

## Identify and Measure of Operational Indicators for Strategic Planning Using SWOT Techniques- Case Study of Avid Food Industries

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### ABSTRACT

Strategic planning focuses on environmental conditions and changes and it utilizes proper strategies in dealing with them. The purpose of the article is to identify strengths and weak points of Avid Food Industries and opportunities and threats the company is dealing with, therefore, strategic planning is used by the use of SWOT technique and the role of internal and external strategic factors in the success and performance development of the organization is studied. The population of this research includes 160 row and line personnel of the organization. Simple sampling method is used in the research in which chance and possibility of all population is equal. The research tool is questionnaire including edited strategies and decision making indices and interview other workers and managers. Thus, the final strategies have been ranked by COQ and risk approaches and the proper strategies are recommended to improve the performance and to increase the given company effectiveness.

**KEYWORDS:** Strategy, strengths and weaknesses and the opportunities and threats analysis matrix, ranking, quality costs, risk, strategic planning

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### INTRODUCTION

Organizations are dealing with a rough future at all global level today due to source decrease and demand increase as well as challenging opportunities (Ebrahim-Zadeh, E. And Agassi Zadeh, E., 2009). In order to achieve success, an excellent management program must answer to such challenges. Firstly, such organizations should think strategically, secondly, they should turn their findings and perceptions into efficient for compliance with changed environments and thirdly, they should provide proper requirement for adjustment and strategy implementation with contemplation. Strategic management focuses on new managers' role is to maintain and preserve dynamics even after establishment and stability of the organization because the main challenge of today managers is the speed of environmental changes in the organizations (Amini, M.T. And Khabbaz Babil, S., 2011).

### RESEARCH METHOD

Given that the aim of this study is to identify and measure operational indicators for strategic planning using a technique SWOT in Avid Food Industries, it has been tried to choose the most appropriate strategy, which decreases the company costs and at the same time, more useful. Thus, this research is applied in terms of the purpose (Amini, M.T. And Sadeghi, A., 2010).

Following the fact that questionnaire, documents, books, articles, thesis and internet database are used to collect data in this research and the internet databases are applied for collecting background Information and review of literature, therefore, the research is descriptive- survey in terms of nature and method (Izadi, P., Karimi, B., Ghasemi, F., 2011). The population: The study population included the line and 160 personnel of Avid Food Industries and professionals working in consultation with the company. (Bagheri, M., Khayyam pour R., Moradi, M., 2012)

#### Sampling Method:

Sample sampling method is used in this research. Moreover, chance and possibility of population selection is equal.

The questionnaire used in this research includes edited strategies and decision-making indices. (Braysun, J., And Elston, F., 2010)

#### Internal factors:

The conducted studies arising from the internal factors in under-study organization of the research mostly resulting from interview and observation suggest the following issues: (Piety, I., 2013; Hongshen, Z. and Ming, C., 2013)

#### Strengths in terms of marketing:

- Creation of a representation in some provinces

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Strengths in terms of management:

- Effective communication with suppliers
- Quality Management System and standard achievement  
(Lashkar Blooky, M., 2011)

**Strengths in terms research and development:**

- Modern production system
- Well-equipped laboratories
- Edited curriculum

Strengths in terms of production and operations:

- Proper warehouse
- Agricultural land to provide some basic supplies
- Appropriate spot to place
- Vicinity to other peer companies
- Skills of the technical department in maintenance and repairs

(Moqadaszadeh, M., 2014)

**Weak points in terms of marketing:**

- Not using sales prediction techniques
- Lack of market studies and information about competitors status and market share
- Not using marketing techniques and conduction of effective advertisements

Lack of suitable distribution network (Eslamipoor, R. and Sepehriar, A., 2014)

**Weak points in terms of accounting and finance:**

- Weak financial system and lack of calculation ability for the final real price
- Liquidity shortage
- Not using facilities of banks and financial and credit institutions (not using deposits and bank interests).

Weak points in terms of management:

Senior management decision-making alone (Gorener, A., Toker, K. Ulucay, K., 2012)

Weak points in terms of data and computer systems:

- Not using information systems such as CPM software packages or production planning.

**External factors:**

External factors include opportunities and threats with whom the organization deal and they were studied mostly through library studies, internet searches and interview. (Mehmood, F., Hassanzhad, M. Abbas, T., 2014)

Opportunities from economic forces:

-Economic and social development and growth in neighboring countries such as Iraq and Afghanistan and their willingness to use Iranian products. (Khatami, b. Mehdi Zadeh, H., 2009)

- Exchange rate fluctuations and provision of a base for exportation.

Opportunities arising from the study of social, cultural, ecological and environmental forces (Mehrmanesh, H., Saedi, N., Lessani, p., 2012)

- Tendency of new generation to use canned food
- Outdoor breakfast eating culture
- Emergence of large stores and tendency of people to shop from such stores.
- Supply of goods in accordance with the tastes of consumers in each region.
- People's tendency to use organic food products in different countries.
- Opportunities arising from the study of political, legal and governmental forces.
- Ban of imported olives and olive oil.

**Opportunities arising from the study of competitive forces:**

Sanctions and lack and increase in imported rival products prices which provide the opportunity to fill the market gaps by Iranian goods. (Khodadad Hosseini, S.h. And Azizi, Sh., 2012)

**Threats from economic forces:**

- Daily increase raw materials cost
- Currency fluctuations leading to price changes of packaging raw materials or imported machineries.

Rising interest rates and bank charges. (Damian, I.P.M., Santarem Segundo, J.E. and Merlo, E.M., 2014)

Threat from the study of social, cultural, ecological and environmental forces:

- People thought based on the fact that home-made productions have higher quality than the factory products.
- Climate changes, drought and ...resulting in a shortage of raw materials. (David, F.a., 2011)

**Threats from the political, legal and government forces:**

- Audit of the VAT
- New sanctions legislation that does not allow any changes in consumer prices.
- Sanctions leading to the lack of spare parts and machines....
- Political instability and sanctions which may dwindle the chance of present in the global market for Iranian goods. (Rahim Nia, F., Nazemi, Sh., Mashreghi, A., 2011)

**The threat from the study of the technology force:**

- Lack of access to right marketing system and marketing difficulty in international level

The threat from the study of the competitive force:

- Existence of competing factories in the West of Iran where has less distance with Iraq border.
- Strategies edit using SWOT analysis:

SO strategies are obtained by the use of strengths and opportunities:

SO1: Creation of representatives in neighboring countries and product exportation.

SO2: Design of new label and modern packaging in accordance with the tastes of the younger generation.

SO3: production of single portion Jam for hotels and restaurants.

SO4: Manufacture of seedless olive and jam in large packaging for restaurant use.

SO5: Use of power and facilities of neighboring companies for organization benefit

SO6: Production of organic products with higher selling prices.

SO7: Negotiation and seal of contracts with Workers and Employees Unions

SO8: Manufacture of products in accordance with the taste of people from Qom, Kerman, Isfahan and Fars by the use of the information taken from the representatives.

SO9: Similar manufacture of Imported Products such as Sauces, Yogurt, Olive, Cheese, Olive oil and ...

SO10: Development of a greater share of sales to the Chain Stores.

By the use of strengths and opportunities, WO strategies are obtained as below:

WO1: Increase the number of agencies into various cities.

WO2: Provision of suitable advertising programs in public media

WO3: Delegation of the CEO to managers and senior corporate executives.

WO4: Enhancement of financial system and creation of sources and funds consumption as a requirement and base preparation to grant low-interest and long-term loans

WO5: Board creation and assignment of a person who is familiar with the organization system as a member who interferes directly in macro-policy and decision- making of the organization

WO6: Application of advertising and research programs (Promotion) in the stores.

WO7: Establishment of distribution network to distribute its products and products of the competitors.

WO8: Advertising counter rental at the entrance of grand department stores.

WO9: Offering proper discounts to distribution system.

WO10: Try to make the marketing system scientific, classical and mechanized and sale by the use of collective training.

WO11: Advertisement increase in the market by increasing productions with the company brand

By the use of strengths and threats, the following ST strategies are obtained:

ST1: Thorough use of the factory capacity (including customized order or producing with Avid brand) to reduce unwanted costs.

ST2: Use of raw materials produced in the factory agricultural land to keep the position in the market place.

ST3: Rotation services and transfer of technical knowledge to peer factories

ST4: Provision of applied training for peer companies.

ST5: Development of product and complete of basket of goods and imported item packaging such as rice, tea and nuts.

ST6: Strengthening the markets that are less far away from the company warehouse.

ST7: Wholesale order of certain raw materials storable in the fridge and having more discounts.

(Rahimi Moghaddam, J., Amani Hooshyar, SA., 2012)

**By the use of weak points and threats, WT strategies are obtained as below:**

WT1: Try to use the collective wisdom and cooperation in order to take advantages of existing market turmoil.

WT2: Use of international chain stores shelves (Hyper Star) to introduce the product in other countries.

WT3: Participation and acceptance of the investor. (Soltani, A., Moazzami, F., S, M., 2011)

WT4: Company presentation and try to change public attitudes to the use of local and non-standard and unsanitary products.

WT5: Participation in relevant food international exhibitions.

WT6: Creation, spread and mechanization of the company financial system.

### 4.3 Selection of Developed Strategies:

In order to choose applied strategies, a questionnaire were prepared and given to the experts and Avid food staff and they were asked to score the strategies. Then, by using factor analysis and SPSS software, 4 groups were considered. The table below shows the rotation matrix from which we conclude: (Shams, AS., 2011)

**Table 1.** Rotation matrix to reduce the number of strategies

	Component			
	1	2	3	4
SO1	.763	.145	-.011	.108
SO2	.772	.141	.160	.046
SO3	.760	.131	.064	.084
SO4	.537	.200	.059	.066
SO5	.729	.258	.025	.130
SO6	.783	.073	.249	.119
SO7	.766	.012	.289	.300
SO8	.728	.135	.299	.079
SO9	.685	.084	.201	.181
SO10	.808	.119	.218	.081
WO1	-.47	.204	.654	.073
WO2	.300	.229	.467	-.007
WO3	.455	.492	.261	-.050
WO4	.083	.303	.635	-.057
WO5	.464	.513	.304	-.092
WO6	.328	.140	.705	.190
WO7	.243	.149	.680	.209
WO8	.306	.055	.725	.182
WO9	.226	.031	.068	.840
WO10	.100	.122	.252	.815
WO11	.160	.127	.083	.800
ST1	.164	.629	.156	.027
ST2	.229	.760	.064	.054
ST3	.639	.216	.017	.090
ST4	-.120	.707	.017	.035
ST5	-.44	.823	.111	.063
ST7	.383	.599	.238	.170
WT1	.223	.612	.285	.084
WT2	.225	.812	.197	.051
WT3	.239	.790	.112	.111
WT4	.627	.801	.178	.009
WT5	.542	.386	.167	.122
WT6	.386	.455	.214	.103
		.603	.184	.159

All strategies were grouped but there are still a number of strategies. Now, those groups of strategies in each group which have less value according to the Experts are eliminated. Therefore, the average of each group is calculated and weight of each strategy which is less than the average of the group is eliminated as well. By the use of such method, 9 less valued strategies are eliminated. As a result, 34 strategies are decreased to 13. (Salehi Kah Kalesh, T Jaffarzadeh Haghghi Fard, 2009)

**Table 2.** Strategy scores in each group

	Component			
	1	2	3	4
SO1	.763			
SO2	.772			
SO3	.760			
SO4	.537			
SO5	.729			
SO6	.783			
SO7	.766			
SO8	.728			
SO9	.685			
SO10	.808			
MEAN	.733			

WO1			.654
WO2			.467
WO4			.635
WO6			.705
WO7			.680
WO8			.725
MEAN			.644
ST1		.629	
ST2		.760	
ST4		.707	
ST5		.823	
ST6		.599	
ST7		.612	
MEAN		.688	

**COQ Costs of Quality Approach:**

To calculate the cost of quality, PAF model is used. First of all, the costs of quality associated with rates of production consistent with PAF model is identified as follows. The method of calculating the fee amount is also explained. (Sabahi, A. And Afrasiabi Rad, M.s., 2011)

**Assessment costs:**

Internal and external calibration costs

- Salary of laboratory staff for production of consistent produce
- Laboratory consumables for production

**Prevention costs:**

- R & D personnel’s salary
  - Maintenance staff (technical)’s salary
  - Issuance of Quality and Standards Certification
  - Salary of quality assurance and internal audit office staff:
  - Training costs
  - Audit costs in assessment place
  - The cost of failure
  - Labor costs for removal and repair of non-consistent product
  - Drop of refurbished product
  - Additional energy consumption for reconstruction
  - Salary of laboratory personnel to refurbish the consistent product
  - Laboratory consumables for re-testing the furbished product
  - Costs resulting from the device stop
  - Costs of repair of the machineries which have led to the line interruption
  - Excess material used for renovated product packaging
- (Sehhat, S. And Parizad, A., 2009)

**Strategy Ranking with COQ Quality Costs Approach:**

In the next level, a table was supplied in which strategies were explained in the rows and COQs were explained in the columns. Thus, in a meeting of 5 experts, it was found that each strategy included which COQ. Finally, the final COQ was calculated. At the end, results of(A) the cost of prevention (P) and the cost of failure (F) and total costs (PAF) and strategies ranking are given in Tables 3 and 4.

**Table 3.**

	A1	A2	A3	SUM A
SO1				0
SO2				0
SO3	24	191	9	224
SO6	24	191	9	224
SO7				0
SO10				0
WO1				0
WO6				0
WO7				0
WO8				0
ST2	24	191	9	224
ST4				0
ST5	24	191	9	224

**Table 4.** Strategies and the costs of prevention

	P1	P2	P3	P4	P5	P6	Sum P
SO1	42		150	63	34	32	320
SO2	42	300					341
SO3	42	300	150		34		526
SO6	42	300	150	63	34	32	620
SO7	42			63		32	136
SO10	42			63	34		139
WO1	42	300	150	63	34	32	620
WO6	42			63	34	32	171
WO7	42				34	32	108
WO8	42				34	32	108
ST2							0
ST4					34		34
ST5	42	300	150	63	34	32	620

**Conclusion:**

As observed earlier, the strategic planning is a regular attempt to make decisions and activities identifying the nature of the organization and type of its job as well as the reason behind these jobs. Matrices of threats, opportunities, strengths and weak points (SWOT) is a remarkable tool for the managers to compare data and they will be able to submit four strategies by the use of such tool. Since no organization is able to have infinite resources, strategies must make decisions about which strategies could benefit more to the organization. 34 strategies arising from SWOT strategies were edited in the beginning of the article. Then, the number of strategies was decreased to 13 strategies which were more applied according to the experts' opinions by the use of rotation technique, Factor Analysis and simple average of the scores in two stages.

In the next stage, the rating was conducted once by calculating quality costs and another time by identification of the risks relevant to the strategies. The final rating is as below:

**Consistent with COQ:**

- 1- ST4 provision of practical training to peer companies.
- 2- WO8 advertising counter rental at the entrance of grand department stores.
- 3- SO7: Negotiation and seal of contracts with Workers and Employees Unions
- 4- SO10: Development of a greater share of sales to the Chain Stores.
- 5- WO6: Application of advertising and research programs (Promotion) in the stores.
- 6- SO1: Creation of representatives in neighboring countries and exportation.
- 7- WO1: Increase the number of agencies into various cities.
- 8- SO2: Design of new label and modern packaging in accordance with the tastes of the younger generation.
- 9- ST5: Development of product and complete of basket of goods and imported item packaging such as rice, tea and nuts.
- 10- WO7: Establishment of distribution network to distribute its products and products of the competitors.
- 11- ST2: Use of raw materials produced in the factory agricultural land to keep the position in the market place.
- 12- SO3: production of single portion Jam for hotels and restaurants.
- 13- SO6: production of organic products with higher selling prices.

As seen earlier, it is required more practical works than intellectual work for strategy implementation in comparison with its adjustment. Additionally, strategy implementation activities affect directly all firm employees and managers whereas employees' role could be reflected as a proposal for strategies adjustment the main role is merely played by a limited number of higher level managers.

In strategic management, the strategies evaluation is considered as the final stage. Control and evaluation is a process through which performance results and company activities are under control and supervision in order to be able to compare the real performance with the desirable performance. Such process offer required feedback to the management to evaluate the results and to make modifying measures.

Following the risk approach according to RPN values of the table and calculation of their average for each strategy, such strategies are obtained respectively:

- 1- ST5: Product development and completion with goods basket with imported items packaging such as rice, tea and nuts. We know rice and tea are the main items of household consumption basket of goods. By the use of beautiful packages for imported rice and tea and put them in the basket of goods, we could make required action for product development. Average of strategy 27 is the least between RPNs and the relevant strategy takes priority.
- 2- WO6: using advertising and research programs (promotion) for the stores with RPN=28.67 are in the second priority.
- 3- SO2: designing new label and modern packaging in accordance with younger generation taste; so that the packaging is done by higher quality and more beautifully in order to attract customers, especially the younger generation. RPN value, 30 is located in the third priority.
- 4- WO8: Advertising counter rental at the entrance of Grand Markets for representation of the product to the customers and for marketing purposes with RPN=30.67 average, is in the fourth priority.

- 5- SO10: Development of more share from chain stores share such as Shahrvand and Hyper Stars Department Stores to distribute more product items by more proper prices with RPN=36 average is in the fifth priority.
- 6- ST4: offering applied trainings to peer companies with RPN=36 average is in the sixth priority.
- 7- WO1: Creation of representative in various provinces in order to present productions around the country with RPN=37 is in the 7th priority.
- 8- ST2: using manufactured raw materials in agricultural lands of the factory to maintain the position in the market. Using manufactured materials in the factory agricultural land for dependence and cheapness in prices with RPN=37.75 is in the 8th priority.
- 9- SO6: Manufacturing organic production with higher prices. RPN=38.75 is shown, therefore, it is in the 9th priority. Organic productions are certain productions which are in harmony with natural system through the whole growth stage and they are grown merely in a soil in which no pesticides such as herbicides, fungicides and chemicals is used and they are merely enriched by natural materials like fertilizers (vegetation composting).
- 10- SO7: Negotiating and sealing contract with workers and employee Unions with RPN=40.8 is in the 10th priority along with risk approach.
- 11- WO7: creation of distribution network in order to distribute own products and products of the rivals with RPN=43 is in the 11th priority.
- 12- SO1: Creation of representative in neighboring countries and exportations which has been of the initial strategies of the organization with RPN=43.71 in the 12th priority.
- 13- SO3: Manufacturing single-portion jams for hotel and restaurants or RPN=53.25 are in the 13th priority.
- 14- Among all ranked strategies by WO7 risk approach, namely creation of distribution network to distribute its own products and the products of its rivals is out of researcher discretion and other strategies are in the researcher discretion.

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