

Comparing the Resulted Strategies from the SWOT and the SPACE (Electricity Company as Case Study)

Abolfazl Sherafat¹, Khadijeh Yavari², Sayyed Mohammad Reza Davoodi³, Nima Bozorgzadeh⁴

Abstract: The present study was aimed to compare the implementation of two models in terms of strategic planning. In order to this, firstly, several field studies have been done in terms of the SWOT and the SPACE analysis. In the next step, a team of the middle and senior managers that have studied in terms of SWOT analysis seek to identify the organization's strengths, weaknesses, opportunities, and threats and then develop their related strategies. They also develop and indicate the SPACE questionnaire. Based on the results of this questionnaire and determining the organization's strategic position, they strive to develop the appropriate strategies. Finally, the strategies that have been derived from these models were compared to each other and their strengths and weaknesses were analyzed.

Keywords: strategic plan; SWOT analysis; SPACE model

JEL Classification: L10

1. Introduction

The organizations analyze their potencies and environmental conditions in the frame of strategic planning and develop realizable goals and their realization methods based on them. It is important to know that how to develop a dynamic and applicable strategic planning for the organization. There are different methods for developing the organizations' strategic plans. In the present study, two methods have been used from several methods. Generally, it is impossible to recognize that

¹ PhD Candidate, Department of Industrial Management, Faculty of Management, University of Tehran. Address: Al-e-Ahmad Ave. Tehran, Iran, 14155-6311, Tel: (+98 21) 88003575, 88007095, Fax: (+98 21) 88006477, Corresponding author: sherafat.a@ut.ac.ir.

² B.A Graduate of Industrial Management, Yazd University, Address: P.O. Box 89195-741, Iran. Tel: +98 (351) 725 0119, e-mail: sherafat.a@ut.ac.ir.

³ PhD student, Department of management, Dehaghan Branch, Islamic Azad University, Isfahan, Iran, Address: Islamic Azad University, Dehaghan Branch, Dehaghan Blvd, Isfahan, Iran, 81595-158, Tel: (+98)-3222622210, Fax: (+98) - 3222627311, e-mail: smrdavoodi@yahoo.com.

⁴ Bachelor of Business Administration, Dehaghan Branch, Islamic Azad University, Isfahan, Iran, Address: Islamic Azad University, Dehaghan Branch, Dehaghan Blvd, Isfahan, Iran, 81595-158, Tel: (+98)-3222622210, Fax: (+98) - 3222627311, e-mail: nima.it.us@gmail.com.

which method is better than other. Its success depends on different factors such as organization's conditions, size, goals, and maturation, accessible resources, and the managers' regards.

In this study a team of the organizations' senior managers and the direct members seek to identify the organization's strengths, weaknesses, opportunities, and threats after collecting the primary data through two different methods. In the next step, the related strategies of the SWOT have been recognized. Also the team members indicate the questionnaires after determining its criterions. Based on the resulted scores from these questionnaires through agreement method, the organization's strategic position has been determined and the strategies were recognized based on them. Finally, the resulted strategies from two models were compared to each other and their strengths and weakness were analyzed.

2. Literature Review

The matrixes are the most important factors for determining the organizations' strategies that make the rapid use of the information and decision makings through collecting and summarizing information in a table. Several models have been suggested based on these instruments that each of them has its own strength and improvable points that are selected based on the organization's size and its type. The Strengths, Weaknesses, Opportunities, and Threats (SWOT) matrix and the Strategic Position and Action Evaluation (SPACE) matrix, Quantitative Strategic Planning Matrix, Boston Consulting Group, and General Electric Model are the important models (Ahmadi & Fathollah, 2012). Several studies have been done in terms of such models and their implementation in the different organizations. Additionally, these models have been used in Iran. Many studies have been done about these models and their implementation in different organizations and also such instruments have been used in Iran such as the study of Pegah Milk Company that has been done based on the SWOT Matrix and using SPACE for defining its strategies (Siavashan, 2012, pp. 66-74). It can be said that the SWOT model is an appropriate and more applicable method in the strategic studies. Indeed, the SWOT and SPACE are the starting point in the strategy formulation (Griffin, 2012). As the previous paragraphs show several studies have been done in terms of SWOT and SPACE models, but there are some studies that have done to compare these models.

3. Introducing the Models

These models have been introduced and their characteristics have been indicated in this section.

3.1. The SWOT Analysis

The Strengths, Weaknesses, Opportunities, and Threats (SWOT) matrix is a summary and effective model for recognizing the strengths, weaknesses, opportunities, and threats in a systemic manner. This method seeks to analyze the internal and external conditions and then develop a beneficial strategies for its survive based on them (Ahmadi & Fathollah, 2012). In other words, this method is a glance image from the organization's present conditions (Bamford, 2010).

There are nine cells in this matrix that eight steps should be passed to create it

Table 1. Developing the strategies from the organization's internal and external conditions

	Strengths	Weaknesses
Opportunities	SO strategies	WO strategies
Threats	St strategies	WT strategies

Each two factors are compared to each other in every step and its goal is not to recognize the best strategy, but is to determine the more implementable strategy.

The organization strives to exploit the external opportunities through its internal strengths in the SO strategy implementation. Managers prefer that their organization is in a situation that is able to exploit the external trends through its internal strengths.

The goal of the WO strategies is that the organization seeks to improve its weaknesses through exploiting the external opportunities. Sometimes, there are appropriate opportunities in the external environment, but the organization is not able to exploit such opportunities because of its internal weaknesses.

The companies seek to decrease the effects of external threats through their strengths in the ST strategies implementation. This does not mean that the powerful company facing threats in its environment inevitably.

The organizations that implement the WT strategies have defensive position and their goal is to decrease internal weaknesses and prevent from external environment's threats. The organization that has internal weaknesses and facing many external threats, it is can be resulted that it has a perilous position. Indeed, this organization seeks to its survive and strive to decrease its activities for its maintenance (decrease strategies), integrate with other companies, express its bust, or dissolve itself. (David, 2010), (Weihrich, 1982), (David F., 1986), (Shirt, 1993), (Radder, 1998).

3.2. The SPACE Model

The Strategic Position and Action Evaluation (SPACE) model is offered as a developed version of the Boston Consulting Group (BCG). Axis of this model shows both internal and external dimensions. Financial strengths and competitive advantages are the main internal measures and environmental stability and industry strength are the main external measures.

In order to use the SPACE matrix for determining the organization's strategic position, the following six steps should be passed.

- The sub-criteria of every main criterion (including financial strength, competitive advantage, environmental stability, and industry strength) are listed.
- The sub-criteria of financial strength and competitive advantage are scaled from +1 (worst) to +6 (best) and the sub-criteria of the environmental stability and industry strength are scaled from -1 (best) to -6 (worst).
- These sub-criteria values are summed and then are divided to the sub-criteria frequency so that the main criteria mean is resulted.
- Every main criterion's mean is specified on the diagram axis.
- Mean of the financial strength, competitive advantage, environmental stability, and industry strength are summed together.
- Zero point and the resulted point are connected to each other. The resulted line indicates type of the organization's strategy that can be assertive, competitive, defensive, and conservative strategies. (Weihrich, 1982)

There are four strategic positions (including financial strength, competitive advantage, environmental stability, and industry strength) that can be suggested for the organization based on its position (David F., 2010).

4. Case Study: Electricity Power Company

In order to compare these two methods, they were implemented in an electricity power company and then their results were compared to each other. These results were indicated in the later sections.

4.1. Introducing the Studied Organization and its Experiences in Terms of Strategic Plan Implementation

Electricity Company That Studied is established to produce, transit, distribute, and sell the secure electricity for all of the electricity users. This company also includes

different assistances such as planning, development, exploitation, financial, human resources, and logistic assistances.

The first study on the strategic planning is started in 1993. In the 1995, the first version of strategic plan software that has been developed in the PIP method was used in this company. This plan is developed for 5 years, but some problems and difficulties prevent from its growth.

The companies managers decided to develop the strategic plan in another manner that has possibility of rapid changes. The strategic plan development was done in the BSM method in seven steps after several advices and counsels.

In 2012, the organization decides to apply and implement the SPACE model for defining its strategic position.

4.2. Using the SWOT Matrix for Developing the Organization's Strategies

The goal of SWOT is to select the most appropriate strategies through comparing the internal strengths with weaknesses and comparing external opportunities with threats (Böhm, 2008). In order to identify the company's strengths, weaknesses, opportunities, and threats, a team of senior managers and directors strived to analyze the information in several sessions. In order to this, all of the members indicate their own opinions about strengths, weaknesses, opportunities, and threats and then their information was collected. This information is indicated in the following section.

Strengths & Weaknesses

S1: achieving most profit from industrial applicants because of high price of electricity	W8: period of project conditions evaluation
S2: high percent of electricity sale	W9: strategic process and macro planning
S3: direct interaction with applicants through agent	W10: reliable information system
S4: appropriate installation capacity	W11: process-oriented management implementation
W1: high prices	W12: technology management
W2: asset problems	W13: suppliers and contractors management
	W14: employees' performance evaluation system
W3: customer satisfaction	W15: senior managers' empathy
W4: supplying the applicants' demand for electricity	W16: group working and team working
W5: customer compensation system	W17: employees' satisfaction
W6: appropriateness of the organizational	

structure with its projects
 W7: project management system

Opportunities & Threats

- O1: providing conditions for private section’s participation in the electricity industry especially in electricity production
- O2: possibility of using banking services
- O3: geographical position of this province and its location in the country’s electricity transition network cloverleaf
- O4: master industrial and mineral applicants and demanders in this area
- O5: exclusiveness of the organization’s mission
- O6: environmental conditions for using the renewable energies
- O7: possibility of applying modern methods in contract management
- O8: informational and communicational infrastructures in the region
- O9: expert manpower
- O10: possibility of developing the employees’ skills (in the projects of facilities establishment and development)
- O11: appropriate work cultures in the region
- T1: master applicants bust
- T2: inflation
- T3: boycott
- T4: economic inaction
- T5: elimination of the governmental supports (through perfect implementation of the electricity market)
- T6: deficiency of the contracting and consulting companies especially native companies
- T7: little ability in new technology import
- T8: fundamental change in supplying electricity method
- T9: exclusiveness of some of the facilities suppliers
- T10: long-term period of decision making in the high level organization
- T11: unserviceable rules
- T12: attracting qualified manpower through other organizations
- T13: interaction with advanced countries in terms of manpower educations

The following strategies were derived after identifying, examining, and confirming the previous strengths, weaknesses, opportunities, and threats. The strengths, weaknesses, opportunities, and threats were indicated in the table 2 and their numbers also were indicated.

Table 2. The derived strategies from comparing the strengths, weaknesses, opportunities, and threats

Strategies	From SWOT
Increasing the resources and income	W2+O1,2 و S1,2+ T1,2,3,4
Managing the capital budget attraction	W2+ T3,4,5
Increasing the customers’ satisfaction	W3,5+ T10,11 و S4+O3,4 و S3+T1,2,3,4

Increasing activities in the electricity market	S4+ O3,4 ∩ S1,2+T 1,2,3,4
Supplying the electricity timely	W4+ O4,6
Improving processes performance	W13+ T3,6,9 ∩ W11+T10,11 ∩ W1+T9,10,11
Improving the facilities exploitation	S4+ O3,4
Improving the outsourcing management	W1,3,4+ O1,9
Managing the projects	W13+T3,6,9 ∩ W6,7,8+O7,10
Increasing the employees' productivity	W17+ T12
Developing the employees' synergy	W12+T7,8,10 ∩ W15,16 +O11
Increasing the employees' satisfaction and motivation	W17+ T12
Promoting the inter-organizational communications	W15,16+ O11
Developing the learning and innovation	W10+O9,10 ∩ W12+T7,8,10

As indicated in the previous sections, the main goal of the SWOT is to recognize the strategies that are derived from overcoming external opportunities on the external threats and preserving the strengths and preventing from internal weaknesses (Rowe. A.J. R.O.Mason & K, 1982).

4.3. Using the SPACE Matrix in the Organization

In order to implement the SPACE model, a team of senior managers and directors that have had concentration on the internal and external issues has been established. Also it should be remembered that some of the SPACE sub-criteria that are indicated in the previous sections cannot be applied in the electricity company; therefore, it is necessary to modify them. In order to this, several sessions have been implemented and finally seven sub-criteria for industry strength, 10 sub-criteria for environmental stability, 7 sub-criteria for competitive advantage, and 8 sub-criteria for financial strength have been considered.

Final version of the questionnaire has been developed after applying necessary changes in it. These questionnaires were indicated by team members, but their results have significant differences that it is resulted after some examinations that the team members have different perceptions from questionnaire's items. Because of these differences, it is necessary to assimilate the measures concepts and the team members' perceptions from the questionnaire items. Several sessions have been established with experts and their definitions have been asked to the measures and sub-criteria. Because of the different perceptions of the respondents from questionnaire's items and measures, it is necessary to result a common perception.

In order to this, different definitions of the measures and sub-criteria have been discussed in these sessions and finally a common definition has been resulted by team members. In order to this, the questions have been discussed in this session and then an alternative has been scored and if any agreement could not be resulted, then the mean method has been used.

After collecting information, the scores results were concluded that include 3.125 for financial strength, 2.85 for industry strength, 2 for competitive advantage, and 3.2 for environmental stability. Therefore, it is resulted that this company's position is competitive position.

The results of the SPACE method is this company indicate that this company's strategic position is competitive position. With regard to the company's strategic position, it is necessary to some modifications be done in the financial strength and environmental stability. The collected scores on financial strength indicate that some sub-criteria have low scores in the matrix such as asset potency, capital in operation, profit per share, and ratio of sale price to total price. Also inflation rate, technological changes, and ecological problems have low scores in the environmental stability. Several strategies have been developed based on these measures and sub-criteria in different sessions. These strategies include increase in the resources and income, costs management, budget attraction management, decrease in the crimes, planning for improving facilities and resources and systems exploitation, loan, increase in the productivity, create some attractions for investing in the industry.

Although the strategic position of the company indicates its industry strength and competitive advantage salience in comparison to other dimensions, but it is necessary to attend industry strength and competitive advantage dimensions for improving the company's conditions. In the industry strength it is necessary to consider the measures that have low scores on this matrix. These include resources exploitation, ability of using the capacity in the industry strength and product life cycle in the competitive advantage. The previous efforts not only can improve the financial conditions, but also are able to increase the company's conditions in terms of industry strength and competitive advantage.

5. Conclusion

It is necessary to compare two models' results in this section and its resulted conclusions. The comparison of the company's strengths, weaknesses, opportunities, and threats indicate several strategic efforts that consider some dimensions such as financial, process, manpower, customers, and users. These two models have some similarities and dissimilarities. The SWOT analysis refers to the issues directly and it can be resulted that this has quality conditions, but the

SPACE model examine quantitative issues through concentrating on scores. Speed of two models is high and their similarity and ease are relatively similar. It is possible to achieve a comprehensive view from organization through examining strengths, weaknesses, opportunities, and threats. It is necessary to examine the surrounding issues through considering financial strength, industry strength, environmental stability, and competitive advantage in the SPACE model. It is possible to develop the organizational micro strategies after determining opportunities, weaknesses, strengths, and threats in the SWOT model, but the SPACE model determine the company's strategy after defining its strategic position. In other words, it can be concluded that the SWOT results the macro strategies from micro strategies, but the SPACE derives micro strategies from macro strategies. It seems that the SWOT achieves more perfect and accurate results through concentration on the opportunities, weaknesses, strengths, and threats. But the SPACE model perceives the organization's strategic position rapidly and then develops its strategies with regard to the resulted conditions.

One of the main limitations of the SWOT is that the collected data may not be timely. On the other hand, the respondents may have different perceptions of the SWOT and also they may apply their individual regard and viewpoint rather than actual information (David F., 1986).

Also it seems that there are two main defections in developing and suggesting strategies through SWOT matrix:

1. although the goal of suggesting the SO, ST, WO, WT strategies is to communicate the organization with its external environment factors in order to maintain its survive and activities, but the organization's growth and excellence may be disregarded by the strategists. Therefore, it is necessary to locate organizational goals in the appropriate position of the table so that solutions suggestion not only considers the organization's survive in line with environmental factors, but also consider the organizational growth and excellence.
2. the suggested solutions are derived from interaction between an environmental factor with an internal factor and it is impossible to consider all of the environmental factors and internal factors for developing and suggesting strategies. Therefore, a set of the combinative solutions and macro strategies that are derived from the SO, ST, WO, WT strategies in the common area of this matrix are suggested.

The strategies that are suggested from internal and external factors analysis are the main strategies for organization's move from present situation to the long-term goals. (Ahmadi & Fathollah, 2012).

With regard to the company's position in the SPACE matrix that indicates competitive position; several strategic efforts are suggested that include several

dimensions such as financial, process, facilities, applicants, and customers. One of the most important defections of the SPACE model is different perceptions from measures and sub-criteria that influence scores and finally cannot determine the organization's strategic position favorably. Distance of the determined strategic position point from axis can be indicator of the position pragmatism, but its closeness to the axis increase the axis sensitivity and necessitate its continuous screening. This meant that if the point is close to the zero or one of the axis, a few change in the sub-criteria concept and conditions can change its score and then change its strategic position. High speed of this model in determining the organization's position and also developing strategies makes it more applicable. Also it should be remembered that high speed in determining the strategic position can prevent from senior managers' exhaustion and boredom in developing strategic plan. Also there are several differences in these models applications, but their results are similar to each other.

6. References

- Ahmadi, Alireza, Fathollah, Mahdi & Taj aldin, Iraj (2012). *A comprehensive approach to strategic management*. Tehran: Tolid Danesh, 16th edition.
- Bamford E. Charles & West G.page (2010). *Strategic Management, Value Creation, Sustainability and Performance*. South- Western Cengage Learning.
- Böhm, Anja (2008). *The SWOT Analysis. Seminar Paper*. Grin.
- David, Fred (1985) Computer- Assisted Strategic Planning in Small Businesses. *Journal of System Management*, Vol 36, No 7.
- David, Fred (1986). The Strategic Planning Matrix- A Quantitative Approach. *Long Range Planning* 19.
- David, Fred. R (2010). *Strategic Management: Concepts and Cases*. Prentice Hall. 13.illustrated.
- Griffin, Ricky W. (2012). *Fundamentals of Management*. 6th edition. *South- Western Cengage Learning*.
- Hill, Charles W.L, Jones & Gareth. R (2010). *Strategic Management: An integrated approach*. 9th edition. Sout- western cengage learning.
- Mintzberg, Henry (1994). *The Rise and Fall of Strategic Planning*. UK: Prentice-Hall.
- Radder, Laetitia & Louw, Lynette (1998). The SPACE Matrix: A Tool for Calibration Competition. Lond Range Planning: LRP. *International Journal of Strategic Management*, Vol. 31.
- Rowe, A.J., Mason, R.O. & Diskel, K. (1982). *Strategic Management and Business Policy: A Methodological Approach (Reading Massa-Chosetts)*. Addison Wesley publishing Co.
- Siavashan, Farangis & Khari, Ali (2012). Strategic Planning in Iran Milk Industries. *World Applied Sciences Journal*, 17(1). pp. 66-74.
- Sleeve, Shirt (1993). *Strategic Management*. McGraw Hill.
- Wehhrich, Heinz (1982). *The town Matrix: A Tool for Situational Analysis*. Long Range Planning 15.