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Economic and Financial Feasibility Analysis on the Masterplan of the Sadai Industrial Estate (KIS) Bangka Belitung Islands **Province**

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Abstract

In order to determine the economic and financial feasibility of the Sadai Industrial Estate (KIS), it is necessary to conduct an economic feasibility analysis and a financial feasibility analysis of the project. Analysis of the economic feasibility was performed using the production approach, the income approach, and the expenditure approach. A financial feasibility analysis was carried out using the Payback Period (PP), Average Rate of Return (ARR), Net Present Value (NPV), Profitability Index (PI), and Internal Rate of Return (IRR) methods. From the results of the analysis, it can be concluded that the development of the Sadai industrial area is economically and financially feasible.

Keywords

economic feasibility; financial feasibility; Bangka Belitung Islands



I. Introduction

Managing available resources is one of the local government's initiatives to boost regional economic development. Collaboration between local governments and the community or private sector is critical for developing prospective regions, one of which is through the establishment of industrial estates. The Provincial Government of the Bangka Belitung Islands has proposed the Sadai Industrial Estate (hereinafter referred to as KIS) for development. Sadai Industrial Estate (KIS) is being developed in a strategic location, specifically in Tukak Sadai District, South Bangka Regency, Bangka Belitung Islands Province. The Sadai Industrial Estate's industrial development strategy is inextricably linked to the potential of natural resources and technology in South Bangka Regency, as well as the area's growth and utilization of space, geographical location, infrastructure and facilities. According to Pramusinto (2020) the power of technology including digitalization and automation continues to grow and change the pattern of production, distribution, and consumption. As with other areas of life, technology is used to make changes, so also with the legal system as technology in making changes (Hartanto, 2020). Meanwhile, the use of information technology is the benefit expected by users of information systems in carrying out their duties where the measurement is based on the intensity of utilization, the frequency of use and the number of applications or software used (Marlizar, 2021). On the basis of these elements, the Sadai Industrial Estate's industrial sectors for development include marine product processing, plantation product processing, shipbuilding and logistics, and cold storage. If a project wishes to achieve its objectives, and ideally if it for making an investment, it should be preceded by research or analysis (Kahfi, 2019). The objective is to determine whether the investment is feasible or not, and whether it will deliver an advantage

or not (Yasuha & Saifi, 2017). The feasibility study evaluates the feasibility of a firm or proposed enterprise. Business feasibility studies are used to identify potential problems in the future, hence minimizing the likelihood of an investment producing ineffective results (Kasmir, 2015).

Economic feasibility research was conducted to explore a project's economic feasibility in terms of its efficacy, punctuality, and utilization of finances and resources over the project's duration (Kementerian Keuangan, 2017; Rangkuti, 2012). Economic feasibility is determined when a project is required and is capable of providing superior or comparable benefits at a lower cost than alternative possibilities. Economic feasibility analysis can be conducted in three ways: production approach, expenditure approach, and the income approach (Annaisabiru, 2020). A financial feasibility analysis is required to determine the potential advantages of an investment (Anggrainy et al., 2018; Gaeta-Bernardi & Parente, 2016). Financial analysis is critical in determining the earnings MM or advantages accrued to individuals or institutional investors as a result of the project's success (Haedar & Kasran, 2017).

The financial aspect is required to assess the company's overall financial health. There are various financial measures used to determine whether or not a firm is financially feasible to operate, including the Payback Period (PP), the Average Rate of Return (ARR), the Net Present Value (NPV), the Profitability Index (PI), and the Internal Rate of Return (IRR). The estimated investment cost for this Industrial Estate project is IDR 2,4 trillion. Various prior studies have discovered that economic and financial feasibility research is effective for analyzing or determining whether or not a proposal is feasible for a project or organization (Adib et al., 2018; Fisu, 2020; Harvey & Ary, 2018; Putra et al., 2020).

The development of the Sadai Industrial Estate certainly requires a study of the feasibility related to its business, in order to overcome the possibility of failures that occur in the future. Economic feasibility analysis and financial feasibility analysis are very necessary when viewed from the economic and business side. Economic feasibility analysis is to determine economic sustainability with the construction of the Sadai Industrial Estate, while financial feasibility analysis is to determine the benefits obtained. Based on the descriptions that have been put forward, it is important to carry out research on economic and financial feasibility analysis.

Based on the foregoing background, this study aims to evaluating the feasibility of the Sadai Industrial Estate (KIS) based on economic aspects as well as financial aspects.

II. Research Methods

This research method entails quantitative descriptive research, which assesses the economic and financial feasibility of the Sadai Industrial Estate (KIS). This study examined the economic feasibility using the production approach, income approach, as well as expenditure approach. The Payback Period (PP), Average Rate of Return (ARR), Net Present Value (NPV), Profitability Index (PI), and Internal Rate of Return (IRR) methods are used in financial feasibility study. The interpretation is then utilized as the foundation for determining whether the Sadai Industrial Estate (KIS) can be continued and developed.

This study took data from two sources, namely primary data and secondary data. The primary data used to assess the economic and financial feasibility is by direct observation to the field and interviews with related parties or parties involved in the Sadai Industrial Estate (KIS). The secondary data used is by collecting project technical data from the project implementer and studying the literature. Data on estimated development or investment costs obtained from the Sadai Industrial Estate (KIS) master plan, estimated operating costs based

on standard costs derived from regulations, regulations and previous studies, and data on estimated revenues from existing infrastructure. From these three data components, the cashflow can be calculated. The research procedure used to assess the economic feasibility is to use GRDP data for South Bangka Regency and estimate the GRDP projection with the Sadai Industrial Estate to be continued or discontinued. The research instruments are: Observation, interview, and documentation.

This research was conducted in the Sadai Industrial Estate (KIS) which is located at Tukak Sadai, South Bangka Regency, Bangka Belitung Islands Province. This research was carried out for a period of 3 months, from April to June 2021. Starting with direct observations in the field to observe the KIS development process. Then, conducting interviews with related parties, namely the planning department at the Regional Development Planning, Research and Development Agency (also referred to as Bappelitbangda) of South Bangka Regency, the Regional Development Planning Agency (also referred to as Bappeda) of the Bangka Belitung Islands Province, and to the manager, namely PT RBA (Ration Bangka Abadi), followed by data collection through the literature, namely the KIS master plan, regulations, and previous studies to find out technical data on project implementation related to the finance and economy of the Sadai Industrial Estate. The data obtained is processed, then conducted an analysis of economic and financial feasibility using its methods.

III. Discussion

3.1 Results

a. Description of Research Object

1. Sadai Industrial Estate, Bangka Belitung Islands Province

The Province of the Bangka Belitung Islands is one of the provinces on the island of Sumatra that has the potential to develop into a new industrial area based on the processing of local land cultivation and fisheries, known as the Sadai Industrial Estate. The Sadai Industrial Estate located in the Province of the Bangka Belitung Islands. As a result of its geographic location, this industrial area is located in a developing Regency that borders the sea and is not too far from the provincial capital, allowing it to accelerate the flow of urbanization and population distribution, provide benefits to industrial and residential operational activities, and have potential for seafood processing (Mislam, 2020).

Industrial operations strive to maximize the potential of the surrounding area in order to boost the economy of this area, namely the Agri-nautical sector. Sadai Industrial Estate is a new development area with the goal of becoming a focus of economic growth through the process of adding value to natural resources in South Bangka and the surrounding area. The industrial sector developed as the center's primary function is complemented by a variety of other uses, including residential, commercial (trade and services), social, as well as other public facilities.

b. Cashflow

1. Investment Forecast

Investments that will be reviewed here are investments that are in accordance with the Sadai Industrial Estate action plan, namely in the area of 400 Ha in phase 1 worth \pm Rp. 2.4 trillion, consisting of land acquisition area of Rp. . The investment / financing mechanism, specifically: PMDN (Domestic Investment). Industries include tin downstream, plantation and agricultural processing, seafood processing, and logistics terminals in the western region. The objective is to begin construction in 2021 and to complete phase I (400 ha) between 2022 and 2024. Operational phase I semester I is scheduled to begin in 2023. Meanwhile, 30 years is the length of its economic existence.

2. Income Forecast

The income of the Sadai industrial estate is obtained as follows:

1. Land Lease

According to the South Bangka Regency Regional Regulation Number 5 of 2018, the tariff for the use of government land/land owned by the private sector is Rp. 15,000.00 per year/m2, it is assumed that in the year of operation it will increase to Rp. 20,000.00 per year/m2 and experience an increase of 7,5% annually.

2. Cleaning Fee

The calculation of revenue from this levy refers to the Regional Regulation of South Bangka Regency Number 17 of 2011, concerning the levy on waste / hygiene services for large factories / industries is Rp40,000.00 per m3 if using the services of the garbage fleet provided, it is assumed that per day the industry produces 20 m3 of waste per day.

3. Mooring and Anchoring Services

In accordance with Government Regulation No. 75 of 2015, mooring and flask services at fishing ports for vessels > 10 GT to 15 GT amounting to Rp2,500.00 per ship per etmal (time or length of time the ship docks at the dock) and it is assumed that it takes a duration of about 2 hours per fleet of ships for fish landing. This rate will increase by 7,5% per year.

4. Ice Procurement Services

Revenue from ice procurement services also refers to Government Regulation Number 75 of 2015, which is Rp. 150.00 per kg and is assumed to increase by 7,5% per year. The average ice requirement is assumed to be 220 kg of ice per 1 ton of fish.

5. Clean Water Supply Service

Revenue from clean water services is in accordance with Government Regulation Number 75 of 2015 concerning the types and rates of non-tax state revenues applicable to the Ministry of Maritime Affairs and Fisheries, which is to obtain Rp. 60.00 per liter from the use of clean water for the fishing industry and is assumed to increase by 7,5% annually. The need for clean water refers to the benchmark for the average clean water requirement of the processing industry according to Government Regulation, which is 1.5 liters per 1 kg of fish raw materials.

6. Building Rental Services

The number of buildings for rent in Phase I is planned as many as 19 units. The rental fee is IDR 100 million per unit per year and has increased by 7,5% annually.

7. Electricity Supply Service

The electricity needs of industrial estates refer to the Regulation of the Minister of Industry No. 35/M-Ind/Per/2010 concerning Technical Guidelines for Industrial Estates, where electricity needs are 0,15 - 0,2 MVA/Ha. The benefits or benefits of this service refer to Government Regulation No. 75 of 2015 concerning the types and rates of non-tax state revenues applicable to the Ministry of Marine Affairs and Fisheries, where there is an additional 10 percent fee which is a benefit of each Kwh of electricity paid to PLN.

The income forecast can be seen in the following table:

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Period	Land lease	Cleaning Fee	Mooring & Anchoring Services	Ice Procurement	Clean water	Building Rental	Electricity	Total
2023	60.000.000.000	292.000.000	6.824.593.160	49.842.534.300	116.691.070	1.900.000.000	11.432.194.200	130.408.012.730
2024	80.000.000.000	292.000.000	7.336.437.647	53.580.724.373	125.442.900	2.042.500.000	11.432.194.200	154.809.299.120
2025	86.000.000.000	292.000.000	7.886.670.471	57.599.278.700	134.851.118	2.195.687.500	11.432.194.200	165.540.681.989
2026	92.450.000.000	292.000.000	8.478.170.756	61.919.224.603	144.964.952	2.360.364.063	11.432.194.200	177.076.918.573
2027	99.383.750.000	292.000.000	9.114.033.563	66.563.166.448	155.837.323	2.537.391.367	11.432.194.200	189.478.372.901
2028	106.837.531.250	292.000.000	9.797.586.080	71.555.403.932	167.525.122	2.727.695.720	11.432.194.200	202.809.936.303
2029	114.850.346.094	292.000.000	10.532.405.036	76.922.059.227	180.089.506	2.932.272.899	11.432.194.200	217.141.366.961
2030	123.464.122.051	292.000.000	11.322.335.413	82.691.213.669	193.596.219	3.152.193.366	11.432.194.200	232.547.654.918
2031	132.723.931.205	292.000.000	12.171.510.569	88.893.054.694	208.115.936	3.388.607.869	11.432.194.200	249.109.414.472
2032	142.678.226.045	292.000.000	13.084.373.862	95.560.033.796	223.724.631	3.642.753.459	11.432.194.200	266.913.305.993
2033	153.379.092.998	292.000.000	14.065.701.902	102.727.036.331	240.503.978	3.915.959.968	11.432.194.200	286.052.489.377
2034	164.882.524.973	292.000.000	15.120.629.544	110.431.564.055	258.541.777	4.209.656.966	11.432.194.200	306.627.111.515
2035	177.248.714.346	292.000.000	16.254.676.760	118.713.931.360	277.932.410	4.525.381.238	11.432.194.200	328.744.830.314
2036	190.542.367.922	292.000.000	17.473.777.517	127.617.476.211	298.777.341	4.864.784.831	11.432.194.200	352.521.378.022
2037	204.833.045.516	292.000.000	18.784.310.831	137.188.786.927	321.185.641	5.229.643.693	11.432.194.200	378.081.166.809
2038	220.195.523.930	292.000.000	20.193.134.143	147.477.945.947	345.274.564	5.621.866.970	11.432.194.200	405.557.939.755
2039	236.710.188.225	292.000.000	21.707.619.204	158.538.791.893	371.170.157	6.043.506.993	11.432.194.200	435.095.470.671
2040	254.463.452.342	292.000.000	23.335.690.644	170.429.201.285	399.007.918	6.496.770.018	11.432.194.200	466.848.316.407
2041	273.548.211.267	292.000.000	25.085.867.443	183.211.391.381	428.933.512	6.984.027.769	11.432.194.200	500.982.625.572
2042	294.064.327.112	292.000.000	26.967.307.501	196.952.245.735	461.103.526	7.507.829.852	11.432.194.200	537.677.007.925
Period	Land lease	Cleaning Fee	Mooring & Anchoring Services	Ice Procurement	Clean water	Building Rental	Electricity	Total
2043	316.119.151.646	292.000.000	28.989.855.563	211.723.664.165	495.686.290	8.070.917.090	11.432.194.200	577.123.468.955
2044	339.828.088.019	292.000.000	31.164.094.731	227.602.938.977	532.862.762	8.676.235.872	11.432.194.200	619.528.414.561
2045	365.315.194.621	292.000.000	33.501.401.835	244.673.159.401	572.827.469	9.326.953.563	11.432.194.200	665.113.731.088
2046	392.713.834.217	292.000.000	36.014.006.973	263.023.646.356	615.789.529	10.026.475.080	11.432.194.200	714.117.946.355
2047	422.167.371.783	292.000.000	38.715.057.496	282.750.419.832	661.973.744	10.778.460.711	11.432.194.200	766.797.477.767
2048	453.829.924.667	292.000.000	41.618.686.808	303.956.701.320	711.621.775	11.586.845.264	11.432.194.200	823.427.974.034
2049	487.867.169.017	292.000.000	44.740.088.319	326.753.453.919	764.993.408	12.455.858.659	11.432.194.200	884.305.757.522
2050	524.457.206.693	292.000.000	48.095.594.943	351.259.962.963	822.367.913	13.390.048.058	11.432.194.200	949.749.374.771
2051	563.791.497.195	292.000.000	51.702.764.564	377.604.460.185	884.045.507	14.394.301.663	11.432.194.200	1.020.101.263.313
2052	606.075.859.485	292.000.000	55.580.471.906	405.924.794.699	950.348.920	15.473.874.287	11.432.194.200	1.095.729.543.497

 Table 1. Projected Revenue of Sadai Industrial Estate (in Rupiah)

Source: South Bangka Regency Regional Regulation Number 17 of 2011, South Bangka

Regency Regional Regulation Number 5 of 2018 and Government Regulation Number 75 of 2015

c. Expenditure Forecast Analysis

The sources of expenditure for the Sadai Industrial Estate are formed from the accumulation of personnel expenditures, operating costs, maintenance costs (light repair), operational costs (water and electricity) and other costs. The basis for the estimation of operational costs and non-operational costs refers to Government Regulation Number 75 of 2015 concerning the types and rates of non-tax state revenues applicable to the Ministry of Maritime Affairs and Fisheries. Operating costs are expected to increase by 5% per year.

1. Employee Salary

Includes salary/wages, allowances and training costs. The number of employees refers to the Regulation of the Minister of Industry Number 35/M-IND/Per/2010 concerning Technical Guidelines for Industrial Estates.

2. Maintenance Cost

Includes maintenance of all assets including land, buildings and equipment, including cleanliness. This fee is proportional to the asset value, initially estimated at 0.5 percent of the asset value per 1,000 m2 and increasing by 2,5% annually.

3. Operational Costs, in the Form of Electricity and Water Bills

This fee refers to the Regulation of the Minister of Industry Number 35/M-IND/Per/2010 concerning Technical Guidelines for Industrial Estates, namely electricity needs of 0,15 - 0,2 MVA/Ha and water 0,55 - 0,75 liters/second/ Ha. The electricity tariff in the year of operation is assumed to be Rp12,550.00, per Kwh and water Rp12,500.00 per m3, or Rp12.50 per liter. This group of costs is assumed to increase at a rate of 5% per year.

4. Other Costs

It is a cost component, namely operational and non-operational costs outside the previously described components, and is assumed to be 3% of the total costs incurred.

3.2 Discussion

a. Financial Feasibility Analysis Results

Criteria	Measurement results	Industry Average / Predefined targets	Information			
Payback Period (PP)	23 years	30 years	Well			
Avarage Rate of Return (ARR)	39%	35%	Well			
Net Present Value (NPV)	326,894,523.433	250,000,000,000	Well			
Profitability Index (PI)	1,14 times	1,1 times	Well			
Internal Rate of Return (IRR)	19,9%	18%	Well			

Table 2. Financial Feasibility Analysis Results

Source: Cash Flow Financial Analysis of Sadai Industrial Estate, 2021

Based on table above, the measurement results of each criterion, namely Payback Period (PP), Average Rate of Return (ARR), Net Present Value (NPV), Profitability Index (PI), and Internal Rate of Return (IRR), are above the industry average or predetermined target, it can be concluded that the development of the Sadai Industrial Estate is financially feasible. Several indicators show its feasibility, namely PP 23 years is feasible because it is smaller than its economic life of 30 years. Furthermore, ARR of 39% is feasible because it is above the industry average of 35%. The NPV is positive > 0 which is Rp. 326.894.523.433 and is above the industry average of Rp. 250 billion. This value shows that the investment invested in the next 30 years has net benefits, which are currently valued at Rp. 32.894.523.433. Moreover, PI shows that 1,14 times feasible because the value is > 1 or above the industry average of 18%, which means that this business can return capital up to a loan interest rate of 19,9% per year.

b. Economic Feasibility Analysis Results

Economic feasibility is the feasibility for all parties who use, directly or indirectly, a project or business development, including the construction of the Sadai Industrial Estate. The project is said to be feasible if the economic productivity has increased. The economic costs and benefits of a project, measured in monetary terms, are calculated by cash flow analysis. Furthermore, the economic feasibility in terms of the national economy is determined based on the Economic Internal Rate of Return (EIRR) of the project concerned. The calculation of benefits is based on the difference in costs that must be incurred by users (directly or indirectly) in conditions with and without projects. This term is used to distinguish the concepts of before and after projects.

c. Economic Growth Projection

One of the main indicators to see the economic growth of a region is the growth of Gross Regional Domestic Revenue (GRDP). Economic benefits in an area are indicated by the presence of Gross Regional Domestic Product (GRDP). The economic benefit from the development of the Sadai Industrial Estate is the difference between the GRDP after the Sadai Industrial Estate was developed and the Sadai Industrial Estate before it was developed which is presented in following table of the economic benefits of the development of the Sadai Industrial Estate.

	GRDP Projection	GRDP projection	Economic Benefits	
Period	Without	with		
	development of the	development of the		
	Sadai Industrial	Sadai Industrial		
2022	8 738 340 000 000	8 738 340 000 000		
2022	0.010.015.000.000	0.020.061.750.000	21.045.050.000	
2023	9.918.015.900.000	9.939.861./50.000	21.845.850.000	
2024	11.256.948.046.500	11.306.592.740.625	49.644.694.125	
2025	12.776.636.032.778	12.861.249.242.461	84.613.209.683	
2026	14.501.481.897.203	14.629.671.013.299	128.189.116.097	
2027	16.459.181.953.325	16.641.250.777.628	182.068.824.303	
2028	18.681.171.517.024	18.929.422.759.552	248.251.242.528	
2029	21.203.129.671.822	21.532.218.388.990	329.088.717.168	
2030	24.065.552.177.518	24.492.898.417.476	427.346.239.959	
2031	27.314.401.721.483	27.860.671.949.879	546.270.228.397	
2032	31.001.845.953.883	31.691.514.342.988	689.668.389.105	
2033	35.187.095.157.657	36.049.097.565.149	862.002.407.492	
2034	39.937.353.003.941	41.005.848.480.357	1.068.495.476.416	
2035	45.328.895.659.473	46.644.152.646.406	1.315.256.986.933	
2036	51.448.296.573.502	53.057.723.635.286	1.609.427.061.785	
2037	58.393.816.610.924	60.353.160.635.138	1.959.344.024.214	
2038	66.276.981.853.399	68.651.720.222.470	2.374.738.369.071	
2039	75.224.374.403.608	78.091.331.753.059	2.866.957.349.451	
2040	85.379.664.948.095	88.828.889.869.105	3.449.224.921.010	
2041	96.905.919.716.088	101.042.862.226.107	4.136.942.510.019	
2042	109.988.218.877.760	114.936.255.782.196	4.948.036.904.437	

Table 3. Economic Benefits with the Development of the Sadai Industrial Estate (in Rupiah)

	GRDP Projection Without	GRDP projection with	Economic Benefits
Period	development of the	development of the	
	Sadai Industrial	Sadai Industrial	
2043	124.836.628.426.257	130.739.990.952.248	5.903.362.525.991
2044	141.689.573.263.802	148.716.739.708.182	7.027.166.444.381
2045	160.817.665.654.415	169.165.291.418.058	8.347.625.763.642
2046	182.528.050.517.761	192.425.518.988.040	9.897.468.470.279
2047	207.169.337.337.659	218.884.027.848.896	11.714.690.511.237
2048	235.137.197.878.243	248.980.581.678.119	13.843.383.799.876
2049	266.880.719.591.806	283.215.411.658.861	16.334.692.067.055
2050	302.909.616.736.700	322.157.530.761.954	19.247.914.025.254
2051	343.802.414.996.154	366.454.191.241.723	22.651.776.245.569
2052	390.215.741.020.635	416.841.642.537.459	26.625.901.516.825

Source: South Bangka Regency in Figures, data processed (2021)

In addition to the increase in the GRDP of South Bangka Regency, there are also other economic benefits, such as the opening of new job opportunities, increased activity around the Sadai Industrial Estate, to the emergence or increase in the economic level of the community around the Sadai Industrial Estate when operating. The calculation of economic feasibility is based on a discounted rate of 15%, showing a PV of investment/cost of 2 trillion and a PV of benefit of 7 trillion. Based on the PV of investment and PV of benefits, the Benefit Cost Ratio (BCR) is:

BCR = PV Benefit/PV investment = 7,001 T / 2,086 T = 3,35

With a BCR value of more than 1, it can be said that the development of the Sadai Industrial Estate is economically feasible. An increase in GRDP means an increase in consumption, and an increase in consumption has an impact on increasing investment, and so on, so that the multiplier process will continue. From this perspective, it shows that the development of the Sadai Industrial Estate which has a strategic nature can have a multiple impact so that it will provide economic benefits for regional economic growth.

The results showed that the Sadai Industrial Estate in the Bangka Belitung Islands Province, both the economic aspect with the production approach and the expenditure approach as well as the financial aspect with the method of Payback Period (PP), Average Rate of Return (ARR), Net Present Value (NPV), Profitability Index (PI), and Internal Rate of Return (IRR), both can be said to be feasible. If it is associated with previous studies, the research conducted by Fisu (2020) which analyzes economic and financial feasibility using the BCR (Benefit Cost Ratio) method which compares profits to costs incurred during the economic life of 24 years, which is in line with what was done in this study that is to compare the benefits to costs for 30 years of economic life.

IV. Conclusion

Sadai Industrial Estate (KIS) based on economic issues, with economic advantages determined using GRDP predictions, both utilizing the production and expenditure methods, both of which indicate feasibility. Sadai Industrial Estate (KIS) can determine the criteria utilized in the financial feasibility analysis based on financial elements and cashflow. The findings of measuring the five criteria/indicators and comparing them to the industry average or predetermined targets indicate that the Sadai Industrial Estate is financially feasible.

The government and management should take a significant role in managing the Sadai Industrial Estate throughout its economic life, so that negative effects/risks from both internal and external obstacles can be minimized. Investors' decision to invest in the Sadai Industrial Estate, which covers 400 ha, is entirely justified, as the Sadai Industrial Estate is economically and financially feasible during its economic stage. Subsequent study will allow for an analysis of the Sadai Industrial Estate's economic and financial feasibility at the next stage, which will include an expansion area of 1,000 ha. It is recommended for further researchers to add other financial feasibility methods, such as Discounted Cash Flow (DCF). From a business perspective, feasibility studies on planning and investment can also be conducted to optimize overall results.

References

- Adib, A., Parkhan, A., & Immawan, T. (2018). Analisis Kelayakan Industri Penyamakan Kulit di Kawasan Industri Aceh Ladong, Aceh Besar, Aceh. Teknoin, 24(1), 1–8.
- Anggrainy, S., Bokiu, Z., & Pratiwi Husain, S. (2018). Analisis Perbedaan Kinerja Auditor Dilihat Dari Perspektif Gender (Studi Empiris Pada Kantor Badan Pemeriksa Keuangan Perwakilan Provinsi Gorontalo). Maret, 5(2), 114–126.
- Annaisabiru, E. A. (2020). Tiga Metode Penghitungan Pendapatan Nasional. https://www.ruangguru.com/blog/tiga-metode-penghitungan-pendapatan-nasional
- Fisu, A. A. (2020). Analisis Kelayakan Ekonomi Dan Finansial pada Masterplan Kawasan Industri Perikanan Kota Tarakan. IOP Conference Series Earth & Environmental Science, 469(10), 1315–1755.
- Gaeta-Bernardi, A., & Parente, V. (2016). Organic municipal solid waste (MSW) as feedstock for biodiesel production: A financial feasibility analysis. Renewable Energy, 86, 1422–1432.
- Haedar, H., & Kasran, M. (2017). Kelayakan financial dan ekonomi usaha pembuatan pakan ternak limbah ampas sagu (Metroxylon Sago). Jurnal Manajemen STIE Muhammadiyah Palopo, 3(1).
- Harvey, L., & Ary, G. T. (2018). Analysis of feasibility study of nli Project based on the fluctuation in the reptile hobby industry. Russian Journal of Agricultural and Socio-Economic Sciences, 81(9).
- Hartanti, D. (2020). Sociology Review of Social Phenomenon, Social Rules and Social Technology. Budapest International Research and Critics Institute-Journal (BIRCI-Journal) Vol 3, (2): 1175-1184.
- Kahfi, B. (2019). Mengenal Klasifikasi Industri di Indonesia Terlengkap. https://www.materi4belajar.com/2019/09/mengenal-klasifikasi-industri-di.html
- Kasmir. (2015). Studi kelayakan Bisnis. Prenada Media.
- Kementerian Keuangan. (2017). Panduan Analisis Kelayakan Ekonomi. https://kpbu.kemenkeu.go.id/backend/Upload/guideline/GUIDELINE21060413315367. pdf

- Marlizar, et.al. (2021). Effect of Service Quality and Use of E-Service Technology on Customer Loyalty: A Case Study of Maxim in Aceh. Budapest International Research and Critics Institute-Journal (BIRCI-Journal) Vol 4, (4): 8002-8016.
- Mislam. (2020). Kawasan Industri Sadai Masuk Kawasan Industri Prioritas Program Strategi Nasional dalam Bumi Serumpun Sebalai Provinsi Kepulauan Bangka Belitung.
- Pramusinto, N.D., Daerobi, A., and Hartanto, D. (2020). Labor Absorption of the Manufacturing Industry Sector in Indonesia. Budapest International Research and Critics Institute-Journal (BIRCI-Journal) Vol 3 (1): 549-561.
- Putra, I. G. B. A. W., Prijanto, A., Sukendar, N. M. C., & Arisena, G. M. K. (2020). Kajian analisis biaya dan manfaat (cost-benefit analysis) kawasan agrowisata di Indonesia. AGROMIX, 11(2), 189–201.
- Rangkuti, F. (2012). Studi Kelayakan Bisnis & Investasi. Jakarta: Gramedia Pustaka Utama.
- Yasuha, J. X. L., & Saifi, M. (2017). Analisis Kelayakan Investasi Atas Rencana Penambahan Aktiva Tetap (Studi Kasus pada PT. Pelabuhan Indonesia III (Persero) Cabang Tanjung Perak Terminal Nilam). Jurnal Administrasi Bisnis (JAB), 46(1).