



## **Efficiency of Knowledge Inflow Structures: The Mediation Effect of Task Environment Analysis**

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### **Abstract**

*Environmental uncertainty is increasing day by day in increasing competition conditions. Under the uncertainty, corporate executives are confronted with the problem of taking long-term strategic decisions that are both instantaneous and capable of maintaining their assets. Particularly under uncertainty, limited information and focusing on short term and near environment are the most important problems faced by the sustainability of today's companies. The aim of this study is to create a model where managers can create organizational structures that can turn environmental uncertainty into a risk by positively affecting organizational performance. As a result of the study, it has been observed that the institutions where the bottom-up and horizontal information flow structures are formed and the centralization levels are reduced have more detailed information in the sectoral framework and the organizational performance perceived in the context of innovation, quality and productivity has increased.*

**Key words:** *Decision Making, Uncertainty and Risk, Knowledge Inflow Structures, Task Environment Analysis, Organisational Performance*

**JEL classification:** *D91, P48*

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### **Introduction**

One of the most important factors that play a role in the success or failure of companies is to decide the right course of action. Deciding requires action between alternative strategies and taking action to implement a correct strategy under uncertainty. Taking the right action at the right time is of vital importance for small and medium-sized enterprises (SME) with relatively limited resources, especially compared to large companies. In this context, Miller (1993) makes an important contribution to the decision-making literature by defining the concept of perceived environmental uncertainty (PEU). According to this; Miller defines PEU at three levels, respectively: general environmental uncertainties, industry uncertainties and firm uncertainties. While general environmental uncertainties are composed of factors such as macro-environmental, political, economic, socio-cultural and natural uncertainties, industry

uncertainties, uncertainties in the input market, uncertainties in the product market and uncertainties in general competition conditions. Company uncertainties include R&D, operations, areas of responsibility, reliability and behavioral uncertainties. On the other hand, unlike Miller, Miliken (1987) describes the perceived concept of environmental uncertainty in three different ways as situational, impact and reactive uncertainty, respectively. Situational uncertainty refers to the uncertainties generated by the previously described external environment. Impact uncertainty refers to the impact of the uncertainties generated by the external environment on the internal environment. In addition to this, reactive uncertainty refers to how internal and external uncertainties will affect the strategies of the institution (Tapinos& Meadows, 2011).

There is no doubt that rapidly changing environmental conditions are the most important factors for determining appropriate strategies for businesses. Businesses need to be informed about how environmental and competitive conditions for the future are formed. To meet this need, some estimation techniques can be used, based on historical data and information from analysis, such as qualitative techniques, time series and causal models. These methods can help managers make the right decision during strategic planning.

However, especially behavioral economists, emphasize that these methods based on hypothesis are developed on the assumption that people make rational decisions, but that the methods built with this assumption fail to predict cases beyond the expectations of the 2008 crisis. In other words, people do not always act rationally. They generally tend to use available or accessible information for decision-making processes. They act with insufficient information that causes uncertainty for the current situation. However, uncertainty may arise not only from conditions but also from human behavior. In other words, human emotions are the biggest factor in which human behavior decreases the rationality that affects the decision-making processes perfectly and accurately. In summary, economic theory defines rational people and establishes models based on the assumption that human is rational. Increasing the quantity of the information will increase the quality by making the decisions taken closer to the rational. In this way, it will be more important to determine in detail the alternative or probable unborn scenario and to make intelligent decisions.

The aim of this study is to examine the decision-making processes of companies operating in Turkey and their level of task environment analysis. In this context, the information flow structures within the organization and the effect of environmental analysis on the performance were examined.

## **Literature Review**

### **Decision Making under Uncertainty and Risk in Organisations**

Decision making is a process that directly affects all functions of management in organizational life and activities. Thus, this process can directly affect all activities and processes of the organization. In order to achieve the goals set, people take decisions on all steps of organizational and individual life. While making decisions, individuals generally meet different alternatives (Yılmaz and Talas 2010, p. 197).

In an organization, managers in various departments spend most of their time with decision making. To understand decision making in organizations, it is necessary to know the ways/methods that are followed to make both individual and group decisions. Then, it is necessary to determine the problem that comes together in management, to present controllable and uncontrollable variables related to the problem, to determine the relationships between these variables and to formulate rules for decision making (Eren 2010, p. 35).

Decision making, which is a function of the management process in organizations, is of vital importance for the organization to reach its goals. Because decision-making determines the direction of activities and triggers actions to achieve the desired points. Therefore, the realization of the activities aimed at the targets determined in the organizations is the result of the decision making which is a potential activity in general (Yılmaz & Talas 2010, p. 198).

In terms of environmental concept, it can be said that there are two types of environment as general environment and task environment. The task environment is comprised of Directly Affected Factors and Sectors, which are the direct link of the company and which directly affect its competitive position, day-to-

day operations and target success. The task environment consists of the sectors of competitors, suppliers, customers and regulators. In addition, the task environment is defined as the micro environment according to the theory of strategic management. According to Porter's five forces, these forces are competitors, customers, suppliers, potential incomers and suppliers of replacement products / complementary products. In addition, it refers to sectors that indirectly affect the company, which is political, economic, ecological, social and technological environments surrounding the micro environment and is called the business macro environment (Vecchiato & Roveda 2010).

The concept of environmental uncertainty is based on the assumption that business micro- and macro-environment occur as a lack of information about companies, activities and events in different sectors. Uncertainty is a lack of confidence that decision makers cannot accurately predict various events, that is, what the major events and drivers of the change in their environment are, and/or the likelihood that various special events and drivers of the change may occur (Vecchiato & Roveda 2010, p. 1529).

### **Knowledge Inflow Structures of Companies**

Environmental factors have implications for rational decision making. The rationality of decision-making is closely related to the environmental characteristics of the organization (Rojot 2008, p. 140). Organizations are social systems linked to their environment. In this context, the economic, social, political, cultural and physical environment of the organization affect the decision-making behaviors of managers (Onaran, 1975, p. 110).

Peker (1995, p. 46) states that organizations have to give output to the environment in order to get input from the environment and survive. In this context, organizations connect to their environment through these inputs and outputs. Therefore, environmental organization takes control. The interaction of the organization with its environment can affect the quality of the organizational structure in many ways.

Ackoff and Emory (1972) describe learning as 'awareness of competence and competence of various activities'. Nonaka (1994) defines learning as a perceptual, deliberate and organized process of data and information flow rather than merely as a process derived from data. Nonaka (1988) was treated as an activity in data generation and identified three modes: deductive, inductive and pressure. Deductive management is maintained from the top and includes a large amount of focal regulation and investigation (high reasoning, low inclusion). Inductive management, on the contrary, is directed by individual or group activity within the association (Bourgeois & Brodwin, 1984) and from bottom to top: as appropriate, the activity of the best management is mainly to support the tasks and to grasp the decentralized movement. Pressure management combines both deductive and inductive modes and includes an abnormal amount of motion for both senior executives and partners of the organization. Accordingly, the system construction is both from top to bottom and from bottom to top (Hart, 1992).

### **Organizational Performance**

Explaining and evaluating organizational performance has long been debated by scientists for management practitioners from various fields and organizations of all kinds (Kanter & Brinkerhoff, 1981; Venkatraman & Ramanujam, 1986). Organizational performance constitutes a large field of work in the fields of international business and strategic management (Beamish & Delios, 1997b; Dess & Robinson, 1984; Venkatraman & Ramanujam, 1986). Performance measurement is defined as the process of measuring the efficiency and effectiveness of past actions (Neely et al., 2002). Moullin (2002) expands this definition and describes how well-managed organizational performance is; defines a process of evaluating the value they offer to customers and other stakeholders. Describing variation in firm performance and effectiveness is one of the important issues in organizational work, especially in strategic management. Weak performance measures can be perceived by both existing and potential customers and by stakeholders as poor processes and practices. On the other hand, it is possible to create respect with good performance measures, promote competition and increase organizational reputation and trust. Firms may try to compete with each other in these areas to increase their performance rankings (Sutton, 1997).

In the context of competition, the position of a firm in a market is evaluated under the lens of industry analysis (Barnett et al. 1994). According to this view, companies take advantage of their position in the

market and maintain their positional advantages when there are various industrial barriers (Caves and Porter, 1977; Barnett et al., 1994). Thus, good performance is the criteria and practices that an organization determines its resources, capabilities and assets to be successful in various fields.

Ray, Barney, and Muhanna (2004), while testing the effects of resource-based logic, say that it is more appropriate to establish causal relationships with the effectiveness of processes rather than establishing relationships with the overall firm performance. The authors argue that firms need to gain competitive advantages through market processes that create value. This will be achieved through market processes and activities, and business processes. Therefore, a comprehensive conceptualization of firm performance should include signs of non-financial performance, in addition to financial performance indicators. Operational performance is considered as different from the financial performance in this study, but is considered to be significantly related. However, the inclusion of operational performance indicators to measure firm performance highlights some possible areas that focus only on critical operational success factors that cannot be explained by financial measures and can lead to financial performance (Venkatraman and Ramanujam, 1986).

Operational performance dimensions focus on competitive position in the market, effective relations with suppliers and customers, and key operational success factors such as product and service development (Venkatraman & Ramanujam, 1986). In addition to this information, (Curkovic et al., 2000) says that there is a significant positive relationship between quality performance and firm performance. Firm performance in this study is taken as a measure of financial performance such as pre- and post-tax ROA, ROI, ROI growth, market share and market share growth. Quality performance criteria are product reliability, durability and support; compliance with specifications, pre-sales customer service and response to customers; (López-Gamero et al., 2008) is considered as operational performance criteria.

## **Hypotheses Development**

Burns & Stalker (1961), with lower centralization and formalization, say that the organic type structure is more suitable for more dynamic environments. Because the organic structure is characterized by more participation and upward information flow, we can expect that these features will be more common in organizations operating in dynamic environments. The use of "open systems" approaches to planning, measured with greater involvement of lower organizational levels, more flow of information and more public knowledge will increase (Lindsay & Rue, 1980). In another study, it is claimed that a manager's bottom-up and horizontal knowledge accumulation is positively related to the discovery activities of this manager.

*H1: There is positive relationship between firm's knowledge inflow structures and scope of environmental analysis.*

There is a relationship between "uncertainty" and production planning. Lawrence and Lorsch (1967) argue that organizational success requires sustained differentiation and integration with the demands of the environment. If the integrity of the long-range planning process can be seen as a reflection of the degree of structuring the decision-making tasks of the organization and an attempt to meet the uncertainty in the external environment, it is clear that the deficiency as a measure of the structure should be compatible with the environment. Thus, as the complexity and instability of the organizational environment increases, we can expect that the long-range planning process also increases (Lindsay & Rue, 1980).

## **External Environment and Decision Making Tasks of the Organization's Internal Environment**

If the integrity of the long-range planning process can be seen as a reflection of the degree of structuring the internal environment of the organization and an attempt to meet the uncertainty in the external environment, it is obvious that the lack of the structure as a measure of the environment should also be compatible with the environment. Thus, as the complexity and instability of the organizational environment increases, we can expect the completeness of the long-range planning process to increase.

## **Environment and the Use of Mathematical Models or Computers in Decision Making**

Thompson (1967), states that organizations try to reduce the uncertainty in their environment by building the structures necessary to deal with uncertainty. One way organizations try to do this is by using a kind of formal planning system. Another possibility is to use external consultants and forecasting models.

## **Environment and the Scope of Strategic Planning**

Organic structure is characterized by more participation and upward information flow. These features can be expected to be more common in organizations operating in dynamic environments. More participation in lower organizational levels, more flow of information, and the use of "open systems" approaches to planning measured with more public knowledge will increase (Lindsay & Rue, 1980).

*H3: There is positive relationship between scope of environmental analysis and scope of strategic plans.*

*H3a: Scope of environmental analysis mediates the relationship between the knowledge inflow structures and the scope of strategic plans.*

*H3b: Scope of environmental analysis mediates the relationship between the stakeholder participation and the scope of strategic plans.*

## **Strategic Planning and Firm Performance**

The performance impacts of strategic planning have been a central research area for researchers over the last three decades. Although there are many research findings about the relationship between formal strategic planning (FSP) and organizational performance, it is seen that most of these findings are inconclusive. Early studies suggest that FSP improves performance (Herold, 1972; Thune & House, 1970). Subsequent studies suggest that there is no systematic relationship between FSP and firm performance (eg Shrader et al.1984). However, it is accepted that strategic planning that benefits the organization may have non-financial consequences (Greenley, 1986).

Such as Turkey, an emerging market is dominated by relatively high uncertainty, in spite of the ongoing economic and political transformation is seen as an important strategic planning function (Tatoglu et al., 2008).

*H4: There is positive relationship between scope of strategic plans and organizational performance.*

## **Research and Methodology**

In this study, e-mail survey method was used to collect data. Surveys were distributed randomly via e-mail due to limited budgeting and limited time. Data collection by e-mail, which allows data collection with low costs, allows researchers to collect data from a broad target group at the same time (De Chernatony & McWilliam, 1990) compared to other methods such as interviews or telephone surveys. Since electronic data collection method makes tracking and monitoring easier and respondents' answers much easier, e-mail surveys are more appropriate compared to other methods.

The survey was created in four stages. In the first stage, a survey was conducted within the framework of developed theories and translated into Turkish. Three academicians from different fields examined the first form of the survey to assess the relevance level of the questions and the nature of the designs. Then, the first form of the survey was rearranged as a result of the evaluation made by academicians. At this stage, studies were carried out in both English and Turkish versions of the survey. However, considering that the study was carried out in terms of Turkish companies, only the Turkish version was used during the management phase. However, considering that the study was carried out in terms of Turkish companies, only the Turkish version was used during the management phase. In any case, experts in foreign languages have confirmed that the English and Turkish versions correspond to each other before the application. The survey was tried several times in advance to confirm its suitability at the level of expression, order and intelligibility.

The survey items are derived from the literature developed in the related subjects in line with the model and hypotheses of the study. According to the preliminary tests, the number of scales in the survey was reduced from 56 to 41 in the original survey. The number of scales was reduced to 5 for the Knowledge Inflow Structures (KIS), which was 8 in the first designed survey. The number of scales decreased to 34 for Task Circumference Analysis (TCA), which is 45. In the surveys formed in this direction, the five likert scale (1 = "strongly disagree" = and 5 = "absolutely agree") was used.

Knowledge Inflow Structure is discussed extensively in the literature and various studies have been used for the scale (Mom, Bosch & Volberda, 2007; Lindsay and Rue, 1980; Rantapuska & Ihanainen, 2008). In this section, a scale consisting of eight items was used to examine the scope of Knowledge inflow Structures of responding firms. On the scale developed, the bottom to top, top to bottom and horizontal knowledge flow structures of the firms are measured.

The scale created for Task Environment Analysis is derived from previous studies (Eren, Aren & Alpan, 2000; Bekiroglu, Erdil & Alpan, 2011; Vecchiato & Roveda, 2010; Brouthers, Andriessen & Nicolaes, 1998; Alpan, 2000), six important dimensions aims to measure the scope of environmental analysis. In this context, it was examined how much information firms collect from government, competitors, goods and services buyers, suppliers, vendors and trade unions while they are making planning.

The scale developed for organizational performance was again derived from the previous literature (López-Gamero et al., 2008; Curkovic et al., 2000b; Venkatraman & Ramanujam, 1986). In this section, corporate managers were asked to evaluate the performance of their institutions in terms of innovation, quality and efficiency.

Since the relations of the structures at the institutional level were examined in the study, the surveys were sent to 12.000 companies operating in the Marmara region by e-mail in order to be answer by only one person in each institution. A total of 227 responses were received as a result of the submissions. Since the questionnaires prepared in electronic environment and answered at institutional level are required to answer all questions, there is no answer that can be considered invalid and should be removed from the sample.

The descriptive statistical data are given in the following table based on the responses of the participants who completed the questionnaire.

The data obtained were analyzed by SPSS Statistics 25 program and SPSS additional program AMOS 25 program by SEM (Structural Equation Modeling) method. There are several important factors for the use of SEM as the methodology of this research. However, the most important reason for using SEM analysis is that SEM is suitable for modeling complex theoretical concepts and identifying the relationships between them. The effects of moderator, mediation and control variables can be explained in detail by SEM modeling; this allows for multilevel analysis of complex issues with SEM. (Rabe-Hesketh, Skrondal & Pickles 2004).

## **Findings**

### **Reliability and the Validity of the Measures**

In accordance with the work of Anderson and Gerbing (1988), the number of scales shaping the Knowledge Inflow Structures (KIS) reduced from 8 to 4, and the number of scales shaping Task Environment Analysis is reduced from 45 to 34. The most important reason for decreasing the number of scales is the high correlation between the scales. In this direction, the scales were excluded from the analysis so as not to disrupt the meaning. The results of the study are within the limits of the generally accepted conformity indices. The compatibility data of the study are shown in the table below. According to this [ $\chi^2 / d.f.$  .66, CFI = 0.97, GFI = 0.94, AGFI = 0.91, IFI = 0.97, TLI = 0.96, RMR = 0.05, RMSEA = 0.05 complying with acceptable standards.  $\chi^2 / D.F$  değeri 0-5 aralığında olmalıdır. 5'in altındaki değerler modelin uygun olduğunu gösterir. In addition, the values of CFI, TLI and IFI are highly satisfactory. The fact that these values are close to 1.0 indicates that the model is in perfect harmony. Similarly, the AGFI Index is between 0.90 and 0.95 and is within acceptable limits. The RMSEA value was between 0.05 and 0.10 at

the beginning of the nineties and was perfectly compatible with these values 0.5 and below (MacCallum et al., 1996). In this study, the RMSEA value is approximately 0.5, indicating that the model is compatible. In addition, as shown in Table 2, all scales used in the survey were consistent ( $p < 0.01$ ) and the factor loads of each scale are above 0.57.

**Table 1: Descriptive Statistical Data**

Definitions		Number	%
<b>Sector</b>	Industry	114	50%
	Service	107	47%
	Agriculture	6	3%
<b>Number of Employees</b>	Less than 50	65	29%
	50-99	19	8%
	100-249	26	11%
	250-499	22	10%
	500-999	28	12%
	1000-1999	29	13%
	2000-5000	17	8%
	More than 5000	21	9%
<b>Year of Operation</b>	Less than 5 years	20	9%
	5 to 10 years	24	11%
	11 to 20 years	42	19%
	21 to 40 years	74	32%
	More than 40 years	67	29%
<b>Ownership</b>	Domestic capital	176	78%
	Foreign capital	14	6%
	Domestic- Foreign joint venture	37	16%
<b>Competition Level</b>	Low competition	6	3%
	Medium competition	59	26%
	Intense competition	162	71%

Table 2 presents both Cronbach's Alpha (CA) and Composite Reliability (CR) values to measure internal consistency. All scales have CA and CR values above 0.75, which are well above the threshold values of 0.70 and demonstrate satisfactory levels of scale reliability (Bagozzi & Yi, 1988). In addition to this, in Table 3, the standard regression weights of the variables ( $p < 0.05$ ) are shown and the construct validity is acceptable (Anderson and Gerbing, 1988).

**Table 2:** Confirmatory Factor Analysis Findings

Constructs	Items	Standardized Loadings <sup>b</sup>	CA <sup>d</sup>	CR <sup>e</sup>
<b>Knowledge Inflow Structures</b>	<b>KIS</b>		<b>0,80</b>	<b>0,81</b>
<i>Information gathering from peer teams in other organizational units within own division</i>	HR2	0,81		
<i>Information gathering from peer teams in other divisions</i>	HR3	0,78		
<i>Information gathering from direct assistants</i>	BT1	0,75		
<i>Information gathering from one more hierarchical level down than direct assistants</i>	BT2	0,83		
<b>Task Environment Analysis</b>	<b>TEA</b>		<b>0,82</b>	<b>0,79</b>
Competitors	COM	0,81		
Government	GOV	0,72		
Union	UNI	0,57		
Suppliers	SUP	0,83		
Clients	CLI	0,69		
Sellers	SEL	0,81		
<b>Perceived Organizational Performance</b>	<b>POP</b>		<b>0,78</b>	<b>0,79</b>
Innovativeness	OP1	0,76		
Effectiveness	OP2	0,81		
Quality	OP3	0,66		

**Compatibility Values:**

<sup>a</sup>Chi Square/df = 1.66, CFI= 0.97, GFI=0.94, AGFI=0.91, IFI= 0.97, TLI= 0.96, RMR=0.05, RMSEA= 0.05

<sup>b</sup>SL = Standardized Loadings

<sup>c</sup>CA = Cronbach's alpha

<sup>d</sup>CR = Composite reliability

Confirmatory factor analyzes of the scales determined for each variable were carried out and all values obtained as a result of the analysis were in acceptable level. In this respect, each scale used has internal consistency. In addition, the KMO (Kaiser-Meyer-Olkin Measure of Sampling Adequacy) values for each scale indicated that the sample size was sufficient for factor analysis.



**Table 3:** Regression Weights

			Estimate	S.E.	C.R.	P
HR2	<---	IIF	1			
HR3	<---	IIF	0.963	0.101	9.522	***
BT1	<---	IIF	0.464	0.082	5.647	***
BT2	<---	IIF	0.641	0.086	7.493	***
SELLER	<---	TEA	1			
CLIENT	<---	TEA	0.65	0.077	8.464	***
SUPPLY	<---	TEA	0.91	0.096	9.475	***
UNION	<---	TEA	0.715	0.117	6.116	***
GOVERNMENT	<---	TEA	0.627	0.09	6.947	***
COMPETITORS	<---	TEA	0.865	0.07	12.437	***
OP1	<---	POP	1			
OP2	<---	POP	0.906	0.092	9.84	***
OP3	<---	POP	0.666	0.073	9.08	***

The Task Environment Analysis scale used in the research consists of forty-five questions. As a result of the factor analysis, the questions which have been uploaded to different dimensions or have high correlation with other dimensions were excluded from the scope of the analysis. In this direction, eleven questions were excluded from the study and the remaining thirty four questions were evaluated in six different dimensions. The questions in the six dimensions determined are consistent with each other and size. The factor loadings for each specified dimension are shown in the following table.

**Table 4:** Task Environment Analysis Scale Component Matrix

Component Matrix						
	Components					
	1	2	3	4	5	6
GCARKP05	<b>0,887</b>	0,068	0,096	0,074	0,191	0,114
GCARKP06	<b>0,865</b>	0,138	0,113	0,158	0,130	0,123
GCARKP04	<b>0,852</b>	0,087	0,062	0,132	0,184	0,194
GCARKP09	<b>0,844</b>	0,128	0,066	0,184	0,148	0,048
GCARKP01	<b>0,836</b>	0,069	0,063	0,137	0,171	0,190
GCARKP08	<b>0,835</b>	0,126	0,052	0,259	0,066	0,052
GCARKP07	<b>0,825</b>	0,140	0,109	0,210	0,165	0,034
GCARKP02	<b>0,683</b>	0,196	0,208	0,113	0,045	0,209
GCARKP11	<b>0,678</b>	0,224	0,149	0,324	0,089	0,112
GCARKP03	<b>0,673</b>	0,181	0,095	0,004	0,115	0,358
GCADEV02	0,110	<b>0,861</b>	0,115	0,065	0,038	0,161
GCADEV03	-0,023	<b>0,823</b>	0,121	0,016	-0,001	0,150
GCADEV01	0,075	<b>0,810</b>	-0,027	0,079	0,110	0,128
GCADEV07	0,125	<b>0,737</b>	0,086	0,177	0,243	0,007
GCADEV04	0,226	<b>0,717</b>	0,102	0,211	0,035	0,037
GCADEV05	0,168	<b>0,712</b>	0,273	0,231	0,118	0,054
GCADEV06	0,174	<b>0,699</b>	0,255	0,174	0,032	-0,010
GCADEV08	0,132	<b>0,629</b>	0,079	0,253	0,250	0,155
GCADEV11	0,268	<b>0,624</b>	0,325	0,157	0,126	-0,151

GCASEN02	0,141	0,203	<b>0,900</b>	0,054	-0,048	0,139
GCASEN03	0,184	0,156	<b>0,877</b>	0,103	-0,008	0,149
GCASEN01	0,086	0,166	<b>0,835</b>	0,072	0,128	-0,014
GCASEN04	0,120	0,218	<b>0,788</b>	0,123	0,152	0,063
GCATDR05	0,307	0,258	0,111	<b>0,822</b>	0,158	0,159
GCATDR06	0,294	0,290	0,079	<b>0,819</b>	0,133	0,164
GCATDR04	0,336	0,294	0,190	<b>0,739</b>	0,192	0,156
GCATDR07	0,363	0,351	0,141	<b>0,720</b>	0,138	0,108
GCAMHA02	0,214	0,104	0,069	0,113	<b>0,849</b>	0,096
GCAMHA03	0,219	0,170	0,114	0,090	<b>0,841</b>	-0,050
GCAMHA04	0,239	0,133	0,029	0,096	<b>0,757</b>	0,153
GCAMHA01	0,149	0,225	0,023	0,287	<b>0,525</b>	0,332
GCASTC02	0,462	0,145	0,148	0,231	0,154	<b>0,747</b>
GCASTC01	0,467	0,141	0,176	0,192	0,173	<b>0,735</b>
GCASTC03	0,463	0,221	0,139	0,227	0,146	<b>0,723</b>
Extraction Method: Principal Component Analysis.						
Rotation Method: Varimax with Kaiser Normalization.						
a. Rotation converged in 6 iterations.						

## Hypothesis Testing

Parameter estimates and PATH analysis results for the whole sample are shown in Table 5. This analysis calculates the relationships between variables, regardless of the effect of the mediator variable. The relationship between independent variables (KIS and TEA) and dependent variable (POP) was analyzed using Amos and path analysis.

**Table 5:** Estimated Results of the Model

			<b>Estimate</b>	<b>S.E.</b>	<b>C.R.</b>	<b>P</b>
TEA	<---	IIF	0,18	0,055	3,292	***
TEA	<---	SI	0,559	0,091	6,128	***
SSP	<---	SEA	1,222	0,292	4,188	***

As a result of the analyzes made in this direction, the first three hypothesis of the research is accepted. In this direction;

**H1:** There is a significant relationship between the knowledge inflow structures and the scope of task environment analysis. (ACCEPTED)

**H2:** There is a significant relationship between the scope of task environment analysis and perceived organizational performance. (ACCEPTED)

**H3:** There is a significant relationship between knowledge inflow structures and perceived organizational performance. (ACCEPTED)

Mediation analysis is used to provide a more precise explanation of how and why independent variables are dependent on the dependent variable with a causal chain (Hair et al., 2014). In general, a mediator functions as a link between a variable dependent and an independent variable. According to Baron and Kenny (1986), there are certain conditions for accepting a variable as a mediator. The relationship between the independent variable and the mediator variable and the relationship between the mediator variable and the dependent variable should be significant. If these relationships are significant, the relationship between dependent and independent variables is eliminated. However, even if these relationships are meaningful to

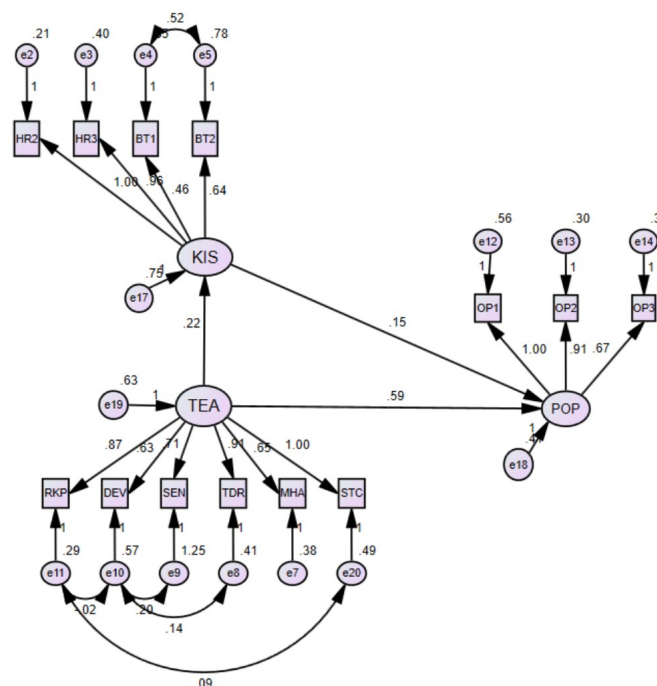
accept the mediator effect, the relationship between dependent and independent variables should be meaningful when the mediator is removed from the model. In this study, there is a significant relationship between Knowledge Inflow Structures (KIS) and Scope of Task Environment Analysis (TEA) and Scope of Task Environment Analysis (TEA) and Perceived Organizational Performance (POP). In addition, when examined alone there is a significant relationship between Knowledge Inflow Structures (KIS) and Perceived Organizational Performance (POP). In this context, the Scope of Task Environmental Analysis (TEA) has a mediating effect on the relationship between Knowledge Inflow Structures (KIS) and Perceived Organizational Performance (POP). At this stage:

**H4:** The scope of the task environment analysis has a mediating effect on the relationship between the knowledge inflow structures and the perceived organizational performance. (ACCEPTED)

The model of the study and SEM analysis findings are indicated on the Figure 1.

## Conclusion

When the results of the survey are examined, it is observed that companies with different structures show different behaviors in decision making. In particular, it is observed that companies need more environmental information where the factors that affect decisions are intense, such as markets with high competition or international markets. In general, it has been shown that the strategic plans take place between one or three years on average. This result confirms the fact that institutions can make plans with limited information covering limited time. The model of the study and all hypothesis introduced in line with this model are supported. In this context, the study contains findings to guide companies operating in Turkey in the strategic planning process. The participation of corporate employees in the decisions of the companies operating in Turkey in the scope of the task environment analysis and organizational performance perceived by the employees of the company is one of the most important findings that emphasize the specificity of the study. In a study by Burns and Stalker (1961), it was observed that companies with low centralization and less formal structures were more investigative. In another study, it was found that the managers of firms with bottom-up information flow structure had a tendency to investigate further (Lindsay & Rue, 1980). In line with these studies, it is supported that there is a positive relationship between bottom-up and horizontal information flow structures in companies and the scope of analysis of task environment. Therefore, companies that provide bottom-up and horizontal information flow structure make more comprehensive environmental analysis.



**Figure 1:** Path Analysis Results of the Study

There are different opinions on the relationship between the perceived organizational performance and the information flow structure or the scope of environmental analysis. Some of the studies indicate that the strategic plans prepared as a result of the detailed environmental analysis and the participation of the employees in the decisions increase the organizational performance (Harold, 1972; Thune & House, 1970), and some of them argue that the relationship is not very clear (Shrader et al. 1984). On the other hand, there is a thought that strategic planning does not necessarily affect financial performance and may produce non-financial results (Greenley, 1986). In this study, innovation, quality and productivity performances were evaluated by the managers of the companies and it was observed that the performance perception was high especially in the companies having the bottom-up information flow structure where the employees could participate in the decisions.

In this respect, long-term sustainability of companies depends on the right decisions made by the managers. Managers are trying to make the most accurate decisions with limited information. Therefore, in order for corporate managers to make more rational decisions, they need to have maximum information about the general external environment, the task environment and the organisation itself. Therefore, it is necessary to develop organizational structures and systems that can collect environmental information within the organization and transmit it to managerial levels and different sub-units. These structures and the importance of these structures should be well adopted by the employees for sustainability of organisations. In particular, the information collected by employees who are in direct contact with the primary external sources of information, such as customers, suppliers, competitors, vendors and trade unions, will help to determine the opportunities and threats that can be encountered beforehand, to make more rational decisions and to prepare long-term strategic plans, and to achieve sustainable competitive advantage in long term.

As a result, the managers of the companies that collect information from the sub-units and analyze the environment in detail have higher performance perceptions about the institution they work with. As Simon pointed out in 1996, people actually tend to decide on limited rationality. That is, the rationality of decisions is limited to the level of knowledge they already have. Organizations should extend these limits to make more rational decisions. To do this, you need to gather more internal and external information and incorporate it into your strategic analysis. For organizations to survive, they must be able to create structures that can collect information from their sub-units and transform them into flexible and open systems and thus be able to implement these structures.

## **References**

- Ackoff, R. L., & Emory, F. E. (1972). *On purposeful systems*. Chicago, IL: AldineAtherton.
- Alpkan, L. (2000). Strateji belirleme sürecinin kapsamlılığı.
- Anderson, J. C., & Gerbing, D. W. (1988). Structural equation modeling in practice: A review and recommended two-step approach. *Psychological bulletin*, 103(3), 411. <http://doi.org/10.1037/0033-2909.103.3.411>
- Bagozzi, R. P., & Yi, Y. (1988). On the evaluation of structural equation models. *Journal of the academy of marketing science*, 16(1), 74-94. <https://doi.org/10.1007/BF02723327>
- Barnett, W. P., Greve, H. R., & Park, D. Y. (1994). An evolutionary model of organizational performance. *Strategic management journal*, 15(S1), 11-28. <https://doi.org/10.1002/smj.4250150903>
- Baron, R. M., & Kenny, D. A. (1986). The moderator–mediator variable distinction in social psychological research: Conceptual, strategic, and statistical considerations. *Journal of personality and social psychology*, 51(6), 1173. <http://doi.org/10.1037/0022-3514.51.6.1173>
- Bekiroğlu, Ç., Erdil, O., & Alpkan, L. (2011). Variables perceived by managers as antecedents that lead firms to environmental management: an empirical research in the Turkish construction sector. *Procedia-Social and Behavioral Sciences*, 24, 101-122. <https://doi.org/10.1016/j.sbspro.2011.09.088>
- Bourgeois, L. J., & Brodwin, D. R. (1984). Strategic implementation: Five approaches to an elusive phenomenon. *Strategic Management Journal*, 5(3), 241-264.

<https://doi.org/10.1002/smj.4250050305>

- Brouthers, K. D., Andriessen, F., & Nicolaes, I. (1998). Driving blind: Strategic decisionmaking in small companies. *Long Range Planning*, 31(1), 130-138.  
[https://doi.org/10.1016/S0024-6301\(97\)00099-X](https://doi.org/10.1016/S0024-6301(97)00099-X)
- Burns, T., & Stalker, G. M. (1961). The management of. *Innovation*.
- Caves, R. E., & Porter, M. E. (1977). From entry barriers to mobility barriers: Conjectural decisions and contrived deterrence to new competition. *The quarterly journal of economics*, 241-261.  
<https://doi.org/10.2307/1885416>
- Claver-Cortés, E., Pereira-Moliner, J., José Tarí, J., & Molina-Azorín, J. F. (2008). TQM, managerial factors and performance in the Spanish hotel industry. *Industrial Management & Data Systems*, 108(2), 228-244. <https://doi.org/10.1108/02635570810847590>
- Couper, M. P., Singer, E., Levin, C. A., Fowler Jr, F. J., Fagerlin, A., & Zikmund-Fisher, B. J. (2010). Use of the Internet and ratings of information sources for medical decisions: results from the DECISIONS survey. *Medical Decision Making*, 30(5\_suppl), 106-114.  
<https://doi.org/10.1177/0272989X10377661>
- Curkovic, S., Vickery, S., & Dröge, C. (2000). Quality-related action programs: Their impact on quality performance and firm performance. *Decision Sciences*, 31(4), 885-902.  
<https://doi.org/10.1111/j.1540-5915.2000.tb00947.x>
- Curkovic, S., Melnyk, S., Calantone, R., & Handfield, R. (2000). Validating the Malcolm Baldrige National Quality Award framework through structural equation modelling. *International Journal of Production Research*, 38(4), 765-791. <https://doi.org/10.1080/002075400189149>
- De Chernatony, L., & McWilliam, G. (1990). Appreciating brands as assets through using a two-dimensional model. *International Journal of Advertising*, 9(2), 111-119.  
<https://doi.org/10.1080/02650487.1990.11107137>
- Eren, E., 2010. *Stratejik yönetim ve işletme politikası*. İstanbul: Beta Basım Yayım.
- Eren, E., Aren, S., & Alpan, L. (2000). *İşletmelerde stratejik yönetim faaliyetlerini değerlendirme araştırması*.
- F. Hair Jr, J., Sarstedt, M., Hopkins, L., & G. Kuppelwieser, V. (2014). Partial least squares structural equation modeling (PLS-SEM) An emerging tool in business research. *European Business Review*, 26(2), 106-121. <https://doi.org/10.1108/EBR-10-2013-0128>
- Greenley, G. E. (1986). Does strategic planning improve company performance?. *Long range planning*, 19(2), 101-109. [https://doi.org/10.1016/0024-6301\(86\)90226-8](https://doi.org/10.1016/0024-6301(86)90226-8)
- Hart, S. L. (1992). An integrative framework for strategy-making processes. *Academy of management review*, 17(2), 327-351. <https://doi.org/10.5465/amr.1992.4279547>
- Herold, D. M. (1972). Long range planning and organizational performance: A cross-validation study. *Academy of Management Journal*, 14, 91-102. <https://doi.org/10.5465/254803>
- Kanter, R. M., & Brinkerhoff, D. (1981). Organizational performance: Recent developments in measurement. *Annual review of sociology*, 7(1), 321-349.  
<https://doi.org/10.1146/annurev.so.07.080181.001541>
- Lawrence, P. R., & Lorsch, J. W. (1967). Differentiation and integration in complex organizations. *Administrative science quarterly*, 1-47. <https://doi.org/10.2307/2391211>
- Lindsay, W. M., & Rue, L. W. (1980). Impact of the organization environment on the long-range planning process: A contingency view. *Academy of Management Journal*, 23(3), 385-404.  
<https://doi.org/10.5465/255507>
- López-Gamero, M. D., Claver-Cortés, E., & Molina-Azorín, J. F. (2008). Complementary resources and capabilities for an ethical and environmental management: A qual/quant study. *Journal of business Ethics*, 82(3), 701-732. <https://doi.org/10.1007/s10551-007-9587-x>
- MacCallum, R. C., Browne, M. W., & Sugawara, H. M. (1996). Power analysis and determination of sample size for covariance structure modeling. *Psychological methods*, 1(2), 130.  
<http://doi.org/10.1037/1082-989X.1.2.130>
- Miller, K. D. (1993). Industry and country effects on managers' perceptions of environmental uncertainties. *Journal of International Business Studies*, 24(4), 693-714.  
<https://doi.org/10.1057/palgrave.jibs.8490251>

- Milliken, F. J. (1987). Three types of perceived uncertainty about the environment: State, effect, and response uncertainty. *Academy of Management review*, 12(1), 133-143.  
<https://doi.org/10.5465/amr.1987.4306502>
- Mom, T. J., Van Den Bosch, F. A., & Volberda, H. W. (2007). Investigating managers' exploration and exploitation activities: The influence of top-down, bottom-up, and horizontal knowledge inflows. *Journal of management studies*, 44(6), 910-931. <https://doi.org/10.1111/j.1467-6486.2007.00697.x>
- Moullin, M. (2002). Delivering excellence in health and social care: Quality, excellence and performance measurement. In *Delivering excellence in health and social care: quality, excellence and performance measurement*.
- Neely, A. D., Adams, C., & Kennerley, M. (2002). *The performance prism: The scorecard for measuring and managing business success*. London: Prentice Hall Financial Times.
- Nonaka, I. (1988). Toward middle-up-down management: accelerating information creation. *MIT Sloan Management Review*, 29(3), 9.
- Nonaka, I. (1994). A dynamic theory of organizational knowledge creation. *Organization science*, 5(1), 14-37. <https://doi.org/10.1287/orsc.5.1.14>
- Onaran, O., 1975. *Örgütlerde karar verme*. Ankara: Sevinç Matbaası.
- Peker, Ö. (1995). *Yönetimi geliştirmenin sürekliliği*. TODAİ.
- Rabe-Hesketh, S., Skrondal, A., & Pickles, A. (2004). Generalized multilevel structural equation modeling. *Psychometrika*, 69(2), 167-190. <https://doi.org/10.1007/BF02295939>
- Rantapuska, T., & Ihanainen, O. (2008). Knowledge use in ICT investment decision making of SMEs. *Journal of Enterprise Information Management*, 21(6), 585-596.  
<https://doi.org/10.1108/17410390810911195>
- Ray, G., Barney, J. B., & Muhanna, W. A. (2004). Capabilities, business processes, and competitive advantage: choosing the dependent variable in empirical tests of the resource-based view. *Strategic management journal*, 25(1), 23-37. <https://doi.org/10.1002/smj.366>
- Rojot, J., 2008. Culture and decision making, in *The Oxford handbook of organizational decision making*, G.P. Hodgkinson and W.H. Starbuck (Eds.). Oxford University Press.  
<http://doi.org/10.1093/oxfordhb/9780199290468.003.0007>
- Shrader, C. B., Taylor, L., & Dalton, D. R. (1984) Strategic planning and organizational performance: A critical appraisal. *Journal of Management*, 10(2), 149-171.  
<https://doi.org/10.1177/014920638401000202>
- Sutton, J. (1997). Gibrat's legacy. *Journal of economic literature*, 35(1), 40-59.
- Tapinos, E., Dyson, R. G., & Meadows, M. (2011). Does the balanced scorecard make a difference to the strategy development process? *Journal of the Operational Research Society*, 62(5), 888-899.  
<https://doi.org/10.1057/jors.2010.99>
- Tatoglu, E., Kula, V., & Glaister, K. W. (2008). Succession planning in family-owned businesses: Evidence from Turkey. *International Small Business Journal*, 26(2), 155-180.  
<https://doi.org/10.1177/0266242607086572>
- Thompson, E. P. (1967). Time, work-discipline, and industrial capitalism. *Past & present*, (38), 56-97.
- Thune, S. S., & House, R. J. (1970) Where long-range planning pays off-Findings of a survey of formal and informal planners. *Business Horizons*, 13(4), 81-87
- Vecchiato, R., & Roveda, C. (2010). Strategic foresight in corporate organizations: Handling the effect and response uncertainty of technology and social drivers of change. *Technological Forecasting and Social Change*, 77(9), 1527-1539. <https://doi.org/10.1016/j.techfore.2009.12.003>
- Venkatraman, N., & Ramanujam, V. (1986). Measurement of business performance in strategy research: A comparison of approaches. *Academy of management review*, 11(4), 801-814.  
<https://doi.org/10.5465/amr.1986.4283976>
- Yılmaz, M. ve Talas, M., 2010. Bilgi merkezinde karar verme süreci. *Zeitschrift für die Welt der Türken*. 2 (1), ss. 197-216.