclusion.

In general, the obstacles in encouraging the expansion of financial inclusion are first, the obstacles faced by the community such as the location of bank offices that have not reached remote areas, a lack of understanding about the importance of saving, and also the initial administrative costs of opening an account which some people consider quite burdensome. Second, the constraints experienced by banks are the limited coverage of bank office areas due to the high cost of establishing a physical office and also the lack of information about potential customers (Bank Indonesia, 2013).

The limited number of bank offices serving the community has a ratio of 1:7,407 meaning that 1 bank office will serve as many as 7,407 people (Arkanuddin & Nugroho, 2022). In addition, the distribution of physical offices that are not evenly distributed and are still concentrated in certain areas creates a large gap in the community that has not been served by banks. But on the other hand, the bank has limited funds to make a large investment in building a physical bank office.

Bank Indonesia has set a strategy to achieve equitable financial inclusion through 6 pillars, one of which is through the distribution channel by expanding Branchless Banking, which is defined as a limited payment system and financial services carried out without a physical bank office. Branchless Banking is considered a revolutionary concept that will change people's behavior in dealing with banking (Al Arif & Cahyani, 2021). With the presence of Branchless Banking, the public can enjoy banking services through bank agents and the use of information technology which is a significant factor in implementation. The existence of implementation of Branchless Banking in Indonesia is a solution to reach people who live in remote areas which are constrained by access to motorized vehicles and also people in remote island areas (Kustina et.al, 2019).

The development of Branchless Banking through bank agents has also experienced a rapid increase from the start of implementation in 2015, with only around 6 operating banks with a total of 3,734 bank agents. Then in 2019, it increased to 31 organizing banks with a total of 1,146,131 agents (OJK, 2021). Also, through the application of financial technology, it provides easy access to financial transactions, such as through the use of internet banking, mobile banking, and electronic money. The development of Branchless Banking that has been implemented by banks is followed by a financial performance that continues to increase.

Several studies regarding financial performance have been carried out such as by Aduda, et.al. (2013) show that the implementation of Branchless Banking positively influences financial performance in commercial banks in Kenya. Furthermore, research conducted in Indonesia, namely by Hidayanti et.al. (2021) and Wahida & Nurdin (2021) show that after implementing branchless banking there is a significant difference in the variables Return on Assets (ROA), Operating Costs Operating Income, Loan to Deposit Ratio (LDR), and Capital Adequacy Ratio (CAR). This research aimed to determine the financial performance of conventional commercial banks before and after the implementation of Branchless Banking. This research is interesting to do because research on the implementation of Branchless Banking in the framework of financial inclusion is still small. After all, it has only been implemented in Indonesia.

2. LITERATURE REVIEW

2.1 Managerial Efficiency Theory of Profit

The Managerial Efficiency Theory of profit was first developed by Joseph Schumpeter, namely that a company can maximize profits if it can perform efficiently in various fields and can fulfill the desires of its consumers. Through the implementation of Branchless Banking, banking companies can make operational cost efficiency efforts by reducing investment costs in establishing physical branch offices. The use of bank agents that have spread throughout Indonesia is used to provide banking services at low cost and a wider range and provides great potential for

banks to increase profits (Kustina et.al, 2022). With the implementation of Branchless Banking, banks have the opportunity to expand banking products such as BSA savings, microfinance, and microinsurance to meet people's needs.

2.2 Branchless banking

Branchless Banking is a banking service that can be carried out without going through a physical bank office but through cooperation with bank agents and also by utilizing information technology such as mobile banking, internet banking, and the use of electronic money. Through technology and a network of bank agents, it is considered capable of saving costs and being safe and comfortable. Banking transactions do not depend on the presence of a bank office because financial services can be carried out using only a cell phone. The aim of developing Branchless Banking is to provide simple financial products and services for people who are still unbanked and to encourage economic growth and equitable development (OJK 2015). The existence of implementation of Branchless Banking in Indonesia is a solution to reach people who live in remote areas which are constrained by access to motorized vehicles and also people in remote island areas (Kustina et.al, 2019).

2.3 Financial performance

Banking performance is a form of achievement that has been made by the bank after managing all resources effectively and efficiently following the bank's vision and mission. Therefore, it is necessary to know the progress of the bank that has been achieved by periodically evaluating financial performance. Performance appraisal in this study uses profitability, liquidity, and solvency ratio analysis

The profitability ratio is used to describe the company's ability to earn profits. The more meaningful the level of profitability ratios produced, the better the company's management is assessed. The ratio size used in this study is the Return on Assets (ROA) and Operational Income Operating Costs (BOPO).

The liquidity ratio is used to analyze a bank's ability to pay short-term or maturing obligations. One of the commonly used ratios is the Loan Deposit Ratio (LDR), which measures the number of funds that have been disbursed in the form of credit.

The solvency ratio is measured to determine a bank's ability to meet its financial obligations in the event of liquidity, which includes both short-term and long-term liabilities. One of the ratios used to calculate the solvency ratio is the Capital Adequacy Ratio (CAR).

2.4 Hypothesis Development
The relationship between Return on Assets (ROA) and Branchless Banking

The Return on Assets ratio describes asset turnover as seen from sales volume. The ROA ratio is usually used to determine the company's ability to generate returns on the use of company assets. The higher the ROA ratio, the more effective the company is in utilizing its assets to increase profits. This will further increase the attractiveness of the company to get investment.

Profitability is very important for banks because most of the funds come from third-party funds and interest must then be paid. So that through Branchless Banking by utilizing dispersed bank agents, can provide banking services at lower costs and with wider reach, providing great potential for banks to increase their profits. The results of research conducted by Astrini & Tandika (2019), Hidayanti et.al. (2021) and Wahida & Nurdin (2022) found that there was a significant difference in ROA after implementing branchless banking.

H1 = There is a difference between Return on Assets (ROA) before and after the implementation of Branchless Banking

The relationship between Operational Income Operational Costs (BOPO) and Branchless Banking

The ratio of Operational Costs to Operational Income (BOPO) is used to measure how efficient the bank's management is in carrying out its operational activities by comparing operational costs and operating income (Margaretha, 2011). The smaller the BOPO value means that the operational costs incurred by the bank are more efficient. The BOPO ratio, which has increased, reflects the bank's lack of ability to control operational costs and increase operating income, thereby reducing the level of profit generated.

In addition, the growth in bank profits has fluctuated from year to year due to high levels of bad loans and operational costs that are too large and inefficient. Then the implementation of Branchless Banking is a solution to reduce operational costs because there is no need to physically set up a bank office. The results of research conducted by Hidayanti et.al. (2021), Wahida & Nurdin (2022), and Agustiningsih et.al (2019) found that financial performance through the BOPO ratio differed significantly before and after implementing branchless banking.

H2: There is a difference between Operational Costs and Operating Income (BOPO) before and after the implementation of Branchless Banking.

The relationship between Loan Deposit Ratio (LDR) and Branchless Banking

One of the commonly used bank liquidity ratios is the Loan Deposit Ratio (LDR). LDR is used to measure a bank's ability to repay its short-term obligations (Margaretha, 2011). The LDR ratio is the number of bank funds that have been channeled in the form of credit. The amount of credit extended will determine the bank's profitability. If a bank has too many idle funds, only a small amount of funds will be disbursed in the form of credit, so this will have a negative impact on bank profitability. The assessment of the LDR ratio is good if it does not exceed the limit set by Bank Indonesia, namely the upper limit of 92% and the lower limit of 78% (Bank Indonesia, 2015).

After the implementation of Branchless Banking, many have new facilities to channel their credit in the form of microfinance to previously unbanked people. The more funds channeled in the form of credit, it shows the bank's ability to repay all deposits and fulfill credit requests submitted without delays. Furthermore, based on the results of research conducted by Hidayanti, et.al. (2021) and Wahida & Nurdin (2022) show that there is a significant difference in LDR after implementing branchless banking. However, this is not in line with research conducted by Astrini & Tandika (2019) who found that there was no difference in LDR before and after implementing branchless banking.

H3: There is a difference between the Loan to Deposit Ratio (LDR) before and after the implementation of Branchless Banking.

The relationship between Capital Adequacy Ratio (CAR) and Branchless Banking

The Capital Adequacy Ratio (CAR) is a ratio that describes how much a bank's assets contain risks such as loans, securities, and claims on other banks, which are also financed from the bank's capital or third-party funding sources. The important CAR ratio is used to measure a bank's capital adequacy in financing its operational activities such as more optimal credit distribution.

The higher the CAR ratio, the better the capital adequacy in bearing risks in the future. This also has a good impact on the credibility of a bank, which can then increase public confidence to place their funds in the bank so that the bank's income also increases. Based on the provisions issued by Bank Indonesia, a bank is classified as performing well if the CAR value is above 8%. As the results of research conducted by Astrini & Tandika (2019), Agustiningsih et.al (2019), and Hidayanti, et.al. (2021) found that financial performance through the CAR ratio experienced a significant difference after implementing branchless banking

H4: There is a difference between the Capital Adequacy Ratio (CAR) before and after the

implementation of Branchless Banking

3. RESEARCH METHODS

The method used in this study is a descriptive comparative research method by analyzing the financial statements of conventional commercial banks. The type of data used is secondary data as seen from the bank's financial reports available on the bank's website in the 2010-2019 period. This study compares the financial performance of Conventional Commercial Banks 5 years before the implementation of Branchless Banking and 5 years after the implementation of Branchless Banking.

According to Kasmir (2014), banking financial performance can be analyzed through the profitability aspect using the Return on Assets (ROA) ratio, the efficiency aspect using the Operational Income Operational Cost (BOPO) ratio, the liquidity aspect using the Loan to Deposit Ratio (LDR) ratio, and the solvency aspect. using the ratio Capital Adequacy Ratio (CAR). Then statistical tests were carried out with the help of the SPSS program to test normality and hypothesis testing of the Paired Sample T-Test or the Wilcoxon Signed Rank test for data that were not normally distributed.

The population in this study are conventional commercial banks that have implemented branchless banking. In determining the sample, a purposive sampling technique was used, namely determining the sample based on a certain assessment (Sugiyono, 2018). The sample criteria used in this study are 1). Banking companies especially Conventional Commercial Banks in Indonesia. 2). Conventional Commercial Banks that implemented Branchless Banking in 2015. 3). Conventional Commercial Banks that have published financial reports for the 2010-2019 period. Based on the sample criteria, 7 banks from 27 conventional commercial banks were obtained as samples that could be used as research objects. The banks used as samples in this study are as follows:

Table 1: List of Research Samples

Items	Bank Name
1.	` Bank Mandiri Tbk
2.	` Bank Rakyat Indonesia Tbk
3.	` Bank Negara Indonesia Tbk
4.	` Bank Tabungan Negara Tbk
5.	` Bank Tabungan Pensiunan Nasional Tbk
6.	` Bank Central Asia Tbk
7.	` Bank Pembangunan Daerah Kalimantan Timur dan Kalimantan Utara

4. RESULTS AND DISCUSSION

4.1 Descriptive Statistical Analysis

The descriptive statistical test shows the number of samples, the minimum value, the maximum value, and the standard deviation of each variable used. The results of the descriptive statistical test can be seen in the following table:

Table 2: The results of the descriptive analysis before and after the implementation of branchless banking

	N	Minimum	Maximum	Mean	Std. Deviation
ROA before	35	1.12	5.23	3.5263	1.02156
ROA after	35	.13	4.19	2.7637	.95627
BOPO before	35	55.29	89.19	70.4211	8.25943
BOPO after	35	58.20	98.12	74.7263	9.57081
LDR before	35	55.20	108.86	81.4686	13.87779
LDR after	35	69.42	163.06	92.8266	15.65775
CAR before	35	12.70	23.40	17.2171	2.92592
CAR after	35	16.97	25.03	21.3466	2.35745

Source: Processed data, 2021

Based on table 2, shows the results of the variable Return on Assets (ROA) which decreased by 0.76% after implementing branchless banking. The minimum value of ROA before and after branchless banking implementation is found at bank BTN. The maximum value of ROA before the implementation of branchless banking is at Bankaltimtara and the maximum value of ROA after implementation is at bank BRI.

Variable Operating Expenses Operating Income (BOPO) increased by 4.3% after implementing branchless banking. The minimum value of BOPO before the implementation of branchless banking is at Bankaltimtara and the minimum value of BOPO after implementation is at bank BCA. The maximum value of BOPO before and after the implementation of branchless banking is both at bank BTN.

The Loan Deposit Ratio (LDR) variable increased by 11.36% after the implementation of branchless banking. The minimum LDR value before implementing branchless banking is found at bank BCA and the minimum LDR value after implementation is found at Bankaltimtara. The maximum value of LDR before the implementation of branchless banking is at bank BTN and the maximum value of LDR after implementation is at bank BTPN.

The variable Capital Adequacy Ratio (CAR) increased by 4.13% after implementing branchless banking. The minimum value of CAR before the implementation of branchless banking is at bank BCA and the minimum value after implementation is at bank BTN. Furthermore, the maximum value of CAR before and after the implementation of branchless banking are both found at bank BTPN.

4.2 Normality test

In this study, to test whether the data were normally distributed or not, the Kolmogorov-Smirnov test was performed with a 95 percent confidence level and an error rate of 0.05. If the sig value > 0.05, then the data is normally distributed, and if the sig value < 0.05 then the data is not normally distributed. Furthermore, if the results of the sample test showed that the data are normally distributed, the hypothesis test used is the paired sample t-test (parametric test). However, if the samples tested are not normally distributed, a non-parametric test is used in the form of the Wilcoxon signed ranks test.

Table 3: Normality Test

Ratio	Implementation	Kolmogorov-Smirnov			Keterangan
		Statistic	df	Sig.	
ROA	Before	0,121	35	0,200	Normal
	After	0,102	35	0,200	Normal
BOPO	Before	0,137	35	0,097	Normal
	After	0,101	35	0,200	Normal
LDR	Before	0,077	35	0,200	Normal
	After	0,161	35	0,021	Abnormal
CAR	Before	0,131	35	0,136	Normal
	After	0,089	35	0,200	Normal

Source: Processed data, 2021

Table 3 shows the results of the normality test on the ROA variable with a Sig value before 0.200 and a Sig value after 0.200, it can be concluded that the data is normally distributed because the sig value > 0.05. The BOPO variable with a Sig value before is 0.097 and a Sig value after is 0.200, it is concluded that the data is normally distributed because the Sig value is > 0.05. Then in the LDR variable, the Sig value before is 0.200 > 0.05, so the distribution is normal but the Sig value after 0.021 is <0.05, so the data is not normally distributed. Furthermore, the CAR variable with a Sig value before is 0.136 and a Sig value after is 0.200, so it is concluded that the data is normally distributed because the Sig value is > 0.05.

4.3 Hypothesis test

After previously carrying out the normality test, the ROA, BOPO, and CAR variables will be used in paired sample t-tests because the data is normally distributed. Meanwhile, the Wilcoxon signed rank test will be used for the LDR variable because the data is not normally distributed.

Table 4: The results of the Paired Sample T-Test

Variable	Paired differences					t	Sig
	Mean	Std. deviation	Std. error mean	95% confidence interval of the difference			(2-tailed)
				Lower	Upper		
ROA	0,76257	0,82619	0,13965	0,47877	)4638	5.461	0,000
BOPO	-4.30514	6.48148	1.09557	-6.53161	07868	-3.930	0,000
CAR	-4.12943	2.50847	.42401	-4.99112	26774	-9.739	0,000

Source: Processed data, 2021

Table 4 shows that the results of the paired sample t-test on the ROA, BOPO, and CAR variables obtained a Sig (2-tailed) value of 0.000 <0.05 so Ho was rejected then Ha was accepted meaning that there was a significant difference in the ROA, BOPO, and CAR from before and after the implementation of branchless banking.

Table 5: Wilcoxon Signed Rank Test Results

	LDR after - LDR before
Z	-4.373
Asymp Sig (2-*tailed*)	0,000

Source: Processed data, 2021

Table 5 shows the results of the Wilcoxon signed rank test that obtained a Z value of -4,373 with an Asymp Sig (2-tailed) LDR variable of 0.000 <0.05, so Ho was rejected, meaning that there was a difference in LDR before and after the implementation of branchless banking.

4.4 Discussion

The ratio Return on Assets (ROA)

Based on the results of the paired sample t-test, shows that there are differences in ROA before and after the implementation of Branchless Banking. After the implementation of Branchless Banking had a decrease in ROA of 0.76 percent. The ROA value decreased, although not significantly because at the beginning of the implementation of Branchless Banking, it required large initial investment costs to build a strong network of bank agents and at the beginning of the implementation of Branchless Banking the number of bank agents who joined was still small and socialization was needed to be better known to the wider community. Therefore, the bank needs to increase the number of agents and expand its network to increase profits significantly.

As with Bank BRI with the largest number of bank agents to date, from the start of implementing Branchless Banking in 2015, it has implemented ways to increase the number of BRILink agents in strategic locations and is supported by an effective promotion program so that the number of BRILink agents in 2016 increased to 68.23 percent or 84,550 thousand agents. If seen from the ROA ratio in 2016 of 3.84 percent, it decreased from the previous 4.19 percent, one of the reasons was the investment costs for the initial development of BRILink agents and this was in line with BOPO which had increased.

The results of this study are in line with research conducted by Hidayanti et.al. (2021), Wahida & Nurdin (2022), and Agustiningsih et.al (2019) found that there was a significant difference in the ROA variable after the implementation of Branchless Banking.

The ratio of Operating Expenses and Operating Income (BOPO)

Based on the results of the paired sample t-test, shows that there are differences in BOPO before and after the implementation of Branchless Banking. After implementing Branchless Banking, the impact on BOPO increased by 4.3 percent. The BOPO value has increased in line with the ROA which has decreased due to the initial investment costs for the development of a network of bank agents which has resulted in bank operational costs also increasing.

As with the BRI bank, in 2022 it will have more than 500 thousand bank agents who will require a much larger investment in technology development costs. In 2015, bank BRI's operational costs for the development of information technology infrastructure and e-banking reached 507,410 billion and there were satellite development costs to support bank BRI's e-banking, an increase of 78 percent from the previous year. Then, in 2019 it increased by 59 percent to 1,262,229 trillion which was used as an effort to support Branchless Banking. The results of this study are in line with research conducted by Hidayanti et.al. (2021), Wahida & Nurdin (2022), and Agustiningsih et.al (2019) found that financial performance through the BOPO ratio differed significantly before and after the implementation of Branchless Banking.

Loan to Deposit Ratio (LDR)

Based on the results of the Wilcoxon signed rank test, there is a difference in LDR before and after the implementation of Branchless Banking. Through the implementation of Branchless Banking, the LDR increased by 11.36 percent. The significantly increased LDR value was due to higher credit growth compared to the growth of third-party funds and showed the good performance of the bank in fulfilling its short-term obligations. With the implementation of Branchless Banking, it can be a way to increase third-party funds from the amount of public savings that are still unbanked and need to expand bank agents to reach all levels of society.

At Bank BRI, the LDR ratio has increased to 87.77 percent. This increase was due to credit growth of 13.76 percent. the level of liquidity is below the banking industry average, namely 90.70 percent, so BRI still has room to channel credit expansion through BRILink agents with microfinance schemes. The results of this study are in line with the research of Hidayanti, et.al. (2021) and Wahida & Nurdin (2022) show that there is a significant difference in LDR after the implementation of Branchless Banking.

Ratio Capital Adequacy Ratio (CAR)

Based on the paired sample t-test, shows that there is a difference in CAR before and after implementing branchless banking. Through the implementation of Branchless Banking, the CAR increased by 4.13 percent. The increased CAR value can be caused by the capital which is always being increased due to the implementation of Branchless Banking. An increase in the CAR value indicates that the bank's ability to finance its operational activities is getting better and lending is more optimal. For example, the BRI bank experienced an increase in CAR to 22.91 percent. This increase was driven by an asset revaluation set by Bank Indonesia at 9 percent. BRI's CAR ratio is far above the limit, this shows that the bank has sufficient capital to expand its business and can cover bankruptcy risk.

The results of this study are in line with research conducted by Hidayanti et.al. (2021), Wahida & Nurdin (2022) and Agustiningsih et.al (2019) found that financial performance through CAR ratios experienced significant differences after the implementation of Branchless Banking.

5. CONCLUSION AND SUGGESTIONS

5.1 Conclusion

Based on the results of the research that has been done, all the variables studied, namely ROA, BOPO, LDR, and CAR, experience significant differences before and after the implementation of Branchless Banking. The ROA variable decreased by 0.76 percent. This was based on the fact that at the beginning of the implementation of Branchless Banking, large investment costs were still needed to build a network of bank agents and technology development costs. So this is also in line with the BOPO variable which has increased by 4.3 percent, one of which is for the initial cost of developing a bank agent. The LDR variable experienced an increase of 11.36 percent, this indicated that more and more loans were given by banks because banks had new means of channeling credit, namely through bank agents in the regions. The CAR variable also experienced an increase of 4.13 percent, this is based on that banks always increase bank capital to encourage the development of Branchless Banking.

Based on the findings of research results on the development of the application of Branchless Banking carried out by banks through 2 models, namely by utilizing information technology and through collaboration with bank agents, it turns out that it has different development characteristics. Utilizing technology such as the use of mobile banking, internet banking, and electronic money is suitable for people living in urban areas who demand easier and faster transaction activities. This is also supported by the availability of adequate infrastructure such as road access, electricity, and a supportive internet network. Meanwhile, the implementation of Branchless Banking with bank agents is more suitable for people who live in rural areas and islands where it is still difficult to access vehicles and internet networks that are not evenly

distributed so it will be more suitable with the presence of bank agents during society to reach people who are still unbanked.

5.2 Suggestions

In this study, there are limitations to the variables used and the research period is too short. It is hoped that future research can update the variables or financial ratios used, such as adding Return on Equity ratios, third-party funds, and adding research periods, and also using research methods such as CAMELS or RGEC which are related to the implementation of Branchless Banking.
.

6. REFERENCES

Aduda, J., Kiragu , D., & Ndwiga, J. M. (2013). Relationship Between Agency Banking And Financial Performance of Commercial Bank In Kenya. *Journal of Finance And Investment Analysis*, Vol 2, 1-6.

Agustiningsih, F., Nurdin, N., & Sevriana, L. (2019). Analisis perbandingan dana pihak ketiga, biaya operasional terhadap pendapatan operasional, profitabilitas, likuiditas sebelum dan sesudah penerapan laku pandai (Branchless banking) pada bank BUMN periode 2013-2017. *Prosiding Manajemen*, 1239-1244.

Al Arif, M. N. R., & Cahyani, U. T. (2021). Branchless banking and profitability in the Indonesian Islamic banking industry. *Jurnal Ekonomi & Keuangan Islam*, 154-160.

Arkanuddin, M. F., & Nugroho, B. Y. (2022). Analisis Bisnis dan Valuasi Pengembangan Branchless Banking. *Jurnal Riset Akuntansi dan Keuangan*, *10*(3), 391-408.

Astrini, Retno Dwi., & Tandika, D. (2019). Analisis Perbandingan Tingkat Kesehatan Bank Sebelum Dan Sesudah Penerapan Program Laku Pandai . *Prosiding Manajemen,* Vol 5 No 1*,* 292-298.

Ayuningrum , Niken. (2019). Kondisi Inklusi, Potensi Dan Kendala Penggunaan, Tingkat Pengaruh Layanan Digital, Serta Penyusunan Model Layanan Digital Terhadap Peningkatan Akses Keuangan Pada Provinsi Sumatera Selatan (Studi Kasus Pada Provinsi Sumatera Selatan). *Jurnal Riset Terapan Akuntansi 3 (2),* 154-158.

Bank Indonesia. (2013). Kajian Ekonomi Regional Provinsi Sulawesi Tengah Boks 3 Branchless Banking, Satu Pilar Mencapai Keuangan Inklusif.

Hidayanti, U., Pratiwi, L. N., & Tamara, D. A. D. (2021). Analisis Perbandingan Kinerja Keuangan Sebelum dan Setelah Penerapan Program Branchless

Kasmir. (2014). Analisis Laporan Keuangan, cetakan ke-7. Jakarta: PT RajaGrafindo Persada

Kustina, K. T., & Utari, I. D. (2022). Analisis Kinerja Keuangan Dan Dana Pihak Ketiga Sebelum Dan Sesudah Penerapan Branchless Banking Pada Perusahaan Perbankan Syariah Di Indonesia. *JISMA: Jurnal Ilmu Sosial, Manajemen, dan Akuntansi*, *1*(3), 353-362.

Kustina, K. T., Dewi, G. A. A. O., Prena, G. D., & Suryasa, W. (2019). Branchless banking, third-party funds, and profitability evidence reference to the banking sector in Indonesia. *Jour of Adv Research in Dynamical & Control Systems, (11)*, *2*, 290-299.

Margaretha, Farah. (2011). *Manajemen Keuangan Bagi Industri Jasa* . Jakarta: PT Gramedia Widiasarana Indonesia .

Otoritas Jasa Keuangan. (2015). Seputar Informasi Mengenai Layanan Keuangan Tanpa Kantor Dalam Rangka Keuangan Inklusif (Laku Pandai).

Otoritas Jasa Keuangan. (2016). Peningkatan Literasi dan Inklusi Keuangan di Sektor Jasa Keuangan untuk Konsumen dan atau Masyarakat

Sugiyono. (2018). *Metode Penelitian Manajemen* . Bandung: Alfabet

Wahida, A. T. N. (2022, January). Analisis Perbandingan Kinerja Keuangan Bank Sebelum dan Sesudah Penerapan Branchless Banking. In *Bandung Conference Series: Business and Management* (Vol. 2, No. 1, pp. 419-425