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GREEN ECONOMY IMPLEMENTATION STRATEGY FOR MSMEs IN ACEH BESAR TO ENCOURAGE SUSTAINABLE ECONOMIC DEVELOPMENT

Saiful Bahgia[1], Sari Yulis Terfiadi[2], Hamdani[3], Hasbi[4]
[1]Prodi Akuntansi, Politeknik Kutaraja, Aceh, Indonesia,
[2]Prodi Kewirausahaan, Universitas Malikussaleh, Aceh, Indonesia
[3]Prodi Manajemen Keuangan Sektor Publik, Politeknik Kutaraja, Aceh, Indonesia
[4]Lembaga Riset dan Inovasi Kreyat Center, Aceh, Indonesia

Email: saifulbahgia@poltekkutaraja.ac.id[1], sariyulis@unimal.ac.id[2], hamdani@poltekkutaraja.ac.id[3], hasbi@kreyatcenter.com[4]

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Abstract

The Sustainable Development Goals (SDGs) are a global agenda consisting of 17 main goals and 169 targets that cover social, economic, and environmental dimensions simultaneously. Overall, many MSMEs still implement conventional and non-environmentally friendly business practices. This study aims to identify suitable strategies for MSMEs in implementing the green economy concept and the impact on sustainable economic development in Aceh Besar Regency. This research is a field research, with a quantitative approach. The research sample amounted to 50 MSMEs consisting of 30 culinary sectors (70%) and 20 artisan sectors (30%). Data collection techniques through questionnaires, interviews and direct observation of MSMEs. Data analysis through quantitative methods with a SWOT analysis approach and Internal Factor Analysis (IFAS) and External Factor Analysis (EFAS) to formulate suitable strategies for MSMEs. The results of the study show that the IFAS analysis obtained a result of 3.8 as (X) and the EFAS analysis obtained a result of 3.4 as (Y), after obtaining these results, an alternative aggressive strategy (SO) was obtained in implementing the concept of green economy and sustainable economic development in Aceh Besar Regency. So that MSMEs currently have the potential of resources, management and products in utilizing cooperation opportunities to maximize marketing, knowledge and environmental awareness as well as regulatory support from the local government. Therefore, the results of this study can be used as a theoretical basis in the preparation of strategic policies by the government. The follow-up suggestions from the results of this study are in the form of a participatory approach as an approach that aims to be able to develop the capacity of MSMEs through training, workshops and technical guidance in the context of implementing a green economy in Aceh Besar Regency based on the phases that have been put forward in this study.

Keywords: ***Strategic Management; Green Economy; Sustainable Development; SWOT Analysis; MSMEs***

INTRODUCTION

The Sustainable Development Goals (SDGs) are a global agenda consisting of 17 main goals and 169 targets that simultaneously cover social, economic, and environmental dimensions (SDGs Center, University of North Sumatra, 2024). Aceh Besar is a district with natural resources and great potential for economic development while taking environmental and social aspects into account. The implementation of the concept of a sustainable green economy is closely related to the definition of "sustainable development" (Purnomo Retno, 2023). Often, economic growth targets go hand in hand with negative impacts on the environment, such as pollution, depreciation of natural resources, and even the loss of habitats for surrounding living things. Due to the pressure on sustainability, industry must be ready to adopt Industry 4.0 applications – a circular economy, and resources must be managed appropriately and effectively by sharing and integrating advanced Industry 4.0 technologies and pragmatic practices such as a circular economy are needed to achieve optimal sustainable development while maintaining commercial success (Abdul-Hamid et al., 2023). Micro, small, and medium enterprises (MSMEs) have a crucial role in maintaining economic sustainability in Aceh Besar.

The criteria for MSMEs are differentiated by capital and annual turnover. Micro-enterprises are those with capital of 1 billion rupiah or less and an annual turnover of no more than 2 billion rupiah. Small-enterprises have capital of 1 billion rupiah to 5 billion rupiah and an annual turnover ranging from 2 billion to 15 billion rupiah. Medium-enterprises have capital between 5 billion and 10 billion rupiah and an annual turnover of 15 billion to 50 billion rupiah (Bahgia et al., 2023). MSMEs play a vital role in Aceh Besar, significantly contributing to employment and community income. To date, the number of MSMEs in Aceh has reached 424,850, consisting of 423,178 micro-enterprises, 1,470 small-enterprises, and 202 medium-enterprises. Most of these MSMEs are located in the eastern coastal areas and around the provincial capital of Aceh, including Aceh Besar (Acehbesarkab.go.id, 2025). Overall, many MSMEs still employ conventional and non-environmentally friendly business practices. Therefore, implementing a green economy is highly urgent and relevant for Aceh Besar Regency. Gao X, et al. (2024), stated that companies experienced a greater decline in export value, export quantity, export variety, and export destinations in more polluting industries.

To develop a good plan, it is necessary to understand all the strengths and weaknesses of the company after the establishment of a special court in China. Companies reallocate available resources from more polluting to less polluting varieties, thus transforming into environmentally friendly ones through internal adjustments. A green economy is not only a concept and theory, but also a practical approach that can significantly benefit society and the environment. Studies show that implementing a green economy helps mitigate climate change, energy transition, resource efficiency, create green jobs, and improve welfare. Challenges include the need for a policy framework, innovative funding, and private sector involvement (Georgeson, Maslin, & Poessinouw, 2017) and (Zhang, et al., 2019). The strategy for implementing a green economy in Aceh Besar is expected to have a positive impact, particularly on MSMEs, and to provide a solution to address environmental and social challenges. This study aims to identify suitable strategies for MSMEs to implement the green economy concept and its impact on sustainable economic development in Aceh Besar Regency. This is expected to transform MSMEs into economic actors aligned with green economy principles. Based on the aforementioned background, it is necessary to conduct an in-depth study and analysis of "Green Economy Implementation Strategies for MSMEs in Aceh Besar to Promote Sustainable Economic Development." The research questions focused on this research are: What are the strengths and weaknesses of MSMEs in implementing a green economy in Aceh Besar? What are the potential threats and opportunities that MSMEs can exploit in implementing a green economy in Aceh Besar?

State of the Art

Based on the results of previous research, this study serves as a foundation and reference for demonstrating the differences and novelties in the application of the green economy concept to MSMEs. Among other things, the application of the green economy concept in tourism development in Banda Aceh has not yet been fully implemented, with supporting facilities and infrastructure still very minimal. The biggest obstacle is changing the mindset of business actors, tourists, and the local community (Pahlevy, 2022). Another study, examining the implementation of the green economy in MSMEs in Gubeng District, Surabaya City, also found that it has not yet been optimally implemented, with several obstacles still needing to be resolved (Manika et al., 2024). Furthermore, research conducted by Arsvendo (2022) in Kejapanan Village, Gempol District, Pasuruan Regency, used green economy theory. This study examined economic, social, and environmental variables. The green economy concept was not yet optimal in MSMEs in Kampung Pia. Due to the large number of MSMEs, environmental balance needs to be further improved. Research in Palopo City, which examined the application of the green economy concept to cafe businesses in the Tanjung Ringgit Port area, has not yet been realized and has the potential to be implemented (Ismi, 2022). Another study by Pratiwi (2023) stated that the application of the green economy concept to MSMEs in Karetan Market, Walenrang District, has not been optimally implemented because it has not met the three green economy indicators. This research has focused on the implementation of the green economy concept in MSMEs. However, it is still general in nature and lacks specific analytical skills, requiring in-depth studies with distinct local wisdom. This analytical approach and study of the application of the green economy concept in Indonesia has never been conducted to promote sustainable economic development for MSMEs in Aceh Besar. This is an important aspect of this research and a unique feature that distinguishes it from previous research.

Research Novelties

The following are several points worth highlighting that differentiate this study from the previous research mentioned above:

1. This study analyzes the strengths and opportunities for MSMEs in more depth and identifies the weaknesses and threats they face in implementing a green economy.
2. This study utilizes the EFAS Matrix, IFAS Matrix, and SWOT Diagram, which have not been found in previous research, facilitating problem-solving and providing adaptive solutions.
3. Holistically, this study provides concrete solutions for implementing a green economy to encourage sustainable economic development in Aceh Besar Regency through a strategic formulation.

These three aspects have not been found in previous research, making this study novel.

LITERATURE REVIEW

The Green Economy Concept

Hassan Al-Taai, SH (2021), defines the green economy and sustainable development as an important study that has attracted the attention of researchers and scientists due to its importance for the development and growth of society in all its aspects. It is the core of sustainable development and its main pillar for growth, development, and prosperity. The green economy is considered a concrete and ideal model of sustainable development, particularly economic development, which impacts all aspects of life. The concept emerged in recent years due to its importance in reducing poverty and destitution, improving the standard of living of the population, and ensuring their well-being. It should be noted that the role of sustainable development can only be activated through the implementation of green economy programs and the provision of a healthy environment. The concept of sustainable development is the optimal utilization of material and human energy, support, and employment opportunities, as well as efforts to develop and increase their effectiveness by guaranteeing the rights of everyone, both now and in the future, including human and natural resources. It also emphasizes that humans have invested natural resources in a complete manner without depletion and bequeathed their rights to future generations, as well as ensuring a fair distribution of wealth.

Strategic Management

Rasyid A, et al. (2022), state that strategic management is a process or series of fundamental and comprehensive decision-making activities, accompanied by the establishment of procedures for carrying them out, then implemented by all levels within an organization or company with the hope of achieving goals. Strategic management can also be defined as a collection of actions that result in the formulation and implementation of plans designed to achieve organizational or company goals. According to P. Ii & Robinson (2014), strategic management is a continuous process. It begins with strategy formulation, continues with implementation, and then moves towards reviewing and refining the strategy. There are four basic elements used by managers to implement strategy: structure, leadership, culture, and reward systems (motivation). Strategy implementation is the process of putting formulated strategies into action. This includes: organizational structure; human resource management; budgeting and resource allocation; leadership and communication; and monitoring and controlling implementation results. According to Iskandar, strategy implementation is the most difficult stage because it involves human behavior, internal systems, and organizational culture. Strategy is the core of strategic management, and its implementation is a complex yet crucial process for achieving organizational success. Effective understanding and implementation will determine whether a designed strategy can provide a sustainable competitive advantage.

Sustainable Economic Development (SDGs)

Nishitami K., et al. (2024), explain that the United Nations Sustainable Development Goals (SDGs) call on all companies to apply their creativity and innovation to solving sustainable development challenges. Therefore, it is argued that companies should address the SDGs by implementing a shared value creation (CSV) framework. There is an ongoing debate about whether companies' motivations for sustainability management are economic (strategic) or ethical (social responsibility). Companies implement sustainability management because of economic opportunities (as in conventional economics). Although the concept of the three pillars encompassing economic, social, and ecological perspectives has become very popular, the reality is that the economic perspective still dominates corporate decision-making. Because companies are profit-seeking organizations, it makes sense for them to make sustainable development (in the form of the SDGs) their economic motivation.

MSMEs

According to Wube M C., & Atwal H. (2024), MSMEs are classified by international organizations such as the World Bank, the United Nations (UN), and the International Monetary Fund (IMF) based on certain criteria,

including number of employees, total assets, and annual sales. Variations in market structure, production structure, market power, policies, and legal frameworks across countries can also impact the classification of MSMEs. Companies employing fewer than 250 people and having annual sales of no more than 50 million euros or a total annual balance sheet of no more than 43 million euros are classified as micro, small, and medium-sized enterprises (SMEs) by the European Commission. The definition of MSMEs in Indonesia according to Government Regulation Number 7 of 2021 is: (a.) Microenterprises are productive businesses owned by individuals and/or individual business entities that meet the criteria for Micro Enterprises as outlined in Table 1 below; (b.) Small Business is a stand-alone productive economic enterprise, carried out by an individual or business entity that is not a subsidiary or branch of a company owned, controlled, or part of either directly or indirectly a Medium Enterprise or large business that meets the criteria of a Small Business as referred to in Table 1 below; and (c.) Medium Business is a stand-alone productive economic enterprise, carried out by an individual or business entity that is not a subsidiary or branch of a company owned, controlled, or part of either directly or indirectly a Small Business or large business that meets the criteria of a Medium Business as stipulated in Table 1 below.

Table 1. Classification and criteria of MSMEs

Business Classification	Criteria	
	Capital	Annual sales results
Micro-enterprises	1 billion and under*	2 billion and under
Small-enterprises	1 billion to 5 billion*	2 billion to 15 billion
Medium-enterprises	5 billion to 10 billion*	15 billion to 50 billion

* Does not include land and buildings where the business is located
Source: Republic of Indonesia Government Regulation Number 7 of 2021

METHOD

This field research was conducted in Aceh Besar Regency, Aceh Province, using both quantitative and qualitative approaches. The population comprised all MSMEs in Aceh Besar Regency. The sample consisted of 50 MSMEs, comprising 30 from the culinary sector (70%) and 20 from the artisan sector (30%). Data collection techniques included questionnaires, interviews, and direct observation of the MSMEs. The data consisted of primary and secondary data. Primary data was obtained from direct field observations, interviews, and questionnaires. Secondary data consisted of literature, laws and regulations, and publications from government websites or other official websites related to the implementation of a green economy in Aceh Besar for sustainable economic development. Data analysis was conducted quantitatively using a SWOT analysis approach, Internal Factor Analysis (IFAS), and External Factor Analysis (EFAS). The collected data were used to provide a quantitative overview of the respondents' responses to the questionnaire. The next step is to collect all the data quantitatively for analysis through:

1. Internal Factor Analysis Summary (IFAS).
   After identifying the business's internal strategic factors, an IFAS table is compiled, summarizing the strengths and weaknesses of the MSME. Each factor is weighted from 0.0 (lowest) to 1.0 (highest), and then given a rating from 1 (major weakness) to 4 (major strength). To determine the score, the weight is multiplied by the rating. The total score ranges from 1.0 (weak internal) to 5.0 (strong internal).

2. External Factor Analysis Summary (EFAS)
   To analyze external factors (EFAS), opportunities and threats are analyzed, weighted from 0.0 (not important) to 1.0 (very important). Then, a rating of 1 to 4 is assigned based on the effectiveness of the business strategy. The weights are then multiplied by the rating to obtain a score, and all scores are summed to obtain a total score. The total score ranges from 1.0 (poor response to opportunities and threats) to 5.0 (excellent response to opportunities and threats).

3. SWOT Diagram
   The SWOT matrix has four aspects: strengths (S), weaknesses (W), opportunities (O), and threats (T).

The SWOT analysis matrix will generate four possible strategic alternatives: S-O Strategy, W-O Strategy, W-T Strategy, and S-T Strategy.

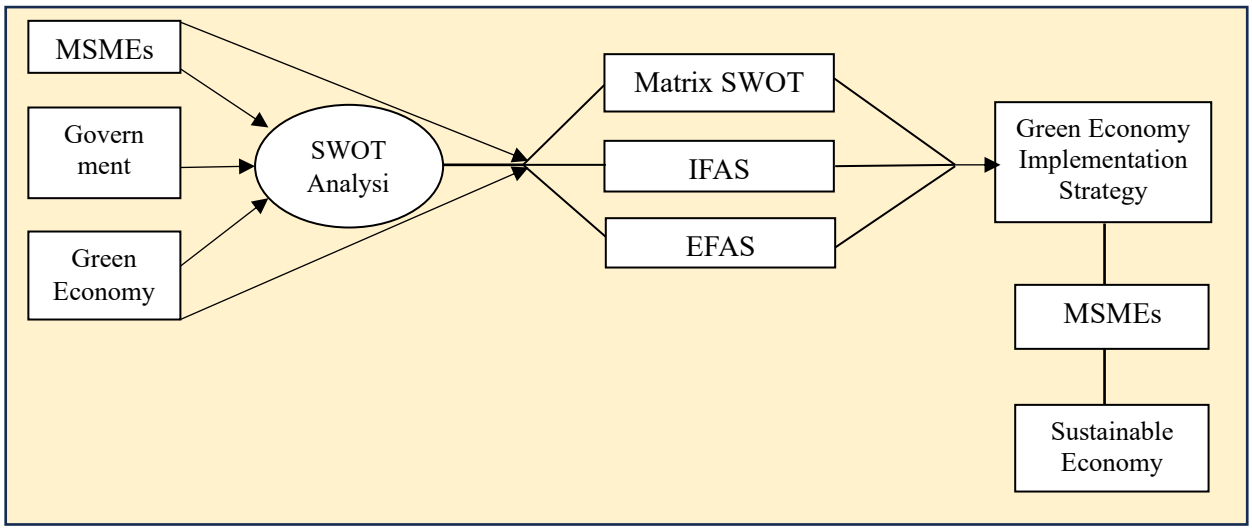

Figure 1. Conceptual Framework of the Research
Source: Research Data (2025)

For a thorough SWOT analysis, it's important to consider internal and external factors, which are the most important components of the SWOT analysis. This factor analysis uses the IFAS and EFAS matrices (Wiswasta et al., 2018).

Internal Strategic Factor Analysis Summary (IFAS)

Table 2. IFAS Analysis Matrix

Internal Factor	Code	Weight	Rating	Weight X Rating
Strengths:				
• Business awareness of the importance of environmental sustainability	S1	0,0 –1,0	1-5	Weight results X rating
• Products use environmentally friendly and recyclable materials	S2	0,0 – 1,0	1-5	Weight results X rating
• Businesses have access to information and training on the green economy	S3	0,0 – 1,0	1-5	Weight results X rating
• Business management has implemented a green economy	S4	0,0 – 1,0	1-5	Weight results X rating
• Production costs are more efficient when implementing a green economy	S5	0,0 – 1,0	1-5	Weight results X rating
Total		**1**		**X**
Weaknesses:				
• Lack of understanding or information about green economy practices	W1	0,0 – 1,0	1-5	Weight results X rating

• Insufficient business capital to adopt environmentally friendly technologies	W2	0,0 – 1,0	1-5	Weight results X rating
• Lack of trained workforce in green economy practices	W3	0,0 – 1,0	1-5	Weight results X rating
• Limitations in waste management or business emissions	W4	0,0 – 1,0	1-5	Weight results X rating
• Lack of environmentally-based business strategies	W5	0,0 – 1,0	1-5	Weight results X rating
Total		**1**		**X**

Source: Wiswasta., et al. (2018)

External Strategic Factor Analysis Summary (EFAS)

Table 3. EFAS Analysis Matrix

External Factor	Code	Weight	Rating	Bobot X Rating
Opportunities:				
• There is increasing market demand for environmentally friendly products	O1	0,0 –1,0	1-5	Weight results X rating
• There is training or support from the government regarding the green economy	O2	0,0 –1,0	1-5	Weight results X rating
• There are guidelines or regulations/qanuns from the government regarding the green economy	03	0,0 –1,0	1-5	Weight results X rating
• Consumer awareness of environmental issues is increasing	O4	0,0 –1,0	1-5	Weight results X rating
• Collaboration with environmental institutions/communities is possible	O5	0,0 –1,0	1-5	Weight results X rating
Total		**1**		**Y**
Threats:				
• There are no clear regulations regarding green economy obligations for MSMEs.	T1	0,0 –1,0	1-5	Weight results X rating
• The price of environmentally friendly raw materials is relatively higher.	T2	0,0 –1,0	1-5	Weight results X rating
• Competition with cheaper conventional products.	T3	0,0 –1,0	1-5	Weight results X rating
• Lack of incentives or policy support from the government.	T4	0,0 –1,0	1-5	Weight results X rating
• Consumers are not yet fully aware of the value of green products.	T5	0,0 –1,0	1-5	Weight results X rating
Total		**1**		**Y**

Source: Wiswasta., et al. (2018)

RESULTS AND DISCUSSION

This research is a field research, located in Aceh Besar Regency, Aceh Province. The data collection process began in May to July 2025. The sample in this study was 50 MSMEs consisting of 30 culinary sectors (70%) and 20 artisan sectors (30%). Data collection techniques through distributing questionnaires, interviews and direct observation of MSMEs. The data consists of primary data and secondary data, then data analysis using the IFAS and EFAS Analysis Methods and SWOT Diagrams then presented the results. The results of the research data analysis using the calculation formula approach as follows:

$$\text{Weight Calculation Formula} = \frac{Total\ number\ of\ Respondents'\ Answers\ per\ factor}{Total\ Number\ of\ Respondents'\ Answers\ (S+W)}$$

$$\text{Rating Calculation Formula} = \frac{Total\ number\ of\ respondents'\ answers\ per\ factor}{Total\ Number\ of\ Respondents}$$

Then the results obtained are as presented in Table 4 and Table 5 of the IFAS and EFAS Analysis Matrix below.

Internal Strategic Factor Analysis Summary (IFAS)

The results of the IFAS analysis are presented in Table 4 below.

Table 4. IFAS Analysis Results Matrix

Internal Factor	Code	Weight	Rating	Weight X Rating
Strengths:				
• Business awareness of the importance of environmental sustainability	S1	0,11	4,1	0,5
• Products use environmentally friendly and recyclable materials	S2	0,10	3,7	0,4
• Businesses have access to information and training on the green economy	S3	0,08	3,0	0,2
• Business management has implemented a green economy	S4	0,10	3,7	0,4
• Production costs are more efficient when implementing a green economy	S5	0,10	3,7	0,4
Weaknesses:				
• Lack of understanding or information about green economy practices	W1	0,10	3,9	0,4
• Insufficient business capital to adopt environmentally friendly technologies	W2	0,09	3,8	0,3
• Lack of trained workforce in green economy practices	W3	0,10	3,9	0,4
• Limitations in waste management or business emissions	W4	0,11	4,0	0,4
• Lack of environmentally-based business strategies	W5	0,11	4,1	0,5
Total		**1,00**		**3,8**

The results of the IFAS analysis obtained results on the internal factor side of 3.8 which originates from the strengths and weaknesses of MSMEs as (X). The internal factors analyzed in this research consist of: Business

awareness of the importance of environmental sustainability; Products use environmentally friendly and recyclable materials; Businesses have access to information and training on the green economy; Business management has implemented a green economy; and Production costs are more efficient when implementing a green economy; as a component of MSME strength, and consists of: Lack of understanding or information about green economic practices; Insufficient business capital to adopt environmentally friendly technologies; Lack of trained workforce in green economy practices; Limitations in waste management or business emissions; and Lack of environmentally-based business strategies; as a component of MSME weaknesses.

External Strategic Factor Analysis Summary (EFAS)
Hasil analisis IFAS disjikan dalam Tabel 4 berikut ini.

Table 4. EFAS Analysis Results Matrix

External Factor	Code	Weight	Rating	Bobot X Rating
Opportunities:				
• There is increasing market demand for environmentally friendly products	O1	0,11	3,8	0,4
• There is training or support from the government regarding the green economy	O2	0,05	1,8	0,1
• There are guidelines or regulations/qanuns from the government regarding the green economy	03	0,08	2,6	0,2
• Consumer awareness of environmental issues is increasing	O4	0,11	3,8	0,4
• Collaboration with environmental institutions/communities is possible	O5	0,09	2,8	0,3
Threats:				
• There are no clear regulations regarding green economy obligations for MSMEs.	T1	0,13	4,1	0,5
• The price of environmentally friendly raw materials is relatively higher.	T2	0,08	2,5	0,2
• Competition with cheaper conventional products.	T3	0,11	3,5	0,4
• Lack of incentives or policy support from the government.	T4	0,13	4,1	0,5
• Consumers are not yet fully aware of the value of green products.	T5	0,11	3,6	0,4
Total		**1,00**		**3,4**

The results of the EFAS analysis obtained results on the external factor side of 3.4 which originates from the opportunities and challenges of MSMEs as (Y). The external factors in this research consist of: There is increasing market demand for environmentally friendly products; There is training or support from the government regarding the green economy; There are guidelines or regulations/qanuns from the government regarding the green economy; Consumer awareness of environmental issues is increasing; and Collaboration with environmental institutions/communities is possible; as a component of MSME opportunities, and consists of: There are no clear

regulations regarding green economy obligations for MSMEs; The price of environmentally friendly raw materials is relatively higher; Competition with cheaper conventional products; Lack of incentives or policy support from the government; and Consumers are not yet fully aware of the value of green products, as a component of the MSME challenge. In a SWOT analysis, after analyzing internal factors (Strengths–Weaknesses) and external factors (Opportunities–Threats), the research object is mapped into a SWOT Matrix consisting of four quadrants. Quadrant I (Strengths–Opportunities/SO) supports an aggressive strategy, Quadrant II (Strengths–Threats/ST) supports a diversification strategy, Quadrant III (Weaknesses–Opportunities/WO) supports a turnaround strategy, and Quadrant IV (Weaknesses–Threats/WT) supports a differentiation strategy.

SWOT Diagram

The SWOT diagram resulting from the IFAS and EFAS factor analysis is presented in Figure 2 below.

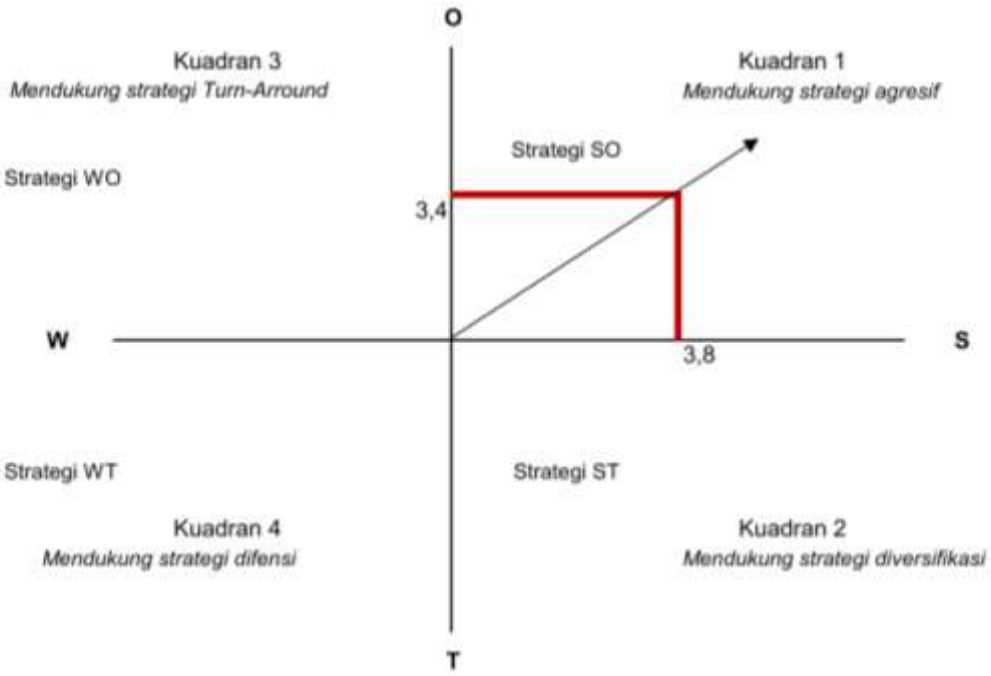

Figure 2. SWOT Diagram of IFAS and EFAS Analysis Results

Next, after obtaining the results of the IFAS and EFAS analysis matrices, alternative strategies were identified. Based on the theory proposed by Legionosuko, T., et al. (2020), alternative strategies include:

1. SO (Strength-Opportunity) Strategy: This strategy is based on the idea of using all strengths to seize and maximize opportunities.
2. ST (Strength-Threats) Strategy: This strategy addresses threats by maximizing existing strengths.
3. WO (Weakness-Opportunity) Strategy: This strategy is implemented based on maximizing opportunities while minimizing/overcoming existing weaknesses.
4. WT (Weakness-Threats) Strategy: This strategy is based on efforts to minimize weaknesses to minimize and avoid threats.

The SWOT diagram in Figure 2 above indicates that this research supports an aggressive (SO) strategy in implementing a Green Economy Strategy for MSMEs in Aceh Besar to Encourage Sustainable Economic Development. The alternative strategies can be illustrated in the internal and external matrix as presented in Table 5 below.

Table 5. Internal and External Matrix

INTERNAL/EXTERNAL	**Opportunity**	**Threats**
Strength	**SO strategy:** Maximizes strengths to take advantage of opportunities.	**ST strategy:** Maximizes strengths to take advantage of opportunities.
Weakness	**WO strategies** minimize weaknesses to maximize opportunities.	**WT strategies** minimize weaknesses to minimize threats.

Based on the factors tested in this study, MSMEs in Aceh Besar Regency are very supportive and have opportunities by utilizing their internal strengths. One selected strategy from the four alternative strategies is an aggressive strategy, namely maximizing strengths and utilizing opportunities to the maximum, with the priority of the SO strategy, so that: "maximizing resources, management and MSME products produced in utilizing cooperation opportunities to maximize marketing, knowledge and environmental awareness as well as regulatory support from the local government". The important point that must be a shared concern and has the lowest weight based on the results of research data analysis and interviews with MSME actors, namely access to information and training on the green economy is still very minimal among MSMEs today. So it requires serious attention to training or support from the government related to this green economy. The absence of specific guidelines and regulations from the government is also a challenge in accelerating the implementation of a sustainable green economy in Aceh Besar.

Aggressive Strategy in SWOT Quadrant 1 is an effort to maximize expansion and development, because MSME organizations are in the best position to grow and implement green economy principles. Aggressive Strategy (S–O): Leveraging internal strengths to seize external opportunities is as follows:

1. Green Market Expansion
   Encourage MSMEs to open access to export environmentally friendly products (e.g., bamboo and rattan crafts, and organic food products) and utilize e-commerce to promote sustainable products.
2. Green Economy-Based Product Innovation
   Develop organic products, environmentally friendly packaging, and renewable energy in the production process. Branding Aceh Besar MSME products as "Green Products from Aceh."
3. Partnership & Collaboration
   Collaboration between MSMEs, the government, academics, and green investors. Establish green MSME clusters (e.g., healthy culinary centers, eco-friendly bamboo and rattan craft centers).
4. Strengthening Green Capacity and Literacy
   Training MSMEs on environmentally friendly production, energy efficiency, and waste management, as well as implementing green product certification standards (eco-label, halal, and organic).

This strategy can be implemented for sustainable economic development in Aceh Besar Regency and can be implemented through three phases. These three phases are as follows:

Short Term (1–2 years):

1. Mapping potential green economy MSMEs.
2. Green business and digital branding training.
3. Green MSME pilot projects in the food, crafts, and tourism sectors.

Medium Term (3–5 years):

1. Increasing green production with environmentally friendly technology.
2. Strengthening national and international marketing networks.
3. Developing a green business hub in Aceh Besar and Aceh in general.

Long Term (5 years and above):

1. Aceh Besar becoming a center for green economy-based MSMEs in Aceh.
2. Significant contribution to the SDGs (sustainable development goals).
3. Creating a sustainable business ecosystem that reduces environmental impact.

Based on the results of the aforementioned study, awareness of the importance of environmental sustainability and other related issues must be a consideration for MSME management in carrying out their business operations. Business management can implement a green economy through special training on the Green Economy for each employee as a foundation and encouragement for the implementation of the green economy in Aceh Besar. To ensure their business sustainability, MSMEs can collaborate with environmentally focused institutions and communities to increase financing and market local products broadly and sustainably. MSMEs can also campaign to raise consumer awareness about the use of environmentally friendly and recyclable products, hoping to achieve a balance between their businesses and environmental sustainability.

CONCLUSION

This study aims to identify suitable strategies for implementing the green economy concept and its impact on sustainable economic development in Aceh Besar Regency. Based on the results of observations, interviews and analysis of internal and external factors in MSMEs in Aceh Besar, it can be concluded that MSMEs in Aceh Besar Regency have their own strengths, weaknesses, opportunities and challenges in implementing the green economy concept in Aceh Besar. The results of the IFAS analysis on the internal factors of MSMEs show a figure of 3.8 which is sourced from the strengths and weaknesses factors, and the results of the EFAS analysis on the external side of MSMEs show a figure of 3.4 which is sourced from the opportunities and challenges factors. Therefore, MSMEs in Aceh Besar are currently in Quadrant I position in the SWOT diagram and support an aggressive strategy, meaning that MSMEs in Aceh Besar can maximize existing strengths and take advantage of opportunities as a suitable alternative strategy for implementing the green economy concept in Aceh Besar Regency. Currently, MSMEs have relevant resources, management and products in utilizing collaboration opportunities to maximize marketing, environmental knowledge and awareness as well as regulatory support from the local government in implementing a green economy.

This study focuses solely on analyzing suitable strategies based on internal and external factors possessed by MSMEs in utilizing the potential strengths and opportunities that exist today. Therefore, it is recommended that further and in-depth studies are needed by stakeholders to formulate appropriate regulations to be applied to MSMEs in Aceh Besar specifically and MSMEs in Aceh Province in general. The results of this study can also be used as a theoretical basis in the formulation of strategic policies by the government. The suggestions that can be followed up from the results of this study are in the form of a participatory approach as an approach that aims to be able to develop the capacity of MSMEs through training, workshops, and technical guidance in the context of implementing a green economy in Aceh Besar Regency based on the phases that have been put forward in the results of this study.

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