

SWOT and AHP Analysis in Determining the Strategy of Product Marketing Excellence in Companies

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Abstract: The development of companies in the digital era especially product business in Indonesia is now increasingly prominent in complexity, competition, change, and uncertainty so that the company's marketing and sales systems have not reached a maximal capacity due to the lack of superior and appropriate strategy. The researcher considered several alternatives using SWOT analysis and the Analytical Hierarchy Process (AHP) method to overcome these problems. The results showed that using the SWOT-AHP Analysis, it was found that the Strength parameter got the highest score by 53% and Opportunity parameter by 21%. Through the SWOT sub-criteria, it was found that the Strengths priority were S2 (Registered patent) with a score of 0.53, S1 (New product) with a score of 0.29, S3 (Mechanical technology) with a score of 0.28, respectively. While weaknesses priority were W2 (inoptimal product promotion) with a score of 0.63, W1 (product not widely known) with a score of 0.37. In addition, the Opportunities Priority were the order of O2 (market share's openness) with a score of 0.52, O3 (More efficient products) with a score of 0.29, and O1 (Switching products from manual to automatic) with a score 0.19. And finally, the Threats priority were T1 (raw material) with a score of 0.53, T2 (price competition) with a score of 0.26 and T3 (product fraud) with a score of 0.21. The top priority of leading marketing strategy are by increasing product quality by 39.3%, while the second priority is marketing cooperation by 21.4%, the third is the pricing strategy by 20.5% and the last is promotion by 14.8%.

Keywords: AHP, SWOT, Strategy, Product Marketing, Business.

I. INTRODUCTION

The development of companies in the digital era especially product business in Indonesia is now increasingly prominent in complexity, competition, change, and uncertainty especially now that the Digital Age is making competition more complex (Till, 2015). This situation creates a fierce competition between companies, due to the increase of competition, product volumes and the rapid development of digital technology (Pershing, 2006). This forces the company to pay more attention to the environment whether it's internal or external that can affect the development of the company so that the company knows what marketing strategies and how should it can be applied in the company (Hutabarat, 2017).

This paper used some literature to support the research, for example paper with title Strengths, Weaknesses, Opportunities And Threats (SWOT) Analysis On Globacom Ltd (Bello, 2013). Strengths vs Strong Position: Rethinking the Nature of SWOT Analysis (Clardy, 2013). SWOT Analysis of strategic Position of Cycling Federation in Iran (Arefeh Jamshidi, 2012). Comparing AHP and ANP: An Application of Strategic Decisions Making in a Manufacturing Company (GÖRENER, 2012). SWOT Analysis (Lalitha Chavali, 2017). The Strategic Planning (SWOT) Analysis Outcomes And Suggestions According To The Students And The Lecturers Within The Distance Education System (Tugba Yanpar YELKEN, 2012). Coping with Imprecision in Strategic Planning: A Case Study Using Fuzzy SWOT Analysis (Hasan Hosseini-Nasab, 2011). Strategic Planning & SWOT Analysis (Kotnal, 2017). SWOT Balanced Scorecard (Rangkuti., 2012). Strategic development and SWOT analysis at the University of Warwick (Dyson, 2004). Combining SWOT and AHP Techniques for strategic planning (Osuna & Aranda, 2007). Prioritiation of e-Government strategies using a SWOT-AHP analysis: the case of Turkey (Kahraman, Cetin, & Demirel, 2007). Studying strategies of sport management using SWOT technique (Leila Asayesh, 2013). Focused SWOT: diagnosing critical strengths and weaknesses (Ronen, 2009). A Synthesis on SWOT Analysis of Public Sector Healthcare Knowledge

Management Information Systems in Pakistan (Arfan Arshad, 2017). A SWOT Analysis Tool For Indonesian Small and Medium Enterprise (Husni Thamrin, 2017). Development of Strategic Plan for Hotel Industries through Swot Analysis (C.Kiritharan nair, 2016). Importance-Performance Analysis based SWOT analysis (Boonyarat Phadermrod, 2016).

PT. X is a company that manufactures products for household needs (Sentot Patria. W. S, 2018). This company's marketing system has not reached its maximal capacity due to the lack of an appropriate strategy. This causes sales to not increase as expected. Until recently, the marketing division has made use of technology through websites, social media, digital marketing, mobile friendly, applications, innovation, and also through brochures (Arys Susanto, 2018). In addition, the company instills motto on employees to provide the best service. However, this marketing media cannot be utilized optimally without a good strategy. This study aimed to determine the right marketing strategy and competitiveness by identifying, assessing the company's internal factors and external environment that affect the company.

Based on the existing problems as mentioned above, the best and most appropriate way to determinate product marketing excellence strategy is by considering several alternatives using SWOT analysis and the Analytical Hierarchy Process (AHP) method.

This Paper is organized as follows. Section 2 is review about the basic ship theory. Section 3 would be about the result of the research and section 4 discussion of research. Finally, while in section 5 we would present the conclusions of this paper.

II. MATERIALS AND METHODS

A.. Developmental Strategy

A.1. Marketing Strategy

Marketing strategy is a way to achieve goals by knowing where we are and what goals will be achieved. The marketing mix is a combination of marketing tools that can be used to affect and retain consumers (Ussahawanitchakit, 2011).

1. Product
2. Price
3. Place
4. Promotion

A.2. Production Strategy

Production strategy is an effort to manage the use of resources or factors of production such as labor, machinery, equipment, raw materials and so on optimally in the process of transforming raw materials and labor into various products or services (Volkova, 2015).

1. Selection
2. Planning
3. Operation
4. Supervision
5. Renewal

A.3. Operational Strategy

Operational strategy is a vision of operating functions that establishes the overall direction or driving force for decision making. This vision must be integrated with business strategies but not always reflected in formal planning (Pereira, 2015).

1. Capacity and preparations
2. Quality
3. Dissemination
4. Marketing and operations

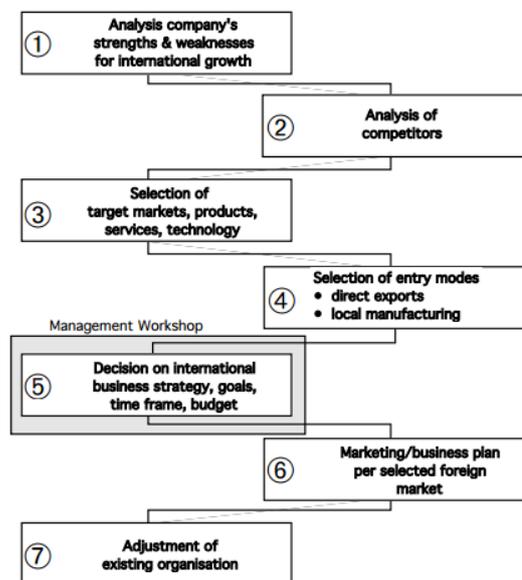


Figure. Steps In The International Business Strategy Formulation Process

B. SWOT Analysis

SWOT analysis is a strategic planning method used to evaluate strengths, weaknesses, opportunities, and threats in a project or a business speculation (Hajikhani & Jafari, 2013). These four factors form the acronym SWOT (Strengths, Weaknesses, Opportunities, and Threats). This process involves determining the specific objectives of business or project speculation and identifying internal and external factors that support these goals (Yogi, Rizal, & Ahmadi, 2017). SWOT analysis can be applied by analyzing and sorting things that affect all four factors, then applying it in the SWOT matrix image, where the application is how strengths are able to take advantage of opportunities, how to overcome weaknesses which prevents advantages from opportunities that exist, then how strengths are able to deal with existing threats, and finally how to overcome weaknesses that can make threats real or create a new threat (Lumaksono, 2014). The hierarchical representation of the SWOT structure is shown in Figure 1 (Chermack & Kasshanna, 2007).

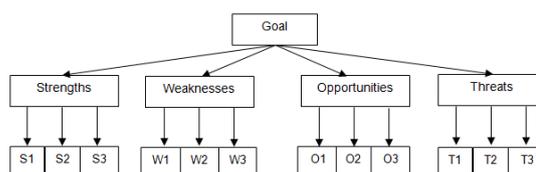


Fig.1. Hierarchical structure of the SWOT matrix

The use of an effective SWOT analysis provides 4 benefits for managers in creating marketing strategies; 1) simplicity: SWOT analysis does not require special training or technical skills; 2) collaboration: because of its simplicity, SWOT analysis encourages collaboration and information exchange between managers from different functional areas; 3) flexibility: it can enhance the quality of organizational strategy planning even without marketing information systems; 4) integration: SWOT analysis can be related to various sources of information (Setiarso, 2018).

To analyze the determination of the strategy to be clear, there are nine types of matrices that can be used namely as follows:

1. Matrix of External Factor Evaluation (EFE)
2. Matrix of Internal Factor Evaluation (IFE)
3. Matrix of Competitive Profile (CP)
4. Matrix of SWOT
5. Matrix of Strategic Position and Action Evaluation (SPACE)
6. Matrix of Internal-External (IE)
7. Matrix of Boston Consulting Group (BCG)
8. Matrix of Grand Strategy
9. Matrix of Quantitative Strategies Planning (QSP)

C. Analytic Hierarchy Process

Analytic hierarchy process (AHP) was developed by Thomas L. Saaty in the early 1970s (Saaty, 1980). The AHP method is one of the most popular pairwise comparison methods used for decision making on the Multi-Criteria Decision Making (MCDM) problem (Gorener, Toker, & Korkmaz, 2012). The AHP approach is designed to help decision makers to combine qualitative and quantitative factors from a complex problem.

The working principle of AHP is to form a problem structure. In solving problems, the AHP method used as a tool to help formulate strategies requires the preparation of hierarchies in the process. The hierarchy in question starts from the Goal, groups of factors, strategic factors and strategic alternatives (Kangas, Pesonen, & Mikko, 2001).

D. SWOT-AHP Method

In this research, the AHP structure obtained from the SWOT matrix and divided into three parts (Devi Cipta Anggraini, 2018). To create a SWOT-AHP based strategic management model, we designed the phases model. Firstly, we identified the SWOT through SWOT analysis, then found external and internal environment that relevated. Secondly modifying factors and third building an evaluation model (Figure 2) (Arica dwi susanto, 2019).

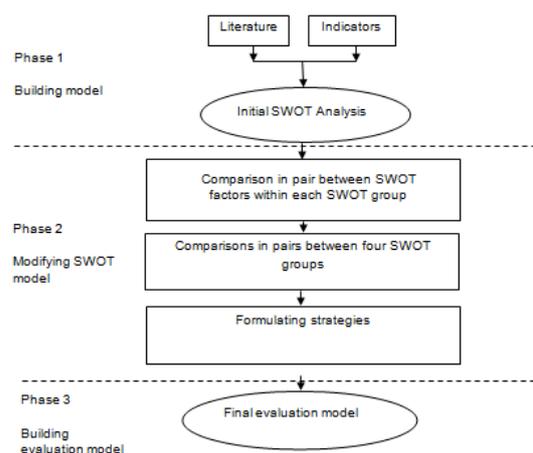


Fig.2. Phases Model

E. Technical Concept

Data collection methods used were survey methods and direct observation. The data obtained include primary data and secondary data. Primary data were obtained directly from the sample/respondent with a purposive sampling method through interview techniques and assisted with a questionnaire in the form of written questions and alternative answers provided (Hunger & Wheelen, 2010). Interviews were conducted with the Division Manager of PT. X Industry and marketing operational manager of PT. X Industry. Data collection also used documents provided by companies, especially the PT. X related to the product marketing planning process.

Weighting of internal and external strategic factors and group factors was performed through pairwise comparison methods. After an alternative strategy was created, the AHP method was used to prioritize the alternative. The AHP method produces the best strategy from various alternative strategies recommended through the SWOT matrix (Mehmet, 2011).

III. RESULT

The first step in analyzing SWOT is to make an analysis of internal and external factors from PT. X.

Table 1: SWOT factors and sub-factors for the strategy selection

| | |
|---|---|
| Strength (S) (S1) New Product (S2) Registered patent (S3) Mechanical technology | Weakness (W) (W1) Product not widely known (W2) Inoptimal product promotion |
| Opportunities (O) (O1) Switching products from manual to automatic (O2) Market share's openness (O3) More efficient products | Threats (T) (T1) Raw Materials (T2) Price Competition (T3) Product Fraud |

Alternative strategies based on the SWOT factors and sub-factors are developed using the SWOT matrix.

1. Increasing promotion program (A1)
2. Increasing product quality (A2)
3. Pricing strategy (A3)

4. Marketing cooperation (A4)

IV. DISCUSSION

The next step was pairwise comparison of SWOT factors by using Saaty (1-9) scale. The comparison results are shown in Table 3.

Table 3: Pairwise comparison of SWOT factors

| With Respect To The Goal | Strengths | Weakness | Opportunities | Threats | Importance Degrees of SWOT Groups |
|--------------------------|-----------|----------|---------------|---------|-----------------------------------|
| Strengths | 1,00 | 5,00 | 3,00 | 3,00 | 3,00 |
| Weaknesses | 0,20 | 1,00 | 0,71 | 0,58 | 0,62 |
| Opportunities | 0,33 | 1,41 | 1,00 | 2,00 | 1,18 |
| Threats | 0,33 | 1,73 | 0,50 | 1,00 | 0,89 |

CI=0,028 CR=0,03

Table 4: Geometric mean matrix score of sub-criteria - Alternative expert 1 and expert 2

| | A1 | A2 | A3 | A4 | Local Weight | Global Weight |
|---------------------|-------|-------|-------|-------|--------------|---------------|
| S1 | 0,17 | 0,15 | 0,25 | 0,36 | 0,140 | 0,072 |
| S2 | 0,12 | 0,32 | 0,14 | 0,42 | 0,528 | 0,273 |
| S3 | 0,18 | 0,17 | 0,27 | 0,36 | 0,333 | 0,172 |
| W1 | 0,13 | 0,15 | 0,29 | 0,43 | 0,500 | 0,043 |
| W2 | 0,10 | 0,25 | 0,21 | 0,41 | 0,500 | 0,043 |
| O1 | 0,12 | 0,23 | 0,20 | 0,40 | 0,250 | 0,055 |
| O2 | 0,14 | 0,18 | 0,21 | 0,41 | 0,500 | 0,111 |
| O3 | 0,21 | 0,20 | 0,16 | 0,36 | 0,250 | 0,055 |
| T1 | 0,13 | 0,20 | 0,23 | 0,45 | 0,443 | 0,077 |
| T2 | 0,12 | 0,16 | 0,18 | 0,47 | 0,387 | 0,067 |
| T3 | 0,20 | 0,21 | 0,14 | 0,38 | 0,169 | 0,029 |
| | 0,57 | 0,83 | 0,85 | 1,62 | 3,87 | 0,997 |
| Matrix Score | 0,148 | 0,207 | 0,214 | 0,393 | 0,961 | |

Based on the calculation of the geometric mean, it is found that the first priority is on improving product quality (0.393), the second is marketing cooperation (0.214), the third priority is pricing strategy (0.207) and the last is promotion (0.148).

V. CONCLUSION

The results showed that the SWOT-AHP analysis on the formulation of superior product marketing strategies stated that the most important priority strategies is the Strength-Opportunity strategy. Strength got the highest score of 53% and Opportunity

by 21%. The SO strategy focuses on the strengths the company has to seize the opportunities. Through the SWOT sub-criteria, it was found that the Strengths priority were S2 (Registered patent) with a score of 0.53, S1 (New product) with a score of 0.29, S3 (Mechanical technology) with a score of 0.28, respectively. While weaknesses priority were W2 (inoptimal product promotion) with a score of 0.63, W1 (product not widely known) with a score of 0.37. In addition, the Opportunities Priority were the order of O2 (market share's openness) with a score of 0.52, O3 (More efficient products) with a score of 0.29, and O1

(Switching products from manual to automatic) with a score 0.19. And finally, the Threats priority were T1 (raw material) with a score of 0.53, T2 (price competition) with a score of 0.26 and T3 (product fraud) with a score of 0.21. Based on the alternative selection results on the formulation of a marketing strategy for electric battery sprayer knapsack products, it can be concluded that the main priority are increasing product quality by 39.3%, the second priority were marketing cooperation with a score of 21.4%, the third is pricing strategies by 20.5% and finally the promotion by 14.8%.

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