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Quantitative Strategic Planning Matrix (QSPM) Analysis to Determine the Performance Recovery Strategy of the Processing Industry to Support the Green Economy Policy in East Java

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Abstract

The processing industry in East Java experienced a contraction due to the COVID-19 pandemic. The purpose of this research is to evaluate the performance of the processing industry and determine a strategy for recovering the performance of the processing industry to support the green economy policy in East Java. The analysis tool uses quantitative strategic planning matrix analysis. The results of the analysis are increasing cross-sectoral commitment and coordination, increasing collaboration with multi-stakeholders, improving governance of green industry programs, active communication, increasing campaigns and socialization related to green industry, increasing multi-stakeholder capacity, building a good mindset in industrial society, increasing cross-sectoral roles, and improve the performance of the processing industry. The East Java Provincial Government is expected to carry out several strategies for the development of green industries, with the following strategic sequence: increasing cross-sectoral commitment and coordination, increasing collaboration with multi-stakeholders, improving governance of green industry programs, active communication, increasing campaigns and socialization related to green industries, increasing multi-stakeholder capacity, build a good mindset in the industrial community, increase cross-sectoral roles, and improve the performance of the manufacturing industry.

Keywords: QSPM analysis, East Java, industry, green economy

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1. Introduction

Industry is the main and highest contributor to the East Java Economy, from year to year it continues to increase, namely 2015 by 29.28%, 2016 by 28.92%; 2017 was 29.03%, 2018 was 29.73%, 2019 was 30.24% and 2020 was 30.34% (BPS, 2020). Apart from supporting the economy, the manufacturing industry also contributes to the provision of jobs. In order to maintain the economic performance of East Java so that it continues to grow and improve, the growth of the processing industry must be maintained so that it is always above the economic growth of East Java as a whole.

Several large and medium-sized industries in East Java in 2020 experienced a significant decline compared to 2019 (y on y), by -2.49 percent. In the future, it is believed that the processing industry in East Java will continue to be one of the most advantaged sectors to encourage high economic growth in East Java, considering that in this province there are thousands of large, medium and small manufacturers that continue to produce (BPS, 2020).

The problem of implementing green industry in East Java, namely the implementation of green industry implementation between related OPD and industry is still not synchronized, both from the planning and budgeting process, implementation, monitoring, and evaluation. Policies and programs implemented by cross-sectoral OPD have not prioritized green industry implementation interventions that have proven to be effective. The green industry that has been designated as a national priority has not been translated into regional priority programs and activities by cross-sector (Yuan et al., 2020). The allocation and utilization of resources and sources of funds related to the implementation of the green industry has not been effective and efficient. There is no certainty in meeting the need for funding sources for the application of green industry at the district/city level. Potential resources and funding sources are actually available from various sources, but have not been identified and mobilized optimally. There are limited capacity of program organizers, availability, quality, and utilization of data to develop policies related to the implementation of green industries (Tian et al., 2022). At the field (regional) level, various activities related to the application of green industry can be said to have not been integrated, both in setting targets, planning activities, roles and tasks between parties. As a result, the coverage and quality of various services related to support in implementing green industries is less than optimal (Jin et al., 2022). Coordination of green industry implementation programs at various administrative levels is still very weak.

Seeing these conditions, the East Java Provincial Government needs to design the right strategy to develop a green industry, in order to be able to survive in an increasingly fierce competition and face an ever-changing environment. The appropriate development strategy for the East Java Provincial Government is a strategy that is formulated appropriately when the East Java Provincial Government is able to take advantage of its strengths and overcome its weaknesses as well as face opportunities and avoid existing threats. To formulate an effective strategy, a series of internal and external analysis processes are needed to identify key variables that are closely related to development for the East Java Provincial Government in the future.

One of the analytical tools that can assist in determining strategy is the Boston Consulting Group (BCG) analysis, the Strength-Weakness-Opportunity-Threath (SWOT) analysis and the Quantitative Strategic Planning Matrix (QSPM) analysis (Mallick et al., 2020). BCG analysis is an analysis used to assess product position for companies that have a variety of products. SWOT analysis to determine various

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alternative strategies based on the company's internal and external environment (Wan-rong et al., 2013). QSPM analysis is used to determine the best strategy for the company based on the analysis of the company's internal and external factors.

The research gap in this study with previous studies is that in this study the sample is more micro than the previous study. Furthermore, this study after analyzing the SWOT continued by analyzing the QSPM, but the previous study only used SWOT. The problem in this research is that there are weaknesses on the internal side of the East Java Provincial Government which include: the synergy of activities between OPD and industry is not optimal, industrial competitiveness is low, knowledge and awareness of the importance of green industry is still low, depending on the central government, incentive funds are still low, and others. Therefore, a study is needed to find the best strategy that can be generated through QSPM analysis. With this condition, the team is interested in research related to the planning strategy entitled: "Analysis of Quantitative Strategic Planning Matrix (QSPM) to Determine Strategy for Recovery of Manufacturing Industry Performance to Support Green Economy Policy in East Java. The formulation of the problem in this research is how is the performance of the processing industry and the strategy for recovering the performance of the processing industry to support the gren economy in East Java.

2. Theoretical Framework

UNEP in October 2008 sparked the idea of a green economy in order to support efforts to reduce greenhouse gas emissions. The green economy idea aims to provide a great opportunity for how to take advantage of the green economy concept in order to support the implementation of development that is oriented towards environmental and ecosystem aspects.

Related to this idea, there are two things to be achieved. First, the green economy tries to create an economic concept that not only considers macroeconomic issues, especially investment in sectors that produce environmentally friendly products and the production of goods and services that are more environmentally friendly (green investment), but also focuses on how investment contributes. the green employment towards the production of goods and services as well as employment growth in fields related to environmental friendliness (green jobs). Second, the green economy tries to prepare pro-poor green investment guidelines. The main objective is to encourage policy makers to enable all levels of government and the private sector to participate in supporting increased green investment.

In economics, the environment is seen as a composite asset that provides a variety of services. The environment is a special asset because it provides the life support systems that sustain our existence, but it is a fixed asset. As with any asset, we want to enhance, or at least prevent undue depreciation, so that the environment can continue to provide aesthetics and services to sustain life. The environment provides the economy with raw materials, which are converted into consumer products by production processes, and energy which is transformed into fuels. Ultimately, raw materials and energy return to the environment as waste products.

The environment also provides goods and services directly to consumers. The air we breathe, the food and drink we receive, the protection we receive from our homes and clothing, and all the benefits we receive both directly and indirectly come from the

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environment. One significant subclass is ecosystem goods and services that combine benefits derived directly from ecosystems, including biodiversity, breathing air, wetlands, water quality, carbon sequestration and recreation. If the environment is defined broadly enough, the relationship between the environment and the economic system can be considered as a closed system. A closed system is one in which no input (energy or matter) is received from outside the system and no output is transferred outside the system. In contrast, an open system is one in which there is a system of importing or exporting materials or energy.

The process of economic growth has triggered an increasing demand for natural resources. The higher demand for production will lead to the exploitation of these resources so that their availability is running low. If the degradation or decline in environmental quality continues, the needs of future generations will be difficult to meet because basically the carrying capacity of the resources on earth is limited in number.

During the last decade, economists have increasingly realized the importance of the implications that various environmental problems have on efforts to achieve successful economic development. Excessive use of natural resources by not paying attention to their conservation aspects can threaten the entire population of Third World countries. Almost all the decline or degradation of the environment that occurs in the world is caused by two groups of people, namely the richest people and the poorest people. Environmental damage or degradation can reduce the rate of economic growth. This happens because environmental damage causes a decrease in the level of productivity of natural resources and raises various health problems and disturbances in the comfort of life. In the end all that must be borne at a very high cost.

It has been realized that the cause of environmental damage is the increasingly intense economic activity, both in the agricultural sector and in the industrial sector, or in the energy consumption and waste disposal sectors. In fact, a development is said to be successful when a country is able to improve the ability of its people to be able to protect its environment.

Basically, economic growth and the environment are related to each other, it can be seen through the Kuznet environmental curve. Simon Kuznets, who won the Nobel Prize in 1955 made a hypothesis on the Environmental Kuznets Curve. This theory explains the relationship between economic growth and environmental decline or degradation. In the Kuznetz curve it is also explained that the level of pollution or environmental degradation will increase and then decrease or a turning point (Jiang & Zheng, 2021). The decrease in the level of pollution is in line with the increase in people's income. According to this theory, a country with a low income will try to increase state income, namely by means of production and investment that can help increase income without paying attention to environmental quality problems (Shuai & Fan, 2020). This results in income growth will be followed by an increase in pollution levels. This level of pollution will then decrease with continued growth.

A collection of similar companies is called an industry. Based on the Law of the Republic of Indonesia number 3 of 2014 concerning industry, industry is a form of all economic activities that process raw materials and utilize industrial resources so as to produce goods that have added value or higher benefits, including types of industry. Law number 3 of 2014 concerning industry has placed industry as one of the pillars of the economy and has given the government a large enough role to encourage the progress of national industry in a planned manner.

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The Central Bureau of Statistics classifies the manufacturing industry sector in Indonesia based on four categories based on the number of workers working in manufacturing industry companies regardless of how much capital is invested or the power of the machines used. The four categories are: a. The household handicraft industry is a company or processing industry business that has 1-4 workers. b. Small industry is a company or processing industry that has 5-19 workers. c. Medium industry is a company or processing industry that has 20-99 workers. d. Large industry is a company or processing industry that has 100 or more workers. The purpose of this study is to evaluate the performance of the processing industry in East Java, and determine a strategy for recovering the performance of the processing industry to support the Green Economy policy in East Java.

3. Methodology

The data used in this analysis are primary and secondary data. Primary data is in the form of research results from the Economic Section of East Java Province in 2021 and the results of independent research by the research team in 2022. Secondary data related to the processing industry in East Java Province in 2019 sourced from BPS East Java. The analysis technique of this research includes three stages. The first stage is the input stage by analyzing the internal and external factors of the provincial government in implementing the green economy. The second stage is the analysis stage with a SWOT matrix to look for alternative strategies. The third stage is the decision stage using QSPM analysis to determine the sequence of strategic alternatives that have been produced in the previous stage, from the best strategy to the lowest.

4. Results and Discussion

The manufacturing industry in 2020 experienced a contraction due to a decline in global and domestic demand as well as a decline in people's incomes caused by the COVID-19 pandemic. Restrictions on operating hours/operational cessation of several factories, including cigarette factories in East Java in the second quarter of 2020 also weakened the performance of the processing industry. The implementation of Large-Scale Social Restrictions (PSBB) in Semester I 2020 had a profound impact on the decline in domestic and global demand, which in turn contributed to a decline in the overall performance of the manufacturing industry in 2020. Based on Bank Indonesia liaison results, the production capacity of the processing industry in East Java in the first quarter IV/2020 of 70.55 percent, an increase compared to the previous quarter of 66.16 percent.

The results of tracking the performance of the manufacturing industry in the first quarter of 2021 show that the performance of the manufacturing industry in the first quarter of 2021 is expected to improve compared to the fourth quarter of 2020. The COVID-19 vaccination policy and the implementation of new normal habits encourage improvement in the performance of the manufacturing industry. As an effort to maintain people's purchasing power during the pandemic, the Ministry of Finance relaxed PPH article 21 (100%) for workers in the Manufacturing Industry (1189 industrial fields) with an income of up to Rp. 200 million per year for six months, which was extended until June 31, 2021. Policy The reduction of regional taxes and levies for business actors as

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stipulated in the Governor's Regulation No. 20 of 2020 in East Java will also continue until 2021. In addition, the prospect of increasing demand for the processing industry is in line with the performance of East Java's domestic trading partners. This is indicated by the Consumer Survey IKK in the Kalimantan and Sulampua-Bali Nustra regions in the first quarter of 2021 (120.60 and 100.97) which increased compared to the fourth quarter of 2020 (113.60 and 97.46). The improvement in manufacturing industry performance was also supported by credit developments in the manufacturing sector in January 2021 of -19.00% (yoy), a slight increase compared to the fourth quarter of 2020 (-21.81% yoy).

The cumulative calculation results from 12 industrial samples are presented in the following table:

Table 1. Industrial Performance Assessment in Environmental Management

Sampel	Production Aspect	Aspect Waste/emissions	Company Management	Total
1	0,17	0,04	0,038	0,248
2	0,31	0,07	0,025	0,405
3	0,16	0	0,005	0,165
4	0,63	0,14	0,083	0,853
5	0,14	0	0,020	0,160
6	0,185	0	0,030	0,215
7	0,23	0,025	0,067	0,322
8	0,28	0	0,037	0,317
9	0,24	0,15	0,050	0,440
10	0,31	0,16	0,087	0,600
11	0,16	0	0,005	0,165
12	0,185	0	0,030	0,215

Source: Primer Data

Of the 12 industry samples, it shows that there are only 2 industries, namely PT Jasuindo and PT SIER that implement green industries according to the performance appraisal guidelines. The aspect that triggers the magnitude of the value is from the aspect of company management, especially the awards received as evidence of achieving results in environmental management. Referring to table 1 that there are only 2 companies that have a score above 50 so it can be said that these 2 companies, namely PT Jasuindo and PT SIER (20%) are fully committed to implementing green industries. On the other hand, 80% of the industry sample still has not implemented a green industry. This indicates that the majority of small, medium and large scale industries in East Java still have not implemented green industries.

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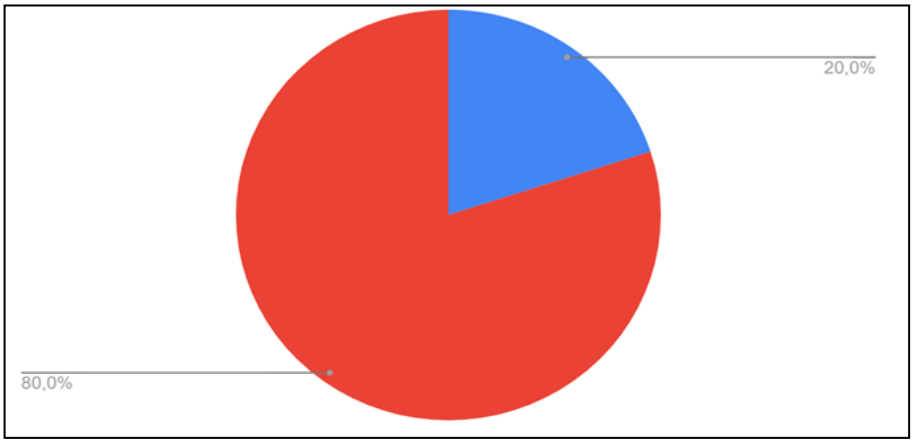

Source: Primer Data

Figure 1. Sample of Industries Implementing Green Industry

The figure 1 shows that 80 percent of the industry has not yet implemented the green industry program, while 20 percent of the industry is running the green industry program. A SWOT analysis was conducted to find various alternative planning strategies for the East Java Provincial Government (East Java Provincial Government). The following are internal factors containing the strengths and weaknesses of the East Java Provincial Government in developing green industries.

Table 2. Matrik Internal Factor Evaluation (IFE)

No	Internal Aspects	Weight	Rating	Value
1	*Strength*			
	➢ There are policies and regulations of the Provincial Government (Perda RPIP) and The Regency Government (Perda RPIK)	0.123	7.75	0.950
	➢ There are cross-sectoral OPD programs and activities related to green industries	0.115	7.25	0.831
	➢ There are reports of activities related to the green industry	0.099	1.25	0.124
	➢ There is a green industry certification body	0.103	6.5	0.668
	➢ There is a green industry performance appraisal program (Proper)	0.111	7	0.775
				3,347
2	*Weakness*			
	➢ The synergy of activities between OPD and industry has not been optimal	0.091	5.75	0.523
	➢ Low industrial competitiveness	0.079	5	0.395
	➢ Knowledge and awareness of the importance of green industry is still low	0.087	5.5	0.478
	➢ Depends on the central government	0.099	6.25	0.618
	➢ Incentive funds are still low	0.095	6	0,569

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No	Internal Aspects	Weight	Rating	Value
				2.583
		1.00		5.930

Source: Primer Data

The following are internal factors containing the opportunities and challenges of the East Java Provincial Government in developing the green industry.

Tabel 3. External Factor Evaluation (EFE) Matrix

No	External Aspect	Weight	Rating	Value
1	*Opportunities*			
	- Commitment of big regional heads related to green industry	0.124	8.5	1.055
	- There is a green industry regulation	0.117	8	0.934
	- There is a green industry program budget allocation	0.106	7.25	0.767
	- There is CSR forum support	0.109	7.5	0.821
	- There are technical guidelines for the green industry for the regions	0.095	6.5	0.617
				4,194
2	*Threaths*			
	- Change of officer / person in charge of the program	0.102	7	0.715
	- Low public awareness regarding green industry	0.102	7	0.715
	- Geographical constraints and access to information	0.080	5.5	0.442
	- The habit of throwing garbage and waste carelessly	0.080	5.5	0.442
	- Environmental health issues	0.084	5.75	0.483
				2.797
		1.00		6,991

Source: Primer Data

Based on the results of data processing on the internal evaluation matrix and the external evaluation matrix, the value of each matrix is obtained, which then becomes input for quadrant analysis.

Internal Evaluation Matrix Value = Total Strengths – Total Weaknesses
= 3.347 – 2.583 = 0.764

External Evaluation Matrix Value = Total Opportunities – Total Threats
= 4.194 – 2.797 = 1.398

The position of implementing green industry in East Java is in Quadrant I (growing). This position illustrates that a growth strategy for implementing green

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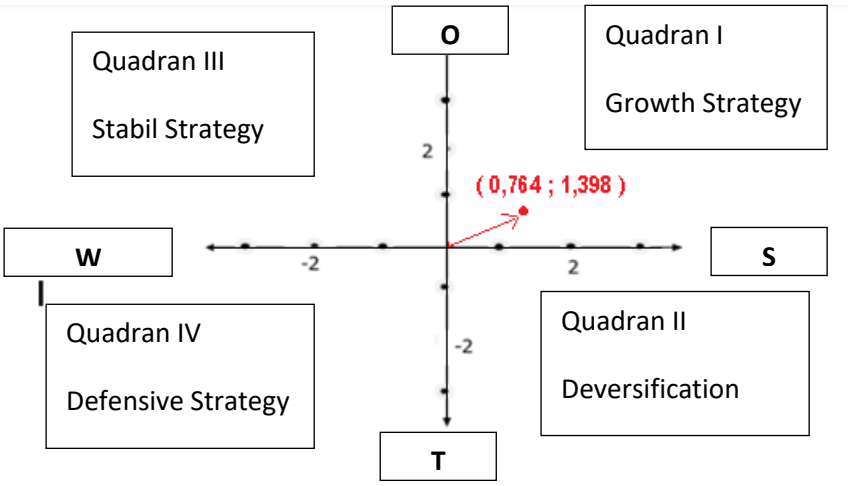
industries is very possible because strengths are greater than weaknesses and opportunities are greater than threats. The position of the quadrant coordinates of the implementation of green industry development in East Java is presented in the following diagram:



Source:(Lee et al., 2021)

Figure 2. Quadran Analysis

Furthermore, to determine the right strategy to be implemented, an Internal – External Matrix (IE Matrix) will be created. The IE matrix is based on two dimensions, namely the total internal strategic factors on the x-axis and the total external strategic factors on the y-axis. The IFE and EFE metrics show the total score for Internal Strategic Factors: 5,930 and the total score for External Strategic Factors: 6,991. Furthermore, the score results will be mapped into the following Internal – External Matrix Table:

	H (7.0-9.00)	M (4.0-6.99)	W (1.0 - 3.99)
H (7.0-9.00)	SEL I	SEL II	SEL III
M (4.0-6.99)	SEL IV	SEL V	SEL VI
W (1.0 - 3.99)	SEL VII	SEL VIII	SEL IX

Source: (Lee et al., 2021)

Figure 3. Internal-External Matrix

The IFE score of 5.930 indicates that the internal factors are being responded to moderately. The score from the EFE calculation of 5.930 indicates that the external factors are being responded to moderately. From this condition, it can be interpreted

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that internal and external factors have moderate influence in determining strategic steps to restore the performance of the Manufacturing Industry to support the Green Industry policy in East Java.

Furthermore, a SWOT matrix will be made for the implementation of the implementation of the green industry in order to produce feasible alternative strategies, as shown in the following matrix table.

Table 4. SWOT Strategy

SWOT MATRIX	**STRENGTHS** There are local government policies and regulations (Regional Regulations related to RPIP) and Regency Governments (RPIK Regional Regulations) 1. There are cross-sectoral OPD programs and activities related to green industry, 2. There are reports of green industry activities 3. There is a green industry certification body 4. There is a green industry performance appraisal program	**WEAKNESS** 1. The synergy of activities between OPD and industry is not optimal 2. Low industrial competitiveness 3. Knowledge and awareness of the importance of green industry is still low 4. Depends on the central government 5. Incentive funds are still low
OPPORTUNITIES 1. Commitment of big regional heads related to green industry 2. There is green industry regulation 3. There is a green industry program budget allocation 4. There is CSR forum support 5. There are technical guidelines for green industry for the regions	**STRATEGI S-O** 1. Increased commitment and coordination across sectors (O1, O2, O4, S1, S2, S3) 2. Improved governance of green industry programs (O3, O5, S4)	**STRATEGI W-O** 1. Capacity building (W2, W3, O5) 2. Collaboration (W1,W4,W5,O1,O2,O3 ,O4) 3. Improved industrial performance (W2, W4)
THREATS 1. Change of official/person in charge of the program 2. Low public awareness regarding green industry 3. Geographical constraints and access to information 4. The habit of throwing garbage and waste carelessly 5. Environmental health issues	**STRATEGI S-T** 1. Campaign and socialization related to green industry (S1, S2, S3, S4, T2, T4, T5) 2. Active communication (T1, T2, T3, T4, T5, S1, S2, S4)	**STRATEGI W-T** 1. Increasing cross-sectoral roles (W1, W2, W4, T1, T3, T4, T5) 2. Build a good mindset in industrial society (T2,T3,T4,T5,WI,W2,W 3,W4)

Source: Primary Data

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Based on the SWOT matrix analysis, the alternative strategies that can be given for the development of green industries are as follows (Aghasafari et al., 2020):

1. Increased commitment and coordination across sectors (SO-1)
2. Improved governance of green industry programs (SO-2)
3. Capacity building (WO-1)
4. Collaboration (WO-2)
5. Improved industrial performance (WO-3)
6. Campaign and socialization related to green industry (ST-1)
7. Active communication (ST-2)
8. Increasing cross-sectoral roles (WT-1)
9. Build a good mindset in industrial society (WT-2)

After obtaining several alternative strategies resulting from the SWOT analysis, the next step is choosing the best strategy. The analytical tool used is the Quantitative Strategic Planning Matrix.

The first step is to determine the weight of the East Java Provincial Government's strengths and weaknesses as table 4 below. Table 4 of the weighting of internal factors shows the highest weight of 0.123 is the existence of policies and regulations of the Provincial Government (Perda RPIP) and Regency Government (Perda RPIK). The weight of cross-sectoral OPD programs and activities related to the green industry is 0.115. Weight There is a green industry performance appraisal program (Proper) of 0.111. The weight of the green industry certification agency is 0.103. The weight of the report on green industry activities is 0.099. The weight depends on the central government of 0.099. The incentive fund is still low at 0.095. The synergy between OPD and industry activities is not optimal at 0.091. Knowledge and awareness of the importance of the green industry is still low at 0.087. While the lowest weight of 0.079 is low industrial competitiveness.

The second step is to determine the weight of external factors in the form of opportunities and threats for the East Java Provincial Government. Table 4 of the weighting of external factors shows the highest weight of 0.124 is the commitment of major regional heads related to the green industry. Weight There is a green industry regulation of 0.117. Weight There is a CSR forum support of 0.109. Weight There is a green industry program budget allocation of 0.106. The weight of the change of officials/responsible for the program and low public awareness related to the green industry is 0.102. Weight There are technical guidelines for green industry for the region of 0.095. The weight of environmental health issues is 0.084. Meanwhile, the lowest weight of 0.08 is geographical constraints and access to information and the weight of the habit of disposing of garbage and waste carelessly.

The third step is the analysis of the QSPM matrix by multiplying the weight of each strategy factor by the score as presented in Table 5.

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Table 5. QSPM Analysis in Industrial Performance Recovery

Key Factor	Weight	Alternative Strategy																	
		STRG 1		STRG 2		STRG 3		STRG 4		STRG 5		STRG 6		STRG 7		STRG 8		STRG 9	
		AS	TAS	AS	TAS	AS	TAS	AS	TAS	AS	TAS	AS	TAS	AS	TAS	AS	TAS	AS	TAS
Strength																			
1. There are policies and regulations of the Provincial Government (Perda RPIP) and Regency Government (Perda RPIK)	0,123	4	0,49	4	0,49	3	0,37	3	0,49	3	0,37	3	0,37	3	0,37	4	0,49	3	0,37
2. There are cross-sectoral OPD programs and activities related to green industry	0,115	4	0,46	4	0,46	4	0,46	3	0,46	3	0,35	4	0,46	3	0,35	3	0,35	4	0,46
3. There are reports of green industry activities	0,099	4	0,4	4	0,4	4	0,4	3	0,3	4	0,4	4	0,4	3	0,3	3	0,3	4	0,4
4. There is a green industry certification body	0,103	4	0,41	4	0,41	4	0,41	3	0,31	3	0,31	4	0,41	4	0,41	2	0,21	3	0,31
5. There is a green industry performance appraisal program (Proper)	0,111	4	0,44	3	0,33	4	0,44	3	0,33	3	0,33	3	0,33	4	0,44	2	0,22	3	0,33

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Key Factor	Weight	Alternative Strategy																	
		STRG 1		STRG 2		STRG 3		STRG 4		STRG 5		STRG 6		STRG 7		STRG 8		STRG 9	
		AS	TAS	AS	TAS	AS	TAS	AS	TAS	AS	TAS	AS	TAS	AS	TAS	AS	TAS	AS	TAS
Weakness																			
1. The synergy of activities between OPD and industry is not optimal	0,091	4	0,36	4	0,36	3	0,27	4	0,36	4	0,36	3	0,27	4	0,36	3	0,27	3	0,27
2. Low industrial competitiveness	0,079	4	0,32	4	0,32	3	0,24	4	0,32	3	0,24	4	0,32	4	0,32	3	0,24	3	0,24
3. Knowledge and awareness of the importance of green industry is still low	0,087	4	0,35	4	0,35	4	0,35	4	0,35	3	0,26	4	0,35	3	0,26	3	0,26	4	0,35
4. Depends on the central government	0,099	4	0,4	4	0,4	4	0,4	4	0,4	2	0,2	4	0,4	4	0,4	4	0,4	3	0,3
5. Incentive funds are still low	0,095	3	0,29	4	0,38	3	0,29	4	0,38	4	0,38	4	0,38	4	0,38	4	0,38	3	0,29
Opportunity																			
1. Commitment of big regional heads related to green industry	0,124	4	0,5	4	0,5	3	0,37	4	0,5	2	0,25	4	0,5	4	0,5	4	0,5	3	0,37
2.There are green industry regulations	0,117	4	0,47	4	0,47	3	0,35	4	0,47	3	0,35	4	0,47	3	0,35	4	0,47	3	0,35

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Key Factor	Weight	Alternative Strategy																	
		STRG 1		STRG 2		STRG 3		STRG 4		STRG 5		STRG 6		STRG 7		STRG 8		STRG 9	
		AS	TAS	AS	TAS	AS	TAS	AS	TAS	AS	TAS	AS	TAS	AS	TAS	AS	TAS	AS	TAS
3. There is a budget allocation for the green industry program	0,106	4	0,42	4	0,42	3	0,32	4	0,42	3	0,32	3	0,32	4	0,42	2	0,21	3	0,32
4. There is CSR forum support	0,109	4	0,44	4	0,44	3	0,33	4	0,44	3	0,33	3	0,33	4	0,44	2	0,22	4	0,44
5. There are technical guidelines for the green industry for the regions	0,095	4	0,38	4	0,38	3	0,29	4	0,38	3	0,29	2	0,19	4	0,38	3	0,29	4	0,38
Threat																			
1. Change of official/person in charge of the program	0,102	3	0,31	4	0,41	3	0,31	4	0,41	3	0,31	2	0,2	4	0,41	3	0,31	4	0,41
2. Low public awareness regarding green industry	0,102	4	0,41	3	0,31	3	0,31	4	0,41	3	0,31	3	0,31	4	0,41	2	0,2	3	0,31
3.Geographical constraints and access to information	0,08	4	0,32	4	0,32	3	0,24	4	0,32	2	0,16	3	0,24	3	0,24	3	0,24	3	0,24
4. The habit of throwing garbage and waste carelessly	0,08	4	0,32	3	0,24	4	0,32	4	0,32	3	0,24	4	0,32	4	0,32	3	0,24	2	0,16
5. Environmental health	0,084	4	0,34	3	0,25	4	0,34	4	0,34	3	0,25	4	0,34	4	0,34	3	0,25	3	0,25

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Key Factor	Weight	Alternative Strategy																	
		STRG 1		STRG 2		STRG 3		STRG 4		STRG 5		STRG 6		STRG 7		STRG 8		STRG 9	
		AS	TAS	AS	TAS	AS	TAS	AS	TAS	AS	TAS	AS	TAS	AS	TAS	AS	TAS	AS	TAS
issues																			
TOTAL			7,81		7,63		6,78		7,69		5,98		6,89		7,38		6,03		6,53

Source: Primary Data

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The results of the QSPM matrix analysis are as presented in Table 6 below.

Table 6. The Order of the Strategy Results of the East Java Provincial Government QSPM Matrix Analysis

Ranking	Strategy	TAS Value
1	Increased commitment and cross-sectoral coordination	7,81
2	Collaboration	7,69
3	Improved governance of green industry programs	7,63
4	Active communication	7,38
5	Green Industry related campaigns and outreach	6,89
6	Capacity building	6,78
7	Building a good mindset in industrial society	6,53
8	Increasing cross-sectoral roles	6,03
9	Industrial performance improvement	5,98

Source: Primary Data

Managerial implications that can be used by the East Java Provincial Government as an alternative strategy for the recovery of the processing industry based on the results of research that has been carried out. The East Java Provincial Government needs to affirm its commitment to the sustainable recovery of the processing industry through the implementation of a green economy. Cross-sectoral coordination is required, namely the Economy Section, the Industry and Trade Office, the Environment Agency and other agencies. This commitment and coordination is important to emphasize that the East Java Provincial Government is serious in supporting central policies related to the implementation of the green economy. The problems that arise in implementing a green economy are quite complex. For that we need to address this issue through an integrated and collaborative approach. An integrated policy is needed in the form of a breakthrough from an economic and environmental perspective to be able to completely overcome this problem. Multi-stakeholder collaboration is needed to solve all problems. The existence of green industry program governance policies and practices supports the East Java Provincial Government's commitment to doing the right thing, by providing a framework for implementing openness, integrity, trust and compliance in every activity. This governance refers to the values of SDGs (sustainable development goals) and KHLS (Strategic Environmental Studies) to ensure that the principles of sustainable development have become the basis and are integrated in industrial development in East Java. Improved governance and increased incentives in various supporting aspects, such as incentives in the economic sector, incentives for social values, as well as incentives in the field of law and enforcement.

Active communication is needed by the East Java Provincial Government to unite the power of multi-stakeholders in the implementation of the green economy. Active communication becomes the glue of voluntary cooperative relations between various parties where all agree to work together to achieve common goals or to carry out certain tasks and share risks, responsibilities, resources and benefits. The East Java Provincial Government is very committed to improving industrial performance while maintaining the environment. Various policies and regional stakeholder agreements are directed at securing the environment. East Java's economic transformation was chosen with sustainable industrial development. The basic foothold is to build industry to accelerate equitable distribution of

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people's welfare, but the environment is well maintained. In this way, the East Java Provincial Government wants to show its commitment to assisting the campaign and socialization of industrial development by building a solid green economy structure in a sustainable manner. The East Java Provincial Government needs to increase the capacity of multi-stakeholders in implementing the green economy. Adequate literacy related to the green economy is absolutely necessary for multi-stakeholders, especially in the industry. The hope is that the industry has carried out industrial revitalization in a sustainable manner, one of which is through energy efficiency policies (Barak & Javanmard, 2020).

The change in a good multi-stakeholder mindset is the main key for the recovery of the processing industry in order to achieve the green economy target. The industrial community is expected to choose green technology and new renewable energy (EBT) (Wan-rong et al., 2013). Currently the world is facing formidable challenges in dealing with the impacts of climate change, and due to the COVID-19 pandemic, these impacts are starting to be felt in various sectors, especially the manufacturing industry. Although it has been recovering since the fourth quarter of 2020, cross-sectoral cooperation is still needed so that our economic system can adapt to these conditions (Mallick et al., 2020). It is hoped that the East Java Provincial Government can play an important role in encouraging and accelerating the development of a sustainable green economy in Indonesia. The performance of the processing industry in East Java continues to show improvement starting in the fourth quarter of 2020. This improvement in the manufacturing sector is in line with the Covid-19 vaccination policy, and the implementation of new normal habits that encourage improvement in the performance of the manufacturing industry (Hosseini et al., 2021). So far, manufacturing and processing industries have contributed to the East Java economy by 30 percent. With a fairly large contribution, a strong push is needed so that economic growth can be faster. Various government stimulus efforts as well as the ease of business permits that have been prepared by the East Java Provincial Government in the future can convince entrepreneurs to want to invest.

5. Conclusion

The conclusion obtained is that although it had contracted due to the COVID-19 pandemic, the performance of the processing industry in East Java continued to show improvement starting in the fourth quarter of 2020. This improvement in the manufacturing sector is in line with the Covid-19 vaccination policy, and the implementation of new normal habits that encourage improvement in the performance of the manufacturing industry. The right strategy to be implemented by the East Java Provincial Government in accordance with the sequence based on the QSPM matrix analysis is increasing cross-sectoral commitment and coordination, collaboration, improving green industry program governance, active communication, campaigns and socialization related to green industry, capacity building, building a good mindset in industrial society, increasing cross-sectoral roles, and improving industrial performance. The suggestions that can be given are that the East Java Provincial Government is expected to carry out several strategies for the development of green industries, with the following strategic sequence: increasing cross-sectoral commitment and coordination, increasing collaboration with multi-stakeholders, improving governance manage green industry programs, active communication, increase campaigns and socialization related to green industry, increase multi-stakeholder capacity, build a good mindset in industrial society, increase cross-sectoral roles, and improve processing industry performance an. The suggestion for the industrial world is that it is necessary to revitalize

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through green technology and new renewable energy so that corporate governance in the future can be more effective and efficient.

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