

Strategic Thought and Learning Orientation[†]

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The purpose of this paper is to explain the relationship between strategic thought and learning orientation. Main components of strategic thought are determined, and elements of strategic thinking process and the components of learning orientation are explained within this context. The data were obtained from 260 business managers who are registered to KOBINET in Ankara province by using a face-to-face survey method. The effect of strategic thought on learning orientation has been theoretically explained. The proposed models in the paper were tested by using the structural equation modeling technique. It was found that strategic thought affects learning orientation and these findings confirmed the validity of the model.

Key Words: Creativity, Learning Orientation, Strategic Thought, Systems Thinking, Vision

INTRODUCTION

While businesses and employees continue their activities, they face with environmental changes, as a result of this they face with many complexities. Thinking is an active and purposive progress that represents a mental process to understand the present situation. The ability of strategic thinking prevents conflicts by making it possible to interpret and explain the environmental clues. The most important output of strategic thinking is the strategic thought. When developing the strategy, there is a need for the analysis phase of the planning process and strategic thinking. The environment is analyzed while the business transactions that may occur as a result of this analysis are considered. This distinguishes the strategic thought from development of plans and

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implementation of processes. According to pioneers of a new approach on development process, strategic thought allows the course of activity formats within the business strategy to be understood (Goldman, 2008). In general, strategic thinking can be explained as a way or structure of thinking about a business or an organization. Strategic thinking is vital for businesses as a strategic plan is one of the highest level of management or senior executives' activity.

Learning is one of the most important skills for global businesses that makes it possible to reach corporate and collective goals. In comparison with an organization's competitors, having the ability of fast learning and change provides an organization the basis for sustainable competition. As a result, today's organizations began to act with a focus on learning to stay in the market and be successful in competition.

Learning, new knowledge, skills, and behaviors allow efficiency for both business and personal lives. Learning orientation is an organizational value which is defined as the ability to create, disseminate and use of knowledge. It effects the information needed and how it will be interpreted, evaluated and shared (Calantone, Cavusgil and Zhao, 2002). Learning-oriented organizations are in a constant quest for how people and organizations can learn together. Global competition and rapid technological developments have become an extremely important issue in terms of learning for businesses to reshape and manage their futures.

STRATEGIC THOUGHT

In management literature, the concept of strategy has gained importance towards the end of the 20th century. In 1938, Chester Barnard has made a scientific study of individual manager's role in the organization strategy (Jerkins, 2007). His work, in terms of handling organization as a whole, has still impacts on literature. Herbert A Simon (1945), Philip Selznick (1957), and Michel Crozier (1963) explained that they discovered the strategy as a main tool for managers who are responsible for keeping organizations balanced (Hafsi and Thomas, 2005).

When reviewing the strategy literature, strategic thought can be seen both narrow and broadly defined. Prompted to make a narrow-scoped definition; productive, creative and united thought process has been highlighted. Major issues such as the mission and vision of the company, are the focus of a strategist. A comprehensive definition of strategic thought tries to combine the rational and analytical processes with productive, creative and unified processes. From this perspective, strategic thought is a particular method, which combines rational and productive thought processes and solves strategic problems at the individual and corporate levels (O'Shannassy, 2003). Strategic thought is learning-oriented instead of focusing on actions, targeting efficiency instead of effectiveness, and targeting long-term rather than mid-term and conceptual (theoretical) thoughts. These dimensions separated strategic thought from operational thought (Goldman, 2005). Strategic thought comprises of the past, present

and the future (Liedtka, 1998). The aim is providing information through past experiences on the future for industries and organizations that are directly affected by dynamic, turbulent and uncertain environmental conditions.

Bonn defines strategic thought as a creative and diverse set of rational thought processes and solving strategic problems by combining convergent approach. At this point, the focus should concentrate on how strategic transactions occur within the context of the organizations' strategic environment, which is highly competitive, complex, and uncertain. According to Bonn, strategic thought consists of "systems thinking, creativity and vision" (Bonn, 2005).

SYSTEMS THINKING

The organization in terms of strategic thought is not considered as competing for resources and a fragmented structure as part of people who are independent from each other, but seen as a holistic system that relates to the whole (Kaufman, 1992). This idea requires individuals to get away from their daily operational issues, to understand how different problems and topics relate to each other, to see how they affect each other, and to have the ability to understand how a solution belongs to a particular issue can affect other particular issues.

CREATIVITY

Strategy is about developing new solutions to create competitive advantage. Strategic-minded people try to find new approaches and methods for making things better, so they must be creative. It is very important to imagine alternative ways and see if there is an alternative way to complete things and also to develop unique strategies and action plans.

VISION

Vision provides a focus for all activities in the organization and gives a sense of direction. A shared vision encourages loyalty instead of obedience and leads to a common understanding that permeates the entire organization. Vision stimulates the imagination and expertise of people, and allows them to use it to the best of their ability.

LEARNING ORIENTATION

In pedagogy, learning is the process of obtaining knowledge and experience (Knowles, Holton and Swanson, 1998). In the field of behavioral psychology, learning is defined as a concept that causes behavioral changes by establishing and reinforcing a link between environmental changes and behaviors. In cognitive psychology, learning is one of the important matters in terms of the role of mental processes in knowledge acquisition (Schwartz and Reisberg, 1991). The organization science defines learning as a process that error detection and correction occur (Argyris, 1977). Learning in the field of organizational behavior, learning is defined as perpetual changes in behavior resulting from experiences (Rollinson and Broadfield, 2002).

Learning orientation refers creation and use of knowledge in all activities of a company to ensure competitive advantage. This knowledge consists of customer needs, changes in market and competitor activities (Zehir and Eren, 2007). Learning orientation is an organizational value that covers knowledge creation, dissemination, and the ability to use this knowledge. These dimensions affect what kind of knowledge should be collected and how that knowledge should be reviewed and shared (Calantone, Cavusgil and Zhao, 2002). Learning orientation affects an organization's attitude towards learning, and thus, reduces the impact of diversity between employees so that causes the increase of cooperation (Mehta, Palsa, Mazur, Xiucheng and Dubinsky, 2006).

APPLICATION

HYPOTHESES DEVELOPMENT

In the late 1990s, the importance of strategic thought as well as strategic management has been recognized by the global business community, which is characterized by intense competition battle. Research during this period resulted in identification of dimensions of strategic thought.

In a paper by Liedtka (1998) based on Mintzberg, system views, intentions, orientation, thinking on time, hypothesis orientation, and opportunism are considered as basic elements of strategic thinking. In this study, strategic thinking is defined as a special form of thinking and taken up from an individual perspective. Goldman (2007 and 2008) moved a step further Liedtka's (1998) opinions. She argued that strategic thinking consists of four components that are, conceptualism, system orientation, directing, and opportunity orientation (Goldman, 2007 and 2008).

Pisapia, Reyes-Guerra and Coukos-Semmel (2005) in their study dealing with strategic thought focused on the functioning of the mental process and the necessary elements for leaders who need to have the ability of strategic thinking are systems thought, reframing and reflecting.

Bonn (2005) examined strategic thought at different levels (individual, group and organization). He explained the term of strategic thought with his analysis on individual, group and organizational levels. While analyzing the strategic thought on organizational level, he focused on high-level managers and examined the organizational structure, reward and remuneration systems. By focusing on how strategic thought occurs in the context of complex, uncertain and high competition environment, he argued that strategic thought consists of these elements; "systems thinking, creativity and vision" (Bonn, 2005). Bonn's organizational approach on strategic thought is different from Liedtka (1998), Goldman and Pisapia, Reyes and Coukos (2005) opinions since they took an individual approach on strategic thought. Based on this opinion the following hypothesis was developed.

H_1 : Strategic thought is comprised of three sub-dimensions.

$H_{1.1}$: Systems thinking is a sub-dimension of strategic thought

$H_{1.2}$: Creativity is a sub-dimension of strategic thought.

$H_{1.3}$: Vision is a sub-dimension of strategic thought.

The impact of strategic thought on learning orientation is one of the main hypothesis of our study. When the literature is examined, it is noteworthy that the researches on strategic thought and learning have been happening since 1980's. Ted Michael Kahn prepared a doctoral thesis in 1981 on how to use the strategic thought and he explained how it can be used in simple and complex tasks. At this point Kahn mentioned that some tasks require strategic thinking ability thus the individuals who handle these tasks have problem solving skills and having these skills have an impact on positive learning (Kahn, 1981).

In his doctoral thesis, titled *The Strategic Knowledge Indicator*, Morgan (1998), emphasizes on strategic knowledge structure and dimensions and he indicates that strategic thought is a developed tool that creates questions about the future. According to Morgan, strategic thought creates value by keeping the company together; in this regard, creations of value defines as learning the demands and needs of customers and produce the required products and services. He highlighted that the business which are dominated by strategic thought are able to use information systems to understand the environmental uncertainty, open-minded to determine which organizational skills are needed to ensure future competitive advantage, also emphasized that adopting a proactive approach on learning (Morgan, 1998). When the literature is examined whether the dimensions of strategic thought have an impact on learning orientation, especially the studies argue that systems thinking have an impact on learning orientation are affect attention. The studies suggest that systems thinking is associated with learning orientation are refer to Senge's study, *The Fifth Discipline*.

Systems thinking is the cornerstone of Senge's approach. Systems thinking is a discipline which mixes the other learning disciplines with each other for a consistent theory and combines them as a whole. Therefore, Senge stated systems thinking as "the fifth discipline" (Senge, 2006). Systems thinking impact on learning orientation by providing the ability of how holistic thinking patterns and interrelationships effect each other within the business (Pisapia, Reyes and Coukos, 2005). Both Simoneau (2007) and Pagano and Paucar-Caceres (2008) have mentioned that systems thinking have impact on both individual and organizational learning levels (Pagano and Paucar-Caceres, 2008).

According to management literature, one of the dimensions of strategic thought, vision refers to the place where you want to achieve in the future (Wheelen and Hunger, 2010). In his "The Fifth Discipline" work, Senge (2006) wanted to express

the power of seeing far with the word vision. However, this seeing, a vision of the process is not seen by the eye, but the power of the mind, experience, and intuition to see through. Vision gives a sense of business direction and provides a focus for all activities in the enterprise. A shared vision encourage loyalty instead of obedience and leads to a common understanding that permeates the entire company. Additionally vision stimulates the imagination of people and provides a focus that allows them to use their ability and expertise in the best way. Senge has stated that shared vision has a vital importance for learning organizations since vision provides the focus and energy for learning (Senge, 2006).

According to the literature, the impact of creativity dimension on learning orientation has been researched more than systems thinking and vision. Competitive businesses are considered as competitive businesses as well. Organizational creativity is a planned replacement of current methods on nature, quality and price arrangements which result in customer satisfaction. Creativity can be developed, managed and improved by businesses. The increase of organizational creativity will result in development of new products and services, in improvement of overall effectiveness, job satisfaction and customer satisfaction. Additionally, more strategic thought will occur at all levels of the business (Mostafa and El-Masry, 2008).

Creativity has an impact on learning orientation (Suh, Bae, Zhao, Kim and Arnold, 2010). Based on this opinion the following hypothesis was developed:

H_2 : *Strategic thought affects learning orientation.*

The research on learning orientation has shown that the subject consists of three main parts: Commitment to learning, open-mindedness and shared vision (Sinkula, Baker and Noordewier, 1997). Commitment to learning is related to the strategic long-term trend (Calantone, Cavusgil and Zhao, 2002).

The businesses where learning commitment is high, managers are expecting from employees to monitor and track information's from outside within their work hours. If development of knowledge is not supported, employers will not be motivated for learning activities. Open-mindedness is expressed as the evaluation of routine activities and the desire of accepting new ideas. For companies to cope with changing technology and turbulent market conditions open-mindedness is required (Nguyen, Barrett and Fletcher, 2006). A shared vision highlights a shared image of the future and commitment to that picture (Sadler-Smith, 2006). Shared vision is the answer to the question, "What do we want to create?" If people share a vision, they are bound to each other with a common longing. Personal visions get their power from a person who deeply concern about that vision. Shared visions get their power from their collective mind that concern about the vision all together. A Shared vision has a vital importance for learning organizations since vision provides the focus and energy for learning (Senge, 2006). Based on these opinions the following hypothesis was developed.

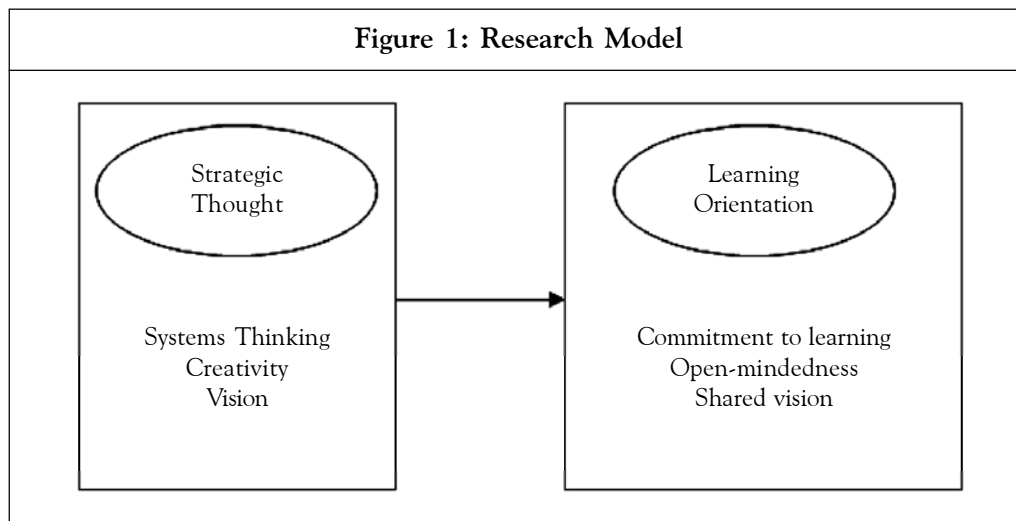
H_3 : Learning orientation consists of three sub-dimensions.

$H_{3.1}$: Commitment to learning is a sub-dimension of learning orientation.

$H_{3.2}$: Open-mindedness is a sub-dimension of learning orientation

$H_{3.3}$: Shared vision is a sub-dimension of learning orientation.

Based on the given information, the test model of research design is shown below (Figure 1). There are two main components of research design: Strategic thought and learning orientation.



SAMPLE SELECTION

The main data of this study has gathered from 2788 business which are registered to “Small and Medium Enterprises Information Network” (SMEIN) which is established under Small and Medium Enterprises Development Organization (SMEDO) located in Ankara.

The aforementioned research data universe is selected from 95% confidence limit with a 5% of predicted error margin and selected sample size is 338. However the possibility of some business managers’ may not answer or make answer errors taken into account and 350 businesses have been identified by applying a random sampling method which give an equal chance to all elements within to get in the sample.

SCALE DEVELOPMENT AND DATA COLLECTION

The questionnaire used in the study consists of 36 items. The first 6 items measure the businesses demographic characteristics and the other 30 items are used to evaluate strategic thought and learning orientation. 30 items designed with 5-point Likert scale (1 – absolutely agree ... 5 – absolutely disagree).

Strategic thought in businesses (systems thinking, creativity and vision) are evaluated with 18 items (7th through 24th). Systems thinking was evaluated by 7

adopted items which were developed by Pisapia, Reyes and Coukos (2005). Creativity was evaluated with 4 items which were developed by DiLiello and Houghton (2008). Vision was evaluated with 7 items which were developed by Lahti and Chorpensing. In order to evaluate the learning orientation of businesses a scale has been used which was developed by Baker and Sinkula (1999). The total of 12 items were adjusted to evaluate the three dimensions of learning orientation; commitment to learning (4 items), shared vision (4 items), and open-mindedness (4 items).

In the study, face-to-face survey method was used to collect the data. Interviewers have reached 350 executives between October 2009 to January 2010 and 260 of them have agreed to answer the questionnaire. The survey return rate was 74%. However, since many unanswered questions found in seven survey forms, they are not included in the analyzing process. Therefore, 253 questionnaires were subjected to statistical analysis. Data were analyzed by using SPSS 15.0 and LISREL 8.7 statistical software packages.

Reliability that is showing the consistency and durability of the scale reveals the degree to remain independent of error of the measurements made on this scale. The reliability of a measurement could be calculated in various ways but internal consistency method is the most common one. Within this study Cronbach alpha measure was used to calculate the reliability and the result was found over 0.70. In this case, the reliability of used measurement tools are an acceptable level.

After determining the reliability of the scale used, in order to reveal how the related variables are actually able to measured, convergent and discriminate validity analyzes were conducted. While the survey questions were answered, there were no issues detected in regards to survey items contents. In this research, explanatory factor analysis was used to test the validity analysis. As a result, it was found that the strategic thought and learning orientation involves three factors separately. These results are consistent with other conceptual knowledge in the literature and empirical study's findings which also support the validity of the scales that are used.

FINDINGS

DEMOGRAPHIC FINDINGS

When referring to the Table 1, the majority of surveyed businesses' main activities are wood products and furniture (22.5%) and the construction and building materials

Subject of Business	F	%	Business Duration	F	%
Construction and building materials.	48	19	1-10 years	121	47.8
Food	3	1.2	11-20 years	74	29.2
Textiles, garments, fabrics	33	13	21-30 years	34	13.4
Automotive	8	3.2	31-40 years	13	5.1
Chemical plastic	13	5.1	More than 41 years	11	4.3

Table 1 (Cont.)

Subject of Business	F	%	Business Duration	F	%
Electricity and electronics	29	11.5	Number of employees	F	%
Shipping, freight and transport	6	2.4	Jan-49	216	85.3
Wood products, furniture	57	22.5	50-99	22	8.7
Durable goods	17	6.7	100-149	6	2.4
Machine	3	1.2	250-199	3	1.2
Other	36	14.2	More than 200	6	2.4
Annual turnover	F	%	Market structure	F	%
50.000 TL and below	27	10.7	Domestic only	166	65.6
50.000-250.000 TL	50	19.8	Overseas only	7	2.8
250.000-500.000 TL	93	36.7	Domestic and overseas	80	31.6
500.000-1.000.000 TL	49	19.4	Written strategic plan	F	%
1.000.000-5.000.000 TL	24	9.5	available	94	37.2
5.000.000 TL and above	10	4	unavailable	159	62.8
	TOTAL	253	100		

(19%). The majority of businesses have been operating for 1-10 years (47.8%). Based upon the table, the majority of the businesses operate only domestically and their annual turnover was between 250.000 – 500.000 TL (36.7 %). Additionally, the majority of the enterprises' have 1 – 49 employees working (85.3%) and another majority of the enterprises (62.8%) do not have a written strategic plan.

FACTOR ANALYSIS OF THE STRATEGIC THOUGHT AND LEARNING ORIENTATION SCALE

The results of the factor analysis in regards to strategic thought scale are shown in Table 2.

Table 2: Factors of Strategic Thought Scale				
Variables	Factor Loadings	Variance Percentage	Eigen Values	Cronbach Alpha
Factor 1: Systems Thinking		49.969	8.994	0.793
S2- Our employees can understand how change happens due to environmental factors.	0.859			
S1- Our employees can realize connections and relations between different information's.	0.844			
S5- The employees who located in the use of an important resource in our business, develop	0.749			

Table 2 (Cont.)

Variables	Factor Loadings	Variance Percentage	Eigen Values	Cronbach Alpha
a policy or procedure regarding the use of these resources.				
S6- Our employees are aware that every job they do affect the company's operations.	0.737			
S7- Our company provides workers to improve their abilities to solve problems if they encounter with.	0.506			
S4-In our business, it is known how different units are able affect the general work-flow	0.481			
S3-While defining any problem in our business, various factors are considered which could be affecting it (e.g. hierarchies, goals, specific roles and formal relations)	0.461			
Factor 2: Creativity		10.328	1.859	0.794
C4-In our company, employees use their creative talents while doing their jobs.	0.793			
C3-Our employees are free to decide how to do their job.	0.746			
C2-Our employees are asked to provide ideas for development and innovation in the workplace.	0.698			
C1-Our employees have the opportunity to use their creative talents and abilities at work.	0.644			
Factor 3: Vision		7.581	1.365	0.939
V3-Our company's vision, provides efficiency to use of business resources.	0.853			
V2-The vision of our business help employees' to better use of their time.	0.825			
V1-Our business vision helps employees to do their jobs better.	0.821			
V4-Business employees actively participate in the development of the vision.	0.808			
V5-Our company's vision positively effect on the company's productivity.	0.808			
V7-Our employees take its inspiration from the vision of the business.	0.788			
V6-Our company employees are working to realize the company's vision.	0.757			

STRATEGIC THOUGHT AND LEARNING ORIENTATION

The strategic thought scale are included 18 items that are included in the explanatory factor analysis; there were three factors were obtained that the eigenvalues were greater than 1 and the items within this factor are consistent with the factors in the literature. The items, which have 0.40 and above factor loading are taken into consideration. These factors explain the 67.878% of total variance (The Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy: 89.5%. Bartlett sphericity test: 2800.772 $p < 0.000$) In addition, alpha coefficients of the used strategic thought scale was determined as 0.914.

The results of the factor analysis in regards to strategic thought scale are shown in Table 3.

Table 3: Factors of Learning Orientation Scale				
Variables	Factor Loadings	Variance Percentage	Eigen Values	Cronbach Alpha
Factor 1: Commitment to Learning				
CL4-Our business sees learning is as a key element that provides organizational continuity.	0.832	44.918	5.390	0.894
CL3-Our company sees employee learning is as an investment, not a cost.	0.831			
CL1-Our learning ability is seen as the key to competitive advantage.	0.830			
CL2-The core value of our business involves learning as a key to progress.	0.781			
Factor 2: Shared Vision				
SV3-In our business every employee is responsible for company purposes.	0.865	12.602	1.512	0.724
SV4-In our business, the employees themselves are seen as partners in shaping the company.	0.839			
SV2-Vision of the business at all levels, functions and departments in a complete agreement process.	0.659			
SV1-There is unity of purpose in our business.	0.616			
Factor 3: Open-mindedness				
OM3-Original ideas appear valuable for our business.	0.878	10.311	1.237	0.864
OM2-Our business has given the high value of open-mindedness.	0.853			
OM4-Our employees have encouraged to think comprehensive and innovative.	0.735			
OM1-We do not hesitate to do criticism on shared assumptions about the markets.	0.576			

The learning orientation scale are included 12 items that are included in the explanatory factor analysis; there were three factors were obtained that the eigenvalues were greater than 1 and the items within this factor are consistent with the factors in the literature. The items, which have 0.40 and above factor loading are taken into consideration. These factors explain the 67.831% of total variance (The KMO measure of sampling adequacy: 88%. Bartlett sphericity test: 1547.264 $p < 0.000$). In addition, alpha coefficients of the used scale was determined as 0.864.

CONFIRMATORY FACTOR ANALYSIS OF THE SCALE OF LEARNING ORIENTATION AND STRATEGIC THOUGHT

In the study, businesses confirmatory factor analysis was conducted to test the suitability of the selected sample sizes that make up the scale used to determine whether the businesses have strategic thought. Strategic thought scale has three dimensions: Systems thinking, creativity and vision. The variables of systems thinking are coded as S1, S2, S3, S4, S5, S6, S7; the variables of creativity are coded as C1, C2, C3, C4; and the variables of vision are coded as V1, V2, V3, V4, V5, V6, V7. Confirmatory factor analysis was performed on the dimensions of the scale separately. Consistency values of strategic thought scale are presented in Table 4.

	Indexes	Values	Acceptable Consistency Values
STRATEGIC THOUGHT	Chi-square (X^2)	62.49	
	Degree of freedom (df)	51	
	(X^2)/df	1.22	3-5
	p-value	0.00	
	RMSEA	0.03	$0.05 \leq RMSEA \leq 0.08$
	NFI	0.95	$0.90 \leq NFI \leq 0.95$
	CFI	0.99	$0.95 \leq CFI \leq 0.97$
	GFI	0.94	$0.90 \leq GFI \leq 0.95$
	AGFI	0.91	$0.85 \leq AGFI \leq 0.90$
	Number of variables	12	

According to the results of the confirmatory factor analysis, from 7 variables, which belongs to the model of systems thinking, AGFI (0.70), NFI (0.77), GFI (0.85), Chi-square/df (7.5) are not an acceptable level for model compatibility. Therefore, the suggested statistical modifications are made and 3 variables (S1, S3, S6) have to be eliminated.

According to the results of the confirmatory factor analysis, from four variables, which belongs to the model of creativity, AGFI (0.52), NFI (0.84), GFI (0.90), Chi-square/ df (18.12) are not an acceptable level for model compatibility. Therefore, the

suggested statistical modifications are made and only one variable (C2) has to be eliminated. The obtained NFI, CFI, GFI and AGFI values after modification are at perfect level.

According to the results of the confirmatory factor analysis, from seven variables, which belongs to the model of vision, AGFI (0.70), NFI (0.77), GFI (0.85), Chi-square/df (7.5) are not an acceptable level for model compatibility. Therefore, the suggested statistical modifications are made and two variables (V2 and V6) have to be eliminated.

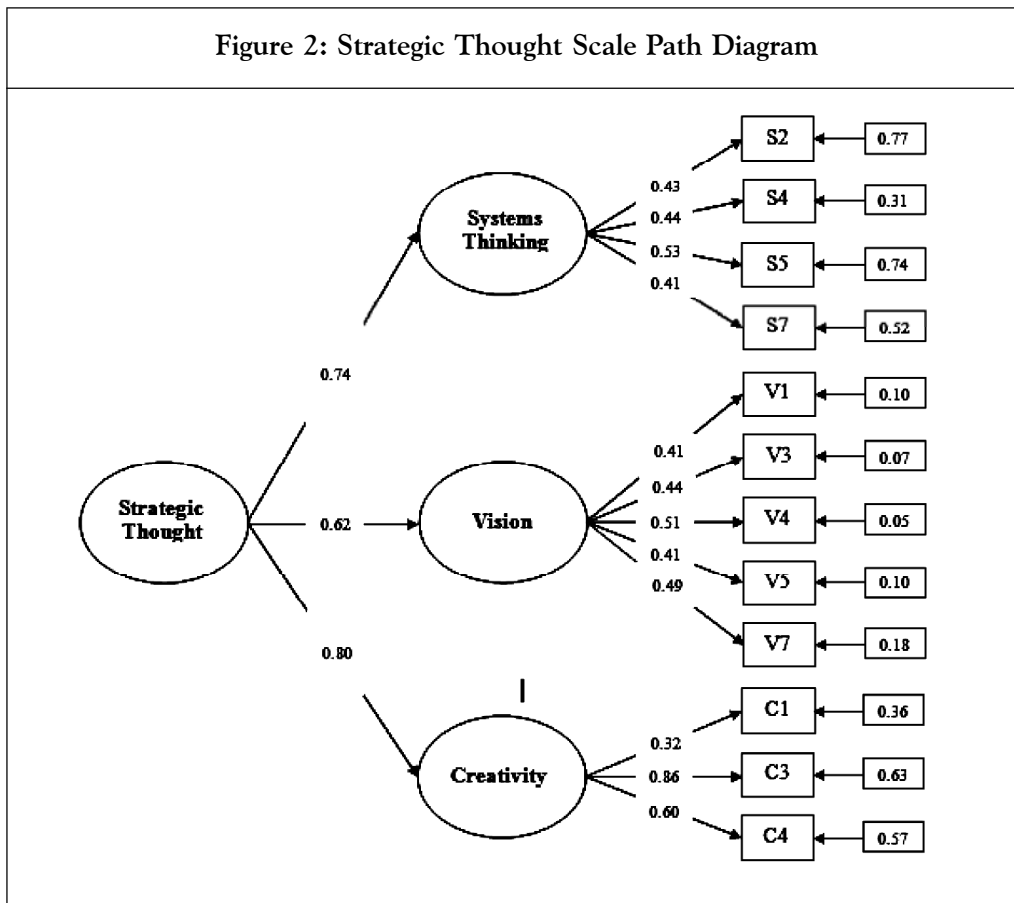
According to the results Chi-square/SD ratio is 1.22 and within the acceptable limits. Adjusted Goodness of Fit Index (AGFI) value is 0.91 and acceptable for model compatibility. Comparative Fit Index (CFI) value is 0.99 and at a good level of acceptance. The obtained values of strategic thought confirmatory factor analysis are shown in Table 5.

Table 5: Standard Coefficients of Strategic Thought Scale, t, R² Values and Error Variances				
	t-Values	Standard Coefficients	Error Variances	R ²
Implicit Variable: Systems Thinking (Alpha=0,78) Observed Variables				
S2- Our employees can understand how change happens due to environmental factors.	8.11	0.43	0.77	0.19
S4-In our business, it is known how different units are able affect the general work-flow.	6.32	0.44	0.31	0.38
S5-The employees who located in the use of an important resource in our business, develop a policy or procedure regarding the use of these resources.	7.43	0.53	0.74	0.28
S7-Our company provides workers to improve their abilities to solve problems if they encounter with.	7.76	0.41	0.52	0.24
Implicit Variable: Creativity (Alpha=0.72) Observed Variables				
C1-Our employees have the opportunity to use their creative talents and abilities at work.	8.11	0.32	0.36	0.22
C3-Our employees are free to decide how to do their job.	4.56	0.86	0.63	0.54
C4-In our company, employees use their creative talents while doing their jobs.	6.59	0.60	0.57	0.38
Implicit Variable: Vision (Alpha=0.90) Observed Variables				
V1-Our business vision helps employees to do their jobs better.	8.05	0.41	0.10	0.61

Table 5 (Cont.)

	t-Values	Standard Coefficients	Error Variances	R ²
V3-Our company's vision, provides efficiency to use of business resources.	7.05	0.44	0.07	0.74
V4-Business employees actively participate in the development of the vision.	5.25	0.51	0.05	0.84
V5-Our company's vision positively effect on the company's productivity.	7.94	0.41	0.10	0.63
V7-Our employees take its inspiration from the vision of the business.	8.25	0.49	0.18	0.57

The standard coefficients and error variables which compose the dimensions of the scale are shown in Figure 2. The secondary confirmatory factor analysis' obtained consistency index values are taken into consideration and it is observed that the strategic thought scale is coherent with selected examples. According to the results, it was confirmed that the strategic thought scale consists of three dimensions. Therefore,



the researchers " H_1 : Strategic thinking is comprised of three dimensions." hypothesis was accepted. The dimensions of strategic thought are systems thinking and vision. Hence, the hypotheses " $H_{1.1}$: Systems thinking is a sub-dimensions of strategic thought." " $H_{1.2}$: Creativity is a sub-dimension of strategic thought", and " $H_{1.3}$: Vision is a sub-dimensions of strategic thought" have been accepted.

In the study, businesses confirmatory factor analysis was conducted to test the suitability of the selected sample sizes that make up the scale used to determine whether the businesses are learning oriented. Learning orientation scale has three dimensions: Commitment to learning, shared vision and open-mindedness. The variables of commitment to learning are coded as CL1, CL2, CL3, CL4; the variables of shared vision are coded as SV1, SV2, SV3, SV4; and the variables of open-mindedness are coded as OM1, OM2, OM3, OM4. The dimensions of the scale are subjected to confirmatory factor analysis separately.

According to the results of the confirmatory factor analysis, from four variables, which belongs to the model of commitment to learning, AGFI (0,52), NFI (0,84), CFI (0,84), Chi-square/df (18,12) are not an acceptable level for model compatibility. Therefore, the suggested statistical modifications are made and only one variable (CL2) has to be eliminated. The obtained NFI, CFI, GFI and AGFI values after modification are at perfect level.

According to the results of the confirmatory factor analysis, from four variables, which belongs to the model of shared vision, AGFI (0.52), NFI (0.84), CFI (0.84), Chi-square/ df (18.12) are not an acceptable level for model compatibility. Therefore, the suggested statistical modifications are made and only one variable (SV4) has to be eliminated. The obtained NFI, CFI, GFI and AGFI values after modification are at perfect level.

According to the results of the confirmatory factor analysis, from four variables, which belongs to the model of open-mindedness, AGFI (0.52), NFI (0.84), CFI (0.84), Chi-square/df (18.12) are not an acceptable level for model compatibility. Therefore, the suggested statistical modifications are made and only one variable (OM4) has to be eliminated. The obtained NFI, CFI, GFI and AGFI values after modification are at perfect level.

In testing of the scale, previously obtained variables of learning commitment, shared vision, open-mindedness that belongs to confirmatory factor analysis are used. In the first stage of the analysis, the standard (SV3) variable coefficient is greater than 0.98 for this reason it is excluded from the analysis. As a result of this modification, chi-square and consistency index results which were obtained before and after the modification, are shown at Table 6.

According to modification results Chi-square/SD ratio is 1.59 and within the acceptable limits. AGFI value is 0.96 and acceptable for model compatibility. CFI

Table 6: Consistency Values of Learning Orientation Scale

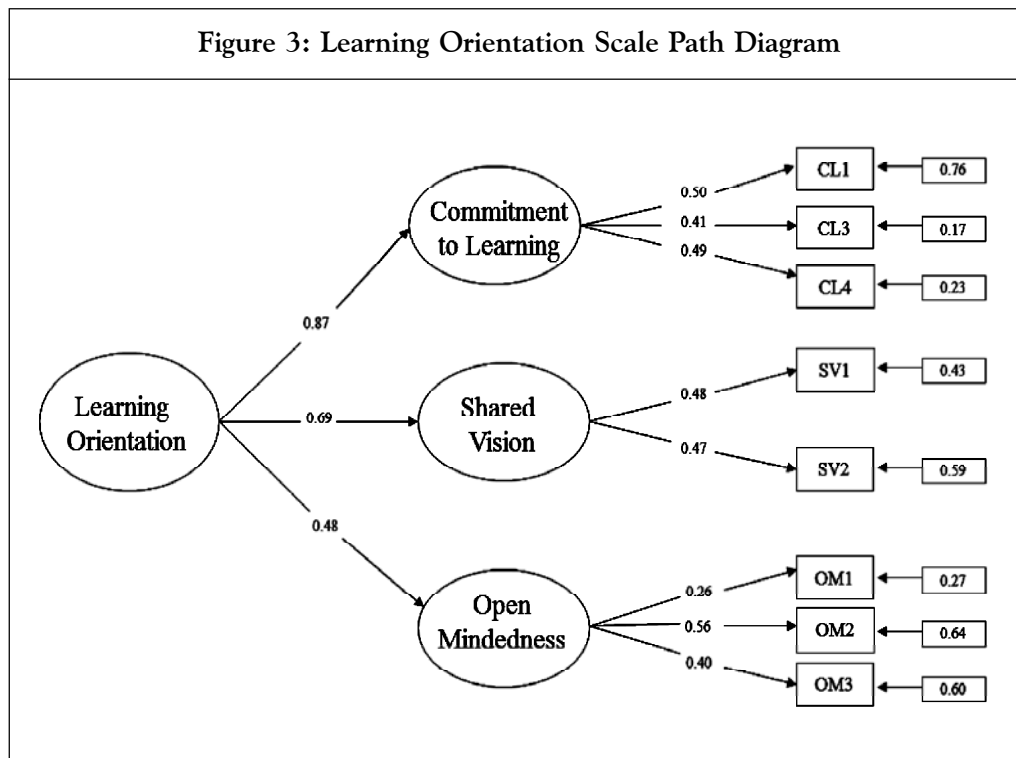
LEARNING ORIENTATION	Indexes	Values Before Modification	Values After Modification	Acceptable Consistency Values
	Chi-square (χ^2)	51.27	27.14	
	Degrees of freedom (df)	24	17	
	(χ^2)/df	2.13	1.59	3-5
	p-value	0.00	0.05	
	RMSEA	0.08	0.05	$0.05 \leq RMSEA \leq 0.08$
	NFI	0.92	0.94	$0.90 \leq NFI \leq 0.95$
	CFI	0.95	0.97	$0.95 \leq CFI \leq 0.97$
	GFI	0.94	0.96	$0.90 \leq GFI \leq 0.95$
	AGFI	0.88	0.92	$0.85 \leq AGFI \leq 0.90$
	Number of variables	9	8	

Table 7: Standard Coefficients of Learning Orientation Scale, t , R^2 Values and Error Variances

	t -Values	Standard Coefficients	Error Variances	R^2
Implicit Variable: Commitment to Learning (Alpha=0,794) Observed Variables				
CL1- Our learning ability is seen as the key to competitive advantage.	6.62	0.50	0.21	0.55
CL3- Our company sees employee learning is as an investment, not a cost.	6.16	0.41	0.12	0.58
CL4- Our business sees learning as a key element that provides organizational continuity.	6.08	0.49	0.17	0.59
Implicit Variable: Shared Vision (Alpha=0.751) Observed Variables				
SV1-There is unity of purpose in our business.	2.66	0.48	0.11	0.67
SV2-Vision of the business at all levels, functions and departments are in a complete agreement process.	6.28	0.47	0.33	0.40
Implicit Variable: Open-mindedness (Alpha=0.90) Observed Variables				
OM1-We do not hesitate to do criticism on shared assumptions about the markets.	8.75	0.26	0.19	0.26
OM2-Our business has given the high value of open-mindedness.	2.72	0.56	0.02	0.94
OM3-Original ideas appear valuable for our business.	5.99	0.40	0.12	0.58

value is 0.97 and at a good level of acceptance. According to these values, acceptability of the variables in learning orientation scale are in a good level. Confirmatory factor analysis results related to learning orientation are shown in Table 7.

The secondary confirmatory factor analysis' obtained consistency index values are taken into consideration and it is observed that the strategic thought scale is coherent with selected examples. According to the results, it was confirmed that the learning orientation scale consists of three dimensions. Therefore, the researchers "H₃: Learning orientation consists of three sub-dimensions" hypothesis was accepted. The dimensions of learning orientation are commitment to learning, open-mindedness and shared vision. Hence the hypotheses "H_{3.1}: Commitment to learning is a sub-dimension of learning orientation". "H_{3.2}: Open-mindedness is a sub-dimension of learning orientation" and "H_{3.3}: Shared vision is a sub-dimension of learning orientation" have been accepted. The standard coefficients and error variables which compose the dimensions of the scale are shown in Figure 3.



PATH ANALYSIS OF RESEARCH MODEL

After the Research model's measurement models are subjected to confirmatory factor analysis, the remained variables are used to conduct a Path (Road) analysis to determine the relations between strategic thought, learning orientation variables. In the first stage of the path analysis the results indicated that consistency index values are being within acceptable limits. Consistency values are shown in Table 8.

As seen in Table 8, according to the results obtained in the first stage of the analysis, from the values of the research model consistency AGFI (0.71), NFI (0.68), CFI (0.78), GFI (0.76) are not at the acceptable level consistency. Therefore, the suggested modifications based on the results of the analysis were made and statistically inappropriate variables were removed from the analysis. These variables are: Systems thinking dimensions of strategic thought scale S5 and S7; C3 that belongs to the dimension of creativity; Commitment to learning dimensions of learning orientation scale CL1; and OM2, OM3 that belongs to open-mindedness. When obtained consistency values of modification results are considered, the Chi-square/SD 1.55 and at a good level of consistency. RMSEA value is 0.05, and it is within the statistically recommended limits. CFI is an acceptable level of 0.93. AGFI has a value of 0.85 and acceptable. Research model variables remaining after modifications are shown in Table 9.

Table 8: Consistency Values of Learning Orientation Scale

Indexes	Values Before Modification	Values After Modification	Acceptable Consistency Values
Chi-square (X ²)	679.23	206.91	
Degrees of freedom (df)	273	133	
(X ²)/df	2.48	1.55	3 - 5
p-value	0.00	0.00	
RMSEA	0.09	0.05	$0.05 \leq RMSEA \leq 0.08$
NFI	0.68	0.90	$0.90 \leq NFI \leq 0.95$
CFI	0.78	0.93	$0.95 \leq CFI \leq 0.97$
GFI	0.76	0.88	$0.90 \leq GFI \leq 0.95$
AGFI	0.71	0.85	$0.85 \leq AGFI \leq 0.90$
Number of variables	25	18	

Table 9: Remaining Variables of Research Model after Path Analysis

		t-Values	Standard Coefficients	Error Variances	R ²
STRATEGIC THOUGHT (Alpha=0.76)	S2-Our employees can understand how change happens due to environmental factors.	9.14	0.26	0.89	0.17
	S4-In our business, it is known how different units are able affect the general work-flow	9.10	0.24	0.44	0.12
	C1-Our employees have the opportunity to use their creative talents and abilities at work.	9.13	0.20	0.42	0.18
	C4-In our company, employees use their creative talents while doing their jobs.	9.14	0.25	0.87	0.26

Table 9 (Cont.)

		t-Values	Standard Coefficients	Error Variances	R ²
	V1-Our business vision helps employees to do their jobs better.	8.13	0.40	0.10	0.61
	V3-Our company's vision provides efficiency to use of business resources.	7.36	0.44	0.07	0.73
	V4-Business employees actively participate in the development of the vision.	5.40	0.51	0.05	0.85
	V5-Our company's vision positively effect on the company's productivity.	8.05	0.41	0.10	0.63
	V7-Our employees take its inspiration from the vision of the business.	8.25	0.49	0.17	0.58
LEARNING ORIENTATION (Alpha=0.70)	CL3-Our company sees employee learning is as an investment, not a cost.	7.19	0.37	0.15	0.48
	CL4-Our business sees learning is as a key element that provides organizational continuity.	7.31	0.44	0.22	0.46
	SV1-There is unity of purpose in our business.	7.67	0.38	0.20	0.41
	SV2-Vision of the business at all levels, functions and departments are in a complete agreement process.	8.36	0.39	0.40	0.28
	OM1-We do not hesitate to do criticism on shared assumptions about the markets.	8.91	0.18	0.23	0.12

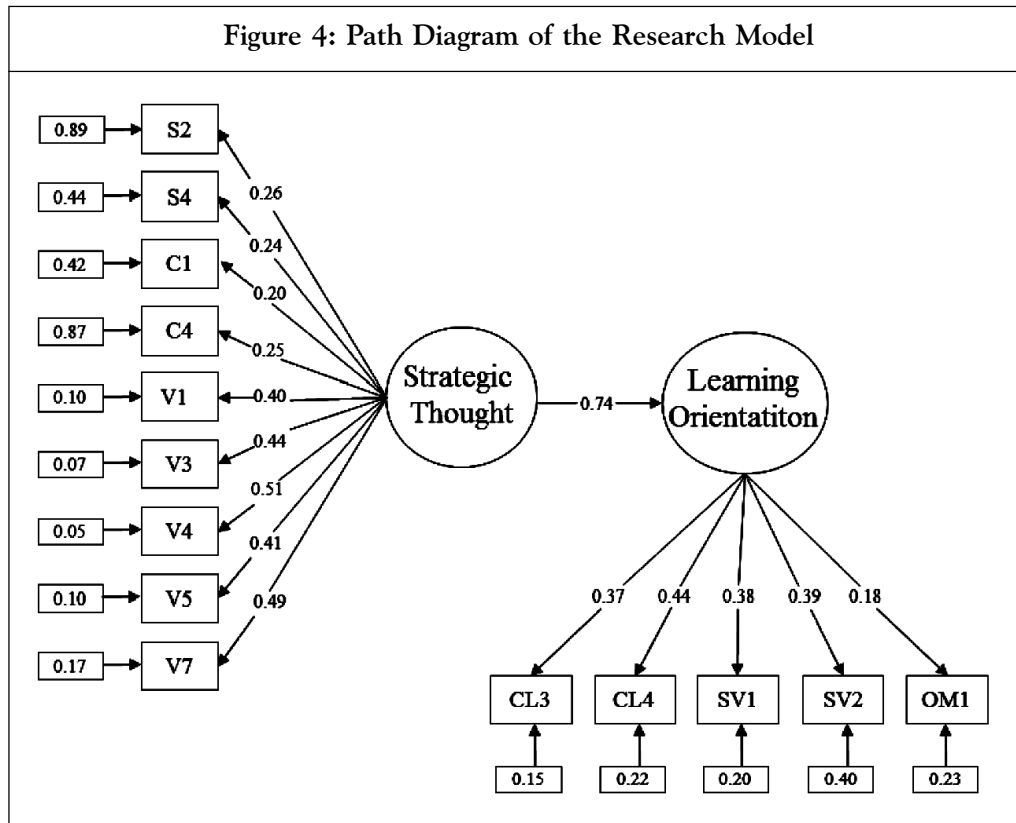
After the path analysis, the relationships between key variables of the model are shown in Table 10.

Based on the Table 10, the R² value (which indicates the size of effect of strategic thought on learning orientation) between strategic thought and learning orientation values is 0.54 and error variance is 0.46. Likewise, the standard coefficient is 0.74 and the t-value is 3.95. When looking at the values, the standard coefficient value between strategic thought and learning orientation is critically smaller than 0.98 between. In

Table 10: Relations between Strategic Thought, Learning Orientation and Innovation				
Variables	t-Values	Standard Coefficients	Error Variances	R ²
Strategic Thought → Learning Orientation	3.95	0.74	0.46	0.54

addition, t -value is greater than 2, therefore significant. The R^2 value is relatively high. According to these results, strategic thought has an impact on learning orientation. For that reason, the hypothesis “ H_2 : Strategic thought affects learning orientation.” was accepted.

The path diagram of the research model after the modifications is shown in Figure 4.



IMPLICATIONS FOR PRACTITIONERS

Business managers should encourage employees to observe inside the company, as well as the non-business environment. Here, the aim for the employees is to understand the impact of environmental factors on change. Besides, employees of different departments need to understand how they affect the way business is done. For this, rotation should be encouraged throughout the business. Rotation means, assigning employees different tasks within the business for a temporary period in order to teach them how to handle different tasks. Also, in this way the employees of different departments are able to obtain more information about the business and they can be sure about the importance of different departments.

Business managers should give employees the opportunity to be able to use their creative talent and skills at work. Thus, employees can use all their creative skills

while performing their jobs. In order business managers to support creativity, they should encourage employees to think outside the box. By giving authority, responsibility, and support, managers help employees to develop their creative skills.

A participatory corporate culture is needed within a business for individuals with different ideas and perspectives to express these thoughts in a relaxed way; ensuring the contribution of all employees in the solution of problems; in order to ensure the changes and innovations in the market. The presence of managers who have a perspective of strategic thought; who are able to be reactive or proactive when needed; who can think analytically and conceptually; who can demonstrate leadership skills will enhance the ability of strategic thinking. Also, where empathy and open communication is dominant in the business, the level of strategic thinking will increase.

The level of strategic thought will increase by strengthening the commitment to learning through applications such as improvement of the effectiveness of knowledge management in enterprises, encouragement of employees to be innovative and creative, efforts towards becoming a learning organization, promotion and reward system, improvement based on learning and performance, monitoring employee performance, and providing feedback when necessary.

Today's business environment makes it essential to be learning-oriented instead of having a lot of knowledge because change happens fast and the information on hand can be invalid or worthless. Therefore, businesses should hire employees who are learning-oriented and should provide this feature to existing employees.

CONCLUSION

Expressed with the concepts of change, uncertainty, chaos, turmoil and discontinuity, the new economy needs a successful strategic management to come up with the innovative power to change to the market by reducing ambiguity, adapting to change. At this point, strategic thinking, which is the main philosophy of the strategic management process, is vital in terms of operating on learning orientation.

Businesses which are able to think strategically must be open to constant learning. Learning orientation implies that learning within an enterprise is seen as an investment component that provides a competitive advantage. In businesses with a high learning orientation, it is important to acquire new knowledge, develop skills to solve problems, and relate information. In addition, employees in these enterprises continually question organizational norms that guide organizational activities. In this sense, learning orientation increases the courage of employees, leads directly to the emergence of more learners and realizes organizational change.

The model created to determine the relationship between strategic thought and learning orientation was tested by the path analysis. Before the path analysis conducted, sub-dimensions of the scale were tested with confirmatory factor analysis, and then scales were tested with a secondary confirmatory factor analysis as a whole.

First, systems thinking, creativity and vision dimensions of strategic thought were tested with confirmatory factor analysis. Then a secondary confirmatory factor analysis was performed using the remaining variables of the strategic thought scale dimensions. As a result of the analysis, the obtained fit indexes of selected examples showed that there is consistency between the strategic thought scale and selected examples.

Second, learning orientation scale dimensions commitment learning, shared vision and open-mindedness were tested by confirmatory factor analysis. Then, a secondary confirmatory factor analysis was performed using the remaining variables of the learning orientation scale. As a result of the analysis, the obtained fit indexes of selected examples showed that there is consistency between the learning orientation scale and the selected examples.

After measurement models were tested on the confirmatory factor analysis separately, the research model's remaining variables on the scales were tested using path analysis. The result of the analysis showed that the values obtained when we examined the model were significant. So, strategic thought has effects on learning orientation of businesses.

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