Business strategy design of anthropometric kit products using SWOT, AHP, and TOPSIS analysis (case study: PT Sadamaya Graha Teknologi)

Muhamad Agung Prayitno[1]*, Bramantiyo Eko Putro[1]
[1] Department of Industrial Engineering, Universitas Suryakancana, Cianjur, West Java, Indonesia
* Corresponding author: bramantiyo@unsur.ac.id

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ABSTRACT

Stunting is one of the major public health problems in Indonesia, with a high prevalence. This issue presents a potential opportunity for PT. SGT, a manufacturer of anthropometry kits, to increase its product sales. However, the company's current market share remains suboptimal. Therefore, a well-defined strategy is needed to improve sales performance in the future. This study aims to determine the most suitable strategy for PT. SGT by distributing questionnaires to three respondents. The collected data were analyzed using the SWOT (Strengths, Weaknesses, Opportunities, Threats) framework and the Internal-External (IE) matrix to identify the company's strategic position. To support strategic decision-making, the AHP-TOPSIS method was applied. The Analytical Hierarchy Process (AHP) was used to determine the weight of each strategic criterion, while the Technique for Order of Preference by Similarity to Ideal Solution (TOPSIS) was used to rank alternative strategies. The results revealed that market penetration—particularly through gradually increasing production capacity via strategic partnerships—is the most suitable strategy to enhance PT. SGT's competitiveness and market reach. The IE matrix results positioned the company in quadrant I (Grow and Build), suggesting strategies such as integration, market penetration, market development, and product development. The final result indicated that market penetration, specifically by gradually increasing production capacity through partnerships, is the most appropriate strategy for PT. SGT.

1. Introduction

Stunting is a condition of impaired physical growth characterized by a decrease in growth rate and is the impact of nutritional imbalances characterized by the condition of a person's height being shorter than the height of other people in general or of the same age (Merryana & Bambang, 2012). Stunting is caused by insufficient nutritional intake for a long time due to feeding that is not in accordance with nutritional needs. Stunting can also occur starting from the fetus that is still in the womb and will only appear when the child reaches the age of two (Rahmadhita, 2020). Stunting has the potential to slow brain development, with long-term impacts in the form of mental retardation, low learning ability, and the risk of chronic diseases such as diabetes, hypertension, obesity and death (Kementerian Kesehatan, 2018)

Data shows that stunting cases in Indonesia in 2018 reached 30.8% (Indonesian Ministry of Health, 2019). In 2018, the prevalence of stunting in Indonesia was 11.5%. The highest prevalence was in West Sulawesi, which was 16.2%. Then, followed by Aceh and East Nusa Tenggara (NTT) provinces

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at 16%. Meanwhile, the smallest stunting prevalence is in Bali province at 5.6%. Therefore, the Government has set stunting as a national priority issue in the 2020-2024 National Medium-Term Development Plan (RPJMN) with a significant reduction target from 24.4% in 2021 to 14% in 2024.

Through the 2020-2024 National Medium-Term Development Plan (RPJMN), the Government gave instructions through the Ministry of Health of the Republic of Indonesia to urge the Health Office of each region to strive for the procurement of anthropometric kits as a must-have health facility. The budget for anthropometric kit needs itself has currently been included in the Special Allocation Fund (physical) each year.

PT. Sadamaya Graha Teknologi (PT SGT) is a company that produces anthropometry. PT SGT engaged in the manufacture of medical devices and the manufacture of fabricated products. PT SGT was established in June 2009 which is located on Jl. Raya Cibeber KM 10 Cilaku-Cianjur can produce various types of pharmaceuticals and medical devices for various needs of medical personnel in carrying out their duties. In its business process, the company implements a make-to-order system, which means that the number of products sold will adjust to market conditions.

PT SGT can well take advantage of the situation of increasing stunting rates. It is recorded that the total need for anthropometric kits is 313,737 from the number of 303,416 Posyandu which is targeted to be fulfilled in 2024 (Rokom, 2023). In 2019 sales of anthropometric kits at the company increased by 67.4%. According to the company's historical data presented in Fig. 1, there was an increase of 19,536 units of anthropometric kit sales from 2021. It was recorded that in 2022 the company had a market share value of 8%. In accordance with the vision of the company, the company will continue to improve and strive to increase customer satisfaction and the percentage of market share.

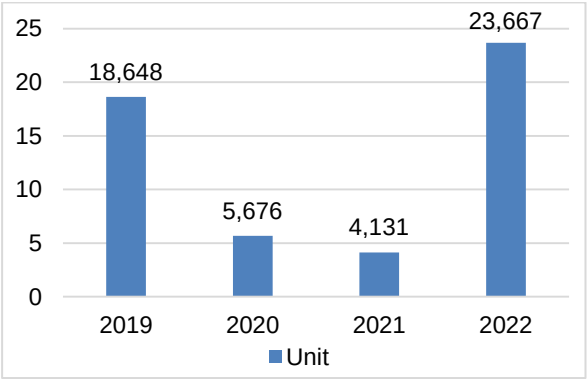

Fig. 1 Sales Performance of PT. SGT Anthropometry Kits
Source: PT. Sadamaya Graha Teknologi

The impact will appear increasingly fierce business competition which requires companies to always have a strategy so that the business can survive and continue to grow in this competition. This level of competition forces each company to produce a variety of different innovative ideas to continue to compete. One of the benchmarks of the company is PT Kimia Farma Tbk (KAEF) which has a market share of 70%. PT Kimia Farma Tbk (KAEF) recorded an increase in demand for pharmaceutical products and medical devices throughout the Kimia Farma retail network. The average increase that occurred was around 20%-30% from the beginning of this year (Mediatama, 2021). Therefore, a good strategy is needed so that the business can continue to run.

Business strategy is a company's effort in taking policies to build an advantage in business competition. The goal is none other than to fulfill and achieve the company's vision, mission and business targets (Farida & Setiawan, 2022). Strategy is also a plan developed by a company that focuses on long-term goals that will improve the quality of the company's business. It is certain that the company will have a strategy to launch the business that has been made. Strategy also has an important role in the running of a business, be it a business in the pharmaceutical and medical device industry or other businesses. There are various strategies that the company has, one of which is a marketing strategy, which is a form of planning found in the marketing field. This marketing is a form of basic activity carried out by business actors in increasing their business so that it can be sustainable and profitable (Rahman et al., 2022).

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The development of pharmaceutical sales and medical devices, especially in the production of anthropometry kits, is growing rapidly. By responding to current market conditions, companies must compete to produce anthropometric kits quickly but with good quality. However, PT Sadamaya Graha Teknologi only has one type of anthropometry kit product with standard prices like other companies. Of course, because of this it can cause problems because there are many anthropometric kit products on the market and will ultimately affect the market share of PT. Sadamaya Graha Teknologi. The company must be able to take advantage of existing strengths, opportunities, weaknesses, and threats to overcome external threats and capture every opportunity in its business processes.

The researcher will focus this research on PT Sadamaya Graha Teknologi and examine the sales level of the company's anthropometry kit. Strategic management is needed that is suitable for anthropometric kit products. One alternative to designing company strategies that can be carried out by companies is to use SWOT analysis, IE Matrix, AHP and TOPSIS. The SWOT matrix is a strategic analysis tool used to evaluate the strengths, weaknesses, opportunities, and threats that affect an organization, both internally and externally. This analysis produces various strategies, such as SO (optimizing strengths to take advantage of opportunities), WO (overcoming weaknesses by taking advantage of opportunities), ST (using strengths to deal with threats), and WT (minimizing weaknesses to avoid threats) (Islam et al., 2020). This matrix allows companies to design strategies that are more relevant to market conditions and their resources (Galavan, 2014).

The IE (Internal-External) Matrix combines the evaluation results of the IFE (Internal Factor Evaluation) and EFE (External Factor Evaluation) Matrices to map the company's strategy based on its position in the matrix. The results are divided into three main areas: grow and build (using intensive strategies such as market penetration and product development, or integrative such as vertical and horizontal integration), hold and maintain (maintaining the market with product development strategies), and harvest or divest (asset reduction or divestment to increase efficiency) (Benzaghta et al., 2021). This matrix helps organizations choose the right course of action according to internal strengths and external conditions.

The AHP method is a multi-criteria decision-making technique that compares factors in pairs to determine strategic priorities. Criteria such as partnership, market, location, staff, and budget are assessed using a 1-9 scale to determine their weight and consistency. The comparison matrix is normalized, and then the Consistency Ratio (CR) is calculated; if CR ≤ 0.1, the results are considered consistent (Çoban, 2023). AHP is effective in handling complex problems with many variables, providing solutions based on structured judgment.

The TOPSIS method is designed to determine the best alternative by calculating the geometric distance to the positive (best) and negative (worst) ideal solutions. The steps include normalization of the decision matrix, weighting, and calculation of positive and negative ideal solutions. The distance of each alternative is calculated using Euclidean distance, then the relative closeness value is calculated to determine the ranking. TOPSIS is suitable for solving multi-criteria problems by considering qualitative and quantitative aspects in a balanced manner (Windarto, 2017). TOPSIS is suitable for solving multi-criteria decision-making problems because it can accommodate both qualitative and quantitative criteria in a structured and balanced manner. Its ability to provide clear and logical rankings has made it one of the most widely applied MCDM methods across various domains, including strategic planning, manufacturing, and resource allocation (Chakraborty, 2022).

2. Methods

This research targets the analysis of the sales of anthropometric kit products produced by PT SGT. This study uses primary and secondary data. Secondary data is obtained from historical data owned by the Marketing department. The data collected is in the form of records of sales realization of anthropometry kits in the last 4 years. Primary data were collected through interviews and questionnaires. The interviews aimed to explore the internal and external conditions of the company related to the business process of selling anthropometry kit products. To ensure relevant and in-depth insights, interviews were conducted with three key respondents: the Head of Product Marketing and two employees involved in product sales. The Head of Product Marketing was selected due to their comprehensive understanding of market strategies, competitive positioning, and overall business direction. Meanwhile, the two sales employees were chosen because of their direct experience with customer interactions, sales challenges, and product demand trends. This purposive selection ensured that the collected data were both strategically insightful and operationally relevant, providing a

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well-rounded perspective for the SWOT, AHP, and TOPSIS analyses. The questionnaire was conducted to determine the assessment of authorized parties such as the Company Owner and the Head of Marketing in assessing the scale of the relationship between factors that influence the sale of anthropometry kit products.

The research followed a structured process beginning with company observation, problem identification, and a literature review to establish the theoretical framework. After collecting data through interviews and questionnaires, a three-stage data processing phase was conducted: the input stage, matching stage, and decision stage. In the input stage, the Internal Factor Evaluation (IFE) and External Factor Evaluation (EFE) matrices were developed to assess the company's internal strengths and weaknesses, as well as external opportunities and threats (David, 2016). The matching stage involved aligning these internal and external factors using SWOT and IE Matrix analyses to determine the company's strategic position. In the final decision stage, the Analytical Hierarchy Process (AHP) was used to assign weights to strategic criteria, and the Technique for Order Preference by Similarity to Ideal Solution (TOPSIS) was applied to rank strategic alternatives and identify the most suitable strategy.

3. Results and Discussion

Internal Factor Analysis

Internal factors affecting SGT's business and product marketing were analyzed using the Internal Factor Analysis Summary (IFAS). The internal factor indicators in Table 1 were identified through a triangulated approach involving literature review, company observation, and expert judgment. Strategic management frameworks (e.g., Ebrahimi & Banaeifard, 2018) guided the classification of internal strengths and weaknesses. Company-specific sources such as internal reports, certification documents, and input from the marketing and operations departments were analyzed to contextualize the findings. Additionally, interviews and discussions with key internal stakeholders—including management, marketing personnel, and field technicians—were conducted to validate and refine the indicators. This multi-source approach ensures that the indicators are both strategically grounded and relevant to the company's operational context. The overview of internal factor attributes can be seen in Table 1

Table 1 Overview of internal factor attributes

Item	Indicator	Code
Strength	Relationships that have been built are optimized and have a strong and integrated network	S1
	Users are interpersonally communicative	S2
	The company's after sales service is better than other competitors (web, call center, damage warranty, component availability up to 5 years).	S3
	The company is ISO certified	S4
	Products have been recognized by the Health Office in Indonesia	S5
	The influence of the company's location has several partners	S6
	The product is already AKD	S7
	There is a back up unit if there is damage	S8
	Product prices are affordable by consumers and compete with similar companies	S9
	Good product quality accepted by health facilities	S10
Weakness	The intensity of response to demand in the area is less than optimal	W1
	There are few products in teaching hospitals, so they are not familiar	W2
	Large initial production capital	W3
	Production capacity is still less than the demand of the Health Office	W4

External Factors

The external factor indicators in this study were identified using the PESTLE (Political, Economic, Social, Technological, Legal, Environmental) framework and Porter's Five Forces model, adapted to the specific conditions of the medical device industry in Indonesia (Masturoh & Niswah, 2019). This identification process involved a review of official documents, market observations, and qualitative insights gathered through interviews and discussions with internal company stakeholders. This

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approach ensures that the selected indicators reflect both macro-environmental dynamics and industry-specific competitive forces. The overview of external factor attributes can be seen in Table 2.

Table 2 Overview of external factor attributes

Item	Indicator	Code
Opportunity	The existence of Presidential Instruction number 2 of 2022	O1
	Selling stock that has settled through retail due to being rejected by the Health Office because it does not meet the requirements	O2
	Internal information from users	O3
	The increasing trend of digital marketing	O4
	There is a regulation regarding the acceleration of stunting reduction in Presidential Regulation Number 72 of 2021	O5
	Positive image from the community that creates trust in PT Sadamaya Graha Technology	O6
Threat	The contract can be canceled at any time because the provisions of the Health Office are different	T1
	RUU will affect the company	T2
	For some areas there is a price game from competitors	T3

Matrix IFAS & EFAS

To analyze the company's internal and external conditions, the IFAS and EFAS matrices were employed, using data from observations, interviews, and literature reviews. Strategic indicators were identified based on factors influencing company performance, encompassing internal strengths and weaknesses, and external opportunities and threats (Prasetya et al., 2023). Scoring followed the standard method (Capps & Glissmeyer, 2012), where each factor was assigned a weight based on its importance, determined through expert discussions, with total weights summing to 1.000. Factors were rated from 3 to 4 for strengths and opportunities, and 1 to 2 for weaknesses and threats. The final score was calculated by multiplying each weight by its corresponding rating. A total score above 2.5 indicates a strong strategic position, while a score below 2.5 suggests a weaker position. The matrix IFAS can be seen in Table 3, meanwhile the matrix EFAS can be seen in Table 4.

Table 3 Matrix IFAS

Strength	Code	Point	Rating	Score
Relationships that have been built are optimally maintained and have a strong and integrated network	S1	0.184	4	0.736
Interpersonal communicative user	S2	0.038	3	0.114
The company after sales service is better than other competitors (web, call center, breakdown warranty, parts availability up to 5 years).	S3	0.149	4	0.548
The company is ISO certified	S4	0.107	4	0.428
The product has been recognized by the Health Office in Indonesia	S5	0.113	4	0.451
The influence of location on the company has several counterparties	S6	0.067	4	0.269
Products already AKD	S7	0.089	4	0.355
There is a backup unit if there is damage	S8	0.076	3	0.227
Product prices are affordable by consumers and competitive with similar companies	S9	0.054	3	0.181
Good product quality accepted by health facilities	S10	0.050	4	0.198
Weakness				
The intensity of response to demand in the area is less than optimal	W1	0.016	2	0.032
Few products in teaching hospital so not familiar	W2	0.020	2	0.033
Large initial production capital	W3	0.020	1	0.020
Production capacity is still less than the demand of the Health Office	W4	0.018	2	0.035
Total		1.000		3.628

Table 3 shows the point value on the company's internal factors is 3.628. The largest score value indicator is obtained by indicator S1 with a score of 0.736. Meanwhile, the W3 indicator gets the lowest score with a value of 0.020.

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Table 4 Matrix EFAS

Opportunity	Code	Point	Rating	Score
The existence of Presidential Instruction number 2 of 2022	O1	0.231	4	0.923
Selling idle stock through retail due to rejection by the Health Office because it did not meet the requirements	O2	0.167	3	0.500
Internal information from the user	O3	0.067	4	0.246
The rising trend of digital marketing	O4	0.176	4	0.705
There is a regulation on accelerating stunting reduction in Presidential Regulation Number 72 of 2021	O5	0.141	4	0.564
A positive image of the community that creates trust in PT.SGT	O6	0.108	4	0.431
Threat				
The contract may be canceled at any time due to the provisions of the Health Office.	W1	0.027	2	0.054
Health Bill will affect companies	W2	0.065	2	0.108
For some areas there is price play from competitors	W3	0.019	1	0.019
Total		1.000		3.550

Table 4 shows the point value on the company's external factors is 3.550. The largest score value indicator is obtained by indicator S1 with a score of 0.923. While the W3 indicator gets the lowest score with a value of 0.019.

Matrix IE

As shown in Fig. 2, PT SGT is positioned in Quadrant I of the IE Matrix, with an IFE score of 3.628 (strong internal capabilities) and an EFE score of 3.550 (favorable external opportunities). This quadrant corresponds to a "Grow and Build" strategy, which encourages aggressive approaches such as market penetration, market development, product development, and integration (backward, forward, or horizontal) (Wijayati et al., 2019).

These strategies aim to capitalize on the company's strengths while responding effectively to external opportunities. Similar findings have been reported in prior studies, where firms in this quadrant were advised to pursue expansion through development-oriented strategies (Alfianar et al., 2020). PT SGT's strategic position indicates both strong internal performance and a supportive external environment, suggesting that the company should actively invest in growth initiatives to enhance its market presence and business performance. The Matrix IE can be seen in Fig. 2.

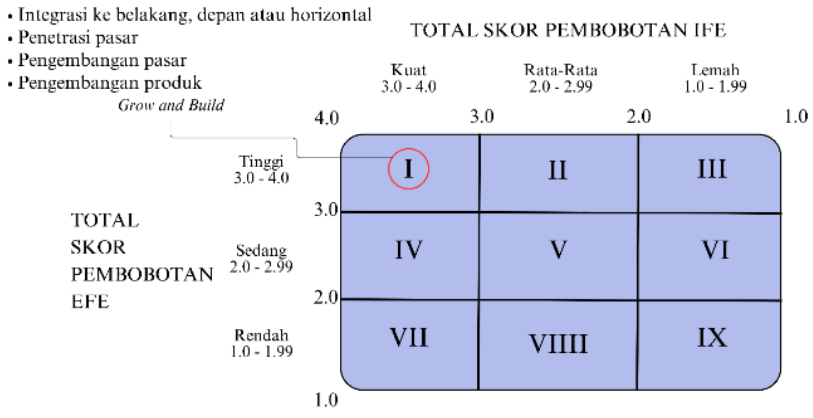

Fig. 2 Matrix IE

Strategy Alternatives

Based on the integration of the SWOT analysis and the Internal-External (IE) Matrix, which positioned the company in the *Grow and Build* quadrant, several strategic alternatives were identified. The SWOT analysis outlined key internal strengths and weaknesses, as well as external opportunities and threats,

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which were then mapped into the IE Matrix. This strategic position supports the adoption of aggressive strategies such as market penetration, market development, product development, and integration (forward, backward, or horizontal) (Phadermrod et al., 2019). These strategies are particularly relevant for healthcare manufacturing companies, where rapid responsiveness to market demands, regulatory compliance, and technological innovation are critical success factors (Van Wijngaarden et al., 2012). Moreover, enhancing digital marketing capabilities aligns with evolving healthcare purchasing behaviors, as decision-makers increasingly rely on online channels for product evaluation (Tiago & Veríssimo, 2014). The results of this analysis are summarized in Table 5.

Table 5 Alternative strategy analysis results

SWOT Analysis (Grow and Build)
Forward, backward, or horizontal integration
Market penetration
Market development
Product development

Based on the results presented in Table 5, the strategic alternatives most suitable for further development include integration (forward, backward, or horizontal), market penetration, market development, and product development. These options align with the company's position in the *Grow and Build* quadrant of the IE Matrix, indicating strong internal capabilities and significant external opportunities (Gürel, 2017). The details of each proposed strategy are outlined in Table 6.

Table 6 Proposed strategy

Strategy Alternative	Description
Forward, backward, or horizontal integration	Establish branch offices in several regions Monopolize the market for Anthropometry Kit product sales
Market penetration	Increase product promotion efforts through digital marketing
Market development	Establish a market for retail consumers
Product development	Improving the quality of after sales service on products

Analytical Hierarchy Process (AHP)

AHP is particularly valuable in the context of strategic planning for manufacturing in the medical device industry, where decisions must account for multiple, sometimes conflicting, factors such as compliance, logistics, market demand, and resource constraints (Ho, 2008). In this study, five key criteria were selected based on prior SWOT analysis results and expert judgment: partnership, market potential, location, staff, and budget availability.

The comparison matrix, shown in Table 7, reflects the relative judgments of selected experts with knowledge of the company's operations and strategic context. Each element in the matrix represents the importance of one criterion compared to another, helping to identify which factors are considered more influential in determining the most appropriate strategy for PT. SGT.

Table 7 shows the location criteria column received the highest total assessment of 13.393. Meanwhile, the partnership criteria column received the lowest total assessment with a value of 2.684.

Table 7 Comparison matrix

	Partnership	Market	Location	Staff	Budget
Partnership	1.000	5.400	6.056	3.000	1.000
Market	0.185	1.000	3.370	2.667	3.000
Location	0.165	0.297	1.000	1.741	0.418
Staff	0.333	0.375	0.574	1.000	2.417
Budget	1.000	0.333	2.392	0.414	1.000
Total (Y)	2.684	7.405	13.393	8.821	7.835

Table 8 shows the criteria that have the highest importance are the partnership criteria with a weight of 0.404. While the criteria with the lowest importance is location with a weight of 0.085

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Table 8 Normalization matrix

	Partnership	Market	Location	Staff	Budget	Weight (W)
Partnership	0.373	0.729	0.452	0.340	0.128	0.404
Market	0.069	0.135	0.252	0.302	0.383	0.228
Location	0.062	0.040	0.075	0.197	0.053	0.085
	Partnership	Market	Location	Staff	Budget	Weight (W)
Staff	0.124	0.051	0.043	0.113	0.308	0.128
Budget	0.373	0.045	0.179	0.047	0.128	0.154
Total (Y)	1	1	1	1	1	1

Lambda Max and Matrix Consistency

Lambda max and matrix consistency are calculations that show the level of consistency of the comparison matrix that has been analyzed previously. Lambda max and matrix consistency can be seen in Table 9.

Table 9 Lambda max and matrix consistency

λmax	6.255
CI	0.063
CR	0.056

The consistency test of the AHP pairwise comparison matrix yielded a λmax value of 6.255, a Consistency Index (CI) of 0.063, and a Consistency Ratio (CR) of 0.056 or 5.6%. Since the CR is below the commonly accepted threshold of 0.1 (10%), the judgments in the pairwise comparison matrix are considered logically consistent. This indicates that the priority weights derived from the matrix are reliable and valid for supporting further decision-making, with no need for revision or re-evaluation (Santoso & Besral, 2018).

TOPSIS

TOPSIS is a widely used multi-criteria decision-making (MCDM) technique that identifies solutions from a finite set of alternatives by simultaneously considering the shortest distance to the ideal solution and the farthest distance from the negative-ideal solution (Tzeng & Huang, 2011). The method is particularly effective for strategic decision problems involving conflicting criteria, such as resource constraints, market potential, and operational capacity—commonly encountered in manufacturing companies (Behzadian et al., 2012).

In this study, a decision matrix was constructed to evaluate five strategic alternatives based on five criteria: partnerships, market potential, location, staffing, and budget. The analysis showed that Strategy 1 (establishing branch offices) received the highest scores in partnership and budget (4.667). Strategy 2 (monopolizing the market) scored highest in partnership (4.000). Strategy 3 (digital marketing promotion) scored highest in both market and budget (4.667). Strategy 4 (developing a retail consumer market) received the highest score in market potential (4.667), while Strategy 5 (improving after-sales service) obtained the highest score in budget (4.667). These scores serve as the basis for the TOPSIS calculation to identify the most preferable strategic option. The decision strategy can be seen in Table 10.

Decision Normalization Matrix

Decision normalization calculation results show the largest criterion value for each strategy is the market for strategy 1, partnership and budget, for strategy 2 the market, for strategy 3 the market and budget, for strategy 4 the market, for strategy 5 the budget. The decision normalization matrix can be seen in Table 11.

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Table 10 Decision matrix

Strategy	Partnership	Market	Location	Staff	Budget
1.Established branch offices in several regions	4.667	4.333	3.333	3.667	4.667
2.Monopolizing the market for the sale of Anthropometry Kit products	4.000	4.333	3.000	3.333	3.667
3.Increase product promotion efforts through digital marketing	3.667	4.667	3.000	3.667	4.667
4.Establish a market for retail consumers	4.333	4.667	3.667	3.667	4.000
5.Improving the quality of after sales service on products	4.000	4.333	3.333	4.333	4.667

Table 11 Decision normalization matrix

Strategy	Partnership	Market	Location	Staff	Budget
Established branch offices in several regions	0.501	0.465	0.358	0.393	0.501
Monopolizing the market for the sale of Anthropometry Kit products	0.484	0.524	0.363	0.403	0.444
Increase product promotion efforts through digital marketing	0.411	0.524	0.337	0.411	0.524
Establish a market for retail consumers	0.474	0.511	0.401	0.401	0.438
Improving the quality of after sales service on products	0.430	0.466	0.359	0.466	0.502

Weight Normalization Matrix

Weighting normalization calculation shows the largest criterion value of each strategy is partnership for strategy 1 with a value of 0.202, the market for strategy 2 has a value of 0.106, the budget for strategy number 3 has a value of 0.077, staff for strategy number 4 has a value of 0.050, and location for strategy 5 with a value of 0.031. The weight normalization matrix can be seen in Table 12.

Table 12 Weight normalization matrix

Strategy	Partnership	Market	Location	Staff	Budget
Established branch offices in several regions	0.202	0.106	0.031	0.050	0.077
Monopolizing the market for the sale of Anthropometry Kit products	0.196	0.120	0.031	0.052	0.068
Increase product promotion efforts through digital marketing	0.166	0.119	0.029	0.053	0.081
Establish a market for retail consumers	0.192	0.117	0.034	0.051	0.068
Improving the quality of after sales service on products	0.174	0.106	0.031	0.060	0.077

Ideal Solution

As shown in Table 13, the highest value in the positive ideal solution (A^+) is found in the partnership criterion, with a score of 0.202, while the lowest value in the negative ideal solution (A^-) is found in the location criterion, with a score of 0.029. These values serve as benchmarks for calculating the relative closeness of each strategic alternative to the ideal solution.

Table 13 Ideal Solution

	Partnership	Market	Location	Staff	Budget
A+	0.202	0.120	0.034	0.060	0.081
A-	0.166	0.106	0.029	0.050	0.068

Alternative Distance and Relative Proximity

The results of the TOPSIS analysis are presented in Table 14, which shows the distance of each alternative from the ideal solution (D^+), the distance from the negative-ideal solution (D^-), and the relative closeness coefficient (CC). Among the five strategies evaluated, “Increasing product promotion efforts through digital marketing” has the highest CC value of **1.036**, indicating it is the top-ranked and most preferred strategy.

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Table 14 Alternative distance and relative proximity

Strategy	D+	D-	CC	Rank
Established branch offices in several regions	0.014	0.037	1.014	5
Monopolizing the market for the sale of Anthropometry Kit products	0.014	0.032	1.014	4
Increase product promotion efforts through digital marketing	0.036	0.019	1.036	1
Establish a market for retail consumers	0.017	0.028	1.017	3
Improving the quality of after sales service on products	0.032	0.012	1.032	2

To implement this strategy, the company can take several concrete actions: establish a dedicated digital marketing team; utilize online advertising platforms such as Google Ads, Instagram, and LinkedIn; and create engaging content that emphasizes the benefits and specifications of its anthropometric kit products. Additional efforts may include partnerships with health and education professionals, website optimization through SEO, and the use of analytics tools to monitor and improve campaign performance. These initiatives are expected to boost brand visibility, enhance market reach, and improve overall sales performance.

4. Conclusion

There are four factors that can affect the business strategy of selling Anthropometry Kit products. The four factors are management, marketing, finance & accounting, production & operations. While the results of the analysis of external factors obtained three factors that affect the business strategy of selling Anthropometry Kit products. The three factors are political, legal, and competitor factors. The results of the SWOT analysis using the IFAS and EFAS Matrix found an internal score of 3.628 and an external score of 3.550. Therefore, the company is in quadrant I (grow and build) in the IE Matrix. Alternative business strategies for the Anthropometry Kit product are forward, backward, and horizontal integration, market penetration, market development and product development. From the alternative business strategy of market penetration, a strategy to increase production capacity gradually is formed. Therefore, the planned strategy design is to invest in developing production infrastructure, employee training, or improving technology to properly cope with the surge in demand.

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