The Effect of Culture of Tehran Zamzam Company in Developing Strategies and Providing Appropriate Techniques to Company Based on Fuzzy Techniques

Mohammadreza Shojaei[†], Nina Ghaneh^{††}, Sara Dadashnejad^{††}, Mohammad Najjari^{††},

†Shahid Beheshti University, Tehran, Iran, †† 2Master of Engineering Student, Damavand Ershad University, Tehran, Iran

Summary

In today's world, organizations that want to stay in the global competition status, should have the right strategy and having the appropriate strategies occurs when the organization obtain thorough understanding and knowledge of their organizational culture so that they can formulate appropriate strategies and coordination according to the organization's culture. Relationship between strategy and culture has much effect on the performance of the organization. Beliefs, values and norms are guiding the strategy formulation process. In fact, the culture is guide for implementation of strategies, and it provides field that an organization can follow its strategies. Therefore a consistency culture, between and organization strategy be conducted. In other words, understanding the culture of organization by managers, before choosing strategy, and if possible choosing an appropriate model based on it has a great importance. In this paper, the culture of beverage company of Zamzam was reviewed with Hofstede, and Schneider model, and appropriate strategy formulation with it based on fuzzy techniques was done and according to the findings of research and features of Zamzam company, an appropriate pattern to strategy formulation has been selected as controlled case.

Key words:

Strategy, Culture of organization, Fuzzy analysis.

1. Introduction

Nowadays, the strategic visions in the organizations and managements have special position. Numerous and diverse models has been proposed by scientists in the strategy processing. Culture is an important variable in this model and is one of the elements of the strategy formulation in these models, which means that it must be known with complete knowledge and then strategies be developed. Competence of an organization to develop implement strategies is dependent its infrastructure. Culture is the infrastructure of every organization. Culture can be defined as specific set of behaviors and characteristics that can be acquired by the members of organization. On the other hand, in the strategic management of organizations should be note that, although the scheme of strategic organizations are

established by the professionals and strategists, but they must have a deep understanding of the structures and culture of the organizations. In fact, in all stages of the strategic management process, including the identification, formulation and implementation [1], organizations need to consider cultural strategy. Culture is formed by two beliefs, the lead beliefs that have philosophy and principle roots and their organizations are constructed based on them, and everyday belief that are the rules of everyday beliefs and feelings related to the behavior of each day, in fact with the systematic vision, is the input culture of organization that directs the strategy for organizations and the output of that is the performance of an organization [2]. Thus the evaluation of the effect of culture into organization and cultural and strategy management of organization so that these two be concerned in coordination is vital. The present paper, reviews the relationship between organizational culture and strategy patterns and evaluates the appropriateness of organizational culture and strategy patterns in the company of Zamzam. In this study, using the hybrid model of Hofstede, and Barsoux and Schneider, the culture of company is studied and then using fuzzy techniques, provide an appropriate strategy for it.

2. Literature Review

The term strategy is the concept that is originated from military and later has found many usages in economy, business and so on. The root of term strategy is of the Greek word "Stratugus" meaning command and leadership. Now strategy can be considered as simple set or framework of action and specific activities that are located in it [1]. Determination of strategy in the different organizations are done with different forms. In some organizations, determining the goals and future missions of organization, is done based on the personal judgment of managers. In the other style, the managers, according to the previous strategies conducted and set of

detail and gradual changes, establish the strategies of organization. In other style, called strategic planning, determining the strategy of organization is done based on supervision and special regulation [3]. Recognizing the organization's external environment and internal environment, that the culture is an important factor in the internal environment of the organization culture. So before the determination of strategy, it is necessary to fully understand the culture, then formulate the strategy, because if the company's strategy and culture of organizations do not comply with each other, the organization will face difficulty in the implementation of it.

2.1 Definition of Culture from Lexical Aspect

Based on etymological dictionary, the word "Farhang" is Persian word composite that is a the "Far" and "Hang". "FAR" means the front and "Hang" from "Tangna" means the avestan root extraction. Culture is the set of knowledge and behavior of technical, economic, religious and traditional beliefs that are specific to a particular human society, and it is used as synonym with civilization, society and ethnicity [4]. "Culture is the expression of of values, beliefs, and ways of perceiving and understanding and thinking that are common among the members of organization [5]. The purpose of culture is the all intellectual and material work of a society [6].

2.2 The Concept of Organizational Culture

In general, organizational culture is the perception that people have from their organization and represent the common and constant features that distinguishes the organizations from each other [7]. Organizational culture is a continues field that interconnect the components to each other [8]. Hofstede, represents the organizational culture as collective programming of the mind that distinguishes the people of an organization from other organizations [9]. Cultures of organizations have historical basis, means that the relationship between organizational culture and history cannot be separated and organizational culture do not make suddenly and accidently. Many experts believe that organizational culture is a system of shared understanding of the organization and this feature causes the separation between the members of the two organizations from each other [10]. According to Hofstede, culture is the thoughts of a group or class of members that separates them from other groups, and elsewhere, culture is defined as the collection of social behaviors and patterns, arts, beliefs, customs, and other human and intellectual qualities that define a society or nation [11].

2.3 Relationship Between Culture and Strategy

About the relationship between culture and strategy, despite the novelty of this model and the lack of designed models, great discussions can be presented. According to scholars, the culture of any organization is likely affect the implemented strategies. Precisely, the current culture causes the strategy to be implemented efficiently. The most efficient cultures are those who enables more employees to gather in the decision-making body of organization. Certain cultures is also create the possibility that the organization exploit the environment more efficiently than any other organizations and therefore they are more appropriate strategies. Culture can boost or restrict the organization's ability to achieve success [12].

2.4 Social Approaches (Models of Schneider and Barsoux)

Schneider And Barsoux believe that the close link between culture and strategy is irrefutable [13] and by referring to a declaration of Karl Weick emphasizes on the fact that the definition for culture (a set of solutions to the problems of external adaptation and internal integration) can be applicable for strategy. According to Barsoux and Ashnayd, during the formulating and implementation of the strategy, organizations needs to simultaneously asses external environment and the internal abilities. Strategic decisions to achieve optimal external agreement are effective and implementation of these decisions need to organize internal resources - including staff - to achieve internal performance. In order to design their model, called two approaches: rational approach and the witness approach. Based on the first approach, the organizations are realities that are understood and predicted and analyzed by managers, but at the second approach, the organizations are better to known as subjective realities instead of the concrete facts that are understood by different forms and are faced by different methods. It means that managers create different facts from their observations and then act according to their works and observations [13].

2.5 Hofstede Model

Girett Hofstede, along with a group of researchers of management, in order to identify differences of culture among different nations, implement a plan that could prove the effect of cultural differences on management by studying the culture studied [13]. Distance of power demonstrate that the people of one society to how extent are willing to tolerate the inequality in distribution of power in the organization. Ambiguity aversion or avoid unknown are high degree of ambiguity and unknown to the community and the extent of their willingness and ability

to stabilize before events can be expected. Individualism or pluralism Integration - represent the fact that the people in a community how they prefer their family and relatives to the others and in case of sensational and emotional they stay independent from other groups and organizations, and male-oriented and female- oriented shows the tendency of people to values such as courage and bravery, competition and material oriented or values of ladies, such as education and quality of life and relationships [13] further research, have used the model of Hofstede and identified the model in a variety of cultures, including identifying what are the types of varying cultures, such as (tribal, rural, oil machine work and traditional rule) that the two factors found the same level of formality and hierarchy of power distance and uncertainty aversion. In addition to Hofstede and before his theories and other different models has been proposed.of feature of employees working in the company. Based on the findings of Hofstede, four cultural dimensions (distance of power, ambiguity aversion and individualism versus pluralism and male-oriented against female-oriented) were

2.6 Hybrid Model

Strategy formulating species based on the culture can be examined in one matrix, so that in one dimension of the matrix, rational approaches and social inclusion are located (based on Barsoux and Schneider's model) and in other dimension, the organizational culture, including flexible and non-flexible part are located. (based on Hofstede's theory). Based on matrix and social attitudes and organizational culture during the study based on data collected, analyzed, and interpreted to identify has proved to be a tetra-model strategy that should include:

2.6.1 Formulating Pattern of Strategy Compatible and Adaptive

This pattern is recommended to communities and organizations that culturally are flexible (i. e., individual or female-oriented, and ambiguity version and low power distance) and are based on social approach is intuitive and amenable to general-oriented, qualitative, subjective, consensus long-term methods. Features of this model include:

- Decentralized and informal planning;
- General supervision, result-oriented and avoid partial vision;
- The emphasis on qualitative and subjective sources of information;
- Adopt informal methods of analysis and discussion in the context of information interpretation;
- Apply all employees and relevant persons in the planning and implementation steps;

- Emphasis on consensus in queued forces in decision making:
- The emphasis on the widespread and long-term time horizon implied.

2.6.2 Pattern of Formulating Opportunity Oriented Strategy (External)

This pattern is appropriate to communities and organizations with a flexible culture and, female-oriented and ambiguity aversion and with low power distance and social approach that is rational and prone to partial vision, quantitative and objective and formal policy. The features of this pattern model include:

- Relatively centralized planning-based formal and external sources;
- Formal and centralized monitoring in the long periods of result-oriented:
- Emphasis on quantitative data, objective data sources, and environmental priorities;
- Approach adopted looking out the formal analysis of the organization;
- Great emphasis on the use of external consultants, managers and professionals;
- Emphasis on high levels of environmental policy-making based on facts;
- The emphasis on the transparent and flexible long-term and middle term targeting.

2.6.3 Pattern of Formulating Cooperative Strategies (Internal)

Corporate Strategy pattern suitable for communities and organizations that despite having nonflexible and maleoriented culture, ambiguity aversion and pluralism and high power distance, social and intuitive approach is dominant for it. Features of this model include:

- Relatively decentralized and informal planning based on local resources;
- Relatively detailed formal monitoring process measures;
- The emphasis on qualitative and subjective internal data sources;
- Adopting a consultative approach in the interpretation of the data analysis and information;
- Emphasis to senior managers in all organizations on program design;
- Decision based on the attentions of the most relevant people;
- The emphasis on the part-wide investment program among the long term and middle term planned horizon.

2.6.4 Control Strategy Pattern

Fourth strategy identified is called controlled model and is appropriate to communities and organizations that have non flexible culture and male-oriented, and pluralism and are ambiguity aversion and have high power distance and their social approach is perfectly rational. Features of these model include:

- Highly centralized, organized, and formal planning with an emphasis on detail;
- The detailed monitoring processes and operations;
- Emphasis on statistical and information resource as objective and quantitative;
- Adoption and application of formal methods and analysis planning for data interpretation and;
- Strong emphasis on senior managers and senior decisions:
- Emphasis on decision makings at high level political organization;

The emphasis on the transparent, clear, and short-term targeting.

3. Fuzzy Technique

One of the common tools in strategic planning is SWOT table. which examines the internal factors (strengths and weaknesses) and of external factors (opportunities and threats of environments). While model is currently used, but also has some problems, including the issues and events that must grouped only in two opportunities and threats. However, some problems that are opportunities to be classified as threats. In order to resolve the problems of SWOT table, various terms have been used. One of the used methods is a fuzzy technique (AHP) in SWOT table. Using this method, it is tried to classify the factors [14].

4. Case Study

Zamzam Group is one of the largest producers of soft drinks in Iran. According to studies on the culture and approach of this paper that is an approach that combines Hofstede and Schneider's model, this company is maleoriented and have high ambiguity aversion and far too much power distance and more pluralist, according to these specifications an appropriate model would be controlled strategy. This company should conduct three phase of strategy formulation that consists: data collection, analysis should proceed as follows: 1. With attention to detail in the pursuit of using disciplined and focused approach 2. It should consider quantitative information as an important data 3. It should take advantage of formal planning and focus successfully 4. Adopt the decision in the high level position of company. 5. It should use precise and formal methods in data analysis 6. In the Planning emphasis on short-term time horizon should considered beside long-term horizon.

In this paper, by using fuzzy techniques, we have presented appropriate strategies for organizations and since the formulating of strategy for every box of schedule is difficult, by considering appropriate value for Lambda, only the formulation of strategy can be done to important boxes, and according this we consider Lambda as equal to 0.06 and we consider only boxes greater than 0.6 in SWOT table to formulate strategy and in this way the space required to view will be lower.

5. Preparation of SWOT Fuzzy Table for Zamzam Company

The whole process we made cab be concluded in 5 steps which has been demonstrated in Fig. 1 concisely. Tables (1) to (6) shows the numbers generated for this purpose.

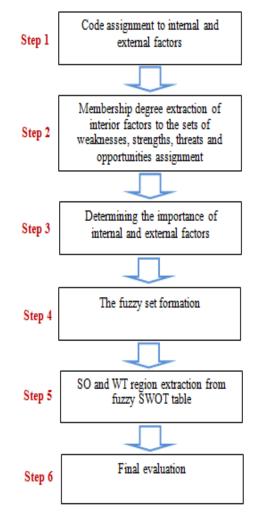


Fig. 1: The whole proposed process

Table 1: Margin specifications

Code	Internal factors	Code	External factors
1	Low price	22	Participated in numerous exhibitions and more countries
2	Space and ample storage	23	Generate soft drinks for diabetics with palm sugar
3	Diversity of products	24	Spreading production line
4	Sets of quality control in the production line	25	Export development
5	Experienced and specialized employees	26	Having television advertising in the future
6	Participation in international exhibitions	27	Contracts with some restaurants and government organizations
7	Exports to several countries	28	Boycott (raw materials of soft drinks imported from foreign countries)
8	High quality	29	Wide advertising of competitors
9	Strong R&D unit	30	Negative publicity in connection with the use of soft drinking
10	Diet soda production	31	Government's decision on the removal of the soft drinks from school
11	Creativity in packaging of products	32	Existence of famous competitors such as Pepsi and Coca-Cola
12	Having international certificates	33	Growing international awareness and education of the public about the hazards
13	Poor advertising	34	High inflation rate and workers protest for low salaries.
14	Lack of capital		
15	Lack of equipment and machinery		
16	The absence of strong and effective site for company		
17	Old machinery		
18	Labor shortage		
19	Lack of good improvement in the system		
20	Residential areas are near the factory area		
21	Focused decision by Administrator (no relation to partnership)		

Table 2: Membership degree of interior factors to the sets of weaknesses, strengths, threats and opportunities assignment

Membership	degree of into		Membersl	code Expert 1 Expert 2 μs 1 0.9 1 0.95 2 0.9 0.8 0.85 3 0.9 0.9 0.9 4 0.9 1 0.95 5 0.8 0.7 0.75 6 0.9 0.9 0.9 7 1 0.9 0.95 8 1 1 1 9 0.9 0.9 0.9 10 0.8 0.8 0.8 11 0.8 0.7 0.75								
Operating code	Expert 1	Expert 2	μ_{s}	Operating code	Expert 1	Expert 2	$\mu_{\rm s}$					
1	0.1	0	0.05	1	0.9	1	0.95					
2	0	0	0	2	0.9	0.8	0.85					
3	0.1	0.2	0.15	3	0.9	0.9	0.9					
4	0	0	0	4	0.9	1	0.95					
5	0	0	0	5	0.8	0.7	0.75					
6	0	0	0	6	0.9	0.9	0.9					
7	0	0	0	7	1	0.9	0.95					
8	0	0	0	8	1	1	1					
9	0	0	0	9	0.9	0.9	0.9					
10	0.1	0	0.05	10	0.8	0.8	0.8					
11	0	0	0	11	0.8	0.7	0.75					
12	0	0	0	12	0.9	0.8	0.85					
13	0.9	0.9	0.9	13	0.1	0	0.05					
14	1	0.9	0.95	14	0	0	0					
15	0.9	0.8	0.85	15	0.2	0.1	0.15					
16	0.8	0.8	0.8	16	0.2	0.2	0.2					
17	0.8	0.7	0.75	17	0.3	0.2	0.25					
18	0.8	0.8	0.8	18	0.2	0.2	0.2					
19	0.7	0.7	0.7	19	0.5	0.5	0.5					
20	0.9	0.7	0.8	20	0.1	0.2	0.15					
21	0.7	0.6	0.65	21	0.1	0	0.05					
Manahanahin	W	out on Eastons	40.4100.0040	Manchand	S		40 4h a					
wiembersnip	degree of exte of thre		to the sets	Membership degree of exterior factors to the sets of opportunities								
Operating code	Expert 1	Expert 2	μ_{s}	Operating code	Expert 1	Expert 2	$\mu_{\rm s}$					
22	0	0	0	22	0.9	1	0.95					
23	0	0	0	23	0.9	0.9	0.9					
24	0.1	0.2	0.15	24	0.8	0.8	0.8					
25	0	0	0	25	0.9	0.7	0.8					
26	0	0	0	26	0.8	0.6	0.7					
27	0	0.1	0.05	27	0.6	0.8	0.7					
28	0.9	0.8	0.85	28	0.3	0.4	0.35					
29	0.8	0.8	0.8	29	0.2	0.3	0.25					
30	0.9	0.8	0.85	30	0.1	0	0.05					
31	0.9	1	0.95	31	0.2	0.1	0.15					
32	1	0.9	0.95	32	0	0.1	0.05					
33	0.8	0.8	0.8	33	0	0	0					
34	0.8	0.7	0.75	34	0.3	0.3	0.3					
	T				0							

Table 3: Determining the importance of internal and external factors

The im	portance of e	xternal facto	The importance of internal factors							
Operating code	Expert 1	Expert 2	i	Operating code	Expert 1	Expert 2	i			
22	1	0.9	0.95	1	1	0.9	0.95			
23	0.9	0.9	0.9	2	0.9	0.9	0.9			
24	0.8	0.9	0.85	3	1	1	1			
25	0.9	1	0.95	4	1	1	1			
26	1	1	1	5	0.9	0.9	0.9			
27	0.8	0.9	0.85	6	1	0.9	0.95			
28	1	0.9	0.95	7	0.9	1	0.95			
29	0.9	0.9	0.9	8	1	1	1			
30	1	0.9	0.95	9	0.9	1	0.95			
31	0.9	1	0.95	10	0.8	0.8	0.8			
32	1	1	1	11	0.9	0.9	0.9			
33	0.7	0.7	0.7	12	1	0.9	0.95			
34	0.6	0.7	0.65	13	1	0.9	0.95			
				14	1	1	1			
				15	0.8	0.7	0.75			
				16	0.7	0.7	0.7			
				17	0.8	0.7	0.75			
				18	0.8	0.8	0.7			
				19	0.6	0.5	0.55			
				20	0.7	0.7	0.7			
				21	0.7	0.8	0.75			

Table 5: SO and WT region extraction from fuzzy SWOT table

SO Region from Fuzzy SWOT Table Interior Factors Exterior μ* **Factors**

WT Region from Fuzzy SWOT Table

Interior Factors		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21
Exterior Factors	μ*	4	0	15	0	0	0	0	0	0	4	0	0	85	95	63	56	56	64	38	56	48
22	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
24	12	0	0	1	0	0	0	0	0	0	0	0	0	10	11	7	6	6	7	4	6	5
25	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
26	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
27	4	0	0	0	0	0	0	0	0	0	0	0	0	3	3	2	2	2	2	1	2	1
28	80	3	0	12	0	0	0	0	0	0	3	0	0	68	76	50	44	44	51	30	44	38
29	72	2	0	10	0	0	0	0	0	0	2	0	0	61	68	45	40	40	46	27	40	34
30	80	3	0	12	0	0	0	0	0	0	3	0	0	68	76	50	44	44	51	30	44	38
31	90	3	0	13	0	0	0	0	0	0	3	0	0	76	85	56	50	50	57	34	50	43
32	95	3	0	14	0	0	0	0	0	0	3	0	0	80	90	59	53	53	60	36	53	45
33	56	2	0	8	0	0	0	0	0	0	2	0	0	47	53	35	31	31	35	21	31	26
34	48	1	0	7	0	0	0	0	0	0	1	0	0	40	45	30	26	26	30	18	26	23

Table 6: The final results

				S													W						
		Operating code	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	18					
	Operatin g code	μ	90	76	90	95	67	85	90	1	85	64	67	80	85	95	63	64					
	22	90	SO		SO	SO	wo	wo															
	23	81	so	SO	SO	SO		SO	SO	SO	SO			SO	wo	WO							
	24	68	so		SO	SO			SO	SO						WO							
O	25	76	SO		SO	SO		SO	SO	SO	SO			SO	WO	WO							
	26	70	so		SO	SO			SO	SO						WO							
	27	80	ST	ST	ST	ST		ST	ST	ST	ST			ST	WT	WT							
	28	72	ST		ST	ST		ST	ST	ST	ST				WT	WT							
Т	29	80	ST	ST	ST	ST		ST	ST	ST	ST			ST	WT	WT							
	30	90	ST		ST	ST	WT	WT															
	31	95	ST	WT	WT		WT																

6. Strategy Formulation to the Houses Remained from the Company

For example: Strengths 2 & Opportunities 22: Considering that there is enough space in factory, by producing new products such as soft drinks with sugar of date for diabetics, can expand markets and penetrate to other market segments.

Strengths 6 and Opportunities 25: Since the company has participated in several international exhibitions it can promote their products in those countries and can increase exports.

Weakness 13 Opportunities 26: considering that the Zamzam company, has not product advertised on TV and we know that advertise for products in television have a great impact on sales, brief and useful advertising on television can be used to improve weak advertising weakness. (But Since beverage advertising on television is banned, other products such as buttermilk can be advertised.)

Strengths 1 and Threats 29: Having lower prices and higher quality than competitors or at least the same level of competition, will cause more products selling by Zamzam and ignoring competitors by consumers.

7. Conclusion

Organizations and companies that want to achieve their strategic objectives before formulating any strategy should review their culture, and then determine the strategy. because not lack of alignment and balance of them will cause not to reach the goals. Considering here the Hofstede hybrid model, Schneider and Barsoux, four patterns of strategy formulation that fits the particular organization were presented that are as follows: 1. If the organizational culture, be male-oriented and pluralist and have high power distance and ambiguity aversion and managers tend to have a rational approach, the control pattern will be suitable for strategy formulation. 2. If the female-oriented organizational culture, be individualist and have low power distance and ambiguity aversion and managers tend to have a rational approach, the opportunity-oriented pattern will be suitable for strategy formulation. 3. If the organizational culture, be male-oriented and pluralist and have high power distance and ambiguity aversion and managers tend to have a witness approach, the shared pattern will be suitable for strategy formulation.4. If the organizational culture, be female-oriented and individualist and have low power distance and ambiguity aversion and managers tend to have a witness approach, the compatible pattern will be suitable for strategy formulation. Then by the review of

Zamzam company in Tehran, the controlled pattern of strategy formulation compatible with this company was chosen. Then fuzzy hierarchical analysis strategies have been proposed to company that include a variety of advertising of buttermilk, flavored waters and etc on TV, enhance and expand the market by exporting more products with natural sugar for diabetics and ... that was described in detail.

Acknowledgments

We appreciate valuable advices and feedbacks of Dr. Mohammad Shojaei which lead to accomplishment of this research.

References

- [1] R. D. Stacey, Strategic Management and Organisational Dynamics: The Challenge of Complexity to Ways of Thinking About Organisations: Prentice Hall/Financial Times, 2003
- [2] A. Rezaeian, Systems Analysis and Design: SAMT Publisher, 1997.
- [3] F. R. David; Strategic Management: A Competitive Advantage Approach, Concepts (14th Edition): Prentice Hall, 2010.
- [4] M. Roholamini, *Culturology Foundations*: Payame Noor, 1994.
- [5] R. L. Daft, *Organization Theory and Design*: Cengage Publishing Inc., 2007.
- [6] A. Sadeghpour, *Proceedings of Topics in Society Engineering* Governmental Managment Training Center, 1996.
- [7] A. Moshabaki, Applied Analysis, The Value of Human Behavior: Termeh, 2001.
- [8] R. Quinn, *Diagnosing Culture and Changing Organizational Culture*. New York: Addison Wesley, 1999.
- [9] G. Hofstede, Culture's Consequences: Comparing Values, Behaviors, Institutions and Organizations Across Nations: Sage, 1980.
- [10] S. P. Robbins, *Organizational Behavior*: Prentice Hall, 2009.
- [11] S. M. Alvani. (1999) Rituals and Customs. *Management and Development Magazine*.
- [12] Andrew Brown, *Organizational Culture*. London: Pitman Pulishing, 1998.
- [13] Susan C. Schneider and Jean-Louis Barsoux, *Managing Across Cultures*: Pearson Education Limited, 2002.
- [14] H.-J. Zimmermann, Fuzzy Set Theory and its Applications. Boston: Kluwer Academic Publishers, 1996.