

Strategic Priorities In New Renewable Energy Business Development

Endro Hartanto¹, Surachman², Mintarti Rahayu³, Wahdiyati Moko⁴

¹²³⁴Ilmu Manajemen, Fakultas Ekonomi dan Bisnis, Universitas Brawijaya, Malang, ndroh@yahoo.com

Abstract

The global energy crisis and the growing threat of climate change have accelerated the need for a transition towards a more sustainable and inclusive energy system. Indonesia holds vast potential in renewable energy resources, yet its utilization remains suboptimal. This study aims to determine the priority strategies for the development of renewable energy by PT Pertamina using the Analytic Hierarchy Process (AHP) method. Employing a descriptive case study approach, data were collected through in-depth interviews and Focus Group Discussions (FGDs) with nine expert respondents. Findings reveal that Human Resources (HR) and government policies are the most critical factors in supporting the development of renewable energy businesses. Strategies such as increased R&D investment, partnerships, and public advocacy are identified as key strategic alternatives. This research contributes to the understanding of strategic energy management and reinforces the application of quantitative approaches in decision-making within the renewable energy sector.

Keyword : Analytic Hierarchy Process, Government Policy, Human Resources, Renewable Energy, Strategic Development

BACKGROUND

The global energy crisis and the growing threat of climate change have underscored the need for a transformation of the energy system towards a more sustainable, inclusive, and resilient direction. The international world is in an energy transition phase that not only demands diversification of energy resources but also a restructuring of the energy policy framework and business strategies, which fossil energy sources have dominated to date. Indonesia, as a country with a large population and energy needs that grow by an average of 7% per year (Ministry of Energy and Mineral Resources, 2023), is faced with complex challenges: dependence on fossil energy, imbalance in supply and demand, and a significant contribution to carbon emissions that exacerbate global warming (Solomon et al., 2007). Ironically, amid these challenges, Indonesia has abundant reserves of new and renewable energy (EBT) that have not been optimally utilized. The potential for hydroelectric energy of 75,000 MW, geothermal energy of 29,475 MW, biomass energy of 32,000 MW, and solar energy reaching 4.8 kWh/m²/day, shows that this country is naturally endowed with abundant clean energy sources (Ministry of Energy and Mineral Resources, 2018). However, the utilization of this potential remains below 10%, indicating a fundamental gap between the availability of resources and practical implementation strategies in the field. This gap highlights the importance of developing a business strategy that is not only adaptable to global dynamics but also able to establish the right priorities to ensure an optimal development direction. As a state-owned energy company, PT Pertamina and its subsidiaries have a strategic position in driving the realization of the national energy transition. However, in carrying out this mandate, Pertamina faces internal challenges, including operational efficiency, the development of renewable energy technology, and limited organizational capacity, as well as external challenges such as regulatory dynamics, global market pressures, and changes in consumer preferences. In this context, strategic prioritization becomes a crucial element in avoiding decision-making bias and ensuring that limited resources can be directed effectively towards the most valuable strategic goals. Determining strategies without clear priorities risks creating fragmented policy directions, investment inefficiencies, and even implementation failures. The Analytic Hierarchy Process (AHP) method is presented as a scientific approach that can address this complexity. Developed by Thomas L. Saaty (1980), the AHP is a multi-criteria decision-making technique that enables policymakers to compare various strategic alternatives based on a systematically arranged hierarchy of criteria.

The main advantage of AHP lies in its ability to quantify subjective perceptions into numerical weights that can be processed analytically. This provides an objective basis for strategic decision-making,

particularly in an energy business environment characterized by uncertainty and interdependence among factors. In the context of renewable energy development, AHP is not only helpful in evaluating and selecting the best strategy, but also plays an important role in determining implementation priorities based on urgency, technical feasibility, economic impact, and environmental sustainability. AHP has been proven effective in various energy studies, ranging from technology selection (Pohekar & Ramachandran, 2004) to investment project evaluation (Hobbs & Meier, 2000) and national renewable energy development planning (Balubaid & Alamoudi, 2015). By involving various stakeholders in the assessment process, AHP also encourages collective involvement and legitimacy in the strategic decision-making process. The primary focus of this study is to examine the EBT development strategy using the AHP method as an evaluative framework to determine the most feasible and impactful strategic priorities. Through this approach, alternative strategies can be developed that are not only aligned with the national energy transition vision but also operational within the corporate business context. This study also makes a methodological contribution to the study of strategic management in the energy sector by enriching the multi-criteria approach to decision-making in this dynamic and crucial sector.

Analysis Method

The research method employed in this study is a descriptive case study approach, aiming to systematically, factually, and accurately describe the conditions and relationships between phenomena within the context being studied (Yin, 2018). This approach was chosen because it offers flexibility in exploring complex issues in the real world and enables the in-depth integration of qualitative and quantitative data (Baxter & Jack, 2008). Data collection was conducted through two primary techniques: in-depth interviews and Focus Group Discussions (FGDs). In-depth interviews were conducted with key informants who possessed relevant knowledge and experience, including organizational leaders, policy experts, and regulatory officials. Meanwhile, FGDs were used to explore collective understanding and test consistency between respondent perceptions (Krueger & Casey, 2015). Secondary data was also utilized, including annual reports, policy documents, and relevant academic literature, to strengthen the validity of the findings. Research respondents were selected purposively, namely based on specific considerations that aligned with the research needs. This selection took into account the strategic position of respondents, their expertise, and involvement in the issues being studied (Palinkas et al., 2015). The analysis method used is the Analytical Hierarchy Process (AHP). AHP is a multi-criteria decision-making method developed by Thomas L. Saaty (Saaty, 1980) and is very effective in breaking down complex problems into a systematic hierarchical structure. The AHP process involves the following main steps: (1) formulating objectives, criteria, and alternatives in the form of a hierarchy; (2) conducting pairwise comparisons between elements based on a numeric scale of 1–9; (3) calculating priority weights by normalizing the matrix and calculating eigenvector values; and (4) testing the consistency of answers through the Consistency Ratio (CR), where a CR value ≤ 0.1 is considered consistently valid (Saaty & Vargas, 2001). After the consistency test is met, weight aggregation is performed to determine the final score for each alternative. The results of this analysis provide a rational and measurable basis for determining decision priorities and can be used to support policy recommendations or organizational strategies objectively (Forman & Gass, 2001).

RESULT & DISCUSSION

Essentially, the application of the model necessitates a specific implementation strategy to achieve the desired goals. Lanzolla et al. (2020) explained that modeling can provide a new perspective for designing corporate strategy, in addition to the Resource-Based View or Market Positioning approach. Jiang et al. (2019) emphasized that strategy must involve selecting the right activities and interconnection between parts to create dependency. This further emphasizes that optimal EBT business management can drive economic growth in Indonesia. Determining strategy requires a clear basis so that every decision can be accounted for. Tawse and Tabesh (2020) demonstrated that the basis of strategy can be determined in various ways, including consideration of experts and calculations. Sierotowicz (2020) added that a quantitative approach can make the strategy-setting process more structured, systematic, objective, and accountable. With a quantitative approach, all stakeholders will have a clear understanding of the company's strategic direction, thereby facilitating effective communication and mutual understanding.

Experts have provided various recommendations for developing strategies with different approaches, indicating that there are many ways to achieve the best decision. Some approaches recommended by Bono (1970), Delbecq and Ven (1977), Helmer and Dalkey (1963), and Saaty (2008) include brainwriting, nominal group technique, Delphi method, and weighted matrix. Among these approaches, weighted matrices have several advantages: 1) providing clarity through structured analysis of criteria and weights, 2) scores are obtained from various perspectives with indicators, making them more objective compared to voting or discussion methods, and 3) involving many perspectives in the calculation process, which strengthens the argument. The weakness of the weighted matrix is its inability to accommodate complex conditions and structures. Saaty (2008) developed this approach into the Analytical Hierarchy Process (AHP) to facilitate more objective and consistent decision-making. Quantitative methods, such as AHP, enable a systematic comparison of criteria, leading to more objective decisions by reducing the subjective bias that often occurs in qualitative assessments. AHP provides quantitative evidence in comparing alternatives based on existing criteria, making the decision-making process more evidence-based. The results of quantitative analysis from AHP are easier to justify, audit, and communicate, supporting structured and systematic decision-making. AHP also helps organize strategic issues into a systematic hierarchy, facilitates diverse assessments, and synthesizes results to produce overall priorities. In research related to the selection of alternative strategies for developing renewable energy businesses, the findings are supported by five levels of evidence. Level 1 focuses on developing new renewable energy businesses. Level 2 focuses on the selection of actors who play a role in it. Level 3 focuses on the factors that drive the development of new renewable energy businesses. Level 4 focuses on the criteria that must be achieved, and Level 5 outlines alternative strategies that can be used to develop new renewable energy businesses. The AHP processing method in this study utilizes Super Decision software. It is known that in this study, the questionnaire was distributed to 9 expert respondents; however, during the process, the Consistency Ratio (CR) was calculated with a maximum limit of 0.10. This value is intended to ensure that the answers from each respondent to each selected element are consistent, so that they can be trusted. The analysis structure model has been prepared and presented in Figure 5.2. and the final calculation results in Figure 1.

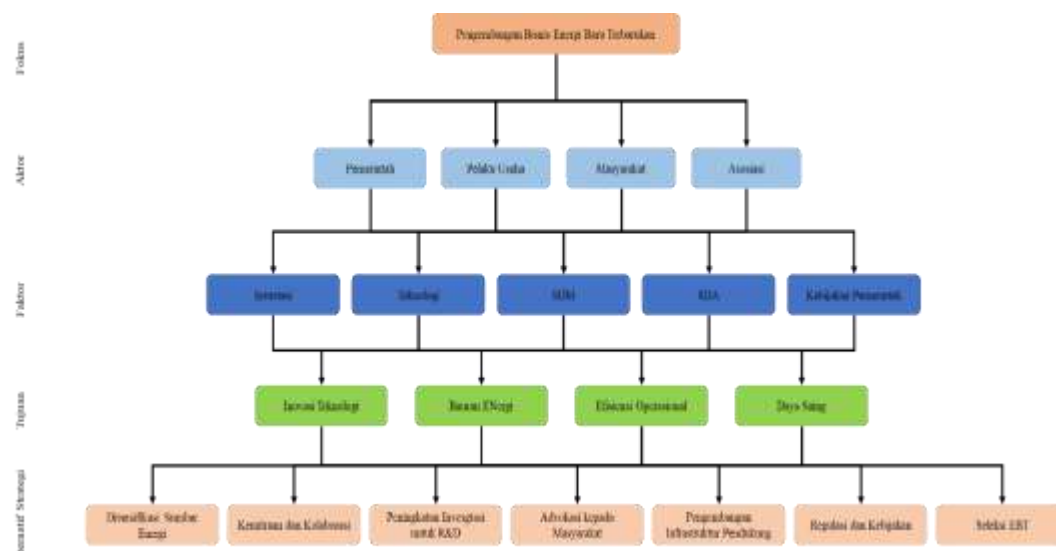


Figure 1 AHP Model of Pertamina's EBT Development Strategy (Endro H, 2024)

The AHP modeling that has been made basically needs to be described to find out each element at each level. In this study there are 5 levels consisting of level 1, namely focus, level 2, namely actors, level 3, namely factors, level 4, namely goals and level 5, namely alternative strategies. Each level is described in the following form:

1. Actor

a. Government

The government is an institution that has the power to regulate and manage energy resources in a country. In the context of new renewable energy, the government plays a role in formulating policies, providing incentives, and creating regulations that support the development and utilization of EBT sources, such as solar, wind, and biomass.

b. Business Actors

Business actors are individuals or entities involved in the production, distribution, and marketing of new renewable energy. Business actors include energy companies, green technology start-ups, and project developers. Business actors are responsible for investing resources, developing innovative technologies, and providing environmentally friendly energy solutions.

c. Community

Community is a group of individuals who live in an area and are affected by energy policies. In the context of renewable energy, the community plays a role as a consumer who utilizes renewable energy, as well as a stakeholder who can provide input and support for renewable energy projects. Public awareness and participation are essential for the success of the energy transition.

d. Association

Associations are organizations that represent the interests of business actors, the community, or certain groups in the renewable energy industry. This association serves as a forum for sharing information, conducting advocacy, and promoting best practices in renewable energy development. Associations can also play a role in bridging communication between the government and business actors.

2. Factors

a. Investment Investment in renewable energy includes the allocation of funds for the development of renewable energy projects, such as solar, wind, and biomass power plants. This capital can come from the government, private sector, or international institutions. Large investments are needed for research, development, and application of new technologies, as well as to build the necessary infrastructure.

b. Technology

Technology is a key factor in the development of renewable energy. Innovations in technology such as efficient solar panels, wind turbines, and energy storage systems contribute to increased efficiency and reduced costs of energy production. Technological advances also enable the integration of renewable energy sources into existing electricity grids.

c. Human Resources

Skilled and knowledgeable human resources are essential to support the development of renewable energy. Training and education in energy engineering, green technology, and project management are needed to create a competent workforce. Qualified human resources will assist in the implementation and maintenance of renewable energy systems.

d. Natural Resources

Natural Resources include all resources that can be utilized to produce renewable energy, such as sunlight, wind, water, and biomass. Sustainable utilization of natural resources is essential to ensure the availability of renewable energy without damaging the ecosystem. Wise management of natural resources will support long-term sustainability.

e. Government Policy

Government policy plays an important role in creating an environment that supports the development of new and renewable energy. This policy can be in the form of fiscal incentives, regulations that support the use of renewable energy, and programs that encourage investment. Clear and consistent policies will help attract investment, accelerate technology adoption, and increase public awareness of the importance of renewable energy.

3. Objectives

a. Technological innovation

Technological innovation refers to the development and application of new technologies that increase efficiency and effectiveness in the production and use of renewable energy. Examples include more efficient solar panels, advanced wind turbines, and improved energy storage systems. These innovations not only lower energy costs but also accelerate the transition to cleaner and more sustainable energy sources.

b. Energy mix

The energy mix is a combination of various energy sources used to meet the energy needs of a region or country. In the context of renewable energy, the energy mix includes the use of renewables such as solar, wind, hydro, and biomass along with conventional energy sources.

c. Operational efficiency

Operational efficiency refers to the ability to maximize energy output by minimizing waste in the energy production and distribution process. In the context of renewables, operational efficiency can be achieved through the use of better technology, effective resource management, and process optimization. Improving operational efficiency not only reduces costs but also increases the attractiveness of investment in the renewable energy sector.

d. Competitiveness Competitiveness in the renewable energy sector includes the ability to compete with other energy sources in terms of price, efficiency, and sustainability. This competitiveness is influenced by various factors, including technological innovation, operational efficiency, and government policies. Increasing the competitiveness of renewable energy is important to attract investment and expand the market share of renewable energy, as well as to achieve sustainable energy goals.

4. Alternative Strategies

a. Diversification of energy sources

Diversification of energy sources is a strategy to reduce dependence on one or more energy sources by using various types of renewable energy sources, such as solar, wind, hydro, and biomass. This approach increases energy security and reduces the risk of price fluctuations and environmental impacts.

b. Partnerships and collaborations

Partnerships and collaborations involve various stakeholders, including governments, business actors, research institutions, and communities, to jointly develop and promote new and renewable energy. This collaboration can create synergies, accelerate innovation, and facilitate the exchange of knowledge and resources.

c. Increasing R&D investment

Increasing investment in research and development (R&D) is essential to drive innovation in the new and renewable energy sector. This investment can be used to develop new technologies, improve the efficiency of existing systems, and find new solutions to challenges faced in the implementation of renewable energy.

d. Advocacy to the community

Advocacy to the community aims to increase awareness and understanding of the benefits of new and renewable energy. Through education and campaigns, the community is encouraged to participate in the use of renewable energy and support policies that promote sustainability. Effective advocacy can create strong public support for renewable energy initiatives.

e. Government Involvement

Government involvement is the active participation of the government in policy making, regulation, provision of public services, and supervision. This includes formulating policies for the welfare of the community, regulating various sectors, involving the community in decision-making, and ensuring transparency and accountability in the use of resources. In this case, building a strong industrial ecosystem for renewable energy will create jobs, increase competitiveness, and accelerate the growth of this sector.

f. Regulation and policy

Government regulation and policy are very important in creating a framework that supports the development of new and renewable energy. This policy includes fiscal incentives, emission standards, and regulations that facilitate investment. Clear and supportive policies will encourage business actors to invest in renewable energy.

g. Renewable Energy Selection

Renewable Energy (EBT) selection involves the process of selecting and developing renewable energy sources that are most appropriate to local conditions and energy needs. This includes analysis of resource potential, costs, and environmental impacts. Proper selection will ensure efficient and sustainable use of energy sources.

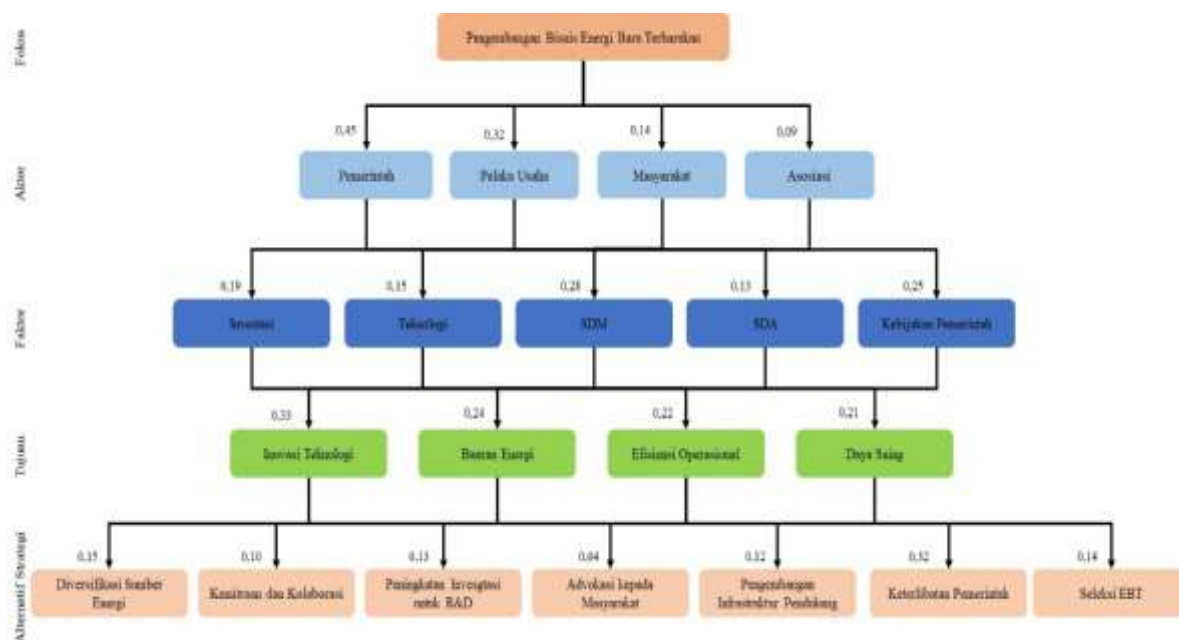


Figure 2 AHP Final Calculation Results (Endro H, 2024)

Human Resources (HR) plays a vital role in the development of the renewable energy sector in Indonesia. Success in the renewable energy business depends not only on the quantity of the workforce but also on the quality, competence, and innovation capabilities of key players. This aligns with Lund's (2016) opinion, which emphasizes that skilled and knowledgeable HR is a key factor in managing Indonesia's abundant renewable energy resources. The existence of a competent workforce enables the creation of more effective and efficient solutions for utilizing the potential of solar, wind, and biomass energy in this country. Adequate education and training are important foundations in forming competent HR in the renewable energy sector. Higher and vocational education programs that focus on renewable energy technology must be strengthened to produce graduates who are ready to work and have a deep understanding of various renewable energy technologies. According to Müller (2017), relevant education is crucial to ensure that the workforce can keep pace with technological advancements and evolving industry trends. In addition, ongoing training for existing workers is equally important, enabling them to stay current with technological advances and continually improve their skills in response to market demands. The innovation capability possessed by human resources also plays an important role in the competitiveness of renewable energy businesses. Porter (1990) argues that research and development (R&D) conducted by skilled workers can lead to the creation of new, more efficient technologies and enhance the efficiency of existing systems. Thus, production costs can be reduced and the competitiveness of Indonesian renewable energy products in the global market can be increased. Therefore, the energy sector, which continues to grow, requires human resources who not only possess knowledge but also can innovate. Collaboration among various stakeholders, including the government, private sector, and educational institutions, is crucial for creating an ecosystem that supports the development of human resources in the renewable energy sector. As explained by Christensen (2014), synergy between the government, private sector, and educational institutions enables the creation of supportive policies,

training programs tailored to industry needs, and opportunities for professionals to share knowledge and experience. This will help increase the capacity and capability of human resources in the renewable energy sector as a whole, enabling the sector to grow sustainably and compete internationally. Government policies play a crucial role in the development of renewable energy businesses in Indonesia. After human resources (HR), government policy is the second most important factor influencing the dynamics and sustainability of this sector. This is due to several interrelated reasons that have a direct impact on the development of the renewable energy industry. IRENA (2021) states that clear and consistent government policies are the primary foundation for attracting investment in the renewable energy sector. Regulatory uncertainty can pose a risk to investors, while incentives such as tax breaks and subsidies have proven effective in increasing investment interest (OECD, 2020). A study by the IEA (2019) also emphasized that ambitious renewable energy mix targets, such as those implemented in Indonesia, can encourage innovation and infrastructure development. Clear and consistent government policies provide investors with legal certainty, ensuring a stable and predictable environment. In the context of the renewable energy industry, investors require assurance that their investments will be protected and have promising prospects. Supportive policies, such as tax incentives, subsidies, and streamlined licensing procedures, can attract both domestic and foreign investors. Uncertainty in policy can hinder the entry of capital and technology needed to develop renewable energy projects. With regulations governing the use of renewable energy, the government can encourage companies to invest in clean technology and reduce dependence on fossil fuel sources. Ambitious targets, such as achieving a certain proportion of renewable energy in the national energy mix, will encourage innovation and the development of the infrastructure needed to achieve this goal. Government policies also play a role in creating an ecosystem that supports the development of renewable energy. Through programs that educate the public about the importance of renewable energy and its environmental impact, the government can increase public awareness and foster greater demand for renewable energy-based products and services. In addition, collaboration between the government, the private sector, and research institutions can accelerate the development of new technologies that are more efficient and environmentally friendly. Indonesia has great potential to utilize renewable energy, but to realize this potential, significant funding is needed to support research, development, and implementation of renewable energy technology. Adequate investment enables the development of the necessary infrastructure to support the production and distribution of renewable energy. This infrastructure includes the construction of renewable energy-based power plants, transmission networks, and energy storage systems. Without sufficient investment, these projects cannot be realized optimally, which will hamper the growth of the renewable energy sector. Increasing investment in research and development (R&D) in the renewable energy sector is a crucial strategy for addressing current global challenges, particularly those related to climate change and reliance on limited fossil energy sources. With increasing awareness of the negative environmental impacts of fossil fuel use, companies in the energy sector must innovate to find more environmentally friendly and efficient solutions. According to the IEA (2021), the renewable energy sector is growing rapidly thanks to increased investment in R&D, which enables the discovery of new technologies that can improve energy efficiency and reduce carbon emissions. Investment in R&D in the renewable energy sector enables companies to explore new, more environmentally friendly technologies. Lund (2016) states that research and development in renewable energy enables the creation of technological solutions that not only improve the efficiency of energy use but also contribute to reducing greenhouse gas emissions. For example, the development of solar panels with higher efficiency, wind turbines that can operate at lower wind speeds, or more efficient energy storage technologies. Increased investment in R&D also plays a role in creating more sustainable products and services. Based on data from the World Bank (2020), the renewable energy sector, which continues to innovate through R&D, not only produces more efficient technology but also creates new jobs and boosts the local economy. For example, the development of more affordable solar and wind energy technologies through research and development (R&D) creates new opportunities in the global market, enhancing the competitiveness of the renewable energy sector. Investment in R&D is also crucial for ensuring long-term business sustainability. Porter (1990) argues that innovation driven by investment in R&D allows companies to overcome challenges that arise over time and ensure they remain competitive in the global market. With more efficient and environmentally friendly technology,

companies can strengthen their position in the industry and reduce dependence on limited fossil energy resources. Business sustainability, guaranteed through continuous technological innovation, is not only financially beneficial but also supports the achievement of sustainable development goals. In this case, investment in R&D serves as a key driver in creating a greener and more efficient future in energy use. Müller (2017) emphasizes that the renewable energy sector, driven by R&D innovation, will play a crucial role in reducing dependence on fossil fuels and helping countries achieve their greenhouse gas emission reduction targets. The Role of R&D and Infrastructure in Increasing Competitive Advantage and Sustainability of Renewable Energy. Research and development (R&D) plays a crucial role in creating a competitive advantage in an increasingly competitive market, particularly in the renewable energy sector. By investing in innovation, companies can develop more efficient and economical technologies, attracting consumers who are increasingly aware of environmental issues. For example, the development of more efficient solar panels or wind turbines with lower operating costs can open up new market opportunities and expand the company's market share. According to Tushman and O'Reilly (1996), companies that invest in R&D can better face competition, especially in challenging markets such as the energy sector, where technological innovation is developing rapidly. R&D also enables companies to comply with increasingly stringent regulations regarding emissions and energy use. By focusing on more environmentally friendly and efficient technologies, companies can mitigate the legal and financial risks associated with non-compliance with these regulations. Porter (1990) argues that R&D-based innovation provides companies with a competitive advantage that is not only based on price or quality, but also on their ability to adapt to increasingly stringent government policies regarding environmental issues. Increasing investment in R&D for renewable energy has a positive impact not only on companies but also on society and the environment. Cleaner and more efficient technologies help mitigate the impact of climate change, while creating new job opportunities in the green technology sector. Müller (2017) stated that the renewable energy sector, driven by technological innovation, will create a positive domino effect, leading to sustainable economic growth without harming the environment. This aligns with the goals of sustainable development, which involve reducing carbon emissions, creating jobs, and empowering communities. The development of supporting infrastructure is significant in accelerating the adoption and distribution of clean energy sources. Infrastructure that includes electricity networks, energy storage facilities, and efficient distribution systems is crucial for integrating various types of renewable energy sources, such as solar, wind, and biomass. Good infrastructure enables reduced operating costs and enhances the accessibility of renewable energy to the community. IEA (2021) reports that countries that increase investment in renewable infrastructure experience faster adoption and lower costs, supporting the expansion of the renewable sector in the global market. Reliable supporting infrastructure also plays a role in creating a conducive ecosystem for investment in the renewable sector. Investors will be more interested in investing when they see assurances of sustainability and operational efficiency. Lund (2016) notes that strong infrastructure development can accelerate the energy transition and attract more investors, which ultimately increases innovation in green technology. The importance of developing this infrastructure aligns with the government's and stakeholders' efforts to achieve the targets of reducing carbon emissions and promoting environmental sustainability. An efficient transportation and distribution system enables reduced dependence on fossil fuels while also accelerating the adoption of innovative technologies, such as smart grids, which enhance energy efficiency. Zubi et al. (2018) showed that the development of smart grids and intelligent energy distribution infrastructure will strengthen operational efficiency in the renewable energy sector. Partnerships and collaborations between various stakeholders, including private companies, governments, research institutions, and non-governmental organizations, are essential to addressing challenges in renewable energy development. Christensen (2014) stated that innovation in green technology requires strategic collaboration to combine resources, knowledge, and experience, thereby accelerating the innovation process and reducing risk. This collaboration enables companies to expand their access to global markets, accelerate the adoption of green technology, and establish more efficient distribution systems—the Role of Partnerships and Advocacy in the Development of New and Renewable Energy. Partnerships in the renewable energy industry play a crucial role in strengthening a company's bargaining position during negotiations with suppliers and customers. In this industry, where policies and regulations can change rapidly, having a solid collaborative

network allows companies to adapt more quickly to these changes. Gartner (2021) revealed that strategic partnerships are crucial for companies in the technology and energy sectors to navigate the challenges of shifting markets. For example, collaboration with local governments can provide companies with access to incentives and policy support needed to support the success of renewable energy projects. Additionally, collaborating with research institutions presents opportunities for developing new, more efficient, and environmentally friendly products, ultimately enhancing the company's competitiveness. Collaboration also plays an important role in increasing public awareness and acceptance of renewable energy. Through joint initiatives, companies can engage communities in educational programs that explain the benefits of renewable energy and its environmental impact. Porter (1990) argues that collaboration between the public and private sectors enables the creation of beneficial synergies, which not only impact technical and business aspects but also strengthen social trust, a critical factor in long-term success in this sector. Thus, partnerships not only benefit the business perspective but also contribute to building the social support necessary for the growth of the renewable energy industry. Advocacy to the community is one of the important alternative strategies in developing new renewable energy businesses. Christensen (2014) emphasized that advocacy carried out by energy companies can foster a broader understanding of the benefits of renewable energy, both in terms of environmental and economic considerations. Many people still lack information about the positive impacts of using renewable energy. Through advocacy programs, businesses can explain how technologies such as solar, wind, and biomass can reduce dependence on fossil fuels, decrease greenhouse gas emissions, and create new job opportunities. This advocacy also serves to build strong social support for new renewable energy initiatives. When the community feels involved in dialogue and activities related to renewable energy, they will feel they have a role in a more sustainable energy transition. According to Bennett (2016), strong social support is crucial in overcoming resistance that may arise, both from individuals and groups who feel threatened by the change. Advocacy helps the community understand the changes that are occurring and why the transition to renewable energy is essential. This partnership and advocacy also open up opportunities for collaboration between various stakeholders, including the government, non-governmental organizations, and the private sector. This collaboration enables the creation of more supportive and environmentally friendly policies, as well as encouraging incentives for investment in the new renewable energy sector. Gartner (2021) highlights the importance of cooperation between these sectors in accelerating the development of cleaner technologies and supporting sustainable energy policies. Advocacy also serves as a bridge to encourage the structural changes necessary for the transition to more sustainable energy, creating an ecosystem that is more supportive of the renewable energy sector's growth.

CONCLUSION

The transition to new and renewable energy (EBT) is a strategic necessity in responding to the global energy crisis and the challenges of climate change. Indonesia has enormous EBT potential, but its utilization is still far from optimal. This indicates an implementation gap that needs to be bridged through the formulation of measurable and evidence-based strategies. The application of the Analytic Hierarchy Process (AHP) method in this study has proven its ability to systematically and objectively prioritize strategies. AHP allows the identification of the best strategic alternatives by considering various actors, supporting factors, strategic objectives, and assessment criteria. The results of the analysis indicate that human resources (HR) and government policies are the primary determinants of EBT development. Strategies such as increasing R&D investment, partnerships and collaborations, and advocacy within the community emerge as alternatives that carry significant weight in encouraging the sustainability of EBT businesses in Indonesia. This study also reinforces the importance of cross-sector collaboration and consistent policy integration, as well as the need for continuous innovation in technology and infrastructure as supporting pillars of the national energy transition. Thus, the AHP approach not only provides strategic direction for companies such as Pertamina but also provides a methodological contribution to decision-making in the energy sector more broadly.

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