

Efficiency Analysis of Financing Companies Listed on the Indonesia Stock Exchange (IDX) During Covid-19

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ABSTRACT

Economic shocks that occur during Covid-19 are also a risk for finance companies. The purpose of this study is to analyze efficiency as an indicator of the performance of finance companies. Company performance will be stable if it is able to allocate resources to produce maximum output. The Data Envelopment Analysis (DEA) method as a non-parametric approach is used to measure company efficiency during the 2020-2022 period. The research was conducted on 7 go public finance companies, data obtained from financial statements. Measurement of input variables, namely Assets, Equity, Operating Expenses. Output variables are net income and ROE. The results showed the efficiency value experienced a significant increase in line with economic recovery during Covid-19 in Indonesia. The lowest average efficiency was obtained in 2020, the first time Covid-19 was present in Indonesia at 70.52%, in 2021 at 76.59%, and in 2022 at 84.30%. Companies that consistently obtain 100% efficiency are Buana Finance Tbk and Wahana Ottomitra Multiartha Tbk. The result shows that the DEA projection value is lower than the actual data of the company. Company policy is needed to evaluate the use of inputs.

Keywords: Covid-19, Data Envelopment Analysis, Efficiency, Finance Company



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INTRODUCTION

Finance companies were first introduced by the government in 1974 through the issuance of a Joint Decree of the Minister of Finance, Minister of Industry, and Minister of Trade regarding leasing business licenses. The development of finance companies continues to increase in line with industrial growth in Indonesia. Finance companies are an alternative for businesses of various scales in obtaining financing sources. (Esomar, 2021).

The purpose of establishing a finance company is as a specialized institution that provides financing facilities to consumers or credit card businesses. Other financing company activities include leasing and factoring. (Adha & Joesoef, 2020). The existence of financing institutions functions almost like

banking institutions. So that the presence of financing institutions is very important because it is widely used by business people for capital. (Idham, 2016).

The function of financing institutions is not only to provide business capital but also to provide financing for consumers. Financing is provided to meet consumer needs in the form of consumer goods such as houses, vehicles, household appliances, and even basic daily needs. This can help people who find it difficult to meet their needs in cash. The ease of financing provided is different from banking institutions. Services in the financing process provided to the community are fast and easily accessible. This condition is very favored by the community so that the growth of financing institutions in Indonesia is very rapid. (Prasetyawati, 2013).

The performance of a finance company is influenced by the smooth running of consumer financing. If there is bad financing, it will affect the company's operational conditions. The country's economic conditions can also affect the company's performance. The economic turmoil that occurred during Covid-19 is certainly a threat to finance companies. Many business sectors have difficulty paying obligations due to declining sales which cause losses. Financing in the consumer sector is also experiencing problems. Many of them were forced to lose their jobs and had difficulty paying financing installments.

Based on data from the Central Statistics Agency (BPS), in August 2020 the open unemployment rate (TPT) was 7.07 percent, an increase of 1.84 percent compared to August 2019. Then the population at working age who were unemployed due to Covid-19 amounted to 2.56 million people (BPS, 2020). Increased unemployment and a slowdown in the business world have made it difficult for entrepreneurs to pay their obligations to financial institutions. In response to this, the government and the Financial Services Authority (OJK) provide various policies and economic stimulus (Syarifudin et al., 2022). In addition to receiving stimulus from the government as an external party, companies must also make policies internally to optimize company performance. According to (Esomar, 2021) Company performance is all operational activities including the ability to fulfill obligations through means that are in accordance with applicable policies.

The company must be able to survive to make a profit by managing the use of resources. Efficiency can be said to be on an optimal scale if it is able to reduce inputs to produce a fixed output, or use fixed inputs to produce maximum output. (Rahmi & Putri, 2019). Efficiency can be achieved optimally by minimizing inputs to produce constant output or using fixed inputs to produce high output (Hibatullah & Nurcahyani, 2021). According Farrell (1957) there are two components of efficiency in a company, namely technical efficiency and allocative efficiency. Technical efficiency is the company's ability to produce output from the inputs used. While allocative efficiency is a company that is able to optimize the use of inputs based on prevailing prices and technology. Furthermore, the two components are combined into economic efficiency. A company is on an efficient scale if it can minimize the cost of obtaining output by using technology and at a certain price level.

There are several approaches to analyze the efficiency of the company, but this research will measure efficiency using the Data Envelopment Analysis (DEA) method. (Ascarya & Yumanita, 2006; Hibatullah & Nurcahyani, 2021; Rusydiana, 2018; Syarifudin et al., 2022). Data Envelopment Analysis (DEA) is a mathematical programming method used to measure the relative efficiency of a decision making unit (DMU). The DEA method is a non-parametric approach that uses linear programming techniques that focus on the problems that cause DMUs to be inefficient and assumes that there is no random error. (Dwijyantie & Mulyadi, 2022). The DEA method was first introduced by Charnes et al., (1978) which was later developed by (Banker et al., 1984).

There are two models in measuring efficiency through DEA, namely: Constant Return to Scale (CRS) and Variable Return to Scale (VRS). The assumption of the CRS model is that there is an equality between the addition of inputs and outputs. Increasing input by x will increase output by x

as well. Measurement of the CRS model is carried out on institutions in optimal conditions. Meanwhile, in the VRS model, adding x amount of input does not cause the output to increase by x as well. The additional output can be lower or higher. VRS measurement is conducted when the institution is not operating optimally (Rusydiana, 2013).

Several previous studies have studied efficiency in various industrial sectors. Fitriyani & Kamil, (2019) conducted research entitled "Comparative Estimation of Stock Efficiency in Industrial Companies using DEA Solver Method with CCR Model". The industrial sector whose efficiency is measured in this research is food and beverage companies. The result obtained from 5 DMUs of food and beverage companies in Indonesia, the efficiency level has decreased and increased. Therefore, the company must be able to manage financial performance so that the company can develop as planned.

Kamarudin et al (2019) conducted a study entitled "Bank Efficiency in Malaysia a DEA Approach". The results showed that the efficiency of domestic banks in Malaysia is lower than that of foreign banks. In addition, the researcher stated that market power, liquidity, and quality are able to influence the efficiency performance of banks in Malaysia. The next research was conducted Sholihah (2021) entitled "Efficiency of the Financial Performance of the Indonesian Banking Sector during the Covid-19 Pandemic". His research obtained the results of the efficiency value in the banking sector in Indonesia, both conventional and sharia, experiencing a substantial decline in the relative period.

Based on several previous studies, no one has analyzed the efficiency of finance companies listed on the IDX. Even in the scope of economics in general, there is still little research on non-bank finance companies. Even though it has an important role as an intermediary institution that provides services to the public to meet financial needs. The contribution to this research is oriented towards input measurement against the background of efficiency performance trends to determine the ability of finance companies to allocate resources efficiently in obtaining optimal output during the Covid-19 pandemic. As the concept of efficiency is related to the entity's ability to achieve its objectives. Furthermore, go public companies' performance during a pandemic will influence investors to make investment decisions. Thus, the company needs to evaluate management by improving performance in terms of post-pandemic efficiency and maintaining investor confidence. The focus of this research is to measure the efficiency of the finance company sector listed on the IDX as a non-bank financial institution during the pandemic period 2020-2022 using the Variable Return to Scale model developed by Banker et al., (1984).

METHODS

The method used to measure efficiency in financing companies is Data Envelopment Analysis (DEA). The application used to determine the efficiency value is MaxDEA Basic 8. The result if the value obtained is 100% then the company is efficient. However, if the result shows less than 100%, it means that the company is not efficient. DEA is an applied research method that can be used for management research because it can not only obtain the value of efficiency, but also the variables that cause inefficiency that can be used as a benchmark for company policy making.

This research is oriented towards input variables, namely, to determine the company's ability to manage resources. The input variables used are: Total Assets, Equity, and Operating Expenses. The output variables used are: Net Income and Return on Equity (ROE).

The stages of the data analysis method carried out before testing with the DEA approach are descriptive statistical tests to describe quantitative data in general such as maximum, minimum, mean, and standard deviation values. The sample technique used is purposive sampling, namely companies in the financing sector that are consistently listed on the IDX during 2020-2022 with a

total population of 16 companies and with a sample of companies in the category of the top 7 assets in 2022. The following are the financing companies that are used as objects in this study: Adira Dinamika Multi Finance, Indomobil Multi Jasa, BFI Finance Indonesia, Clipan Finance Indonesia, Mandala Multifinance, Wahana Ottomitra Multiartha, Buana Finance

RESULTS AND DISCUSSION

Descriptive Statistics Test

Researchers conducted descriptive statistical tests to identify the data used in the study, namely input and output variables. The results were obtained:

Table 1. Descriptive Statistics Test Results

	N	Minimum	Maximum	Mean	Std. Deviation
Total Assets	21	3582868	29230513	13168040.71	9243704.078
Ekuitas	21	1208656	10032386	4395293.76	2871548.965
Operating Expenses	21	161645	3684661	1237780.29	1089058.680
Net Profit	21	20053	1806679	475742.71	560119.688
ROE	21	1	21	08.87	06.595
Valid N (listwise)	21				

Source: Data obtained, SPSS 25, 2023

Through the descriptive statistical test in the table above, it is obtained that total assets (X1) as an input variable has a minimum value of Rp. 3,582,868. This figure is owned by Buana Finance in 2021. As for the maximum value, it is Rp. 29,230,513 which is owned by Adira Dinamika Multi Finance in 2020. The average value of total assets during the 2020-2022 period is Rp. 13,168,040, while the standard deviation value is Rp. 9,243,704.

The next input variable, namely equity (X2), has a minimum value of Rp. 1,208,656. This figure is owned by Buana Finance in 2020. As for the maximum value of Rp. 10,032,386 owned by Adira Dinamika Multi Finance in 2022. The average value of equity during the 2020-2022 period is Rp. 4,395,293, while the standard deviation value is Rp. 2,871,548.

The minimum value of operating expenses (X3) as the third input variable is IDR 161,645. This figure is owned by Buana Finance in 2021. As for the maximum value, it is Rp. 3,684,661 which is owned by Adira Dinamika Multi Finance in 2021. The average value of operating expenses during the 2020-2022 period is Rp. 1,237,780, while the standard deviation value is Rp. 1,089,058.

The minimum value of operating expenses (X3) as the third input variable is IDR 161,645. This figure is owned by Buana Finance in 2021. As for the maximum value, it is Rp. 3,684,661 which is owned by Adira Dinamika Multi Finance in 2021. The average value of operating expenses during the 2020-2022 period is Rp. 1,237,780, while the standard deviation value is Rp. 1,089,058.

Furthermore, the output variable, namely net profit (Y1), has a minimum value of Rp. 20,053. This figure is owned by Buana Finance in 2020. As for the maximum value of Rp. 1,806,679 owned by BFI Finance Indonesia in 2022. The average value of net profit during the 2020-2022 period is Rp. 475,742, while the standard deviation value is Rp. 560,119.

The ROE variable (Y2) has a minimum value of 1%. This figure is owned by Clipan Finance Indonesia in 2020 and 2021. As for the maximum value, it is 21% owned by BFI Finance Indonesia

in 2022. The average value of ROE during the 2020-2022 period is 8%, while the standard deviation value is 6%.

Next are the results of the DEA test with the Variable Return to Scale (VRS) approach because it uses the research period during the Covid-19 pandemic, when the economic situation was unstable. The data was processed using MaxDEA Basic 8 which is input-oriented. The results are as follows:

Table 2. Efficiency Value of Financing Companies 2020-2022 Periods

Financial Companies	2020	2021	2022	Rata-Rata
Adira Dinamika Multi Finance	63.10%	66.39%	77.64%	69.04%
BFI Finance Indonesia	53%	84.51%	100%	79.17%
Buana Finance	100%	100%	100%	100%
Clipan Finance Indonesia	40.71%	51.25%	82.75%	58.24%
Indomobil Multi Jasa	37.55%	33.95%	29.74%	33.75%
Mandala Multifinance	99.26%	100%	100%	99.75%
Wahana Ottomitra Multiartha	100%	100%	100%	100%
Average	70.52%	76.59%	84.30%	

Source: Data Processed, MaxDEA Basic 8, 2023

Based on the table above, it can be seen the efficiency value of finance companies during the covid-19 pandemic, namely 2020-2022. A value of 100% indicates that the company is efficient, while if it is less than 100%, it means that based on the DEA approach, it shows that the company is inefficient. In 2020, only 2 companies obtained 100% efficiency value, namely Buana Finance Tbk and Wahana Ottomitra Muliartha Tbk. The company that obtained a value close to efficiency was Mandala Multifinance Tbk at 99.26%. Then the companies that obtained efficiency values on a scale of 50%-65% were BFI Finance Indonesia Tbk by 53% and Adira Dinamika Multi Finance Tbk by 63.10%. Companies that obtained values below 50% were Indomobil Multi Jasa Tbk by 37.55% and Clipan Finance Indonesia Tbk by 40.71%.

The number of companies that received a score of 100% in 2021 increased, namely 3 companies. Wahana Ottomitra Muliartha Tbk and Buana Finance Tbk continued to get a score of 100% as in the previous year. Another company is Mandala Multifinance Tbk, which experienced an increase in efficiency value to 100% from the previous one of only 99.26%. The company that received a score on the 50%-85% scale was Clipan Finance Indonesia Tbk at 51.25, this value increased by 10.53% compared to 2020. Adira Dinamika Multifinance Tbk also experienced an increase in value from the previous year to 66.39%. Then the value of BFI Finance Indonesia Tbk increased significantly by 31.51% to 84.51%. Indomobil Multi Jasa obtained the lowest value in 2021, which was only 33.95%, even lower than in 2020.

Companies that get a value of 100% in 2022 have increased again, namely there are 4 companies. Buana Finance Tbk, Mandala Multifinance Tbk, and Wahana Ottomitra Multiartha Tbk still survive to get a value of 100%. Another company that received a score of 100% was BFI Finance Tbk, which in the previous year also experienced a significant increase in value. Meanwhile, Adira Dinamika Multi Finance Tbk and Clipan Finance Indonesia Tbk still get a value of less than 100%, each getting a value of 77.64% and 82.75%. But this value is indeed higher than in 2020 and 2021. Furthermore, Indomobil Multi Jasa Tbk received a value of 29.74%, this value is lower than the previous year.

Based on the DEA approach, if the company gets a value of 100%, it means that the company is able to manage resources optimally to obtain maximum output. In this study, the results show that companies that consistently have a value of 100% for 3 years are Buana Finance Tbk and Wahana Ottomitra Multiartha Tbk. Both companies have been able to manage inputs well to produce outputs stably during the Covid-19 pandemic. Although Wahana Ottomitra Muliartha Tbk in this research sample is a company that has the lowest asset value of Rp. 5,646,226 (millions), it can manage resources efficiently so that it affects the company's optimal performance.

The result of DEA measurement is not only knowing the efficiency value of each company but also obtaining the projection value of variables with input orientation that cause inefficient value. Then the potential improvement value will be obtained which is the difference between the company's financial data and DEA projections. So that it can be used as a reference for companies to determine policies.

The lowest efficiency value at Adira Dinamika Multi Finance Tbk was in 2020 where there was just a spread of the Covid-19 virus in Indonesia. The acquisition of a value of 63.10% is caused by the use of inputs that are not optimal, namely the asset variable of 29,230,513, equity of 7,925,275 and operating expenses of 3,425,053. The projections should be 11,479,252 (assets), 5,000,631 (equity), and 1,193,316 (operating expenses). This means that based on potential improvements in the input variables, there are excess assets of 17,751,261, equity of 2,924,644, and operating expenses of 2,231,737.

BFI Finance Indonesia Tbk obtained an efficiency value in 2020 of 53%. The achievement of this value is due to the use of inputs that are not optimal, namely in the asset variable of 15,200,531, equity of 6,606,154 and operating expenses of 1,545,627. The projections should be 7,144,725 (assets), 3,443,047 (equity), and 819,033 (operating expenses). This means that based on potential improvements in the input variables, there are excess assets of 8,055,806 equity of 3,163,107 and operational expenses of 726,594.

In 2020 Clipan Finance Indonesia Tbk also obtained the lowest efficiency value among the other 2 years of 40.71%. The reason is the use of inputs that are not optimal in the asset variable of 10,917,456, equity of 4,745,189, and operating expenses of 413,574. The projections should be 3,901,257 (assets), 1,265,746 (equity), and 168,382 (operating expenses). This means that based on potential improvements in the input variables, there is an excess of assets of 7,016,199 equity of 3,479,443 and operational expenses of 245,192.

The next company with an average efficiency of less than 100% is Indomobil Multi Jasa Tbk, with the lowest value in 2022 of 29.74%. The use of input variables is not optimal in the asset variable of 26,929,459, equity of 4,423,031, and operating expenses of 1,195,682. The projections should be 4,812,026 (assets), 1,315,479 (equity), and 355,614 (operating expenses). This means that based on the potential improvement in the input variables, there are excess assets of 22,117,433, equity of 3,107,552 and operational expenses of 840,068.

The lowest efficiency value of Mandala Multifinance Tbk in 2020 was 99.26%, while the following 2 years received a value of 100%. The low efficiency value in 2020 was due to not optimally allocating input variables, namely the asset variable of 4,210,393, equity of 2,334,972, and operating expenses of 760,111. The projections should be 4,179,149 (assets), 1,757,786 (equity), and 338,563 (operating expenses). This means that based on potential improvements in the input variables, there are excess assets of 31,244, equity of 577,186 and operational expenses of 421,548. So that overall, based on the DEA projection value, the use of inputs that are excessive and not used optimally will be a burden for the company.

The following is a graph of the average efficiency value of 7 companies during 2020-2022:

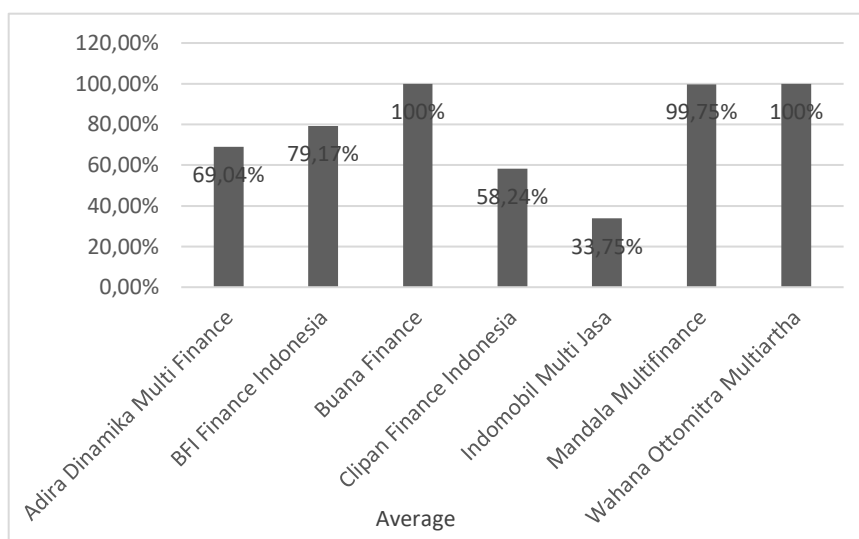


Figure 1. Graph of Average Company Efficiency

Source: Data Processed, 2023

Through this graph, not all finance companies get an average value of perfect efficiency, there are only two companies that consistently get a value of 100% for 2 consecutive years. Mandala Multifinance Tbk received an average of close to 100%, namely 99.75%, because it only obtained an efficiency value for 2 years, namely in 2021-2022. Companies whose average is above 60% are Adira Dinamika Multi Finance Tbk and BFI Finance Indonesia Tbk. Both companies have consistently increased their values from 2020-2022, even BFI Finance Indonesia Tbk obtained a value of 100% in 2022. Companies that obtained an average score below 60% were Clipan Finance Indonesia Tbk and Indomobil Multi Jasa Tbk, which obtained 58.24% and 33.75% respectively. This means that the two companies obtained values on a low scale compared to the other 5 companies. Next is the overall average value of efficiency during 2020-2022:

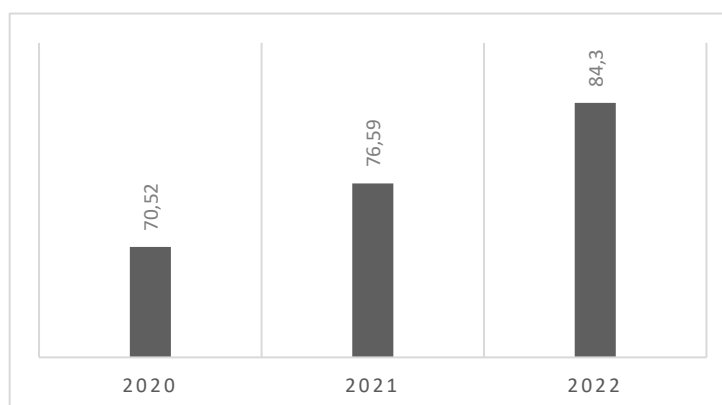


Figure 2. Average Efficiency Chart 2020-2022

Source: Data Processed, 2023

During the 3-year research period, it was found that the lowest value was in 2020, which was the first time Covid-19 existed in Indonesia. In line with the improving situation where the government made various policies in dealing with Covid-19, it also had an impact on the performance of finance companies which experienced an increase in efficiency value in 2021 and 2022. As according to

Tobing (2021) The Covid-19 pandemic does create challenges to social issues and the impact of social life and socio-economic vulnerability.

Financial institutions, both banking and non-banking, are very vulnerable to the economic crisis. Although the crisis experienced during Covid-19 was different from the crisis in 1998 and 2008, the impact was very serious. Not a few companies went bankrupt during Covid-19. The phenomenon of capital withdrawal by investors makes financial managers must make strategies regarding the company's capital structure. The goal is of course to minimize financial risk (Aprillianto & Wardhaningrum, 2021). Therefore, finance companies as non-bank financial institutions that conduct Initial Public Offering (IPO) must make the right policy if in the future they face the same situation as Covid-19.

The government has also anticipated the performance of the Non-Bank Financial Industry (IKNB). The Financial Services Authority (OJK) has taken steps to deal with the risk of Covid-19 uncertainty by making countercyclical policies for non-bank financial services institutions. The policies prepared include relaxation of working capital financing requirements with business capital facilities, including for MSME players, loan restructuring, and loan restructuring. (OJK, 2022).

As a financial institution in prioritizing efficiency to maintain performance, when Covid-19 needs to adapt to all changes, especially facing digitalization. Covid-19 can change the pattern of community interaction which is increasingly massive with digitalization. In line with research Trimulato (2022) Financial institutions in facing a crisis situation must continue to provide good service to consumers. As when Covid-19 provides digital services as an alternative to make it easier for consumers and still maintain health protocols. That way in developing technological innovation will affect business development and market share.

CONCLUSION

The economic crisis caused by the pandemic has indeed affected the operational stability of various industries in Indonesia. This study shows the results that the Covid-19 pandemic can have an impact on the performance of non-bank financing sector companies. In the first year of Covid-19, namely 2020, the average efficiency value obtained was 70.52%. Then in line with various government policies for economic recovery, the average value of efficiency continues to increase from 2021-2022. The average value of efficiency in 2021 increased by 6.07% to 76.59%. In 2022 the average value of efficiency increased by 7.71% to 84.20%. Based on the DEA approach, if the company is efficient, it will get a value of 100%. Through this research, the results obtained are a number of companies that consistently get a value of 100%, namely Buana Finance Tbk and Wahana Ottomitra Multiartha Tbk.

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