



Research Paper

Presenting a new SJB model in order to formulate and select strategic goals in the strategic management process

Hossein Jafari^a, Ali Mazlounzadeh^{1b}

^aDepartment of Industrial Engineering-Systems Management and Productivity, Sharif University of Technology, Tehran, Iran

^bDepartment of Industrial Engineering, Islamic Azad University, Central Tehran Branch, Tehran, Iran

ARTICLE INFO

Received: 24 May 2021

Reviewed: 2 June 2021

Revised: 23 June 2021

Accepted: 29 June 2021

Keywords:

Strategy development process, SWOT matrix, balanced scorecard, judo strategy

ABSTRACT

Today, the development of appropriate strategies as one of the basic tools of companies to compete in the markets of the e-commerce era. The strategy formulation process is inelastic with common strategic management models such as balanced scorecard and SWOT model in the face of market changes and competitive behaviour of competitors. It becomes. In this article, after reviewing the general structure of strategy formulation using the balanced scorecard model, the mentioned shortcomings in the strategy formulation process are examined. In the field of purposeful design, competitive strategies are presented and finally, the use of Judo Strategy model, SWOT matrix and Balanced Scorecard model of SJB framework is presented as an agile and systematic model in the process of designing and formulating strategy. In order to evaluate the applicability of this model, the beta company has been selected and with the cooperation of the top managers of that company, the proposed model has been implemented in the process of designing and formulating its strategy.

© 2021 IJIE. All rights reserved.

1. Introduction

In the present age and with the intensification of competition in business on a global scale, the success rate of companies is closely related to their ability to formulate and adopt appropriate strategies for purposeful, intelligent and directional struggle. In other words, in the turbulent and changing markets of the e-commerce era, it is a compass-like strategy that directs the company's competitive path to achieve its goals. Therefore, due to the importance of strategic planning in the present era, many scientists in this field have tried to improve the process of strategic management in a systematic and practical way by improving the previous models of this field of management science and also presenting new models. In general, these frameworks

¹ Corresponding author
a.mazlounzadeh@gmail.com

have four stages, and strategic analysis and strategy selection are the two basic steps of many of these processes, which are discussed in this article.

Many of the articles published in the form of articles and books on the topic of strategy development are analyzed based on the description of internal and external conditions. This means that in many of the models presented in this step of strategy formulation, most of the guidelines are about issues such as explaining and analyzing the internal or external situation of the organization and explaining the strengths and weaknesses on the one hand and opportunities and threats on the other. For example, the result of SWOT analysis is often a list of internal and external factors (Kangas, Kurttila, Kajanus, & Kangas, 2003) and there is no word on prescribing structured solutions for designing and formulating a strategy. In other words, the main stage of the strategy formulation process, which is the strategy design, is referred to the minds of strategists as an experience-based process. An attempt (Ko & Lee, 2000) to combine martial arts techniques with strategic management topics suggests that this study seeks to provide a systematic framework for strategy prescribing using one of the oldest strategy texts. It is clear that this view is in contrast to the common descriptive-mental view in the process of designing and formulating strategy. On the other hand, in order to succeed in global competition, it is necessary for companies to formulate strategies based on their position and that of competitors in the competitive market, the competitive decisions of competitors in the field of global trade, and of course the descriptive position of the company in the future. On the other hand, due to the special conditions of businesses in today's world and the constant change of environmental variables, it is no longer possible to proceed with long-term planning based on past information and without considering the possible competitive actions of competitors (Aliahmadi et al, 2015). This problem is difficult to adapt to a highly competitive environment. Another fundamental disadvantage of strategy formulation frameworks, especially frameworks that are balanced scorecard and SWOT models in strategy development, because the strategy development process with these models is time consuming and there is no competitive path. Based on the behavior of competitors in order to guide the competitive future of the company is not observed. It is clear that in many cases in the competitive market, there are very strong competitors who monitor the behavior of companies in their competitive environment and quickly change their strategic decisions in order to face new competitors and weaken them (Khodabakhsh, 2021). The current position of the company and competitors and the lack of attention to the future behavior of the parties in the competition will be doomed to failure. As a result, due to the existence of these shortcomings in SWOT models and balanced scorecard, their efficiency in the strategy formulation process is significantly reduced.

2 - Theoretical literature

2-1 SWOT matrix

The SWOT matrix should be considered as one of the most important tools for systematic analysis of the internal and external environment of the organization in the strategy formulation process (Kotler, 1997; Kurttila, Pesonen, Kangas, & Kajanus, 2000). SWOT is a vital tool that provides valuable information about internal and external factors that positively and negatively affect the development of the organization and helps decision makers make the best decisions. (Mukeshimana, Zhao, & Nshimiyimana, 2021) In this model, the strengths and weaknesses of the internal environment assessment and opportunities and threats are identified through the external environment assessment and entered into the SWOT matrix. Threats develop strategies based on strengths, eliminating weaknesses, and seizing opportunities or using them to deal with threats (Dincer, 2004; Kajanus, 2000, 2001). In other words, the analysis of these four factors provides a framework that facilitates the formulation and formulation of strategies.

The four types of strategies obtained from this matrix are:

- 1- SO strategy: Using this type of strategy, it is tried to invest in the opportunities of the organization's environment by using the strengths of the organization.
- 2- WO strategy: Using this type of strategy, it tries to overcome the weaknesses of the organization by using environmental opportunities.
- 3- ST strategy: Using this type of strategy, it is tried to overcome environmental threats by using the strengths of the organization.
4. WT Strategy: Organizations are trying to use this type of strategy to minimize their weaknesses and distance themselves from environmental threats (Helms & Nixon, 2010; Weihrich, 1982).

2-2 Balanced scorecard

The Balanced Scorecard, which has become the most important strategy implementation tool today, was introduced in 1992 by Robert Kaplan and David Norton and developed in 1996 (Propa, Banwet, & Goswami, 2015). A balanced scorecard is a tool that translates an organization's strategies and mission into a comprehensive set of performance metrics and provides a new framework for strategic management for managers in different organizations.

In other words, the Balanced Scorecard explains the organization's mission and strategy to measure the organization's goals in the form of a set of performance metrics (Kaplan & Norton, 1996).

From the beginning of the application of this model in the field of strategy formulation by Kaplan and Norton, this model was met with great success by strategists. Because the Balanced Scorecard looked at the performance of the organization from 4 new perspectives and had a long-term and strategic view of the performance of the organization and its related metrics.

These four key aspects of a balanced scorecard are:

- 1- Financial goals
- 2- Customer
- 3- Internal processes
- 4- Growth and learning (Juiz, Colomo-Palacios, & Gómez, 2018)

One of the important insights of BSC is that it explicitly considers several functional aspects in addition to financial considerations. (Hu, Xiao, Wen, & Li, 2019). One of the features of this model is its flexibility. In such a way that in addition to the four proposed aspects, different aspects can be added or subtracted from it (Kaplan & Norton, 1996).

It is clear that because the first step in using a balanced scorecard is to formulate organizational strategies, researchers have established a link between a balanced scorecard and the SWOT matrix.

2-3 Judo Strategies

The Judo Strategy was presented in 2000 by Professor Yufi with the metaphor of the sport of judo.

By presenting techniques, this model makes it possible for a company, in addition to being stable against strong competitors, to have the opportunity to overcome strong competitors in the field of competition by mastering the three principles of movement, balance and leverage.

Judo strategy consists of 10 interconnected techniques (David B Yoffie & Mart Kwak, 2001; David B Yoffie & Mary Kwak, 2001).

A) Mastery of movement

Judo strategy, like the sport of judo, begins with movement. The purpose of moving in this model is to use creativity in order to avoid direct competition with strong competitors at the beginning of entering the business arena. It is clear that in the beginning of the company's existence, the probability of failure in direct competition with competitors is high and staying in the field of competition is vital.

Mastery of movement involves the following 3 techniques:

Technique # 1 - PUPPY DOG PLOY: In the first technique, the judo strategy advises the weaker fighters to have a balanced demeanor at the beginning of the competition and avoid face-to-face fights that are unlikely to win. Refrain.

Technique No. 2 - Recognizing the competitive environment: The technique of recognizing the competitive environment suggests that while trying not to fight face to face with competitors, by carefully evaluating competitors, identify their weaknesses and invest in those areas.

Technique No. 3 - Final consistent rapid movements: This technique recommends that if the company's competitors are aware of the last two techniques, by performing rapid and consistent movements and participating in different and unpredictable business fields, in addition to surprising competitors, they will achieve good progress and fail. It is very likely that he fled at the beginning of the company's activity.

B) Balance control

Motion techniques can avoid direct face-to-face combat with stronger and larger competitors; But after a while in the market and the company reaches a balanced position in the market, competitors will definitely notice the presence of a new competitor in their industry, so at this time they will compete directly with the company. On the other hand, it is clear that in order to be more successful, one must compete in the arena of struggle. At this stage, maintaining balance is very important. Balance control when fighting a stronger opponent involves four judo techniques.

Technique 4 - Stick to the opponent: This technique states that if you want to avoid a battle with a stronger opponent, partner with your future competitors or sign a cooperation agreement. This limits their room for maneuver and exploits their capabilities to the benefit of the company.

Technique # 5 - Avoid Confrontation: Sometimes clinging to an opponent can completely change the motivations of a strong opponent for a face-to-face battle; But in the end, despite all efforts, a strong competitor decides to compete. When this happens, maintaining balance is a struggle. As a result, the technique states that once the company has reached a relative equilibrium, entering into a face-to-face competition with market leaders is a completely wrong strategic move that should be avoided.

Technique # 6 - Push Your Opponent When Pulled: This technique suggests that when inviting a competitor to a fight, you can add competing products, services, and technology to your company's assets without direct confrontation, in addition to maintaining a balanced position. In the market itself, he upset the opponent's balance and confronted him with an unpleasant action.

Technique # 7 - Yokmi: In Judo, Yokmi »is a harmless falling technique that very little reduces the personal advantage of the fallen over the opponent, which in fact aims to return the person to the fight more effectively. This technique states that one should not insist on making strategic wrong decisions.

C) Mastery of leverage

By mastering the movement, the company increases its opportunity to create a strong initial position, enabling competitors to overtake them before they react. Equilibrium techniques allow bigger and stronger competitors to face them without defeat; But in many cases, auxiliary forces are needed to beat stronger competitors in an industry. These auxiliary forces in judo strategy are referred to as leverage. Leveraging mastery involves three techniques.

Technique # 8 - Raise Your Opponent Scores: This technique states that if competitors 'scores are upgraded after their large investments; the company will clearly attract the competitors' market in their favor.

Technique # 9 - Raise Your Opponents Partners: This technique states that connecting with competing competitors is an effective way to weaken and defeat your competitors.

Technique # 10 - Raise Your Opponents: This technique sees cooperation and strengthening a competitor's competitors as important in weakening your opponent and increasing your chances of winning (Yoffie & Kwak, 2002).

3- Literature review

According to the researches done in the field of strategy formulation process, it seems that the strategy formulation, which means a purposeful tool for competition, has been neglected in previous researches and the formulation and identification of strategies as the main tool of market competition is only based on people's mental assumptions. It has been suggested that the SWOT matrix is developed by the elite and in fact the SWOT matrix is a decision support technique that compares the four factors of opportunities and threats, strengths and weaknesses (Shrestha, Alavalapati, & Kalmbacher, 2004). According to the result of this matrix, IE is a list of internal-external factors (Kangas et al., 2003), this matrix does not help to identify the strategy (Ko & Lee, 2000). They did one of the few researches in the field of finding a strategy and tried to use the techniques of the book of battle art in formulating a strategy. In this regard, they presented the SFF framework as a new model in formulating a strategy and using that model in formulating banking strategies. Exploited in Hong Kong (Ko & Lee, 2000).

On the other hand, recent research, strategy development process is more about the use of decision-making techniques in the stages of strategy development and prioritization of strategies and the combination of these techniques with other management techniques, including QFD. (AHI Lee, Chen, & Chang, 2008) used the FAHP technique to rank goals in the balanced scorecard model and (Cebeci, 2009) used the FAHP technique to weight the system selection criteria based on the priorities of the organization's strategies (Dodangeh, Mojahed, & Nasehifar, 2010) attempted to rank strategies using the Electre technique.

(Jassbi, Mohamadnejad, & Nasrollahzadeh, 2011) introduced the prioritization of goals and the development of causal relationships using the Fuzzy Dematel technique in the strategy formulation process. (Fouladgar, Yazdani-Chamzini, Zavadskas, & Haji Moini, 2012) used three techniques SWOT, FAHP FTOPSIS and presented a model for prioritizing the strategies of Iran's mining industry. (Wu, Lin, & Lee, 2010) also designed a systematic process to select the optimal strategy using ANP and TOPSIS techniques. (Yalcin, Bayrakdaroglu, & Kahraman, 2012) has designed a comprehensive framework for strategy development using Porter's core strategies and SWOT, Fuzzy, QFD techniques.

The academic research reviewed shows that this research has rarely been relevant in the field of strategy design, and one of the few and major efforts in the field of strategy design was made in 2001 by Uffie and Kwak with the concept of judo strategy (David B Yoffie & Mart Kw 2001). After the creation of the concept of judo strategy by, efforts were made to use judo strategy in formulating the grand strategies of American companies (David B Yoffie & Mary Kwak, 2001).

Then in 2002, Uffie & Kwak described how to use judo strategy techniques to beat stronger competitors (Yoffie & Kwak, 2002). Other efforts to apply this strategy include the application of this strategy in the Chinese automotive industry (Quan, 2011).

4- Research methodology

After reviewing the previous research and the shortcomings of the research in the field of strategy formulation, in this section, the SJB model is presented in order to formulate a strategy.

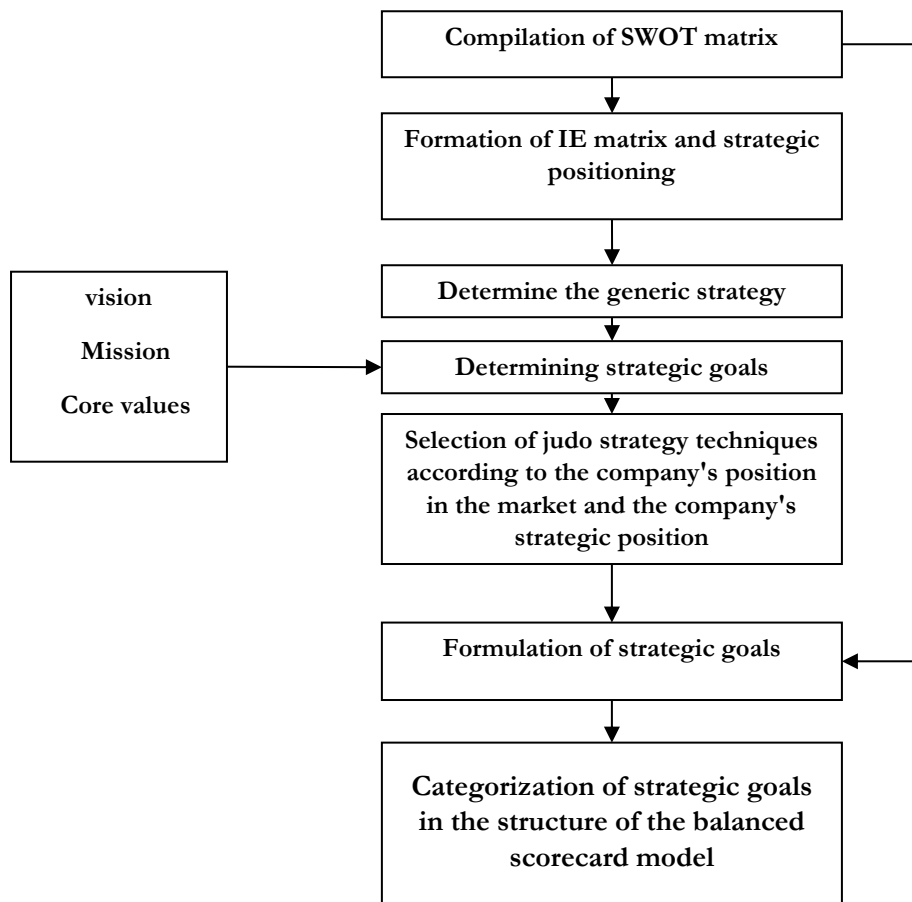


Figure 1: SJB model in strategy formulation

5- Case study

The field of study of this research, which has been selected to implement the proposed model, is Beta Company. This company produces a type of traditional sweets specific to Iran, which due to the nutritional value and taste of this sweet, has been able to enter foreign markets. The following are the results of the proposed steps in the beta company:

Step 1 - Develop the company's vision, mission and core values

At this stage, the vision, mission and core values of the company were formulated.

Second stage - internal and external analysis of the company and identification of the current strategic position and formulation of a generic strategy

At this stage, the analysis of internal and external environment has been done. Two PESTEL models and five Porter competitive forces were used to analyze the external environment, and the EFQM model was used to analyze the indoor environment. From the output of these two analyzes, while recognizing the current situation, strengths, weaknesses, opportunities and threats were identified. Then, while prioritizing the above items using IFPM, IFEM, EFPM and EFEM matrices, an attempt was made to identify the current strategic position of the company in the IE matrix. Then, using the strategic position of the company, the generic strategy was determined.

Table 1: Beta Company Opportunities and Threats

Category of factors	code	Description of opportunities and threats
Opportunities	O1	Ability to sell products directly without intermediaries
	O2	Innovation in inventing new products based on 40 years of production experience
	O3	Communities' interest in consuming healthy and organic products
	O4	Lack of completely natural products in the confectionery industry
	O5	Existence of an established structure of product design and development in the company
	O6	Weak presence of foreign competitors due to the traditional nature of production processes and lack of transparency of processes
	O7	Reducing the potential of foreign competitors due to the company's competitive advantages in terms of providing skilled manpower, raw materials and production equipment
	O8	The strength of the company's brand in competing with new competitors
	O9	The company's production experience for more than 40 years
	O10	Supplier interest in cooperating with the company
	O11	Multiple suppliers of raw materials and their traditional and small structure
	O12	High power of choice for manpower

Threats	T1	Existence of alternative domestic brands
	T2	Existence of almost similar foreign start-up products
	T3	Existence of sweets with lower prices in various markets
	T4	Probability of entering new competitors
	T5	Lack of elasticity of some raw materials
	T6	Existence of substitute products with lower prices
	T7	High interest rates of banks and high cost of receiving loans

Then, using the EFEM matrix, the scores of opportunities and threats were obtained as follows:

Table 2: External Factor Evaluation Analysis Matrix (EFEM)

Category of factors	Score
Opportunity	49
Threat	-22
Final score	27

Table 3: Beta Company Strengths

S1	Existence of strategic attitude and understanding the importance of strategic management
S2	Existence of quality policy for more than 10 years in the form of ISO 9000 standard
S3	Existence of a supportive environment for innovation
S4	Due to the company's antiquity, communication with stakeholders has depth and strength.
S5	Friendly and friendly relationship with the main competitors
S6	Rational and constructive interaction with government oversight systems
S7	Development of new products (increase of efficiency and productivity and increase of the company's product portfolio)
S8	Packaging (updating packaging and paying attention to customers' views and needs)
S9	The sales unit is ahead of the production
S10	Receive valid international quality and health control certificates for export
S11	Conducting basic research in order to produce new products to improve the health of the community
S12	Activities to create variety in packaging in order to satisfy customers
S13	Existence of suitable opportunities for finance
S14	Existence of a suitable software system

Table 4: Beta Company Weaknesses

W1	Lack of strategic plan
W2	Lack of formulation of organizational values
W3	Failure to cover the management review process for leadership and management documents
W4	Lack of continuous and regular attendance program
W5	Lack of product quantity required at peak times
W6	Lack of access to new technologies, competitors and products
W7	Lack of market research and customer classification
W8	Lack of marketing plan
W9	Not having a proper site
W10	Lack of ancillary machines to facilitate production work
W11	Lack of information and communication technology
W12	Lack of integration guidelines with partners
W13	Lack of interaction with partners and suppliers
W14	Lack of a timely program to evaluate the performance and rating of suppliers
W15	Lack of sufficient information about partners and suppliers

Then, using the IFEM matrix, the strengths and weaknesses scores were obtained as follows:

Table 5: Internal Factor Analysis Matrix (IFEM)

Category of factors	Score
Strength	50.93
weaknesses	-28.54
Final score	22.40

According to the obtained numbers, the position of the company in the IE matrix was determined and as a result, the generic strategies of "stabilizing the existing conditions along with cautious growth" were determined.

Step 3 - Find strategic goals according to the generic strategy, IE matrix output and SWOT matrix

The strategic goals of the company were determined as follows

1. Increase annual market share by 2%
2. Increase the distributable profit
3. New product development of two useful products annually
4. Increase the share of annual exports by 2%
5. Overseas production

Step 4 - Finding Competitive Techniques from a Judo Strategy Model Fit to IE Matrix Output and Industry Status

At this stage, considering the stabilization position with the cautious growth of the beta company in the IE matrix and the study of the elites, it was found that the company has reached a relative equilibrium in foreign markets and competes in the domestic market in order to be superior. The principle of balance and in the formulation of internal competition strategies, the principle of pyramid power was used and the techniques of these principles were used in the formulation of strategy.

Step 5 - Develop strategic goals

Using the judo strategy techniques found in the previous step as well as the SWOT matrix, the company's strategic goals are first categorized as two categories of internal strategic goals and external strategic goals in the form of a balanced scorecard.

					Opportunities					Threats				
					O1	O2	O3	O4	O5	T1	T2	T3	T4	T5
					O6	O7	O8	O9	O10	T6	T7			
					O11	O12								
Strengths					1NSO 2NSO 3NSO 4NSO 5NSO 6DSO					7DST 8DST 9DST 10DST 11NST 12DST				
S5	S4	S3	S2	S1										
S10	S9	S8	S7	S6										
	S14	S13	S12	S11										
Weakness					13NWO 14DWO					15DWT 16DWT 17DWT 18NWT				
W5	W4	W3	W2	W1										
W10	W9	W8	W7	W6										
W15	W14	W13	W12	W11										

Figure 2: SWOT matrix

Then the strategic goals of the company were determined in Table 6.

Table 6: Strategic goals

Strategic goal	Judo technique used	Relevant judo principle	Type of strategy	Competitive location strategy	Strategy symbol
Establishing relationships with capable foreign companies in the field of organic sweets in foreign target markets for joint production and sales	Sticking to the opponent	Balance	SO	Outside competition	1NSO
Creating high-consumption products of foreign companies using the raw materials of the company's products	Pushing the opponent	Balance	SO	Outside competition	2NSO
Liaise with large foreign retailers and define joint sales partnerships	Sticking to the opponent	Balance	SO	Outside competition	3NSO
Allocation of a significant portion of profits to foreign suppliers in the first few years of cooperation	Sticking to the opponent and not direct confrontation	Balance	SO	Outside competition	4NSO
Add options for similar foreign products at a lower price	Pushing the opponent	Balance	SO	Outside competition	5NSO
Communicate with top partners and suppliers and competitors to lock the system from within	Raise competitors' partners to their advantage	Balance	SO	Inside competition	6DSO
Helping our suppliers and competitors to dominate the market and reduce prices	Raise competitors' partners to their advantage	Lever power	ST	Inside competition	7DST
Connect with competing suppliers in different price ranges to create brands in all price ranges	Raise competitors' partners to their advantage	Lever power	ST	Inside competition	8DST

Giving points to your suppliers and competitors for locking the system	Raise competitors' partners to their advantage	Lever power	ST	Inside competition	9DST
Invest in more advanced technologies than competitors	Raise competitors' partners to their advantage	Lever power	ST	Inside competition	10DST
Finding customers for suppliers by trying to attract top competitors' suppliers	Raise competitors' partners to their advantage	Lever power	ST	Outside competition	11NST
Production with the help of partners of competing companies to meet the needs beyond production	Raise competitors' partners to their advantage	Lever power	ST	Inside competition	12DST
Carrying out joint projects with foreign competitors due to familiarity and receiving superior technologies	Sticking to the opponent	Balance	WO	Outside competition	13NWO
Collaborate with competitors in responding to foreign orders	Raise competitors' points to win	Lever power	WO	Inside competition	14DWO
Strive to acquire or manage the top suppliers of the traditional confectionery industry	Raise competitors' points to win	Lever power	WT	Inside competition	15DWT
Develop a codified program to attract competing investors	Raise competitors' points to win	Lever power	WT	Inside competition	16DWT
Establish a continuous communication network to monitor customers and competitors	Raise the scores of competitors and partners in your favor	Lever power	WT	Inside competition	17DWT
Attending international exhibitions to get acquainted with new technologies and to communicate and cooperate with foreign competitors and suppliers	Sticking to the opponent	Balance	WT	Outside competition	18NWT

Step 6 - Categorize Strategic Goals by Balanced Scorecard Dimensions.

Table 7: Categorization of strategic goals

Dimension	Strategic goal	Code
Financial	Allocation of a significant portion of profits to foreign suppliers in the first few years of cooperation	4NSO
	Develop a codified program to attract competing investors	16DWT
Customer	Creating high-consumption products of foreign companies using the raw materials of the company's products	2NSO
	Liaison with large foreign retailers and definition of joint sales partnerships	3NSO
	Add options for similar foreign products at a lower price	5NSO
	Connect with competing suppliers in different price ranges to create brands in all price ranges	8DST
	Invest in more advanced technologies than competitors	10DST
	Establish a continuous communication network to monitor customers and competitors	17DWT
Internal processes	Establishing relationships with capable foreign companies in the field of organic sweets in foreign target markets for joint production and sales	1NSO
	Communicate with top partners and suppliers and competitors to lock the system from within	6DSO
	Helping our suppliers and competitors to dominate the market and reduce prices	7DST
	Giving points to your suppliers and competitors for locking the system	9DST
	Finding customers for suppliers by trying to attract top competitors' suppliers	11NST
	Production with the help of partners of competing companies to meet the needs beyond production	12DST
	Collaborate with competitors in responding to foreign orders	14DWO
	Strive to acquire or manage the top suppliers of the traditional confectionery industry	15DWT
Growth and learning	Carrying out joint projects with foreign competitors due to familiarity and receiving superior technologies	13NWO
	Attending international exhibitions to get acquainted with new technologies and to communicate and cooperate with foreign competitors and suppliers	18NWT

6- Conclusion

In this study, after examining the common frameworks in the strategy formulation process and the models used in these frameworks, the disadvantages of these methods in identifying and formulating strategy were discussed and judo strategy as a suitable and systematic tool to reduce the impact of elite personal views and process. Strategy identification was introduced. Finally, in order to provide a solution to the above-mentioned shortcomings, common frameworks in the field of strategy formulation, SJB framework, which is the result of combining SWOT matrix, judo strategy and balanced scorecard model, were presented.

The implementation phase of the SJB framework can be divided into six stages. The first stage includes the formulation of governance ideas and internal and external analysis of the company and the second stage includes the internal and external analysis of the company and the identification of the current strategic position and the development of a generic strategy.

In the third stage, strategic goals are identified according to the generic strategy, IE matrix output and SWOT matrix, and in the fourth stage, appropriate competitive techniques are selected from the judo strategy model according to the IE matrix output and the company's position in the industry. Then, in the fifth step, using the SWOT matrix and judo techniques and paying close attention to the company's generic strategy and its strategic goals, the company's strategic goals are determined and finally, in the sixth step, the strategies are categorized for operational actions under balanced scorecard dimensions.

One of the important achievements of the SJB framework is the presentation of a purposeful and systematic approach in formulating a strategy based on predetermined techniques and not based on personal and mental opinions of elites. One of the effective limitations in conducting this research is the lack of time in conducting a comprehensive review of the beta company in order to formulate a strategy and also the lack of knowledge of the senior managers of the beta company about the judo strategy model.

On the other hand, it seems that if the decision-making methods and techniques are combined with the SJB framework, the problem of non-ranking of strategies in the framework based on the balanced scorecard model can be solved and an ideal model can be achieved in formulating and prioritizing the strategy. Future researchers to be examined.

References

- Aliahmadi, A., Sadeghi, M. E., Nozari, H., Jafari-Eskandari, M., & Najafi, S. E. (2015). Studying key factors to creating competitive advantage in science Park. In *Proceedings of the Ninth International Conference on Management Science and Engineering Management* (pp. 977-987). Springer, Berlin, Heidelberg. doi: https://doi.org/10.1007/978-3-662-47241-5_82
- Cebeci, U. (2009). Fuzzy AHP-based decision support system for selecting ERP systems in textile industry by using balanced scorecard. *Expert Systems with Applications*, 36(5), 8900-8909. doi: <http://dx.doi.org/10.1016/j.eswa.2008.11.046>
- Dincer, O. (2004). *Strategy management and organization policy*. Beta Publication, Istanbul.
- Dodangeh, J., Mojahed, M., & Nasehifar, V. (2010). Ranking of strategic plans in balanced scorecard by using Electre Method. *International journal of innovation, Management and Technology*, 1(3), 269-274.
- Dyson, R. G. (2004). Strategic development and SWOT analysis at the University of Warwick. *European journal of operational research*, 152(3), 631-640.

- Fouladgar, M. M., Yazdani-Chamzini, A., Zavadskas, E. K., & Haji Moini, S. H. (2012). A new hybrid model for evaluating the working strategies: case study of construction company. *Technological and Economic Development of Economy*, 18(1), 164-188. doi:10.3846/20294913.2012.667270
- Helms, M. M., & Nixon, J. (2010). Exploring SWOT analysis—where are we now?: A review of academic research from the last decade. *Journal of Strategy and Management*, 3(3), 215-251.
- Hu, Y., Xiao, S., Wen, J., & Li, J. (2019). An ANP-multi-criteria-based methodology to construct maintenance networks for agricultural machinery cluster in a balanced scorecard context. *Computers and Electronics in Agriculture*, 158, 1-10. doi: <https://doi.org/10.1016/j.compag.2019.01.031>
- Jassbi, J., Mohamadnejad, F., & Nasrollahzadeh, H. (2011). A Fuzzy DEMATEL framework for modeling cause and effect relationships of strategy map. *Expert Systems with Applications*, 38(5), 5967-5973. doi: <http://dx.doi.org/10.1016/j.eswa.2010.11.026>
- Juiz, C., Colomo-Palacios, R., & Gómez, B. (2018). Cascading ISO/IEC 38500 based Balanced Score Cards to improve board accountability. *Procedia Computer Science*, 138, 417-424. doi: <https://doi.org/10.1016/j.procs.2018.10.059>
- Kajanus, M. (2000). A model for creating innovative strategies for an enterprise and its application to a rural enterprise. *Management Decision*, 38(10), 711-722.
- Kajanus, M. (2001). Strategy and innovation model for the entrepreneurial forest owner: University of Joensuu, Faculty of Forestry.
- Kangas, J., Kurttila, M., Kajanus, M., & Kangas, A. (2003). Evaluating the management strategies of a forestland estate—the SOS approach. *Journal of environmental management*, 69(4), 349-358.
- Kaplan, R. S., & Norton, D. P. (1996). *The balanced scorecard: translating strategy into action*: Harvard Business Press.
- Khodabakhsh, M. (2021). Dynamic DEA based on DMAIC model to evaluate passengers' transportation in road transportation organization. *International Journal of Innovation in Engineering*, 1(1), 64–76. <https://doi.org/10.52547/ijie.1.1.58>
- Ko, A. S. O., & Lee, S. (2000). Implementing the strategic formulation framework for the banking industry of Hong Kong. *Managerial Auditing Journal*, 15(9), 469-477.
- Kotler, P. (1997). *Marketing Management: Analysis, Planning, Implementation & Control*, 9th eds. In: Englewood Cliffs, NJ: Prentice-Hall, Inc.
- Kurttila, M., Pesonen, M., Kangas, J., & Kajanus, M. (2000). Utilizing the analytic hierarchy process (AHP) in SWOT analysis—a hybrid method and its application to a forest-certification case. *Forest Policy and Economics*, 1(1), 41-52.
- Lee, A. H. I., Chen, W.-C., & Chang, C.-J. (2008). A fuzzy AHP and BSC approach for evaluating performance of IT department in the manufacturing industry in Taiwan. *Expert Systems with Applications*, 34(1), 96-107. doi: <http://dx.doi.org/10.1016/j.eswa.2006.08.022>
- Lee, Y., Kim, Y. J., & Lee, M. C. (2021). Improving public acceptance of H2 stations: SWOT-AHP analysis of South Korea. *International Journal of Hydrogen Energy*, 46(34), 17597-17607. doi: <https://doi.org/10.1016/j.ijhydene.2021.02.182>
- Mallick, S. K., Rudra, S., & Samanta, R. (2020). Sustainable ecotourism development using SWOT and QSPM approach: A study on Rameswaram, Tamil Nadu. *International Journal of Geoheritage and Parks*, 8(3), 185-193. doi: <https://doi.org/10.1016/j.ijgeop.2020.06.001>
- Mukeshimana, M. C., Zhao, Z.-Y., & Nshimiyimana, J. P. (2021). Evaluating strategies for renewable energy development in Rwanda: An integrated SWOT – ISM analysis. *Renewable Energy*, 176, 402-414. doi: <https://doi.org/10.1016/j.renene.2021.05.104>
- Propa, G., Banwet, D. K., & Goswami, K. K. (2015). Sustainable Operation Management Using the Balanced Score Card as a Strategic Tool - A Research Summary. *Procedia - Social and Behavioral Sciences*, 189, 133-143. doi: <https://doi.org/10.1016/j.sbspro.2015.03.207>
- Quan, B. (2011). China car industry's fighting back with Judo Strategy and Collectivistic mindset. In *2011 International Conference on E-Business and E-Government (ICEE)*.