

# THE STRATEGY FORMULATION OF CONCRETE SLEEPER INDUSTRY BY THE METHOD OF THREE-PRONGED STRATEGY PATTERN, CASE STUDY: INDUSTRY FACTORY OF CONCRETE SLEEPERS OF KHUZESTAN PROVINCE

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## **Abstract**

Today, most organizations require to formulate strategic planning to increase their capabilities, long-term growth and survival and to reduce their functional risk. So, directors, Consultants and experts in planning are always looking for more effective methods to formulate strategies. This paper introduces a new method to formulate strategy. Along with the methodology and step-by-step processes, this method focuses on cognitive measures and understanding of business rules and to do this, uses conceptual patterns and recommendations of strategic thinking. Three-pronged strategy has grounded his philosophy on the nature of competitive environment including organization, rival and customer and employ and employ conditions of these three players to formulate strategy. To formulate three-pronged strategy, Concrete Traverse Factory of Khuzestan Province by collecting and integrating of information related to market, rival and organization, first, identify the area of strategy efficacy and then the field of creation of appropriate strategies has been presented by a analysis table.

**Key words:** *Tree-pronged strategy, Competitive Advantage, Customer and Market, Main Rival, Distinguishing Competencies*

## **1. Introduction**

Today, most organizations requires to formulate strategic planning to increase their capabilities and long-term growth and survival and to reduce their functional risk.

Organizations need to develop internal and external focuses and also science-centered skills. They need to implement strategy to be able to manage possible changes [16]. Strategy is known by a spectrum which strategic planning is on the one side and strategic thinking is on the other side. In fact, these two approaches are agents of different schools; strategic planning belongs to planning school in which strategy formulation is a formal and systematic process and strategic thinking approach is grounded on learning school in which strategy forming is known as a formative procedure implementing.

In strategic planning, Focus is on the development of strategies and the more effective planning tools; and the Focus in strategic thinking is on the development of insight. Strategic thinking is identifying of reliable strategies or business models which leads to the creation of value to the customer[13].

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This study introduces a new method to formulate strategy in which the development of insight and process structuring have been considered equally. In this study, strategy formulation work is organized by a systematic and step-by-step process and at the same time, in each step, the circumstances of deep understanding of issues and attain of required insight in creation of an effective strategy are provided by reliance on the strategic thinking patterns. This method is called Three-pronged strategy, because it should always remind the main three players i.e. organization, rival and customer [9].

With regard to strategy is an executive method to attain organization goals and also is a way and pattern of sources allocation for making decisions throughout the organization, it is expected that the main challenges facing Industrial Factory of Concrete Sleepers and also solutions dealing with this challenges are well and timely identify by this study in order that the organization by taking into account challenges and identified solutions, takes steps so that it would be successful in strategic decision-makings and considered operational results by this way. The successful implementation of strategy depends on effective strategy, management and controller systems [14].

The stated importance in above introduction and the planning absence of three-pronged strategy in industrial factory of concrete sleepers of Khuzestan province led that the planning to three-prong end strategies in industrial factory of concrete sleepers was chosen as research subject. On the basis of it, competitive advantage, main rival /(rivals), distinguishing competencies, methodology and goals, research findings and comprehensive pattern have been presented after presenting research subject literature (generalities) about three-pronged strategy. And market, rivals and organization customers have been identified in the stage of data analysis and then the long-term goals of Industrial Factory of Concrete Sleepers have been determined and some strategies have been suggested to attain long-term goals in order that Industrial Factory of Concrete Sleepers can rationally make strategic decisions.

## **2.Research theoretical principles**

### **2-1- Three-pronged strategy**

Three-pronged strategy has grounded its philosophy on the basis of the nature of competitive environment including organization, rival and customer and employs the conditions of these three players to formulating.

In this method, staying with strategy concepts is as important as implementation of step-by-step processes and they are never be considered as subordinate and of secondary importance. This part of method is considered as its main distinction with other strategic planning processes (such as analysis of SWOT, BCG, SPACE,...). Another considerable feature of the three-pronged strategy method is the ability of determining the appropriate strategy area (similar to IME and SPACE methods) and at same time, ability of determining given strategies (similar to the SWOT method). The organization can be free from employing complementary and various methods by this feature[9].

Three-pronged strategy is a new method to formulate strategy. It helps and directs strategist in creating of the most appropriate possible strategy by integrating step-by-step processes (similar to prescription approaches) and strategy concepts (similar to descriptive approaches). The method focusing on customer and rival as the most important environmental factors and distinguishing competencies as the most important internal factors establishes an effective conformity between organization and environment[10].

### **2-2-Competitive Advantage**

Competitive advantage is a factor that makes customer to prefer the organization rather than its rival. To the organization, the creation of competitive advantage is equal with the creation

of value to the customer and this fact indicates the great importance of value recognition from the customer's viewpoint[9].

Competitive advantage consists in the extent of increasing attractiveness of company suggestions compared with rivals from customer's viewpoint. Competitive advantage is a value that organization presents to its customers, so that this value is not presented by the potential and actual rivals in that time. The concept of competitive advantage has a direct relationship with customer's given values, so that in a comparative way, however organization presented values is closer to customer's given values or is more conforming with them, it can be said that the organization has advantage over its rivals in one or more competitive standards [12].

### **2-3-Customer and Market**

In marketing, market term is applicable to a set of consumers or organizations that require or are interested in given goods or services, have sources for buying goods or services and according to rules, have been permitted to provide goods and services[6].

Available market is applicable to a set of consumers who are interested in a special product or a service, have incomes and have access to a product or service[10].

Customer is defined as an organization or a person that receives a product or service and in other words customer is a buyer of goods or services[9].

### **2-4- Main rival**

The main rival like customer is one of the most important concepts in strategy. Rival is someone whose profits is in conflict with the organization profits when attempting to achieve a goal. In principle, strategy is born out of competitive environment. Competitive environment means rival equal possibility in a competition arena [9].

To analyze a rival, first, we need to be informed about the extent and validity of data related to rival and we should ask ourselves: " To what extent we are aware of rival strategy? To what extent we know his / its abilities? What are his / its plans? " Information like it should be real and based on evidences and documents [10].

### **2-5- Distinguishing competencies**

Distinguishing competencies is a factor which produce value to the Customer and access to it, is accompanied by difficulties and intricacies to the rival. No organization Can achieve a successful strategy without distinguishing competencies and the creation and development of distinguishing competencies is one of the most important duties of senior managers [10].

Distinguishing competencies differ from capabilities. Every capability cannot be considered as distinguishing competencies but in most cases in a formative process, can change into it. Until organization Capabilities do not change into a factor to create value to the customer, is not considered as one of the competencies and does not have a role in the strategy and organization competitive advantage [9].

## **3. Research methodology**

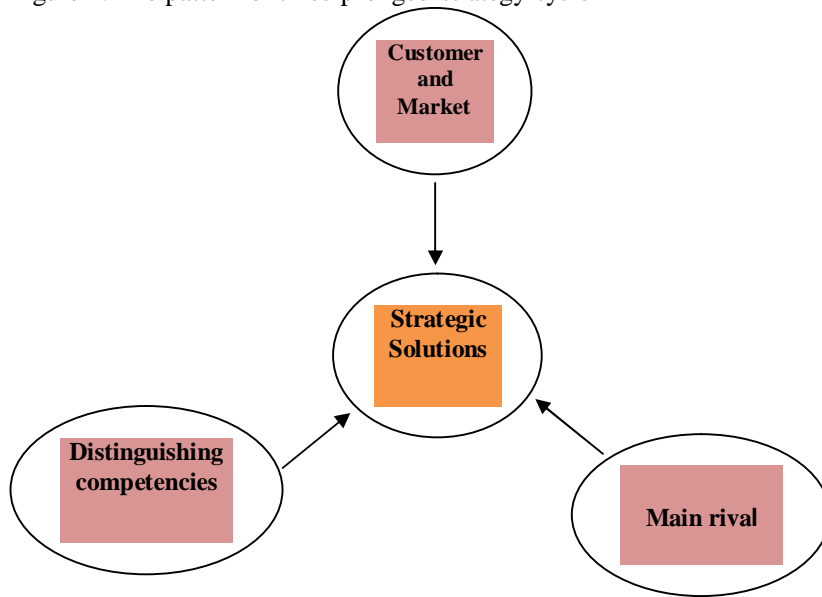
This study from the view of exploratory nature is descriptive and from the view of goal is applied and also it has employed judgment and intuitive analysis. Statistical community in this study consists of managers and experts in the Industrial Factory of Concrete Sleepers of Khuzestan Province. Manager or expert is someone who has been given the official title of manager or expert as his / her organization post.

Some pieces of information Such as statistical information has been collected by Industrial Factory of concrete sleepers, library studies and interaction with factory director. Some of

the general information obtained, has been used in making tables and also determination of an appropriate strategy. The main tools of data-collection include data banks and internet, interview with factory senior managers and questionnaires.

On the basis of theories and theoretic ideas specifying in theoretical sources, first, questionnaires consisting of customers` demands questions, status and the extent of awareness of rivals and also market were provided and distributed among the managers and the experts of Industrial Factory of Concrete sleepers. Finally, the final questionnaire was provided after two revision cases in questions and re-interaction with executive director. Also, for reliability, first, a few questionnaires were distributed among organization experts and then its reliability was calculated by using SPSS software and by Cranach`s Alpha method which equaled 89%, indicating that questions have appropriate reliability.

Figure 1: The pattern of three-pronged strategy cycle



#### 4. Research findings

**A.** The first stage of the three-pronged strategy pattern : is recognition of primary customer`s demands (about the products of Concrete Sleeper Factory) (Table1). The recognition of the customer`s demands is a important factor to create value to him / her. When buying a product, the mere buying is not the customers` goal, but they need a distinctive feeling which is created by using a prominent brand mark and if a company could not be successful to create this feeling , it lose its customers in favor of a rival which is more successful to create this feeling to customers.

The understanding of new customer`s demands (before rivals can recognize them) and an effective response to them, is as recognition and use of a strategic fortune to create a competitive advantage to organization. Hidden demands are considered organizations valued treasures.

To do this, first, customer`s demands questionnaire was provided after having several meeting with the factory executive director and marketing experts by the Delphi method. After customer`s demands were determined, each of them was given a score from 1 to 9 in terms of importance of them to the customer. The score 9 indicates the most primary customer`s demands, when using given products and the score 1 is indication of the lowest importance level. This table should specifically illustrate at least 3 and at most 10 primary demands. This Table is Known as market and customer`s Table and naturally is of fortune type.

Table 1: Market and Customer Table

What are the primary customer`s demands?		
Row	Customer`s demands	Importance coefficient
1	Appropriate molding	6
2	High quality concrete traverse	8
3	Valid brand mark	8
4	Observation of standards	9
5	Easy access	5
6	Reasonable price	9
7	Product diversity	4

**B.** The second stage of three pronged strategy pattern: is recognition of abilities and capabilities of main rival or rivals in response to customer`s demands (Table ). As last stage, the starting point is recognition. To analyze a rival, first, we need to be informed about the extent and validity of data related to the rival. We should ask ourselves: "To what extent we are aware of rival strategy? To what extent we know his / its capabilities?"

What are his / its plans? This information should be real and on the basis of evidences and documents. Nothing is as dangerous as baseless guesses about rival to a strategic movement. Access to rival`s information is a difficult but very effective work and to do this, continuous analysis and integrating of obvious information (interviews, Internet sites, announcement,...) is an useful method.

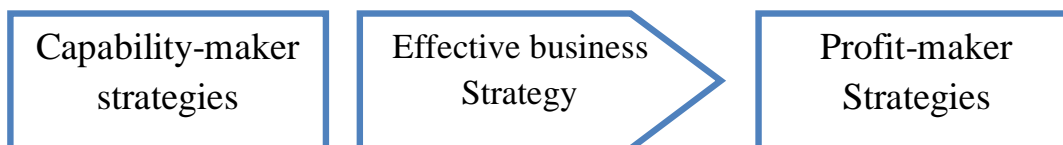
Using organizations which their services are giving information about companies, is also a common work. Taking information from customer, distribution network and selling centers is an effective method as well. More intricate measures such as industrial spying is also possible in some conditions which could be important and determining institution. To do this, rival capabilities and abilities in response to customer`s demands were determined by internet sites and interviews with rival managers and experts. After determination of rival`s capabilities, a table similar to market and customer`s table was made and then for each demand, a score from 1 to 9 was given to rival effectiveness to customer`s demands.

Table 2: Rival Table

What are rival`s abilities in response to customer`s demands?		
Row	Rival`s capacities	Score
1	High quality concrete sleeper	7
2	Valid brand mark	7
3	Standard Certification	5
4	Public distribution network	7
5	Relatively high price	6
6	Low diversification	5
7	Strong marketing and relation ships	8

**C.** Third stage of three-pronged strategy pattern: is recognition of organization capabilities and distinguishing competencies in response to customer`s (Table 3).

Distinguishing competencies is a factor which produces value to the customer and access to it, is accompanied by difficulties successful strategy without distinguishing competencies and the creation and development of them, is one of the most important duties of senior managers.



To do this, factory distinguishing competencies in response to Customer's demands were determined by interaction with executive- director and units managers in factory. After determining factory distinguishing competencies, a table similar to market and customer Table was made and then to each factory dusting – wishing Competencies, a score from 1 to 9 was given equal to the extent of response to related demand.

Table 3: Table of distinguishing competencies

What are factory distinguishing competencies in response to customer`s demands?		
Row	Factory distinguishing competencies	Score
1	Production under license	8
2	Valid brand mark	7
3	Having international certification	9
4	Public distribution network	7
5	Reasonable price	9
6	Low diversification	5
7	Certificate of presence of customers control device	7

### 5. Data integration and determining area of strategy efficacy

Data integration and determining area of strategy efficacy are performed in three steps:

**First step** : Integrate three table of market and customer , rival and distinguishing competencies in one table.

**second step**: calculate comparative advantage of the organization in lieu of each of market demands by the given relationship in table 5.

(customer`s demand×(rival`s capabilities–distinguishing competencies) = Comparative advantage

**Third step**: Analyze comparative advantages. Comparative advantage analysis shows that in what situation the organization stands in comparison with main rival (rivals) (by using Table 5). To do this , first, the average of comparative advantage is calculated; The maximum of this indicator is +72 (with regard to Tables inserted in integration Table 4, if to each of sections of Tables (1) , (2) and (3), Scores of 9,1 and 9 are given, respectively, according to equation of determine comparative advantage , we would have ((9-1)× 9= +72)) and its minimum is -72 (with regard to Table inserted in integration Table 4, if to each sections of Tables (1) , (2) and (3), Scores of 9,9 and 1 are given, respectively, according to equation of determining comparative advantage, we would have: (1-9)×9= -72)).

Table 4: Integration Table for concrete Traverse Factory of Khuzestan Province

Row	Table 1: what are main customer`s demands?		Table 2: what are rival abilities in response to these demands?		Table 3: what are the organization distinguishing competencies in response to these demands?		Relative Compl etive Advant age
	Customer`s demands	Score	Rival`s capabilities	Score	Company distinguishing competencies	Score	
1	Appropriate molding	6	High quality concrete travers	7	Production under license	8	6
2	High quality concrete travers	8	Valid brand mark	7	Valid brand mark	7	0
3	Valid trademark	8	Standard certification	5	Having international certification	9	32
4	Observation of standards	9	Public distribution network	7	Public distribution network	7	0
5	Easy access	5	Relatively high price	6	Low price	9	15
6	Reasonable price	9	Medium diversification	5	Low Versification	5	0
7	Product diversification	4	Strong marketing and relationship	8	Presence of Customer`s Control device	7	- 4
<b>Average</b>							<b>7</b>

Table (5) is table of calculation and analysis of average of comparative advantage, that is, after determining Competitive comparative advantage, it specifies that in what status the organization stands in comparison with its rivals.

\*When the average of comparative advantage is positive (more than + 25), it indicates that the organization has a stronger place in comparison with its rival and in a situation like it, aggressive strategies (penetrating in market , development of market, integrating) are suggested. When the average of comparative advantage is close to zero, the status is similar to rival's and organization appropriate strategies are competitive strategies (the development of product, partnership). The negative average of comparative advantage (smaller than-25) is indication of organization weakness compared with its rival and the necessity of taking defensive strategies (Partnership, transferring, reduction and ....). Furthermore, each of ((Outstanding)) (Strong positive or negative) Comparative advantages in front of a demand shows that effective strategy in response to which one of the main market demand is capable of creativity and this recognition specifies strategist's focus in creation of effective strategy and shows that organization strategy to what features of rival and customer, needs to be responsible.

Table 5: Calculation and analysis of comparative advantage of strategy area

Importance coefficient	Score	Score
Customer`s demand×(rival capacities-distinguishing competencies) = Comparative advantage		
Offensive strategies ←	The average of comparative advantage > +25	
Competitive strategies ←	The average of comparative advantage = 0	
Defensive strategies ←	The average of comparative advantage < -25	

Since the average of comparative advantage (Table 4) equals to 7 and is close to zero, with regard to inserted explanations in Table 5, the status is class to rival's and the appropriate factory strategies are competitive strategies including development of product and partnership.

## 6. The analysis of strategy creation

Data analysis and strategy creation is a mental analysis process on the basis of objective (actual) data. Because resultant strategies, are outcome of creativity and born out of human mentality rather than methodology and suggestion method, the process is reliant upon mental analysis.

\* To do so, there are five steps, regarding Table 6, the steps are perused:

**The first step:** Specify strategy efficacy area from the integration Table (Table 4) and list outstanding demands (The demands that have higher scores in market and customer Table) in cell number 1. These demands specifies an area of strategic space in which the possibility of efficacy is maximal.

**Second step:** Insert given distinguishing competencies (Those distinguishing competencies which have the highest scores in Table of distinguishing competencies) in cell 2 of data-analysis Table.

**Third step:** with consideration of one – by – one of contents of contents of cell number 1 and 2 of analysis Table, Focused your mental attempt to answer the question of How to can response to primary market demands by using a distinguishing competency. These answers are strategic solutions that should be written in the cell number ; the responses nature should be of the type of solution , a solution which employ distinguishing competency and is responsible to market demands as best as possible (strategic solutions are represented by combining cells number 1 and 2)

**Fourth step:** we compare each of strategic solutions resulting from third step with the Table of market and customer and observe that each solution relatively responses to which one of the primary demands available in the Table, in other words, each of strategic solutions is compared with primary customer`s demand that solution responses to it, is added and the total is written in front of strategic solution in cell number 4.

[Solution 1: 6+ 8+ 8+ 9=31 \* Solution 2: 9 \*Solution 3: 5]

**The fifth step:** The most appropriate strategy for the organization is a solution which their total scores of responding to demands (Fourth step) is more. Therefore, the main strategic solution of organization is chosen (among created solutions) and is recorded in cell number 5. This strategy is appropriate for the factory.

Table 6: The analysis of strategy creation

		1. The main market demands			
		4. observation of standards			
		6. Reasonable price			
2. Distinguishing competencies	3. Having international certification	3. Strategic solutions	4. Total score of responded demands	31	5. Strategy:
		1. Using international standards for high quality product			
	5. low price	2. The low final price of production compared with rivals for the market development			9
	3. having public distribution network for easy access	3. Using international standards for high quality product			5

**7. Results**

By using strategy formulation by the three-pronged strategy pattern in Industrial Factory of concrete sleepers of Khuzestan Province, after data-analysis, Table of strategy creation analysis (Table 6) and to total the scores of strategic solutions, the suggestion strategy is: “Using international Standards for high quality product”.

**REFERENCES**

[1] The Arabi, Sayed M., (2007). Handbook of Strategic Planning, Tehran, Publications Office of Cultural Research.

[2] Amini A. and Babil B. (2010). Strategy using a comprehensive framework for strategy formulation, Tehran, Journal of Business Administration, No. 2.

[3] Bryson, J.. (2007). Strategic planning for public and nonprofit organizations, translation Khalili, fourth edition, Tehran, Institute of Education and Research Management and Planning.

[4] Pierce, J. & Robinson. (2006). Strategic Planning and Management, translated Khalili, fourth edition, Tehran, Memorial Book

[5] David, F.. (2011). Strategic management, translation of Ali Parsaian, and Sayed Mohammad, Arabi, Eighth Edition, Tehran, Office of Cultural Research.

- [6] Rahman Seresht. H. (2009). Strategic management theorists thought, Tehran, Allameh Tabatabai University publishing.
- [7] Rngriz, H. and Husseini, R.(2006). Strategic planning process , Tehran, published by commercial publishing company.
- [8] Zari B. and Hajlu H. (2010). Iran's Fisheries Sector Strategic Development Plan, Tehran, published by commercial publishing company.
- [9] Ghaffarian, V. and Kiani, Gh. (2010). Five Commandments for strategic thinking, second edition, Tehran, Fara publishing company.
- [10] Ghaffarian, V. and Emadzadeh, M.. (2011). Three-pronged strategy, a new approach to strategy formulation, Tehran, Journal Tadbir.
- [11] Moshabaki, A. Khazaei R. (2008). Designing The Elements of the strategic thinking in organizations of Iran, Tehran, Journal of Business management, No. 1.
- [12] Mehri, A.; Hosseini, Kh. & Seyedi H. (2006). Designing a Competitive Advantage model for the automotive industry of Iran, Tehran, collection management articles.
- [13] Abraham, S. (2009). "Stretching Strategic Thinking". *Strategy and Leadership*. Vol 33. No 5. pp 5-12
- [14] Atkinson, H. (2010). Strategy implementation: A role for the balanced scorecard? *Management Decision*, 44(10), 1441–1460.
- [15] Graetz, F. (2006). "Strategic thinking versus strategic planning: towards understanding the complementarities". *Management Decision*. Vol 40. No 5. pp 456-462
- [16] Greenly, G., & Foxall, G. (2001). Multiple stakeholder orientation in UK companies: The implications for company performance. *Journal of Management Studies*, 34(2), 259–284.
- [17] Hill W, Jones G. R. & Galvin, P. (2008). "Strategic Management: An integrated approach", Wiley, Milton
- [18] Johnson, G., & Scholes, K. (2006). *Exploring corporate strategy*. Harlow, Essex, UK: Pearson Education, Prentice