PRIORITIZATION & IMPROVEMENT OF STRATEGIC MANAGEMENT OBSTACLES USING QUALITY FUNCTION DEPLOYMENT MODEL (CASE STUDY: SOUTH PARS COMPANIES)

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Abstract
Strategic management researchers have long attempted to demonstrate that the process by which intended strategy is formed impacts the quality of the decisions made and subsequently organizational performance. According to literature, it is a long path of many causal relationships between strategy formation process and organizational performance. Many empirical studies have examined the first causal link assumed by researchers asserting a process-performance relationship: the relationship between strategy formation process and intended strategy. But in any time, there are some barriers in front of strategies implementation in organization. Our study demonstrated on 32 barriers of strategic management in Petropars Oil & Gas Company. Our findings show that some barriers such as (Ineffective top management team, Conflict in organizational culture, lack of consensus between managers) have the most important effects in organizations but we can find some new strategies toward better strategy implementations. After 9 interviews with top management in our case, we found 13 operational factors that (working team competition & developing a new system for knowledge sharing) are the main improvement factors.
Keywords: Strategic Management Obstacles, Quality Function Deployment, Oil industry

Introduction
To create the best conditions for growth in a knowledge-based economy, firms need to fine-tune their policies on education, training, innovation, labor adjustment, workplace practices, industrial relations and industry development. The results from this research aim to clarify many of these issues and to assist in policy and organizational development.
The strategy making process is arguably one of the most important factors in the long-term success of an organization. It is the means by which and through which organizations are deliberate and purposeful about their actions, interactions and learning relative to the external environment. While employees at all levels participate in strategy making, senior managers play a particularly important role. The nature of their strategy making role is heavily weighted toward scanning, information processing, interpreting and sensemaking (Gioia & Chittpedi, 1991; Hambrick, Finkelstein, & Mooney, 2005; Mintzberg, 1989; Sawyerr, Ebrahimi, & Thibodeaux, 2000; Schein, 1996). These are all cognitive activities that are heavily dependent on an individual's mental models, particularly his or her mental model of business strategy. Thus, the quality and efficacy of senior managers' mental models is an important factor in the long-term success of business organizations. Starting with the notion that "decision-makers in organizations use dimensions implicitly or explicitly to sort issues," Dutton et al. (1989) conducted research that "compares the dimensions implied by three

literatures and the dimensions generated by an empirical study" (p. 379). First, they reviewed "a diverse set of literatures that have directly or indirectly discussed how issues command the attention of individuals in organizations" (p. 380). The purpose of this review was, among other things, to determine "what dimensions were most commonly employed by authors in each of these areas to differentiate between [strategic] issues" (p. 382). Based on this review, Dutton et al. "identified 26 dimensions that differentiate strategic issues" (p. 381). Next, they "used a methodology adapted from personal construct theory to identify the set of attributes used by decision-makers to differentiate strategic issues" (p. 385), arguing that their methodology was "uniquely suited to identifying the implicit dimensions that decision makers use in the field of strategic issues" (p. 384). As a result, Dutton et al. had a set of dimensions implied in the literature and dimensions empirically shown to be implicitly or explicitly used by strategic decision makers to differentiate strategic issues. Yet again, it is important to point out that their study was not specifically designed to test the assertions of the third proposition. Nevertheless, Dutton et al. did find some overlap—"indeed, 50 percent of the 26 dimensions identified in the literature review emerged in the sample of PA [Port Authority] respondents" (389). While by no means conclusive, these results do suggest the possibility that the academic literature may have been a source for some of the dimensions that showed up in the mental models that their participants used to interpret strategic issues. It is thought that more formalized processes can help ward off common decision errors stemming from limited information processing capacities (Hogarth, 1980) and reliance on heuristics (Tversky & Kahneman, 1974), dominant logic and groupthink. However, most leaders are aware that, as Simon (1955) argued, humans arrive at decisions based on principles of satisfying, rather than optimizing. Complete objectivity and rationalization is virtually impossible for a decision of any complexity—it requires too much information, too much time, and too many variables. A "good enough" alternative that meets a minimal set of standards and is judged to be better than the status quo is often chosen to save time and effort (Simon, 1955). The process to arrive at a satisfactory versus an optimal decision typically involves fewer decision criteria and alternatives, and has a simpler, often random and incomplete testing order and model. Sometimes this approach can appear haphazard, leading Lindblom (1959) to label it "muddling through". However, often the process of satisfying actually brings an organization incrementally closer to a desired optimal reality. Finding the right balance between robustness and efficiency in a strategy formation process is the Holy Grail for most managers and strategy process researchers. According to literature there are some barriers in front of strategic planning that we identify 32 factors in this term. So, having a plan for overcoming these obstacles is one of the main functions of managers. This study tries to appear new barriers in this field among Iranian oil organizations and prioritize them using TOPSIS method and then develop some new strategies to overcome these obstacles using quality function deployment model.

Research Methodology & Results

This study was conducted in three main phases and using a comprehensive sample size of 285 staff and managers in Petropars Co, we gathered study data. Our phases are as below:

1- Factor analysis and T-student test to prove our factors.

2- Prioritizing indicators using TOPSIS method and then identifying critical indicators using importance and current degree.

3- Improvement of critical indicators using quality function deployment model.

Our results illustrate in following tables and figures:

Table 1: Factor Analysis

Component Matrix[a]

Indicators	Component		
	1	2	3
Ineffective Top Management Team	.562		
Training managers for strategy formulation not implementation	.648		
Lack of ability in change management	.594		
Lack of consensus between managers	.612		
Lack of managers familiarity with strategic planning	.696		
Lack of top management support	.669		
Top to down leadership style	.727		
Managers inability to communicate financial objectives with staff	.739		
Middle managers inability	.644		
Lack of knowledge among management team	.530		
Lack of internal leaders	.475		
Staff inability to do actions toward strategic objectives		.687	
Lack of enough training for staff		.650	
Lack of enough human resource		.701	
Organizational structure based on relationship not ability			.569
Lack of determination of implementation steps			.654
Problem in process development			.703
Competition between activities			.658
Lack of a model for implementation		.621	
Lots of staff for implementation		.477	
Willingness to stability		.688	
Lack of enough relationship between formation and implementation groups		.756	
Unsuitable time for implementation			.770
Lack of financial resource			.622
Lack of budget allocation to important activities			.678
Action in front of power structure			.680
Lack of confident for long term planning	.630		
Internal Business problems			.699
External Business problems			.677
Conflict in organizational culture		.587	
Unsuitable methods for determination of strategy effectiveness			.487
Lack of consultant recruitment with enough experience		.489	

According to table 1, we can divide our indicators in 3 main factors. Now, we need to prove significant effect of factors as barriers of strategic management in Petropars Company. For T-student test, we have to design hypothesis for three groups like below:

$H_{\circ}: \mu \leq 4$ Group one of barriers; don't have a significant effect in Petropars Company.

$H_1: \mu > 4$ Group one of barriers; have a significant effect in Petropars Company.

Table 2: Hypothesis one (T test)

One-Sample Test

	Test Value = 4					
					95% Confidence Interval of the Difference	
	t	df	Sig. (2-tailed)	Mean Difference	Lower	Upper
Factor 1	-3.721	39	.001	-.69000	-1.0651	-.3149

Table 3: Hypothesis two (T test)

One-Sample Test

	Test Value = 4					
					95% Confidence Interval of the Difference	
	t	df	Sig. (2-tailed)	Mean Difference	Lower	Upper
Factor 2	-3.020	39	.004	-.53000	-.8850	-.1750

Table 4: Hypothesis three (T test)

One-Sample Test

	Test Value = 4					
					95% Confidence Interval of the Difference	
	t	df	Sig. (2-tailed)	Mean Difference	Lower	Upper
Factor 3	-1.845	39	.000	-.31167	-.6533	.0300

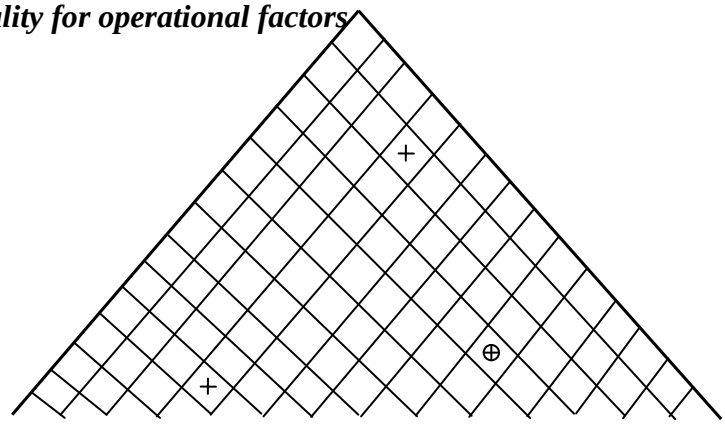
Our results show that all of three factors have significant effect in Petropars Company in 95% confidence level. Table 5, shows TOPSIS ranking results.

Table 5: TOPSIS ranking results & current situation

Rank	Indicators Name	No	*Cl+*	*d+*	*d-*	Situation
1	Ineffective Top Management Team	*A1*	*0.644*	*0.007*	*0.012*	3.8
2	Conflict in organizational culture	*A30*	*0.598*	*0.008*	*0.012*	3.1
3	Lack of consensus between managers	*A4*	*0.531*	*0.009*	*0.01*	4.3
4	Lack of consultant recruitment with enough experience	*A32*	*0.511*	*0.009*	*0.01*	2.3
5	Lack of determination of implementation steps	*A16*	*0.5*	*0.009*	*0.009*	2.6
6	Willingness to stability	*A21*	*0.495*	*0.01*	*0.01*	3.4
7	Top to down leadership style	*A7*	*0.489*	*0.01*	*0.009*	3.1
8	Middle managers inability	*A9*	*0.482*	*0.01*	*0.009*	3.6
9	Lack of enough relationship between formation and implementation groups	*A22*	*0.478*	*0.01*	*0.009*	2.8
10	Training managers for strategy formulation not implementation	*A2*	*0.475*	*0.01*	*0.009*	2.6
11	Lack of confident for long term planning	*A27*	*0.472*	*0.01*	*0.009*	4.3
12	Action in front of power structure	*A26*	*0.47*	*0.01*	*0.009*	3.7
13	Lack of budget allocation to important activities	*A25*	*0.467*	*0.01*	*0.009*	3.7
14	Problem in process development	*A17*	*0.466*	*0.01*	*0.009*	4.8
15	Managers inability to communicate financial objectives with staff	*A8*	*0.463*	*0.01*	*0.009*	3.8

16	Lack of enough human resource	*A14*	*0.462*	*0.01*	*0.009*	3.9
17	Unsuitable time for implementation	*A23*	*0.46*	*0.01*	*0.009*	4.1
18	Lots of staff for implementation	*A20*	*0.445*	*0.011*	*0.009*	3.5
19	Lack of knowledge among management team	*A10*	*0.445*	*0.011*	*0.009*	3.4
20	Lack of managers familiarity with strategic planning	*A5*	*0.443*	*0.011*	*0.008*	3.8
21	Lack of financial resource	*A24*	*0.441*	*0.011*	*0.008*	4.2
22	External Business problems	*A29*	*0.437*	*0.011*	*0.008*	2.7
23	Competition between activities	*A18*	*0.43*	*0.011*	*0.008*	3.9
24	Organizational structure based on relationship not ability	*A15*	*0.427*	*0.011*	*0.008*	4.2
25	Lack of a model for implementation	*A19*	*0.411*	*0.011*	*0.008*	2.6
26	Unsuitable methods for determination of strategy effectiveness	*A31*	*0.408*	*0.011*	*0.008*	2.8
27	Staff inability to do actions toward strategic objectives	*A12*	*0.407*	*0.012*	*0.008*	3.7
28	Lack of enough training for staff	*A13*	*0.403*	*0.012*	*0.008*	4.1
29	Internal Business problems	*A28*	*0.398*	*0.012*	*0.008*	2.5
30	Lack of ability in change management	*A3*	*0.383*	*0.012*	*0.007*	3.5
31	Lack of top management support	*A6*	*0.345*	*0.012*	*0.007*	2.9
32	Lack of internal leaders	*A11*	*0.318*	*0.013*	*0.006*	4.5

Figure 1: Second House of Quality for operational factors



	Separation of ownership & Management	Staff share in Co. benefits	Strategy knowledge sharing	Strategy job description	Schedule for strategy implementation	Training during job period	Promotion regulation	Budgeting external consulting	Feedback system in strategy	Competition between team works	Work convene	Accepting staff new idea	Determination of key success factors		Importance degree	Petropars Company situation	Competitors situation
Trust between managers & staff	1	3	9	3		3	3		9	3	3	9	1		4.3	1.2	2.7
Consulting outsourcing								9							3.6	2.7	2.3
Strategy implementation bye formation group				3		3				3					4.1	1.1	2.4
Managers promotions internally	1						9								4.1	1.4	3.6
Cooperative management culture	3	3	9				3		3	9	3	9			4.6	3.2	2.6
Using creative managers	9														3.8	1.3	1.9
Staff training toward familiarity with strategy			3			9									3.4	1.3	2.6
Prioritizing strategic activities			3		3			1			1		1		3.9	2.7	2.7
Delegation of authority		3	1	3	3					9	3	3	3		4.2	2.8	2.7
Select staff as responsible for strategy outcome	3			9	3				3	3	3				4.6	1.3	2.4
Difficulty degree for achieving	1.1	2.1	1.3	1.7	2	3.6	1.9	3.5	1.4	2.3	2.1	1.7	2.2				
Costs of achieving	1	1.3	1	2.1	1	3.4	1.2	1.2	2	1.4	1.6	2.1	1.7				
Petropars Company situation	2	1.1	2.2	1.8	1.4	1	2.9	1.5	1.1	1.3	2.6	1	2.1				
Competitors situation	2.5	2.5	2.1	1.7	1.7	1.4	3.3	1.7	2.3	1.8	2.1	1.3	2.9				
Absolute value	70	39	106	79	38	56	64	36	66	118	57	93	21		843		
Relative value	8	5	13	9	5	7	8	4	8	14	7	11	2		100%		

Discussion & Conclusion

Despite substantial penetration into the business world (Rigby, 2007), formalized strategy formation still has critics who argue that more natural processes, such as intuition and adaptive learning are just as or more successful at developing strategies. In The Rise and Fall of Strategic Planning, Henry Mintzberg, planning's most vocal critic, argues that "the rationality assumed in strategic planning can be irrational when judged against the needs of strategy

making" (1994, p. 221). He sees strategy formation as a craft, needing creativity, tacit knowledge, hands-on learning, pattern recognition, and, occasionally radical departures from previous forms (Mintzberg, 1987). Mintzberg (1994) warned that the assumptions of classic strategic planning—the superiority of formulization, separation of thought from action, quantitative analysis, and environmental forecasts—can lead to stagnant and useless strategies. In addition, Mintzberg (1994) argues that formal planning models and tools do not usually tell the organization how to create strategy or inspire strategic or creative thinking. It is assumed that if the process is followed and the tools used that a strategy will emerge, but there is no guidance about where the strategies come from. While others have criticized formal planning processes, they usually cite the same shortcomings and ask whether it is the ideal way to develop effective strategy, or if it is too constrictive and inferior to more ad-hoc incremental approaches that can be more flexible to dynamic environmental changes (Brews & Hunt, 1999). This study suggests 13 operational factors that (working team competition & developing a new system for knowledge sharing) are the main improvement factors for strategic management barriers in Petropars Oil Company. Using these factors, we hope a better understanding of strategy nature by corporate top managers. Another interesting results in this study is that we have to be aware about seven critical factors in our organizations include:

- Conflict in organizational culture
- Lack of consultant recruitment with enough experience
- Lack of determination of implementation steps
- Willingness to stability
- Top to down leadership style
- Lack of enough relationship between formation and implementation groups
- Training managers for strategy formulation not implementation

References

Brews, P. J., & Hunt, M. R. (1999). Learning to plan and planning to learn: Resolving the planning school/learning school debate. Strategic Management Journal, 20(10), 889-913.

Dutton, J., Walton, E., & Abrahamson, E. (1989). Important dimensions of strategic issues: Separating the wheat from the chaff. Journal of Management Studies, 26(4), 379–396.

Gioia, D. & Chittepeddi, K. (1991). Sensemaking and sensegiving in strategic change initiation. Strategic Management Journal, 12, 449–462.

Hambrick, D., Finkelstein, S., & Mooney, A. (2005). Executive job demands: New insights for explaining strategic decisions and leader behaviors. Academy of Management Review, 30(3), 472–491.

Hogarth, R. M. (1980). Judgment and Choice: The Psychology of Decision. Chichester [Eng.]: J. Wiley.

Lindblom, C. E. (1959). The Science of "Muddling Through." Public Administration Review, 19(2), 79-88.

Mintzberg, H. (1989). Mintzberg on management: Inside our strange world of organizations. New York: The Free Press.

Mintzberg, H. (1994). The Rise and Fall of Strategic Planning: Reconceiving Roles for Planning, Plans, Planners. New York: Free Press.

Rigby, D. (2007). Management Tools 2007. Retrieved December 12, 2008, from http://www.bain.com/management_tools/tools_planning.asp?groupCode=2.

Sawyerr, O., Ebrahimi, B., & Thibodeaux, M. (2000). Executive environmental scanning, information source utilization, and firm performance: The case of Nigeria. Journal of Applied Management Studies, 9(1), 95–115.

Schein, E. (1996). Three cultures of management: The key to organizational learning. Sloan Management Review, 38(1), 9–20.

Simon, H. A. (1955). A behavioral model of rational choice. Quarterly Journal of Economics, 69, 99-118.

Tversky, A., & Kahneman, D. (1974). Judgment under Uncertainty: Heuristics and Biases. Science, 185(4157), 1124-1131. doi:10.1126/science.185.4157.1124