# Business Development Strategy for Rooftop Solar Power Plant at PT XYZ

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**Abstract:** *The research takes the topic of implementing business strategies carried out by PT XYZ which is engaged in the development of new renewable energy, especially Rooftop solar power plant. The shift in the changing business climate, which is currently starting to change from the fossil business to the new renewable energy business, has a great potential in developing new and renewable energy in Indonesia. For this reason, researchers are interested in researching this topic. In this study, researchers used a business strategy management approach through three approaches, namely the input stage with internal factors, external factors, and Competitive Profile Matrix (CPM) then the matching stage through SWOT analysis and IE matrix, and the last stage is the decision stage through the QSPM matrix to choose suitable alternative and a more suitable market penetration strategy is produced to be implemented. The results of the research are expected to provide strategic input that can be implemented by PT XYZ.*

**Keywords:** Strategy Formulation, Strategic Management, Business Strategy

## 1.Introduction

Indonesia has committed to support earth management policies through The Paris Agreement's commitment that Indonesia will reduce greenhouse gas (GHG) emissions by 314-398 Million Tons of CO2 by 2030 through various sectors from forestry, agriculture, energy, waste and industrial use products (IPPU). The energy sector has activities in reducing emissions such as the development of renewable energy, the implementation of energy efficiency, energy conservation, and the application of clean technologies in fossil plants. Through this commitment, the Government issued Law No. 16 of 2016 on the ratification of the Paris Agreement that Indonesia will commit to reducing GHG emissions by 29% (with its own capabilities) or 41% (with international assistance) in accordance with the Nationally Determined Contribution (NDC) document. In an effort to pursue these targets, especially the energy sector continues to make various efforts and strategies through planning that must be done by Indonesia.
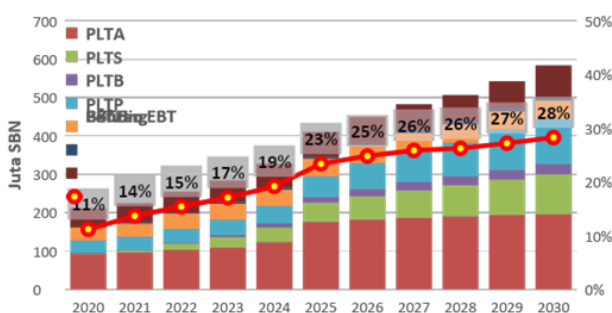


**Graph 1:** Renewable energy Mix 2021
Sumber: Kementerian ESDM Tahun 2020

The composition that can be seen in accordance with the graph above is that new renewable energy plants are currently dominated by hydroelectric power plants (PLTA) in green, then solar power plants (PLTS) in orange, followed by bayu power plant (PLTB) with gray color, and yellow is a plant.

The realization of the current renewable energy generation mix in graph 1.1 looks still low in accordance with the predetermined target, where the renewable energy mix only reaches 11.2% of the existing target of 28% by 2030. The target is quite heavy considering the condition of the energy sector in Indonesia is still dominated by plants derived from fossil energy because it is considered the price offered lower than the price offered for new renewable energy and also energy generation in Indonesia is still considered new and many technologies are still undeveloped.

## 2.Theoretical Review

### 2.1 Strategy Management

Strategic management according to Barney and Hesterly (2015) strategic management is the process of a series of sequential analyses and options that can increase the likelihood that the company will choose a good strategy that is a strategy that results in a competitive advantage.

### 2.2 Key Concepts

#### 2.2.1 Theory of Strategy and Competitive Advantage

Strategy is a means by which individuals or organizations achieve their goals, in this case Strategy is a means used by individuals or organizations to achieve their goals, in this case the strategy is needed to support success in realizing the company's vision and mission which is part of a basic business foundation Grant and Jordan (2012) in (Herfita et al. 2017), various strategies include:

a. Corporate strategy: defines the scope of a company in terms of the industry and the market in which it completes. Corporate strategy decisions include investments in diversification, vertical integration,

acquisitions and new ventures, resource allocation between different businesses of the company, and divestment.

b. Business strategy: it deals with how companies compete in a particular industry or market.

### 2.2.2 Strategy Formulation

Strategy formulation includes developing a company's vision and mission, identifying external opportunities and threats affecting the company, determining internal strengths and weaknesses, setting long-term goals and coming up with alternative strategies and choosing strategies to use. - Fred R. David Forest R. David (2017). In the formulation of the strategy there are 3 stages, namely:

1. Input stage
2. Matching Stage
3. Decision Stage

### 2.2.3 Internal Factor Evaluation (IFE) Matrix

Internal Factor Evaluation (IFE). Strategy formulation tools that summarize and evaluate key strengths and weaknesses in the functional areas of the business, and also provide the basis for identifying and evaluating relationships among those areas. Intuitive assessment is necessary in developing the IFE Matrix, so the appearance of a scientific approach should not be interpreted as a very powerful technique. A thorough understanding of the factors included is more important than the actual numbers. - (Fred R. David Forest R. David 2017).

### 2.2.4 External Factor Evaluation (EFE) Matrix

According to Fred R. David. Forest R. David (2017) The External Factor Evaluation (EFE) is a matrix of strategic and summarizing and evaluating economic, social, cultural, demographic, environmental, political, governmental, legal, technology and information information competition. In the evaluation stage of external conditions the company uses the EFE matrix (External Factor Evaluation) to formulate its opportunities and threats. External factors are weighted according to the level of influence.

### 2.2.5 The Competitive Profile (CPM) Matrix

According to Fred R. David. Forest R. David (2017) CPM Matrix identifies the company's main competitors and the company's strengths and weaknesses, particularly in terms of the company's strategic position. In addition to the important success factors listed in the CPM, factors that are often included include the breadth of the product line, the effectiveness of sales distribution, ownership or excellence of patents, facility location, production capacity and efficiency, experience, relationship unity, technological excellence, and e-commerce expertise. The goal is to assimilate and evaluate information in a meaningful way to aid decision-making.

### 2.2.6 Internal-External (IE) Matrix

According to Fred R. David. Forest R. David (2017)

internal-external matrix that involves planning a company's division in schematic diagrams so that it has the size of each circle representing the percentage of each division's sales contribution and pie slices that reveal the percentage of each division's profit contribution.

### 2.2.7 SWOT Matrix

Swot analysis method or SWOT analysis aims to describe the situation and conditions that are being faced in a company. (Fred R. David) Forest R. David 2017) The Strength-Weakness-Opportunity-Threat Matrix (SWOT) is an important matching tool that helps managers develop four types of strategies: SO (strengths-opportunities) strategies, WO strategies (weaknesses-opportunities), ST strengths (-threats), and WT (weaknesses-threats) strategies. Matching key external and internal factors is the hardest part of developing the SWOT Matrix.

### 2.2.8 QSPM Matrix

Fred R. David (2017) The Quantitative Strategic Planning Matrix (QSPM) is a tool that allows strategists to evaluate alternative strategies objectively, based on previously identified external and internal ones. Like other strategy formulation analysis tools, QSPM requires ranking assignment (called attractiveness value), allowing strategists to make effective "big" decisions. QSPM uses input from stage input analysis and matching results from stage matching analysis to decide objectively among alternative strategies. That is, EFE matrix, IFE matrix and CPM from input stage coupled with IE matrix and SWOT Matrix from matching stage.

### 2.3 Previous Research

Some research related to the policy of developing new renewable energy by giving different opinions. Regulations on Roof ROOFTOP SOLAR POWER PLANT have an influence on consumers in terms of solar lighting shows that roof rooftop solar power plant are very good in Surabaya so it is feasible to install roof rooftop solar power plant (Tarigan 2020).The results showed that there is an influence of economic factors on people's interest in using rooftop solar power generation systems. So there needs to be government socialization to provide information broadly in providing information about roofing rooftop solar power plant (Frastuti and Royda 2020).

### 2.4 Research Framework

The framework of thought on this study is based on the results of the theoretical framework as it has been outlined. To facilitate an understanding of the research framework, it can be seen in the following image:
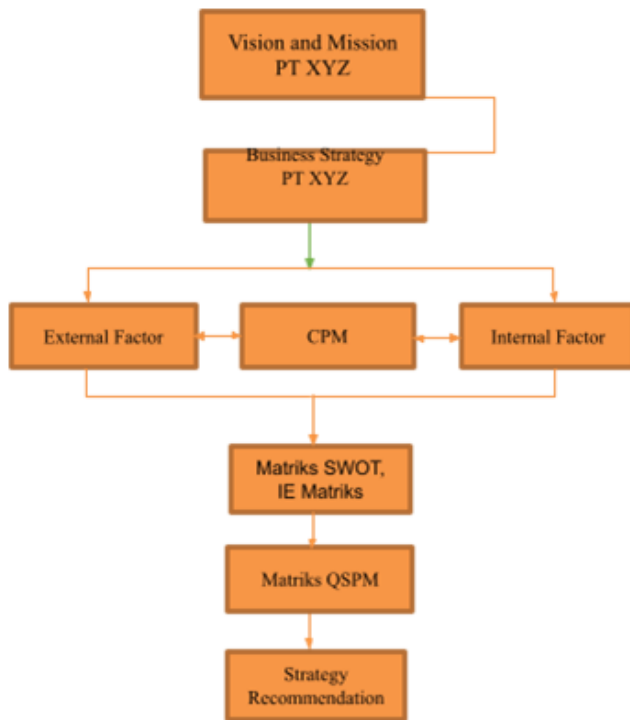
**Image 2:** Research Framework

# 3.Research Methods

### 3.1  Research Design

The focus on this research is field studies and literature studies, where field studies aim to get information from PT XYZ as the main source to explain the development of the rooftop solar power plant module industry in Indonesia. From the results of studies in the field and literature studies as supporting theories, existing data is used as primary data to be processed and analyzed, after seeing the conditions in the field in implementing policy strategies that will be selected as input in the implementation of the next strategy.

### 3.2  Units of Analysis

The unit of analysis becomes important because it is the object of research. In this research, the analysis unit that became the main source of this research was PT XYZ as a subsidiary company which focused on developing new renewable energy in Indonesia with one of the solar module developers in Indonesia and also as EPC (Engineering-Procurement-Construction) of rooftop solar power plant. The focus of the analysis unit that becomes data processing is the strategy carried out and experience so far from various aspects in building rooftop solar power plant.

### 3.3  Types and Sources of Data

The type of data used is primary data and secondary data, in connection with research as a tool for analysis of existing problems so that it can be used as input material in order to solve problems faced by PT XYZ. This research uses qualitative data types and sources where the data is a description of sentences that include an overview of the research object.

Primary data is obtained from representatives of PT XYZ

as the main source, namely people who are directly influential and play the role of being a source of research data. Secondary data is data relevant to the content of this study derived from literature studies, internet sites, and other sources that support the research and the results of the interview will be archived digitally

### 3.4  Sampling

In this study, choosing sampling in accordance with the research is:

1. PT XYZ's General Manager who has a role to carry out development strategies from various aspects of the feasibility of a rooftop solar power plant project
2. PT XYZ's Head of HRD to provide information related to internal HR factors.
3. PT XYZ's marketing representative who will provide information related to strategies in marketing solar modules to industry or direct consumer users

### 3.5  Data Collection Methods and Techniques

The data collection method chosen by the author is by interview to get complete information; in this case the researcher conducted an interview with open questions and closed questions to the management of PT XYZ.

### 3.6  Data Analysis Steps

#### 3.6.1  Input Stage

This stage requires the researcher to qualify subjectively during the early stages of strategy formulation. Make small decisions regarding the relative importance of internal and external factors at this stage, which allows the researcher to make and evaluate alternative strategies effectively

#### 3.6.2  Tahap pencocokan (Matching stage)

#### a)Internal-External Matrix Analysis (IE)

The use of IE matrix analysis aims to determine the strategic position and alternative strategies of a company that is right in order to face competition and business growth in the market. The results obtained from IFE and EFE matrics are used to edit IE matrix.

#### b)SWOT matrix

At the matching stage, the strategy analysis used by researchers is swot matrix. The schematic of the SWOT Matrix delivered by Fred R David consists of eight steps, the process of preparing the SWOT Matrix can be summarized in eight steps, as follows:

1. Create a list of the company's main external opportunities.
2. Create a list of the company's major external threats.
3. Create a list of the company's major internal forces.
4. Create a list of the company's major internal weaknesses.
5. Match internal forces with external opportunities, and note the SO strategy generated in the corresponding cell.

6. Match internal weaknesses with external opportunities, and note the resulting WO strategy.
7. Match internal forces with external threats, and note the resulting ST strategy.
8. Match internal weaknesses with external threats, and note the resulting WT strategy.

**Table 1:** SWOT Matrix

| MATRIKS SWOT | Peluang (Opportunities) | Ancaman (Threats) |
|---|---|---|
| Kekuatan (Strenght) | Strategi SO | Strategi ST |
| Kelemahan (Weakness) | Strategi WO | Strategi WT |

Sumber Fred R David 2017

### 3.6.3 Decision stage

At the decision stage, the researcher makes the formulation of a strategy to be selected from several alternative strategies. The selection of the strategy used uses the Quantitative Strategic Planning Matrix (QSPM). This technique objectively shows which strategy is best. In compiling the QSPM Matrix is as follows:

1. Create a list of the company's major external opportunities and threats and internal strengths and weaknesses in the left column of QSPM. This information must be retrieved directly from the EFE Matrix and the IFE Matrix.
2. Weight for each major external and internal factor. This weight is identical to that in the EFE Matrix and the IFE Matrix. Weights are presented in a straight column just to the right of external and internal factors.
3. Test the Phase 2 matrix (matching), and identify alternative strategies that the organization must consider to implement. Note this strategy in the top row of QSPM. Group these strategies into mutually exclusive sets if possible.
4. Determining the Attractiveness Score, this is defined as a numerical value that indicates the relative attractiveness of each strategy taking into account one external factor or an internal factor. The Attractiveness Score (AS) is determined by examining each key external or internal factor, one at a time, and asking the question, "Do these factors influence the strategic choices made?" If the answer to this question is yes, then the strategy should be compared to the key factor. In particular, the U.S. should be assigned to each strategy to demonstrate the relative attractiveness of one strategy over another, taking into account certain factors. The US range is 1 = unattractive, 2 = somewhat interesting, 3 = quite interesting, and 4 = very interesting. By "attractive", we mean the extent to which one strategy, compared to another, allows companies to leverage strengths, fix weaknesses, capitalize on opportunities, or avoid threats. Work line by line in developing QSPM. If the previous answer to the question is no, indicating that each key factor has no effect on the specific choices made, then don't set the U.S. for a strategy in that set. Use hyphens to indicate that key factors don't affect the choices made.

5. Calculate the Total Attractiveness Score. The total alternative score (TAS) is defined as the product of multiplying weights (Step 2) by AS (Step 4) in each line. TAS demonstrates the relative appeal of any alternative strategy, considering only the impact of external or internal criticism adjacent success factors. The higher the TAS, the more attractive the strategic alternative (considering only adjacent critical success factors).
6. Calculate the Total Number of Attractiveness Scores. Add a TAS in each QSPM strategy column. The number of Total Attractiveness Scores (STAS) reveals which strategies are the most attractive in each alternative set. A higher score indicates more interesting strategies, taking into account all relevant external and internal factors that can influence strategic decisions.

The magnitude of the difference between STAS in a given set of strategic alternatives indicates the relative desire of one strategy over another.

### 3.7 Research Ethics

Research ethics according to Cooper & Pamela (2003) as quoted by Sangun (2005) in (Muslim 2007) "ethics are norms or standards of behavior that guide moral choices about our behavior and our relationship with others. The goal is to ensure that no one is harmed or suffers adverse consequences from research activities". Thus, ethics is a branch of philosophy that discusses the values and moral norms that determine the behavior of the researcher towards his research.

Researchers perform ethical procedures in research, namely by doing honesty, not plagiarism, permission to the source to publish during observations and surveys and visits to the location. Researchers try to avoid conflicts of interest considering that researchers are part of the study and this study will produce different findings if applied elsewhere.

### 3.8 Trustworthiness and Authenticity

Data based on field trip results both from interview results, data from online media, and library data is then processed data, researched, analyzed, and identified so as to produce a clear description so that it is easy to be understood by all research readers. This is done to help provide a clear understanding and can be understood by all research readers that the data presented is based on data phenomena in the field.

## 4. Results

### 4.1 Results

Researchers analyzed the results based on 3 methods, namely the input stage through ife matrix, EFE and CPM, matching stage through IE matrix and SWOT analysis, and decision stage through QSPM matrix.

### 4.1.1    Internal Factor Evaluation Analysis

**Table 2:** Internal Factor Evaluation

| | Strengths Weight Rating Weighted Score | | | |
|---|---|---|---|---|
| 1 | Have a strong image and identity in the renewable energy industry market in Indonesia | 0, 09 | 4 | 0, 36 |
| 2 | Has an extensive network of renewable energy industry development in Indonesia | 0, 08 | 4 | 0, 32 |
| 3 | Have quality human resources | 0, 06 | 4 | 0, 24 |
| 4 | Management experienced in renewable energy field | 0, 05 | 4 | 0, 20 |
| 5 | Active in social media provides renewable energy information | 0, 02 | 3 | 0, 06 |
| 6 | Producing solar module panels in Indonesia | 0, 05 | 3 | 0, 15 |
| 7 | Innovative marketing strategies | 0, 04 | 3 | 0, 12 |
| 8 | Able to compete with old or new companies | 0, 04 | 3 | 0, 12 |
| 9 | Building synergies with the parent company | 0, 05 | 4 | 0, 20 |
| 10 | Become a market leader in renewable energy development in Indonesia | 0, 04 | 3 | 0, 12 |

| | Weaknesses | Weight | Rating | Weighted Score |
|---|---|---|---|---|
| 1 | The growing need for human resources along with the expansion of the wider market | 0, 08 | 1 | 0, 08 |
| 2 | Integration with other units as subsidiaries has not been well established | 0, 06 | 1 | 0, 06 |
| 3 | Development projects are mostly from the government. | 0, 04 | 1 | 0, 04 |
| 4 | There are still few development projects from private or community | 0, 06 | 2 | 0, 12 |
| 5 | Limitations of authority in the construction of roof rooftop solar power plant | 0, 05 | 2 | 0, 10 |
| 6 | Lack of utilization of information technology services that have been developed | 0, 06 | 2 | 0, 12 |
| 7 | Production costs are less efficient because they use materials derived from imports. | 0, 05 | 1 | 0, 05 |
| 8 | The need for training to improve the competence of all management | 0, 03 | 1 | 0, 03 |
| 9 | Limited authority in resource management | 0, 02 | 2 | 0, 04 |
| 10 | Limited market segmentation | 0, 03 | 2 | 0, 06 |
| | **Total IFE Score** | **1, 00** | | **2, 59** |

Based on the table above, a total average score of 2.59 is a low average score indicating that the company's internal capabilities are ineffective in overcoming company weaknesses. The company must improve its strategy and focus more on how to address the weaknesses faced.

### 4.1.2    External Factor Evaluation Analysis

**Table 3:** External Factor Evaluation

| | Opportunities | Weight | Rating | Weighted Score |
|---|---|---|---|---|
| 1 | Consumer purchasing power increases year-on-year | 0, 03 | 3 | 0, 09 |
| 2 | Government policy support is getting better towards the development of renewable energy | 0, 02 | 3 | 0, 06 |
| 3 | Expanding abroad | 0, 07 | 4 | 0, 28 |
| 4 | Have a good brand image in the eyes of consumers | 0, 05 | 3 | 0, 15 |
| 5 | Communicate with renewable energy companies / developers who have similar products | 0, 04 | 2 | 0, 08 |
| 6 | Survive in the middle of competition | 0, 06 | 3 | 0, 18 |
| 7 | Growing domestic market | 0, 07 | 3 | 0, 21 |
| 8 | The number of creditors as investors | 0, 05 | 4 | 0, 2 |
| 9 | rooftop solar power plant technology is getting cheaper so it can sell cheaper products | 0, 06 | 3 | 0, 18 |
| 10 | The application of rooftop solar power plant tariffs through Feed in tariffs will increase competitiveness | 0, 05 | 3 | 0, 15 |

| | Threats | Weight | Rating | Weighted Score |
|---|---|---|---|---|
| 1 | Not focusing on one type of product | 0, 03 | 3 | 0, 09 |
| 2 | Inconsistent government policies | 0, 02 | 3 | 0, 06 |
| 3 | Implementation of SNI Solar Module Christaline | 0, 07 | 3 | 0, 21 |
| 4 | Financial crisis due to the Covid-19 pandemic | 0, 05 | 2 | 0, 10 |
| 5 | People's up and down purchasing power | 0, 04 | 3 | 0, 12 |
| 6 | Tight competition by competitors in terms of advertising and product development innovation | 0, 06 | 4 | 0, 24 |
| 7 | Price competition with competitors | 0, 07 | 3 | 0, 21 |
| 8 | Wide market due to competitors who are unable to meet customer demand | 0, 05 | 3 | 0, 15 |
| 9 | Growing importer of solar modules | 0, 06 | 3 | 0, 18 |

| 10 | The life of rooftop solar power plant material is relatively long so it is necessary to find a lot of consumers. | 0, 05 | 4 | 0, 20 |
|---|---|---|---|---|
| | **Total EFE Score** | **1, 00** | | **3, 14** |

Based on the table above there is a total average score of 3.14 is a high average score indicating that the company's strategy in overcoming threats from competitors and market conditions is good enough. But the company still has to improve its strategy in order to take advantage of the opportunities available well.

### 4.1.3 Matrik Competitive Profile Matriks (CPM)

**Table 4:** CPM Matrix

| PT XYZ | | | | PT ABC | | PT DEF | |
|---|---|---|---|---|---|---|---|
| **Critical Success Factors** | **Weight** | **Rating** | **Score** | **Rating** | **Score** | **Rating** | **Score** |
| Advertising | 0, 07 | 3 | 0, 21 | 3 | 0, 21 | 3 | 0, 21 |
| Market Penetration | 0, 09 | 3 | 0, 27 | 3 | 0, 27 | 3 | 0, 27 |
| Customer Service | 0, 07 | 3 | 0, 21 | 3 | 0, 21 | 4 | 0, 28 |
| Store Locations | 0, 10 | 4 | 0, 40 | 2 | 0, 20 | 2 | 0, 20 |
| R&D | 0, 10 | 4 | 0, 40 | 2 | 0, 20 | 2 | 0, 20 |
| Employee Dedication | 0, 08 | 3 | 0, 24 | 4 | 0, 32 | 4 | 0, 32 |
| Financial Profit | 0, 09 | 3 | 0, 27 | 3 | 0, 27 | 4 | 0, 36 |
| Customer Loyalty | 0, 10 | 4 | 0, 40 | 4 | 0, 40 | 4 | 0, 40 |
| Market Share | 0, 07 | 4 | 0, 28 | 2 | 0, 14 | 3 | 0, 21 |
| Product Quality | 0, 08 | 4 | 0, 32 | 4 | 0, 32 | 3 | 0, 24 |
| Top Management | 0, 07 | 3 | 0, 21 | 3 | 0, 21 | 2 | 0, 14 |
| Price Competitiveness | 0, 08 | 3 | 0, 24 | 4 | 0, 32 | 3 | 0, 24 |
| **Totals** | **1, 00** | | **3, 45** | | **3, 07** | | **3, 07** |

Based on the table above, it can be known that PT XYZ has the highest Competitive Profile Matrix value compared to competitors engaged in rooftop solar power plant in Indonesia.

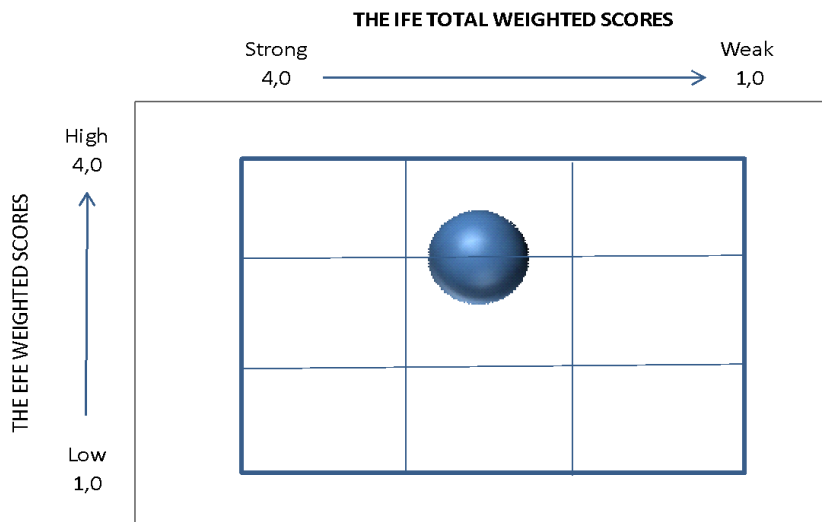### 4.1.4 Internal-External Matrix Analysis (IE)



**Image 3:** IE Matrix

Based on the picture above it can be known that PT XYZ has a good strategy in dealing with external factors so that it has a high value but to need improvement in internal factors in order to strengthen the company's position in the market.

### 4.1.5 Matrix SWOT Analysis

After the use of EFE and IFE analysis as input stages, SWOT matrix analysis is further used as an analysis in matching stages.

The SWOT matrix is an important advanced analysis tool in determining and developing appropriate strategic alternatives.

The SWOT Matrix table. From swot matrix analysis, matching strengths (S), weaknesses (W), opportunities (O) and threats (T) companies produce several alternative strategies namely

SO, ST, WO and WT strategies.

**Table 5:** Matrix SWOT Analysis

| IFAS / EFAS | Strengths (S) | Weakness (W) |
|---|---|---|
| | 1 Have a strong image and identity in the renewable energy industry market in Indonesia<br><br>2 Has an extensive network of renewable energy industry development in Indonesia<br><br>3 Have quality human resources<br><br>4 Experienced management in renewable energy<br><br>5 Active in social media providing renewable energy information<br><br>6 Producing solar module panels in Indonesia<br><br>7 Innovative marketing strategies<br>8 Able to compete with old or new companies<br>9 Build synergies with the parent company<br><br>10 Become a market leader in the development of renewable energy in Indonesia | 1 Human resources needs that continue to increase along with the expansion of the wider market<br><br>Integration with other units as subsidiaries has not been well established<br><br>3 Development projects are mostly obtained from the Government<br><br>4 There are still at least development projects from private or community<br><br>5 Limitations of authority in the construction of roof rooftop solar power plant<br><br>6 Lack of utilization of information technology services that have been developed<br><br>7 Production costs are less efficient because they use materials derived from imports<br>8 The need for training to improve the competence of all management<br>9 Limitations of authority in resource management<br><br>10 Limited market segmentation |
| Opportunities (O)<br>1 Consumer purchasing power increases year-on-year<br><br>2 Government policy support is getting better towards the development of renewable energy<br><br>3 Expanding abroad<br><br>4 Have a good brand image in the eyes of consumers<br><br>5 Communicate with renewable energy companies / developers who have similar products<br><br>6 Survive in the middle of the competition<br>7 Growing domestic market<br>8 The number of creditors as investors<br>9 Rooftop solar power plant technology is getting cheaper so that it can sell cheaper products<br>10 Application of rooftop solar power plant tariff through Feed in tariffs will increase competitiveness | SO strategy<br><br>1 Improve the quality of module panel production in line with hr development through training and technological development<br><br>2 Improve marketing whether digital or offline to become a strong and successful brand<br><br>3 Build and coordinate with other sub-units under the parent company<br><br>4. Cooperate with creditors to increase production | WO strategy<br><br>1 Increase the network of sales of goods / services more widely with alternative financing<br><br>Strengthening sales networks either in government or through private parties |
| Threats (T) | | Threats (T) |

### 4.1.6    QSPM Matrix

**Table 6:** QSPM Matrix

| Market Penetration | | | | Product Diversification | |
| --- | --- | --- | --- | --- | --- |
| **Strengths** | **Weight** | **AXLE** | **BAG** | **AXLE** | **BAG** |
| Have a strong image and identity in the renewable energy industry market in Indonesia | 0, 09 | 4 | 0, 36 | 3 | 0, 27 |
| Has an extensive network of renewable energy industry development in Indonesia | 0, 08 | 3 | 0, 24 | 3 | 0, 24 |
| Have quality human resources | 0, 06 | 3 | 0, 18 | 2 | 0, 12 |
| Management experienced in renewable energy field | 0, 05 | 3 | 0, 15 | 4 | 0, 20 |
| Active in social media provides renewable energy information | 0, 02 | 4 | 0, 08 | 3 | 0, 06 |
| Producing solar module panels in Indonesia | 0, 05 | 4 | 0, 20 | 3 | 0, 15 |
| Innovative marketing strategies | 0, 04 | 4 | 0, 16 | 3 | 0, 12 |
| Able to compete with old or new companies | 0, 04 | 3 | 0, 12 | 4 | 0, 16 |
| Building synergies with the parent company | 0, 05 | 2 | 0, 10 | 1 | 0, 05 |
| Become a market leader in renewable energy development in Indonesia | 0, 04 | 2 | 0, 08 | 3 | 0, 12 |

| Market Penetration | | | | Product Diversification | |
| --- | --- | --- | --- | --- | --- |
| **Weaknesses** | **Weight** | **AXLE** | **BAG** | **AXLE** | **BAG** |
| The growing need for human resources along with the expansion of the wider market | 0, 08 | 3 | 0, 24 | 3 | 0, 24 |
| Integration with other units as subsidiaries has not been well established | 0, 06 | 4 | 0, 24 | 3 | 0, 18 |
| Development projects are mostly from the government. | 0, 04 | 2 | 0, 08 | 2 | 0, 08 |
| There are still few development projects from private or community | 0, 06 | 1 | 0, 06 | 3 | 0, 18 |
| Limitations of authority in the construction of roof rooftop solar power plant | 0, 05 | 2 | 0, 10 | 3 | 0, 15 |
| Lack of utilization of information technology services that have been developed | 0, 06 | 1 | 0, 06 | 2 | 0, 12 |
| Production costs are less efficient because they use materials derived from imports. | 0, 05 | 3 | 0, 15 | 2 | 0, 10 |
| The need for training to improve the competence of all management | 0, 03 | 1 | 0, 03 | 2 | 0, 06 |
| Limited authority in resource management | 0, 02 | 3 | 0, 06 | 3 | 0, 06 |
| Limited market segmentation | 0, 03 | 3 | 0, 09 | 2 | 0, 06 |

| Market Penetration | | | | Product Diversification | |
| --- | --- | --- | --- | --- | --- |
| **Opportunities** | **Weight** | **AXLE** | **BAG** | **AXLE** | **BAG** |
| Consumer purchasing power increases year-on-year | 0, 03 | 3 | 0, 09 | 4 | 0, 12 |
| Government policy support is getting better towards the development of renewable energy | 0, 02 | 3 | 0, 06 | 3 | 0, 06 |
| Expanding abroad | 0, 07 | 4 | 0, 28 | 4 | 0, 28 |
| Have a good brand image in the eyes of consumers | 0, 05 | 3 | 0, 15 | 3 | 0, 15 |
| Communicate with renewable energy companies / developers who have similar products | 0, 04 | 4 | 0, 16 | 3 | 0, 12 |
| Survive in the middle of competition | 0, 06 | 3 | 0, 18 | 3 | 0, 18 |
| Growing domestic market | 0, 07 | 4 | 0, 28 | 3 | 0, 21 |
| The number of creditors as investors | 0, 05 | 3 | 0, 15 | 4 | 0, 20 |
| rooftop solar power plant technology is getting cheaper so it can sell cheaper products | 0, 06 | 3 | 0, 18 | 2 | 0, 12 |
| The application of Roofto solar power plant tariffs through Feed in tariffs will increase competitiveness | 0, 05 | 3 | 0, 15 | 3 | 0, 15 |

| Market Penetration | | | | Product Diversification | |
| --- | --- | --- | --- | --- | --- |
| **Threats** | **Weight** | **AXLE** | **BAG** | **AXLE** | **BAG** |
| Not focusing on one type of product | 0, 03 | 2 | 0, 06 | 3 | 0, 09 |
| Inconsistent government policies | 0, 02 | 3 | 0, 06 | 3 | 0, 06 |
| Implementation of SNI Solar Module Christaline | 0, 07 | 4 | 0, 28 | 2 | 0, 14 |
| Financial crisis due to the Covid-19 pandemic | 0, 05 | 2 | 0, 10 | 3 | 0, 15 |
| People's up and down purchasing power | 0, 04 | 3 | 0, 12 | 4 | 0, 16 |
| Tight competition by competitors in terms of advertising and product development innovation | 0, 06 | 3 | 0, 18 | 2 | 0, 12 |
| Price competition with competitors | 0, 07 | 4 | 0, 28 | 3 | 0, 21 |
| Wide market due to competitors who are unable to meet | 0, 05 | 4 | 0, 20 | 2 | 0, 10 |

| | | | | | |
|---|---|---|---|---|---|
| customer demand | | | | | |
| Growing importer of solar modules | 0, 06 | 3 | 0, 18 | 2 | 0, 12 |
| The life of rooftop solar power plant material is relatively long so it is necessary to find a lot of consumers. | 0, 05 | 3 | 0, 15 | 2 | 0, 10 |
| **STAS** | | | **6, 07** | | **4, 24** |

Based on the table above it can be known that the market penetration strategy is a more interesting strategy based on this research with a Sum Total Attractiveness Score (STAS) value of 6.07.

## 5.Conclusion

Based on the research that has been done, the following conclusions can be drawn:

1. PT XYZ has a total average score of 2.59 is a low average score indicating that the company's internal capabilities are ineffective in overcoming company weaknesses.
2. PT XYZ has a total average score of 3.14 is a high average score indicating that the company's strategy in overcoming threats from competitors and market conditions is good enough.
3. PT XYZ has the highest Competitive Profile Matrix value compared to competitors engaged in rooftop solar power plant in Indonesia
4. Market Penetration Strategy is a more interesting strategy based on this research with Sum Total Attractiveness Score (STAS) value of 6.07

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