ANALYSIS OF SUSTAINABLE FINANCIAL EFFICIENCY IN FIRST MOVERS OF INDONESIA BANKING INDUSTRY TO SUPPORT SUSTAINABLE DEVELOPMENT GOALS

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Abstract

This study examines sustainable financial efficiency in selected Indonesian banks (First Movers) and evaluates their role in supporting SDGs. Using Data Envelopment Analysis (DEA) with WINDEAP software, it assesses sustainable financial performance through 11 economic, social, and environmental indicators. Findings show all banks are efficient overall. However, in economic performance, PT Bank Mandiri (Persero) Tbk and PT Bank Muamalat Indonesia are inefficient. For environmental performance, all banks are efficient. Still, in social performance, PT Bank Negara Indonesia (Persero) Tbk, PT Bank Syariah Indonesia, and PT Bank Pembangunan Daerah Banten dan Jawa Barat Tbk are inefficient.

Keyword*: Data Envelopment Analysis; Finansial Sustainability; Sustainability Banking; SDGs*

A. INTRODUCTION

Sustainable Development Goals is a sustainable global-scale development agenda that includes 17 goals with the principle of inclusive equality, and no one is left behind. By 2030, it is anticipated that 169 objectives will be accomplished (Bappenas, 2023). According to (Otoritas Jasa Keuangan., 2021) through various policies that prioritize sustainability, the Indonesian government has demonstrated its commitment to sustainable development. To achieve sustainable development goals and achieve the vision of a developed Indonesia in 2045 and net zero emissions in 2060, the Indonesian government has made plans or policies.

According to (OJK, 2023) the existence of the financial industry, especially the banking sector, which makes up 80% of Indonesia's financial assets, is becoming increasingly important amidst the limited fiscal budget to finance sustainable growth. A crucial role that the banking sector has as a catalyst for economic development is to play an active role in promoting a green economy by integrating environmental, social, and governance aspects. In accord with the Bank Sustainability Action Plan (RAKB) data recorded in the stage 2 sustainable finance roadmap, until November 2021 Bank Indonesia noted that the achievement of the budget that has been spent by banks in Indonesia is IDR 913.15 Trillion to finance sustainable development (OJK, 2021).

OJK and related organizations created a sustainable finance roadmap that aims to facilitate the adoption of sustainable finance in the banking industry. The initiative group formed together with the *Inisiatif Keuangan Berkelanjutan Indonesia* (IKBI) is referred to as "First Movers on Sustainable Banking" and consists of eight banks, which are guaranteed by OJK to be ready to implement sustainable financial systems. The project aims to support and capture business possibilities in Indonesia's economic development initiatives that have resilience to negative assessments. The eight banks designated as "First Movers" in the project have been trained in environmental risk management and governance (WWF, 2016). Each of the eight banks is undertaking internal initiatives to increase the effectiveness of their resource use and improve their business operations.

Why is this topic important to research? Because environmentally sustainable banking practices received the smallest rating which is interpreted as "sometimes practiced"(Cabaron, 2021). Sustainable financial efficiency allows banks to allocate funds wisely, minimize waste, and maximize their positive impact (Sari et al., 2020). As such, banks can play an active role in achieving SDGs goals.

Problem Formulation
1. What is the level of sustainable financial efficiency of First Movers banks in Indonesia?
2. What is the role of First Movers banks in Indonesia in supporting the accomplishment of Sustainable Development Goals?

B. LITERATURE REVIEW

Sustainable Development Goals

In looking at the achievement of Sustainable Development Goals targets, this research will focus on assessing several aspects, namely Economic, Social, and Environmental. According to (GRI, 2021) Banking net profit is closely interrelated with the assessment of sustainable development pillar 8. Tax payments to banks are related to pillar 17. Green portfolio financing in banks is related to pillars 1, 2, 6, 7, 8, 9, 19, 11, 12, 13, and 16.

Assessment of pillars the efficient use of fuel and electricity related 7, 8, 9, 12, and 13. Assessment of Water use is related to pillars 6, 7, 12, and 13. Assessment of Paper use relates to pillars 12, 13, and 15.

Assessment through the Number of Permanent Male and Female Workers criterion relates to pillars 5, 8, 10, and 16. The assessment seen through the amount of employee competency development costs at the bank relates to pillars 4, 8, and 10. Corporate Social Responsibility financing conducted by banks is related to all SDG pillars except pillar 17.

Sustainable Finance

Sustainable finance is a very dynamic topic at both national and international levels. Regulatory stakeholders are required to actively participate in supporting the implementation of sustainable finance. One of the main obstacles still faced in implementing the idea of sustainable finance is convincing the public and the business community that using the 3P principles, namely profit, people, and planet, will provide higher profits where the idea considers the social consequences of society and natural resources (Otoritas Jasa Keuangan., 2021).

The government enacted Law No. 40/2007 which requires companies working in the natural resources sector to conduct social and environmental responsibility activities, known as Corporate Social Responsibility. In addition, interestingly, in 2017 the government through OJK issued a new regulation requiring sustainability reports. POJK Regulation Number 51/POJK.03/2017. Financial services institutions are required by POJK Number 51/POJK.03/2017 to submit sustainability reports. This Report, which anyone can get, talks about how well financial service institutions, issuers, and public companies do in terms of economic, financial, social, an environmental succeess when it comes to doing sustainable business.

This regulation discusses ways that all parties involved can help realize sustainable development in Indonesia by doing concrete things. The objective of this sustainable finance implementation policy is to promote the growth of a sustainable finance services sector in Indonesia that is conductive to thr preservation of economic, social, and environmental sustainability throughout the development process (OJK, 2017).

Sustainable Finance Efficiency

According to (Dr. Halomoan Hutajulu & Dr. Ir. Prince Charles Heston Runtunuwa, 2024) assessing and measuring sustainable development performance is an important step to understanding progress in achieving sustainable development goals, allowing monitoring of economic, environmental, and social progress holistically. According to (Awaluddin et al., 2019) evaluating bank efficiency is very important because it provides an overview of its performance and is a factor that banks must take into account in order to behave wisely and reduce the amount of risk associated with their operational activities.

It is argued that a bank is efficient if it can maximize inputs to produce the greatest output or in other words, it can fulfill maximum value (Nugrohowati & Bimo, 2019). Therefore, the banking sector is responsible for all its performance that has been displayed in the company's financial statements which are used as a measuring tool in assessing the company's presentation during one period (Rahmayuni, 2017). Furthermore, the development of sustainable finance implementation in Indonesia can be seen from the quality of sustainable reports submitted by banks (LPPI, 2019).

Table 1. Efficiency Assessment Criteria

Value Efficiency	Criteria
High Efficiency	0,81 – 1,00
Medium Efficiency	0,60 – 0,80
Low Efficiency	0,40 – 0,60
Not Efficient / Inefficient	< 0,40

Souce (Sari et al., 2020)

From the data table above we can see that a bank has high efficiency if the efficiency value is in the range of 0.81-100, medium if it is in the range of 0.60-0.80, low if it is in the range of 0.40-0.60, and inefficient if the efficiency value is less than 0.40. Analyzing the efficiency level of the banking sector is important. Bank efficiency can show that the bank is in a healthy state and attract investors to invest. It can also prepare the bank to compete with more competitive financial institutions and demonstrate the bank's ability to optimize all of its resources.

Previous Research

(Hayati et al., 2020) In his reasearch entitled "Peranan Keuangan Berkelanjutan Pada Industri Perbankan Dalam Mendukung *Sustainable Development Goals*" she concluded that amid the many problems related to the decline in environmental quality, increasing social inequality, and the consequences of climate change. The negative impact of the economic development encourage environmentalists, companies, global, and the national governments to encurge sustainable development that integrates economic, environmental, and social. The new paradigm in the pursuit of economic growth is sustainable development. It is not always possible to strike a balance between profit-making objectives to encourage more attention to improving social and environmental life. To support sustainable deelopment, a number of financial institutions around the world have developed intitiatives. OJK has created a sustainable financial roadmap with several related institutions. This roadmap aims to define the goals of a sustainable financial service industry in Indonesia for the medium (2015-2019) and long term (2015-2024).

Framework Of Thought

The framework in this study leads to the analysis of sustainable financial efficiency in the banking sector in supporting the Sustainable Development Goals through Data Envelopment Analysis (DEA). The approach used is an analysis of the sustainability report which includes three main aspects: economic, environmental, and social. Furthermore, these three aspects will be processed through the Data Envelopment Analysis (DEA) method using the WIN-DEAP application. DEA will calculate the efficiency level of each bank in carrying out sustainable financial practices that support the achievement of SDGs. The results of this analysis will provide an overview of the effectiveness of "first movers" banks in carrying out their role in sustainable development in Indonesia.

Hypothesis

H_o: The performance of First Movers Banking in Indonesia in 2022 still has not reached the level of efficiency that supports the Sustainable Development Goals.

H_a: The performance of First Movers Banking in Indonesia in 2022 has reached the level of efficiency that supports Sustainable Development Goals.

C. RESEARCH METHOD

This research is using descriptive quantitative research with a non-parametric approach. According to (Effendi & Juita, 2024) his non-parametric method is not dependent on specific assumptions. This type of research uses a quantitative descriptive analysis method by describing the results of the percentage calculated non-statistically, using the Data Envelopment Analysis method to measure the financial efficiency of banks.

Sampling Technique

The population in this study are banks that are members of the First Movers Banking in Indonesia as many as 8 banks. In this study, the authors used the purposive sampling method which is used for sample selection based on consideration or non-random selection where information is obtained through consideration with certain criteria. The criteria for sampling this research are:

a. Banking companies that apply sustainable finance principles in 2022,
b. Commercial bank companies that have economic indicators, environmental indicators, and social indicators

Based on the above criteria, there are 6 banks that have met the criteria that have been determined in the research sample selection process. These banks are: PT Bank Rakyat Indonesia Tbk, PT Bank Negara Indonesia (Persero) Tbk, PT Bank Mandiri (Persero) Tbk, PT Bank Syariah Indonesia Tbk, PT Bank Muamalat Indonesia Tbk, PT Bank Pembangunan Daerah Banten dan Jawa Barat Tbk, Source: Financial Services Authority 2022 (data has been processed)

D. RESULT AND DISCUSSION

Simultaneous Test Results

Simultaneous analysis results in each bank analyzed in the table having an efficiency score of 1.00, indicating that these six banks are classified as efficient in their sustainable financial management.

Efficiency Value Based On Performance

A. Economic Performance

1. Technical Efficiency Score

Based on the results of data processing of economic indicators, there are four banks that have gotten an efficient score. While banks that have not gotten the title of inefficient there are two banks, namely PT Bank Mandiri (Persero) Tbk and PT Bank Muamalat Indonesia.

2. Benchmark (Peers) and Lambda Score

Using the DEA method, efficiency measurement can produce an efficiency score for each DMU studied. It can also produce an improvement value for the inefficient DMU. Thus, the DEA method analysis can show how inefficient DMUs become efficient. By making comparisons, the performance that has not been effective will be evaluated. The lambda weight value of the efficient DMU is a comparison weight that the inefficient DMU can use as a reference. It is intended to be used as a multiplier as a basis for changing the inefficient DMU's inputs and outputs to become efficient (Ananda, 2023).

The calculation results in the economic aspect found that there are two banks that are declared inefficient and have their respective references as a comparison. Such as PT Bank Mandiri (Persero) Tbk has a reference, namely PT Bank Rakyat Indonesia Tbk of 0.268, and PT Bank Negara Indonesia (Persero) Tbk of 0.732. PT Bank Muamalat Indonesia has a reference to PT Bank Negara Indonesia (Persero) Tbk of 0.269 and PT Bank Pembangunan Daerah Banten dan Jawa Barat Tbk of 0.731.

3. *Potential Improvement* (Optimal Input Output and Potential Improvement)

In the context of slack movement, improvements or changes can be in the form of increasing the proportion of output variables or reducing input variables. This change is needed so that the Decision Making Unit (DMU) can reach the optimal efficiency frame in its operations, especially in the learning process. When the DMU has reached the efficient level, its slack value will be zero. If the DMU is efficient but the slack is not zero, this indicates that there is a combination of other units that do not control the output of the current reference DMU, which means that the DMU uses fewer resources. DMUs that have reached efficiency, will be excluded from the description of this result because they have reached efficiency and have used their input variables properly to produce maximum or optimal output (Ananda, 2023).

This potential improvement can be used to achieve the efficiency level by reducing or increasing the number of inputs on the economic performance needed to achieve the efficiency level. In addition, it is applied to each bank that is listed as an inefficient bank because it has a value on an inefficient indicator. And therefore, the indicator must be improved.

a) Inefficiency of PT Bank Mandiri (Persero) Tbk

PT Bank Mandiri (Persero) Tbk in 2022 has an efficiency level of 73% resulting from the input value used in the calculation of the economic performance aspect. This economic performance indicator experiences inefficiency because the target value is smaller than the actual value. The net profit indicator has an actual value of 0.850 while the target value is 0.524. Then the actual value must be reduced by a radial value of 0.232 to reach the efficient level, and to achieve optimality it must be reduced by a slack value of 0.094. Furthermore, in the tax payment indicator, bank mandiri has an actual value of 0.550 while the target is 0.400, so the actual value must be reduced by a radial value of 0.150 to reach the efficient level. Then on the green portfolio financing indicator, bank mandiri has an actual value of 0.490 while the target value is 0.190, therefore to reach the efficient level, bank mandiri must reduce its actual value by a radial value of 0.134 and to achieve the optimal value it must be reduced by a slack value of 0.166.

b) The inefficiency of PT Bank Muamalat Indonesi

PT Bank Muamalat Indonesia in 2022 has an efficiency level of 48% resulting from the input value used in the calculation of the economic performance aspect. This economic performance indicator is inefficient because the target value is smaller than the actual value.

The net profit indicator has an actual value of 0.530 while the target value is 0.094. Then the actual value must be reduced by a radial value of 0.274 to reach the efficient level, and to achieve optimality it must be reduced by a slack value of 0.162. Furthermore, in the tax payment indicator, bank mandiri has an actual value of 0.100 while the target is 0.048, so the actual value must be reduced by a radial value of 0.052 to reach the efficient level. Then on the green portfolio financing indicator, bank mandiri has an actual value of 0.900 while the target value is 0.435, therefore to reach the efficient level, bank mandiri must reduce its actual value by a radial value of 0.465.

B. Environmental Performance
1. Technical Efficiency Score
Based on the results of data processing of environmental indicators, there are 6 banks that have gotten an efficient score in environmental aspects, the banks are PT Bank Rakyat Indonesia Tbk, PT Bank Negara Indonesia (Persero) Tbk, PT Bank Mandiri (Persero) Tbk, PT Bank Syariah Indonesia, and PT Bank Muamalat Indonesia and PT Bank Pembangunan Daerah Banten dan Jawa Barat Tbk.

C. Social Performance
1. Technical Efficiency Score
Based on the results of data processing of social indicators, there are three banks that have scored efficiently, the banks are PT Bank Rakyat Indonesia Tbk, PT Bank Mandiri (Persero) Tbk, and PT Bank Muamalat Indonesia. There are also three other banks that score inefficiently, namely PT Bank Negara Indonesia (Persero) Tbk, PT Bank Syariah Indonesia, and PT Bank Pembangunan Daerah Banten dan Jawa Barat Tbk.

2. Benchmark *(Peers)* and Lambda Score
The calculation results in the social aspect found that there are three banks that are declared inefficient and have their own benchmark as a comparison. PT Bank Negara Indonesia (Persero) Tbk has a benchmark of PT Bank Rakyat Indonesia Tbk of 0.004, PT Bank Mandiri (Persero) Tbk of 0.563, and PT Bank Muamalat Indonesia of 0.433. Then PT Bank Syariah Indonesia has a reference to PT Bank Mandiri (Persero) Tbk of 0.122, PT Bank Muamalat Indonesia of 0.842, and PT Bank Rakyat Indonesia Tbk of 0.036. Furthermore, PT Bank Pembangunan Daerah Banten dan Jawa Barat Tbk have a reference to PT Bank Mandiri (Persero) Tbk of 0.085, and PT Bank Muamalat Indonesia of 0.915.

3. Potential Improvement (Optimal Input Output and Potential Improvement)
a) Optimization of PT Bank Negara Indonesia (Persero) Tbk
PT Bank Negara Indonesia (Persero) in 2022 has an efficiency level of 80% resulting from the input value used in the calculation of the social performance aspect. This social performance indicator experiences inefficiency because the target value is smaller than the actual value. The indicator for the number of permanent male employees has an actual value of 0.280 while the target value is 0.233. Then the actual value must be reduced by a radial value of 0.057 to reach the efficient level. Furthermore, in the indicator of the number of permanent female employees, BNI bank has an actual value of 0.640 while the target is 0.511, so the actual value must be reduced by a radial value of 0.129 to reach the efficient level. In the indicator of the amount of employee competency development costs, BNI bank has an actual value of 0.370 while the target value is 0.017, therefore to reach the efficient level BNI bank must reduce the actual value by a radial value of 0.075 and to achieve the optimal value it must be reduced by a slack value of 0.279. Furthermore, the csr indicator of BNI bank has an actual value of 0.340 while the target value is 0.268, therefore to achieve an efficient level BNI bank must reduce its actual value by a radial value of 0.069 and to achieve the optimal value it must be reduced by a slack value of 0.003.

b) Optimization of PT Bank Syariah Indonesia
Indonesia in 2022 has an efficiency level of 47% resulting from the value of inputs used in the calculation of social performance aspects. This social performance indicator experiences inefficiency because the target value is smaller than the actual value. The indicator for the number of permanent male employees has an actual value of 0.240 while

the target value is 0.083. Then the actual value must be reduced by a radial value of 0.127 to reach the efficient level and reduced by a slack value of 0.029 to reach the optimal point. Furthermore, in the indicator of the number of permanent female employees, BSI bank has an actual value of 0.310 while the target is 0.146, so the actual value must be reduced by a radial value of 0.164 to reach the efficient level. Then in the indicator of the amount of employee competency development costs, BSI bank has an actual value of 0.130 while the target value is 0.061, therefore to achieve an efficient level BSI bank must reduce its actual value by a radial value of 0.069. Furthermore, the csr indicator of BSI bank has an actual value of 0.650 while the target value is 0.093, therefore to reach the efficient level BSI bank must reduce its actual value with a radial value of 0.344 and to achieve the optimal value it must be reduced by a slack value of 0.212.

c) Inefficiency of PT Bank Pembangunan Daerah Banten dan Jawa Barat Tbk

PT Bank Pembangunan Daerah Banten dan Jawa Barat Tbk in 2022 has an efficiency level of 55% resulting from the input value used in the calculation in the social performance aspect. This social performance indicator experiences inefficiency because the target value is smaller than the actual value. The permanent male employee indicator has an actual value of 0.060 while the target value is 0.033. Then the actual value must be reduced by a radial value of 0.027 to achieve the optimal value. The female permanent employee indicator has an actual value of 0.140 while the target value is 0.076. Then the actual value must be reduced by a radial value of 0.063 to achieve an efficient value and reduced by a slack value of 0.001 to reach the optimal point. Furthermore, in the indicator of employee competency development costs, BJB bank has an actual value of 0.050 while the target is 0.027, so the actual value must be reduced by a radial value of 0.023 to reach the efficient level. Furthermore, the CSR financing indicator has an actual value of 0.590 while the target value is 0.040, so the actual value must be reduced by a radial value of 0.266 to reach the efficient level and reduced by a slack value of 0.284 to reach the optimal value.

E. CONCLUSIONS AND SUGGESTION

Based on the research that has been conducted, it can be concluded that the implementation of sustainable financial support carried out by banks shows that all banks are rated efficient when tested simultaneously. Then when tested with economic performance, there are four banks that have received an efficient predicate, while the other two banks received an inefficient predicate. Furthermore, if tested with environmental performance, all banks are predicated as efficient. And the last result if tested with social performance then there are three banks that get the efficient predicate, and three other banks get the inefficient predicate.

PT Bank Muamalat Indonesia is the most inefficient bank when calculated through economic performance because it has the largest difference between the actual value and the target value. Meanwhile, the bank that received a less-than-optimal predicate in environmental performance was PT Bank Rakyat Indonesia Tbk which had notes for optimization in several indicators. The last one is PT Bank Muamalat Indonesia which is the most inefficient bank when calculated based on social performance because it has the difference between the actual value and the largest target value.

There are several suggestions that the author can give based on the result of this study, including :

1. For the related government

a. Publication of news and reports related to the progress of SDGs in Indonesia should be more open to the public, even progress reports on sustainable development on the official website of Bappenas are still difficult to find and seem very confidential,

b. Conduct a serious evaluation of this major sustainable development agenda, which is targeted to be achieved by 2030, and develop a national action plan that is easy to understand and more realistic.

2. For related bank

a. Bank managers should pay more attention to company performance, namely on economic, environmental, and social aspects that can cause a bank to become inefficient,

b. Conduct periodic evaluations on the indicators that cause the bank to be inefficient,

c. The head of the relevant bank is expected to review the preparation of sustainable finance financial statements in order to comply with the reporting requirements in PJOK No.51/pjok.03/2017.

3. For future researchers

a. It is recommended to use a wider sample because the success of sustainable development achievements is not only supported by one sector,
b. It is recommended to always develop the method of measuring the efficiency of the DEA method because over time this science will continue to develop better.

REFERENCES

Ananda, E. S. (2023). *Efisiensi Program Indonesia Pintar (PIP) Di Pulau Jawa Dengan Metode Data Envelopment Analysis (DEA)*. Universitas Islam Negeri Syarif Hidayatullah.

Awaluddin, M., Mutmainna, A., & Wardhani, R. S. (2019). Komparasi Efisiensi Penyaluran Kredit Pada Bank Umum Syariah (BUS) antara Bank Mega Syariah dan Bank CIMB Niaga Syariah Dengan Pendekatan Data Envelopment Analysis (DEA). *Al-Mashrafiyah: Jurnal Ekonomi, Keuangan, Dan Perbankan Syariah*, *3*(2), 95–107. https://doi.org/10.24252/al-mashrafiyah.v3i2.9273

Bappenas. (2023). Laporan Pelaksanaan Pencapaian Tujuan Pembangunan Berkelanjutan. *BAPPENAS RI*, *01*, 221.

Cabaron, J. B. C. and R. R. (2021). *Evaluation of sustainable banking practices in the philippines. 3*(06), 189–203. https://doi.org/DOI: http://dx.doi.org/10.38193/IJRCMS.2021.3612

Dr. Halomoan Hutajulu, M. S., & Dr. Ir. Prince Charles Heston Runtunuwa, M. S. (2024). *Sustainable Economic Development (Teori Dan Landasan Pembangunan Ekonomi Berkelanjutan Multi Sektor di Indonesia)* (I. Uzma (ed.); Pertama). PT Sonpedia Publishing Indonesia.

Effendi, M., & Juita, F. (2024). *Satsitik Non Parametik: Sebuah Tinjauan Aplikatif Untuk Penelitian Sosial*. Penerbit NEM. https://www.google.co.id/books/edition/Statistik_Non_Parametrik/qUEEEQAAQBAJ?hl=en&gbpv=0

GRI. (2021). *The global standards for sustainability impacts*. Global Reporting. https://www.globalreporting.org/standards/

Hayati, N., Yulianto, E., & Syafdinal. (2020). *Peranan Keuangan Berkelanjutan Pada Industri Perbankan Dalam Mendukung Sustainable Development Goals. 6*(1), 1633–1652.

LPPI. (2019). *Analisis Laporan Keberlanjutan Pada 8 Bank First Mover Perkembangan implementasi keuangan berkelanjutan di Indonesia dapat dilihat dari kualitas SR yang disampaikan oleh bank . Sebagai tahapan awal , LPPI telah melakukan kajian SR pada delapan bank " Firs.* 1–3.

Nugrohowati, R. N. I., & Bimo, S. (2019). Analisis pengaruh faktor internal bank dan eksternal terhadap Non-Performing Financing (NPF) pada Bank Perkreditan Rakyat Syariah di Indonesia. *Jurnal Ekonomi & Keuangan Islam*, *5*(1), 42–49. https://doi.org/10.20885/jeki.vol5.iss1.art6

OJK. (2017). *Penjelasan atas peraturan Otoritas Jasa Keuangan Nomor 51 /POJK.03/2017 Tentang penerapan keuangan berkelanjutan bagi lembaga jasa keuangan, emiten, dan perusahaan publik*.

OJK. (2021). Roadmap Keuangan Berkelanjutan Tahap II (2021 – 2025). *OJK*.

OJK. (2023). Booklet Perbankan Indonesia. In *Booklet Perbankan Indonesia 2023*. https://www.ojk.go.id/id/kanal/perbankan/data-dan-statistik/booklet-perbankan-indonesia/Documents/booklet_2014_opt_1395931938.pdf

Otoritas Jasa Keuangan. (2021). Transformasi Sektor Jasa Keuangan untuk Mendukung Pemulihan Ekonomi Nasional Pasca Pandemi. In *Laporan Tahunan Annual Report*.

Rahmayuni, S. (2017). Peranan Laporan Keuangan dalam Menunjang Peningkatan Pendapatan Pada UKM. *JSHP (Jurnal Sosial Humaniora Dan Pendidikan)*, *1*(1), 93. https://doi.org/10.32487/jshp.v1i1.239

Sari, P. M., Bahrudin, M., & Nurmalia, G. (2020). *Studi komparatif analisis efisiensi kinerja perbankan syariah di indonesia antara metode data envelopment analysis (dea) dan stochastic frontier analysis (sfa). 3*(April), 48–66.

WWF, O. (2016). *Indonesia First Movers on Sustainable Banking Eight Banks With the Largest Assets in Indonesia Commit To Standing As.*