

Key Elements of Thinking Strategically

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Abstract

Strategic thinking is one of the most important capabilities which managers of today's organizations must possess. Holding companies, due to the kind of problems that they experience, are in serious need of managers capable of strategic thinking. The present research has been conducted with the aim of identifying the individual dimensions of strategic thinking in holding companies' managers in Iran. In this regard, a number of managers who have had the experience of being members of the board of directors or working as CEOs of these firms have been asked to express their opinions about strategic thinking and their views have been analyzed using fuzzy cognitive maps. Results suggest that having vision, ability to analyze, having systems thinking, ability to question, creativity, ability to make synergy and ability to create advantage are the main elements of strategic thinking in successful managers of holding companies. In addition, the relationships among these variables have been explained.

Keywords: Strategic thinking, fuzzy cognitive map and holding companies

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Introduction

While the tools and techniques of planning and implementation of strategy have had a growing trend over the recent decades, research and findings regarding abstract and subjective concepts such as strategic thinking are still very limited and narrow in scope.

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The importance and necessity of strategic thinking is obvious to everyone; today, more than any other time, we need managers who can think strategically and also promote this ability in all the individuals in the organization. Due to the type of their activity, holding companies' managers need to pay particular attention to the issue of strategy. Thus, these managers must strengthen their own ability to think strategically.

Strategic thinking is not a very clear concept. Although this concept is used frequently, studies in this regard are scarce. In fact, many equate strategic thinking with strategy, strategic management and such concepts and consider research in this regard to be unnecessary. However, it seems that further development of this concept, especially from the perspective of behavioral and psychological theories is possible. One of the areas which has been studied in the literature of strategic thinking is the elements comprising strategic thinking construct at the individual level. In other words, what do we mean when we say that a manager thinks strategically? In fact, what is the difference between a manager who thinks strategically and an individual who, let's say, thinks logically or critically? The present research seeks to identify the individual elements of strategic thinking in holding companies' managers in Iran.

Research literature

In the literature of management and social sciences, there are various references to different types of thinking including critical, inductive, deductive, systematic and strategic thinking (Checkland and Haynes, 1994; Glaser, 1941; Dunbar and Fugelsang, 2005; Mintzberg, 1994). Identifying and differentiating these types of thinking from each other is sometimes difficult; yet in some cases, similarities are observed among them. Also in regard to strategic thinking, a variety of opinions have been presented which occasionally contradict one another.

Mintzberg (1987) argues that strategy can be understood as 5 Ps: plan, ploy, pattern, position and perspective. In the first glance, strategy is considered as a plan; a deliberate and intended approach which has been premeditated. On the other hand, strategy can be considered as a pattern in a stream of actions carried out by members of an organization. Therefore strategy as pattern refers to unplanned and emergent strategy (Mintzberg, 1987); from this perspective, strategy has not been premeditated and is a fluid and instantaneous stream. Therefore, the key concepts of deliberate, intended strategy (as plan and position) and emergent, unplanned strategy (as a pattern in a stream of decisions) lie at each end of the continuum of strategy formation (Graetz, 2002). In fact, Mintzberg (1994) distinguishes between strategic planning and strategic thinking. He argues that strategic planning focuses on analysis and formalization, whereas strategic thinking is based on synthesis, intuition and creativity. Heracleous (1998) believes that strategic planning and thinking are two interrelated concepts both of which are essential for effective strategic management. Obviously, strategic thinking cannot replace strategic planning. Perhaps it could be argued that for better strategic planning, we must also be equipped with strategic thinking. However, review of the literature of strategic thinking shows that there is still no consensus regarding the concept of strategic thinking and the terms strategic management, strategic planning and strategic thinking are sometimes used interchangeably (Monnavarian et al., 2011).

In his research, Bonn (2001) showed that most senior executives in thirty five companies among one hundred major Australian manufacturers mentioned lack of strategic thinking as the main problem in their organizations. Bonn (2005) defines strategic thinking a way of solving strategic problems that combines a rational and convergent approach with creative and divergent thought processes. He refers to the fact that human beings make sense by building mental representations and states that decision-makers with high strategic thinking abilities will show a greater diversity in representational systems than decision-makers with low strategic thinking abilities. In a paper published in 2001, Bonn argued that strategic thinking at the individual level consists of three elements: a holistic understanding of the organization and its environment (systems thinking), creativity, and a vision for the future of the organization (Bonn, 2001). This is while in 2005, he considers variety in representational systems as the main requirement for strategic thinking at the individual level and three elements of systems thinking, creativity and vision as the main elements of strategic thinking (Bonn, 2005). Liedtka (1998) mentions five characteristics of strategic thinking: systems perspective, intent focused, thinking in time, hypothesis driven and intelligent opportunism. Glamour (2010), in his review of the literature, names twenty characteristics of strategic thinking as follows: creative, vision of the future, holistic, complex or systems thinking, rational and analytic, longer time perspective, questioning taken for granted assumptions, divergent, synthetic, broader context, intuitive, connecting past, present and future, problem solving, intent focused, abstract or conceptual, tolerant of risk or ambiguity, curious, experimental or exploratory, active in shaping circumstances, focusing on most significant forces, involving values. Casey and Goldman (2010) believe that the development of an individual's ability to think strategically is a dynamic, interactive, and iterative experiential learning process. Strategy development activities consist of scanning, questioning, conceptualizing, and testing (Casey & Goldman, 2010).

Research methodology

The present research has been conducted with the aim of identifying the individual elements of strategic thinking in holding companies' managers in Iran. After reviewing the literature, researchers conducted semi-structured interviews with a number of senior managers of holding companies in Iran. Interviewees had a minimum of 10 years of experience in top management positions. Interviewees were asked to describe individual characteristics of successful managers of holding firms who were well-known for thinking strategically. Then based on the concepts found in the literature of management and strategic thinking, their descriptions were conceptualized (Table 1). Then a questionnaire was designed and distributed among the interviewees. Each question was related to one element of strategic thinking and its significance in explaining strategic thinking. Respondents had to assign a degree of importance between 0 and 100 to each element of strategic thinking. 10 respondents completed the questionnaire and subsequently, using FCM technique, the data were analyzed and cognitive map of the research variables was obtained. In order to modify and finalize the cognitive map, the focus group was formed comprising of six experts from the previous phase, the map was revised and the final fuzzy cognitive map was obtained.

Table 1. Individual elements of strategic thinking

Number	Element	Definition	References
1	Having vision	To have an idealistic vision of the future in mind	Napier and Albert (1990), Mintzberg (1994), Liedtka (1998) and Bonn (2001 and 2005)
2	Ability to analyze	Breaking the subjects down into details and studying them meticulously	Porter (1987), O'Shannassy (2003)
3	Having systems thinking	Holistic view of the subjects and seeing the network of relationships among the components	Napier and Albert (1990), Liedtka (1998) and Bonn (2001 and 2005)
4	Questioning	Questioning taken for granted assumptions	Heracleous (1998), Linkow (1999)
5	Creativity	Combining and making connections between seemingly unrelated things	Mintzberg (1994), Bonn (2001 and 2005)
6	Ability to make synergy	Combining the components in such a way that the result is more than the sum of components	Research experts
7	Ability to create advantage	Achieving better results than others	Research experts

Fuzzy cognitive maps

Fuzzy cognitive maps have been used in simulation, modeling organizational strategies, strategic problem formulation and analysis of decisions, knowledge bases construction, identifying management issues, Failure Mode and Effects Analysis (FMEA), urban design support, relationship management in airline services, etc. (Rodriguez-Repiso et al., 2007). A Fuzzy Cognitive Map (FCM) is a graphical representation consisting of nodes indicating the most relevant factors of a decisional environment; it also shows the links between these nodes representing the relationships between those factors (Rodriguez-Repiso, 2005).

Fuzzy cognitive maps were first introduced and used by Axelord (1976). In the present research, the methodology developed by Rodriguez-Repiso et al. (2007) has been used. This approach uses four matrices to create fuzzy cognitive maps, including Initial Matrix of Success (IMS), Fuzzified Matrix of Success (FZMS), Strength of Relationships Matrix of Success (SRMS) and Final Matrix of Success (FMS). It should be noted that the abovementioned methodology itself has been formulated based on the methodology of automatically constructing fuzzy cognitive maps (Schneider et al., 1996). Rodriguez-Repiso et al. (2006) have used this methodology in order to draw the graphical map of the critical success factors. It is noteworthy that once the SRMS matrix is completed,

some of the data contained in it could be misleading data. All of the elements are not related, and not always there is a relationship of causality between them. An expert opinion is required to analyze the data and convert the SRMS matrix into the FMS matrix (Rodriguez-Repiso et al., 2007). In the present research, focus group method was used for finalizing the relationships among the elements.

Data analysis

Forming the initial matrix

First, based on the scores given by the ten experts to these questions, the Initial Matrix was formed as shown in Table 2:

Table 2: Initial Matrix

	E ₁	E ₂	E ₃	E ₄	E ₅	E ₆	E ₇	E ₈	E ₉	E ₁₀
Visi	90	75	90	95	90	85	98	80	75	80
Anal	40	20	75	20	30	75	84	50	60	33
Syst	75	50	90	50	50	75	50	60	50	45
Ques	90	20	30	75	45	45	20	45	40	65
Creat	70	30	10	80	50	40	20	55	40	84
Syn	95	80	70	50	40	50	32	60	75	67
Adv	95	90	80	90	75	60	85	70	75	80

It should be noted that the matrix rows in the above table include, respectively, the seven elements of strategic thinking: having vision, ability to analyze, having systems thinking, questioning, creativity, ability to make synergy and ability to create advantage; and the matrix columns include the answers of each of the ten experts to the questions regarding the significance of each of these elements.

Forming the fuzzified matrix

Then, the Fuzzified Matrix was obtained. It should be noted that threshold values of 90 and 20 are introduced to correct the possible deviation. Yet, all the answers which included scores equal to or less than 20 were considered as 0 and all the answers which were equal to or more than 90 were considered as 1. Table 3 shows the Fuzzified Matrix of the elements of strategic thinking. For instance, $X_1(O_{12})$ is calculated as follows:

$$X_1(O_{12}) = (75-20) / (90-20) = 0.786$$

Table 3. The Fuzzified Matrix of the elements of strategic thinking

	E ₁	E ₂	E ₃	E ₄	E ₅	E ₆	E ₇	E ₈	E ₉	E ₁₀
Visi	1.000	0.786	1.000	1.000	1.000	0.929	1.000	0.857	0.786	0.857
Anal	0.286	0.000	0.786	0.000	0.143	0.786	0.914	0.429	0.571	0.186
Syst	0.786	0.429	1.000	0.429	0.429	0.786	0.429	0.571	0.429	0.357
Ques	1.000	0.000	0.143	0.786	0.357	0.357	0.000	0.357	0.286	0.643
Creat	0.714	0.143	0.000	0.857	0.429	0.286	0.000	0.500	0.286	0.914
Syn	1.000	0.857	0.714	0.429	0.286	0.429	0.171	0.571	0.786	0.671
Adv	1.000	1.000	0.857	1.000	0.786	0.571	0.929	0.714	0.786	0.857

Forming the strength of relationships matrix

Then, the Strength of Relationships Matrix was obtained as shown in Table 4. In this matrix, the relationship of each of the seven dimensions with other dimensions has been shown. For instance, AD₁₂ is calculated as follows:

$$AD = (0.714 + |0.785| + |0.214| + |1| + |0.857| + |0.142| + |0.085| + |0.428| + |0.214| + |0.671|) / 10 = 0.511$$

$$S = 1 - 0.511 = 0.489$$

Table 4: the Strength of Relationships Matrix

	Visi	Anal	Syst	Ques	Creat	Syn	Adv
Visi		0.489	0.643	0.471	0.480	0.656	0.886
Anal	0.489		0.720	0.549	0.500	0.584	0.517
Syst	0.643	0.720		0.657	0.651	0.764	0.643
Ques	0.471	0.549	0.657		0.880	0.716	0.543
Creat	0.480	0.500	0.651	0.880		0.659	0.551
Syn	0.656	0.584	0.764	0.716	0.659		0.741
Adv	0.886	0.517	0.643	0.543	0.551	0.741	

Forming the final matrix

In order to obtain the Final Matrix, the focus group with six members was formed. The members of the focus group consisted of six senior managers of Iranian holding companies. Based on their opinions, weak relationships among the research factors were eliminated and the direction of the relationships was also determined. The Final Matrix has been shown in Table 5 and the fuzzy cognitive map diagram has been shown in Figure 1:

Table 5: The Final Matrix

	Visi	Anal	Syst	Ques	Creat	Syn	Adv
Visi				0.471			
Anal				0.549			
Syst				0.657	0.651	0.764	
Ques	0.471	0.549	0.657		0.880		
Creat			0.651	0.880			0.551
Syn			0.764				0.741
Adv					0.551	0.741	

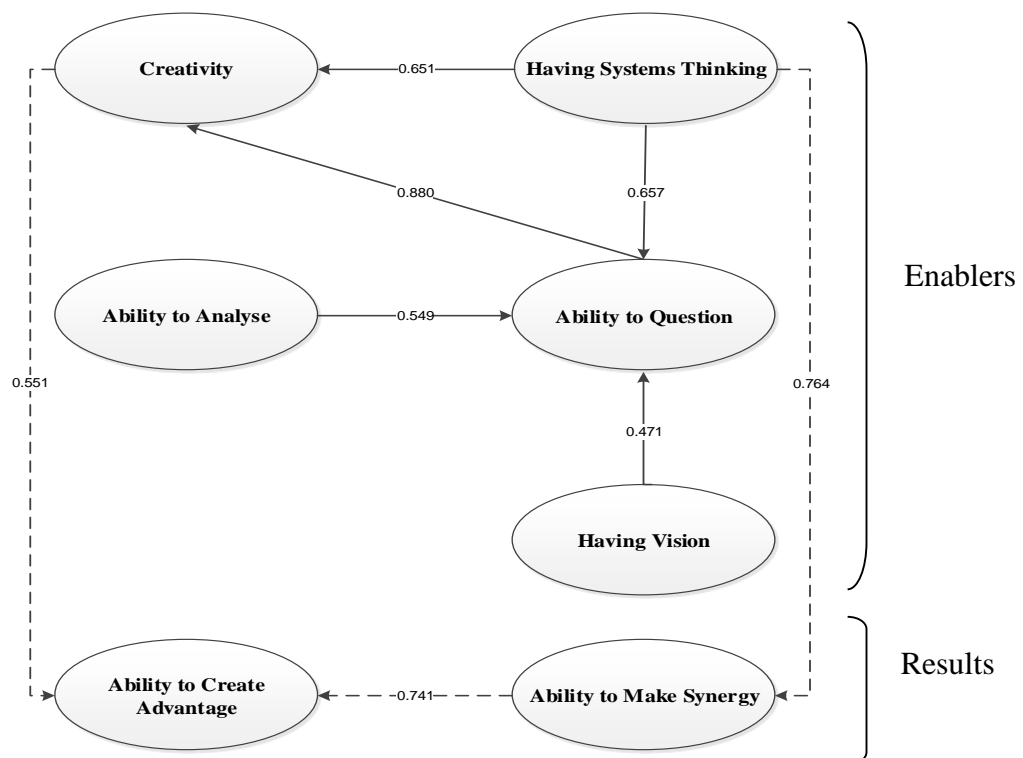


Figure 1: The elements of strategic thinking and the relationships among them (at the individual level)

Conclusion and recommendations

Results of the present research indicate that the main elements of strategic thinking at the individual level include having vision, ability to analyze, having systems thinking, ability to question, creativity, ability to make synergy and ability to create advantage. Studying the relationships among these dimensions shows that, respectively, having vision and ability to analyze affect managers' questioning ability; having systems thinking affects questioning ability, creativity and ability to make synergy; the ability to question affects creativity; and finally, creativity and ability to make synergy affectability to create advantage. It should be noted that, compared to other elements, systems thinking affects more elements of strategic thinking and in contrast, the dimension of ability to

create advantage affects none of the elements of strategic thinking and in fact, is the main outcome of strategic thinking.

As it can be seen in Figure 1, the relationship among five elements of having vision, ability to analyze, having systems thinking, questioning and creativity have been shown with solid lines and their relationship with the two elements of ability to make synergy and ability to create advantage have been shown with dotted lines. Based on the opinions of the research experts, the two elements of ability to make synergy and ability to create advantage are the results of strategic thinking and the five elements of having vision, ability to analyze, having systems thinking, ability to question and creativity are enablers of strategic thinking.

A better understanding of strategic thinking will help organizations to recruit and hire individuals who think more strategically. Furthermore, a better understanding of strategic thinking can improve the quality of decisions made by managers. Research in the field of strategic thinking is still new and undeveloped; thus, it is essential that the results of studies such as the present study be tested in other industries and geographical areas to allow for creation and development of more complete and accurate models of strategic thinking.

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