The Impact of Organizational Climate on New Product Development Performance: A Case Study on Textile Sector in Turkey

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ABSTRACT

Purpose: Organizational climate has been investigated as a factor to predict job satisfaction and other employee attitudes. However the impact of the level of organizational climate on new product development (NPD) performance has not been explored in the Turkish context. The present study initially aims to investigate whether organizational climate affects new product development performance in textile manufacturing firms of Turkey. The secondary aim of the present study is to put forth the level of organizational climate and new product development performance in the mentioned sector.

Methodology: After conducting a detailed literature review the researchers came up with the underpinning factors effecting the organizational climate and new product development performance. Then, a questionnaire is adapted from the former studies in the literature. Randomly selected companies from textile industry in Turkey are asked to fill in the questionnaire. The data set is analyzed via preliminary analyses and test of a Structural Equation Model (SEM) is also carried out.

Findings: As a result, the researchers have detected some evidence on the impact of the level of organizational climate to new product development performance.

Originality: The literature is rich in studies which aim to seek the impacts of organizational climate on employee attitudes on workplace. But the number of studies which aim to seek for evidence on the impacts of organizational climate on performance measures is limited and the present one is expected to be one of them.

Keywords: New Product Development Performance, Organizational Climate

ÖZET

Amaç: Örgüt iklimi, iş tatmini ve diğer çalışan tutumlarının tahmin edilmesi konusunda bir faktör olması bakımından araştırılmaktadır. Fakat örgüt ikliminin yeni ürün geliştirme performansı aşamasındaki rolü Türkçe kaynaklarda çok fazla yer almamaktadır. Bu çalışma öncelikle örgüt ikliminin, Türk tekstil firmalarında yeni ürün geliştirme performansını etkileyip etkilemediğinin incelenmesini araştırmayı amaçlamaktadır. Bununla birlikte bu çalışma, aynı sektörde örgüt kültürü ve yeni ürün geliştirme performansının seviyesi ortaya koymaktadır.

Metodoloji: Detaylı bir literatür taraması sonrasında örgüt kültürü ve yeni ürün geliştirme performansını etkileyen faktörler olduğu araştırmacılar tarafından desteklenmiştir. Bu konudaki ilk çalışmalardan uyarlanmış bir anket hazırlanarak, rastgele belirlenen ve Türkiye'de faaliyet gösteren tekstil işletmeleri anket sorularını cevaplamışlardır. Veri setleri ile temel seviyede analizler yapılmış, veriler ayrıca yapısal eşitlik modeli ile test edilmiştir.

Bulgular: Araştırmanın sonucu olarak, örgüt kültürü ve yeni ürün geliştirme arasında birbirini etkileyen bazı kanıtların olduğu tespit edilmiştir.

Çalışmanın Özgünlüğü: Çok sayıdaki literatür çalışmaları, işyerinde örgüt kültürü ve çalışanların tutumunun önemini göstermektedir. Fakat örgüt kültürünü ölçen performans ölçütlerini gösteren çalışmalar az sayıdadır ve bu çalışma bu eksiği gidermesi yönünden özgün bir özelliktedir.

Anahtar Kelimeler: Yeni Ürün Geliştirme Performansı, Örgüt Kültürü

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1. INTRODUCTION

Because of the recent improvements, the world of business has witnessed the fact that the more the employees internalize the firm the more they are willing to participate in activities (Chen, Huang and Hsiao, 2010). In today's conjuncture, every enterprise has the ability to acquire new technology due to their financial capabilities, but the organizational factors seem to be the determiners of the success of these acquisitions.

Organizational climate is one of these mentioned organizational factors and can be described as the shared perceptions of organizational members who are exposed to the same organizational structure (Schneider, 1990). In the former studies the concept is regarded as a rather vague way of saying "organizational culture", "managerial climate" or "organizational atmosphere" (Davies, 1971) and these concepts could be used interchangeably but more recent studies regard these terms distinctively (James, Choi, Ko, McNeil, Minton, Wright and Kim, 2008). These studies consider a subtle difference. While culture is related to how the organization describes itself, climate is more related to perceptions of the employees (Meudell and Gadd, 1994). Furthermore, unlike culture, organizational climate can be empirically assessed (Kuei, Madu, Lin and Lu, (1997). As a consequence of these facts, former studies on organizational climate are mostly on employee attitudes and perceptions on the workplace (Tordera, Gonzales-Roma and Piero, 2008).

The literature is rich in studies which assert that the environment that the employee works is directly related to the organizational climate of the firm and this environment affects the organizational effectiveness (Dondero, 1997). These articles stem from the impact of organizational culture on production processes but the impact of organizational climate is not handled in detail. So, it is decided to conduct a research on whether the level of the organizational climate is related to new product development performance would make contribution to the literature.

In order to do so, the authors initially decided to make an extensive literature review on organizational climate and new product development performance respectively. The literature review revealed some underpinning factors which affect these two concepts. So, the authors dealt with risk, external and achievement orientation as the sub-factors of organizational climate (Nystrom, Ramamurthy and Wilson, 2002). Also strategic factors, development process factors, market factors and organizational factors are reviewed as the determiners of new product development performance. Measures of the former studies on these factors are reviewed and a questionnaire is adapted from the literature. As the randomly selected sample of the study consists of textile manufacturers, the items of the questionnaire are reviewed in accordance with the industrial interests.

The questionnaire is sent to the recipients as a link in an e-mail which will lead them to the questionnaire and they are asked to fill in the items online. The use of online questionnaire avoided stationary work and also delays caused by

mailing. 243 responses are obtained from 700 e-mails but 211 of them were usable (The response rate of the study is %30,14).

Preliminary analyses (sampling adequacy, factor analysis and correlations) and test of a Structural Equation Model (SEM) are applied to the data set.

As a result, the authors came across to some statistically significant data on the effect of organizational climate on new product development performance.

2. THEORETICAL BACKGROUND (Variables and Hypothesis)

As this study aims to investigate the impact of organizational climate on new product development performance, it is crucial to determine the concepts clearly as they consist of many underlying sub-factors. Considerable research exists on organizational climate as well as on new product development performance. They are measured in many different ways and conceptualized according to the specific aims of the former studies.

Although they are completely different, researchers and practitioners used to consider organizational climate as a vague way of saying organizational culture. In brief it can be asserted that there is much to do in defining the terms organizational climate and also new product development performance. As a result of this fact, the researchers decided to address the factors and their sub-factors respectively in the following section.

2.1. Organizational Climate

Inspired by the early studies of Litwin and Stringer (1968), a rich literature exists on organizational climate (Kunnanatt, 2007). These studies defined the term in many different ways (James, Choi, Ko, Mcneill, Minton, Wright and Kim, 2008). For instance, Zohar and Luria (2005) define organizational climate as the shared perception of what behavior is expected and rewarded inside the organization. As a consequence of the variety in definitions the term is measured in many ways. Tordera et. al. (2002) argued that organizational climate is generally measured by indicating the employee' attitudes on workplace. Based on the mentioned attitudes, Organizational Climate Measure (OCM) is one of the measures used in studies aim to investigate organizational climate. The measure contains 17 items for evaluating the organizational climate. Patterson, Shackleton, Dawson, Lawthom, Maitlis and Robinson (2005) initially introduce the difference between culture and climate and they include autonomy, integration, involvement, supervisory support, training, welfare, formalization, tradition, innovation and flexibility, outward focus, reflexivity, clarity of organizational goals, efficiency, effort, performance feedback, pressure to produce and lastly quality in their measure. This extensive scale is being used as a tool for measuring organizational climate but the effect of number of questions included in the questionnaire to the recipients' reluctance to fill in it can be another field of research. Because of this fact, many former studies derived

their measures from OCM (Ancarani, Mauro Giammanco, 2011; Bellou and Andronikidis, 2009; Haakonsson, Burton, Obel and Lauridsen, 2008). Ancarani *et. al.* (2011) adapted the items of OCM but they claim that the items of may be a subject of Competing Value Framework (CVF). However, it is not easy to choose dominant distinctive items for measuring the level of organizational climate. Because of this fact many different scales are derived for the specific aims of the studies. For instance, Hoy, Hoffman, Sabo and Bliss (1996) asserted a specific scale for measuring the climate of educational institutions. By the social capital point of view Bock, Zmud, Kim and Lee (2005) and Chen *et. al.* (2010) considered the concept as innovative and supportive climate and derived their measures. On the other side, Nystrom, *et. al.* (2002) argued that organizational climate can be measured by three main concepts i.e. risk orientation, external orientation and achievement orientation. Schneider, Gunnarson and Niles-Jolly (1994) asserted four dimensions including the nature of interpersonal relations, hierarchy, work and support and reward. Chandler, Keller and Lyon (2000) argued management support, compensation system and workload perceptions as three essential units of the concept. Jones and James (1979) have developed another measure (Bellou and Androkinidis, 2009). The measure includes work facilitation, goal emphasis, opportunities for growth and professional esprit de corps. There are also other dimensions which are asserted in various studies and these studies are summarized in Montes, Moreno and Fernandez, (2004) and Kuei *et. al.* (1997) in a very contributive way. Haakonsson *et. al.* (2008) include a brief review of the literature and their findings.

To sum all up, organizational climate is the perception of the employee on the workplace and it has been the subject of many previous researches. As a result, the concept is defined in many different ways and various dimensions are uttered in order to define it. These dimensions led the birth of different kind of measures. By the CVF point of view, the authors decided to choose the dimensions uttered by Nystrom *et. al.* (2002) as these dimensions seem to be parallel to the aims of the study. They claim that they have investigated the well-known measures of this field and they argue that their dimensions are suitable for new product development and technological innovations. The following section of the study will be on the explanation of these dimensions.

2.1.1. *Risk orientation*

The firm's ability to tackle with the risks at business facilities is called as risk orientation (O'Malley, 2004). Nystrom *et. al.* (2002) argued that the relationship between risk and reward leads one to expect that decisions to assume greater risks are based on getting higher incomes. So, the higher the company has risk orientation, the more it will probably take part in new processes (Tyler and Steensma, 1998; Pansiri, 2005; Parkhe, 1993). Producing a new product can also be considered as getting into a new process. Kessler and Chakrabarti (1998) have found out that the lower the risk is, the higher the employees want to get involved in new projects.

2.1.2. External orientation

The firm's ability to follow and interact in business processes is called as external orientation (Slater and Narver, 1994). The surveying of the environment of the business enterprise is very important for keeping in contact with the target market. Nystrom *et. al.* (2002) argued that the communication link between the organization and their customers is vital for the future success of the enterprise. Naranjo-Valencia, Jimenez-Jimenez and Sanz-Valle (2011) argued that if the firm emphasizes external orientation, it will obtain more breakthrough innovations. So, much more new product development processes are required (Cooper, 1988). Statistically significant data is obtained on positive relation between external orientations and organizational climate (Kimberly and Evanisko, 1981).

2.1.3. Achievement orientation

This orientation type stands for the match of the current achievement performance and the ideal performance (Litwin and Stringer, 1968). Relations with the aim of achieving the higher performance among the organization and the repetition of these kinds of relationships is found to be affective in the intentions of the employees in the organization on achieving more (Rosenthal and Crain, 1963). This requires setting goals and determination of the commitment to carry them out until these criterion are satisfied (Khan, Khan and Rahman, 2011). Giorgi (2010) argued that if people live in a low climate they would not be eager to share. On the other hand, Mumford (2000) argued that people with higher achievement orientation are more creative. Nystrom *et. al.* (2002) supports the same argument.

So, with the scope of Social Exchange Theory (SET) employees who share the same climate are expected to reflect similar motivation and performance via mutual relationships (Cropanzano and Mitchell, 2005). Also Rogg *et. al.* (2001) argued that if the level of the climate is high the effect of it may be positive to the performance. Then, it can be hypothesized that;

H1: "The level of organizational climate is parallel to the level of new product development performance."

2.2. New Product Development

Business enterprises initially aim to survive. Product differentiation is a tough challenge and also a must of manufacturing and either a never-ending process. The process starts with detailed planning activities including discovering the needs and the qualification of the market. Then it is crucial to decide on what to produce. After deciding on the right product, the supply chain and also the distribution network should be defined. Then, making a detailed identification of the product will help the prototyping process. The prototype should be tested both in quality and economical perspectives and if the result is satisfactory, the product is ready for the market. Continuous Research and Development (R&D) will enhance the company on acquiring the experience of the market. The process doesn't end with the release of the new product because the market performance of the new product will be the determiner of the newer ones. The product should be reviewed accordingly to

the needs of the customer. At present, enterprises integrate the customers into the production processes because it lessens the time and work to be done in order to achieve the ideal product for the market.

As mentioned before, the new product development process begins with the idea of a new product. The idea is a tool for obtaining the desired income. Since strategy is the path that takes the individual from the beginning to the target, the needs of the process should be considered according to the proposed place of the product in the market. The idea should be in accordance with the manufacturing infrastructure and also the market as well as organizational dynamics. During this period, innovative and supportive climate would motivate employees to take the risks to do the challenging and creative activities in transforming knowledge into new products (Chen *et. al.,* 2010).

Among these factors, organizational climate is argued as one which can both conjoin or diversify the employees in the enterprise (Gregory, Harris, Armenakis and Shook, 2009; Eberhardt and Shani, 1984; Levy and Powell, 2000). Previous studies proved that in new product development the participation of the employee is a crucial factor of success (Van Vianen, De Pater, Bechtoldt and Evers, 2011; Yoo, Suh and Lee, 2002). Moreover, the life cycle of a product is shorter than ever and customers tend to purchase newer products (Bass, 2004). Since climate is the environment that the employees perceive, the environmental facets of new product development should be revised. These facets are argued as complexity, dynamism and capacity (Dess and Beard, 1984). As present study aims to investigate the effect of the level of organizational climate on new product development performance; development process, market and organizational factors (Montoya-Weiss and Calantone, 1994) affecting the new product development are included as the indicators of NPD performance.

3. ANALYSIS

In this part of the study, it is aimed to acknowledge the methodology of the data collection and analysis processes in the study. The questionnaire is derived form the literature and the sampling of the questionnaire is randomly defined. The measure is applied online in order to avoid stationary work. The data set is analyzed via SPSS 16 and SPSS Amos programs. Initially, the sample characteristics are explored. Then a factor analysis is applied in order to find out the indicators (Nunnally, 1978). And then, means of these items for each variable are computed in order to simplify the handling of the data set. Next, the correlations between the items are computed. Later on, these items are used as indicators of the variables of the study and test of a SEM is carried out. The following part of the research will focus on the details and also the results of these operations.

3.1. Measure Development and Application

The questionnaire is adapted from the literature and it consists of three main parts. The first part of the study aims to measure the demographic features of the sample. The second part deals with assessing the level of the

organizational climate and the items of Nystrom *et. al.* (2002) are adapted accordingly to the qualifications of the industry and the Turkish context. The last part of the questionnaire consists of the items that are derived from the study of Montoya-Weiss and Calantone (1994) on determinants of new product performance. The questions were designed with 5 point Likert scale ranging from "strongly disagree"(1) to "strongly agree"(5).

By this way a draft of the questionnaire is obtained and pre-test is done by the participation of the academics and practitioners. Reviews are performed and the necessary changes are done due to the respondents' wishes. The questionnaire is sent to the receipents as an e-mail which leads them to the questionnaire. The authors sent 700 e-mails to the randomly selected textile manufacturers in Turkey and 243 responses are acquired. However some of these had some missing values and they are omitted from the data set. So, 211 of these responses are conjoined as a data set. The response rate of this study is %30,14.

3.2. Sample Characteristics

Males (%87,2) dominate the sample and a great deal of the enterprises employ more than 76 workers (42,2). Responses are gathered from 32 cities and the age of the respondents range from 23 and older and all of which are from textile industry. Table 1 shows the characteristics of the respondents in terms of age, gender, city and number of employees.

Table 1: Demographic characteristics of the sample

Age	**f**	**%**		**City**	**f**	**%**		**f**	**%**
from 23 to 30	47	22,27		**İstanbul**	53	25	**Mersin**	3	1,4
from 31 to 34	65	30,80		**Ankara**	50	24	**Adana**	3	1,4
from 35 to 43	48	22,74		**İzmir**	25	12	**Malatya**	1	0,5
44 and more	51	24,1		**Amasya**	5	2,4	**Kayseri**	3	1,4
Total	211	100		**Şanlıurfa**	7	3,3	**Sivas**	2	0,9
				Edirne	5	2,4	**Tekirdağ**	2	0,9
Gender	**f**	**%**		**Kahramanmaraş**	13	6,2	**Diyarbakır**	2	0,9
Male	184	87,20		**Konya**	6	2,8	**Muğla**	1	0,5
Female	27	12,79		**Afyon**	5	2,4	**Nevşehir**	2	0,9
Total	211	100		**Kütahya**	4	1,9	**Total**	211	100
				Osmaniye	1	0,5			
Number of Employees	**f**	**%**		**Bursa**	4	1,9			
0 to 25	73	34,59		**Kocaeli**	5	2,4			
26 to 50	31	14,69		**Zonguldak**	1	0,5			
51 to 75	18	8,53		**Ordu**	1	0,5			
76 and more	89	42,18		**Çorum**	1	0,5			
Total	211	100		**Antalya**	6	2,8			

3.3. Preliminary Analyses

Initially the characteristics of the sample are explored and Table 1 depicts the results. The items of the questionnaire are prepared in order to measure certain variables' level among the respondents. So, the authors decreased the items of the questionnaire by choosing the highest Cronbach Alpha scores of the items for the intended variables after confirmatory factor analysis (CFA) (Miller, 2009). Then, the authors came across to a data set which consists of 22 items. Risk orientation is aimed to measure by two items which has 0,866 Cronbach Alpha score. Four items are aimed to measure external orientation and their Cronbach Alpha score is 0,639. Three items, whose Cronbach Alpha score is 0,694, are selected to measure achievement orientation. Strategic factors in new product development are aimed to be measured by 5 items and they have 0,528 Cronbach Alpha value. Factors related to the process of new product development are aimed to be measured by 6 items (Cronbach Alpha is 0,739). The factors related to the market are aimed to be measured by 2 items and their Cronbach Alpha value is 0,733. As the data set still had some reliability problems (e.g. items aimed to measure strategic factors have Cronbach Alpha score of 0,528) it is thought that it is essential to reduce the amount of the data by factor analysis. By this way authors aimed to decide on what items can represent the variable and they have decided to use 13 items for the model by seeking for the highest reliability scores.

A principal component analysis is applied to the data set. Varimax with Kaiser Normalization rotation is applied and 6 iterations are obtained. Table 2 shows the match of the data to CFA.

Table 2. The match of the data to CFA

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		,695
Bartlett's Test of Sphericity	**Approx. Chi-Square**	1,962E3
	df	91
	Sig.	,000

Both KMO and Bartlett's tests' results imply that the size of the sample is adequate to conduct a factor analysis. The total variance explained with these items is %83,169. Table 3 depicts the initial eigenvalues of the components and generally values higher than 1 are selected as the values that can be used in the model. However the factor that is intended to be related to the market issues in new product development seems to be near to 1 (0,941), it is also used as a factor.

Table 3. Initial eigenvalues of the components

Component	Total	% of Variance	Cumulative %	Component	Total	% of Variance	Cumulative %
1	**3,665**	**26,182**	**26,182**	8	,501	3,579	92,511
2	**2,495**	**17,819**	**44,001**	9	,317	2,263	94,775
3	**1,710**	**12,216**	**56,217**	10	,285	2,034	96,809
4	**1,671**	**11,936**	**68,153**	11	,218	1,559	98,368
5	**1,161**	**8,295**	**76,448**	12	,120	,860	99,228
6	**,941**	**6,721**	**83,169**	13	,108	,773	100,000
7	,807	5,763	88,932				

Table 4 demonstrates the rotated component matrix as it enables to observe the diversion of the factors.

Table 4. The rotated component Matrix

	1	2	3	4	5	6
Decision making is very important. (RO1)	-,129	,099	**,954**	-,023	,096	,008
We immediately change our structure due to the situation (RO2)	,382	-,019	**,818**	,117	,239	,117
We measure our performance in meeting the demands of the customer (EO1)	**,920**	-,068	-,029	,000	,044	,060
Everyone in the enterprise knows the value added by everyone (EO2)	**,869**	,153	,052	-,104	,053	,122
Achieving goals is important fort his enterprise (AO1)	-,090	,273	,108	,145	**,828**	-,085
Being the leader of the sector in the industry is important for this enterprise (AO2)	,190	-,071	,128	-,467	**,765**	,176
It is best to achieve the pre-determined goals (AO3)	,322	,013	,234	-,106	**,721**	,168
Newly developed products enable the enterprise some competitive advantages (NPDST1).	-,310	-,005	-,030	**,845**	-,006	,099
The resources of the enterprise are utilized appropriately in the new product development (NPDST2).	,221	,225	,157	**,791**	-,125	-,300
This enterprise is talented in technical issues (NPDPRO1)	,215	,098	,125	-,129	,025	**,885**
Top management continuously supports the process (NPDPRO2).	,313	,104	,181	,052	,178	**,856**
The product is introduced to the market in the most effective way (NPDMAR1)	-,030	**,850**	,211	,087	,009	-,085
The competing ability of the product is predetermined (NPDMAR2)	-,088	**,835**	-,294	,028	,066	,089

As a result of CFA and also the literature review, these 13 items are selected to involve in the model. Thus, the authors obtained the indicators for the variables of the study.

In order to deal with fewer amounts of data the means of the intended variables are computed as new variables. So the researchers obtained RO (Risk Orientation), EO (External Orientation), AO (Achievement Orientation), NPDST

(Strategic Factors in NPD), NPDPRO (Procedural Factors in NPD) and lastly NPDMAR (Market related factors in NPD). The correlations between these factors are also covered. Table 5 depicts the correlations.

Table 5. Correlations between the variables

		EO	AO	NPDST	NPDPRO	NPDMAR
RO	Pearson Correlation	,567**	,352**	,143*	,263**	,210**
	Sig. (2-tailed)	,000	,000	,038	,000	,002
EO	Pearson Correlation		,419**	,356**	,548**	,384**
	Sig. (2-tailed)		,000	,000	,000	,000
AO	Pearson Correlation			,201**	,262**	,245**
	Sig. (2-tailed)			,003	,000	,000
NPDST	Pearson Correlation				,289**	,159*
	Sig. (2-tailed)				,000	,021
NPDPRO	Pearson Correlation					,578**
	Sig. (2-tailed)					,000

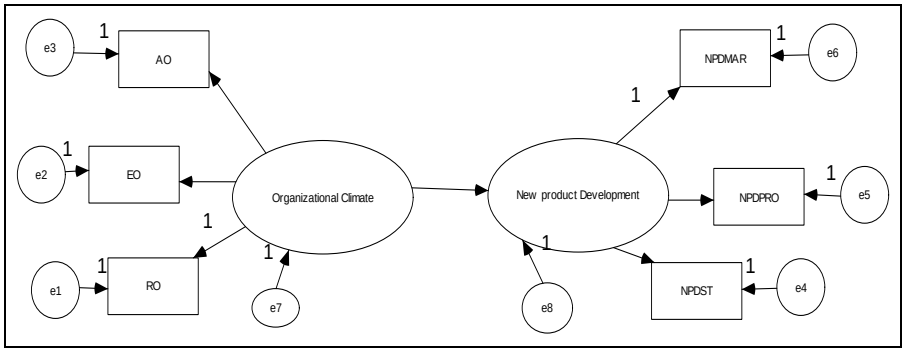
* denotes significance in p<0.05 and ** denotes significance in p<0.01 level. (N=211)

As a result of the correlation analysis, significant relationships are detected. For instance risk orientation is found to be correlated with external orientation (0,567; p<0.01), Achievement orientation (0,352; p<0.01), strategic factors (0,143; p<0.05), procedural factors (0,263; p<0.01) and lastly market factors (0,210; p<0.01). All of the variables of the data set are correlated positively and this indicates that it is probable to come across statistically significant relations in the SEM.

3.4. Test of The Structural Equation Model(SEM)

In this part of the research it is aimed to make the test of a SEM. In order to do so, the observed indicator variables (RO, EO, AO, NPDST, NPDPRO and NPDMAR) are connected to the unobserved variables (Organizational Climate and New Product Development). These variables are set on a model and path diagrams are constructed between these variables. Then, the model is tested via the use of SPSS Amos 16. Figure 1 shows the tested SEM.

Figure 1. The default SEM



As the indicators of organizational climate AO, EO and RO are defined. Here, AO denotes achievement orientation and EO stands for the external orientation. RO denotes the risk orientation. Market related factors (NPDMAR), procedural factors (NPDPRO) and strategic factors (NPDST) are used as the indicators of new product development. The units for variance (e1 to e8) are also added.

The results of the test indicate that the model fits to the data as the χ^2 value is significant (CMIN=19,556; DF=8; CMIN/DF=2,445; p<0.01). Baseline comparisons are observed as acceptable since Normed Fit Index (NFI) is 0,940 and it is also acceptable. Relative fit index (RFI) is measured as 0,888 which is very near to the acceptable score (0,9). Incremental fit index (IFI) score of the default model is 0,964. Tucker-Lewis Index (TLI) score of the model is 0,930 and Comparative Fit Index (CFI) value is measured as 0,963. Parsimony adjusted measures seem to be normal (PRATIO=0,533; PNFI=0,501 and PCFI=0,514). Root Mean Square Error of Approximation (RMSEA) is detected as 0,083 and it is also acceptable. Hoelter, 01 and, 05 indexes are measured as 167 and 216 respectively.

After the test of the model it is observed that the model fits with the data and the regression weights of the variables in the model are demonstrated in Table 6.

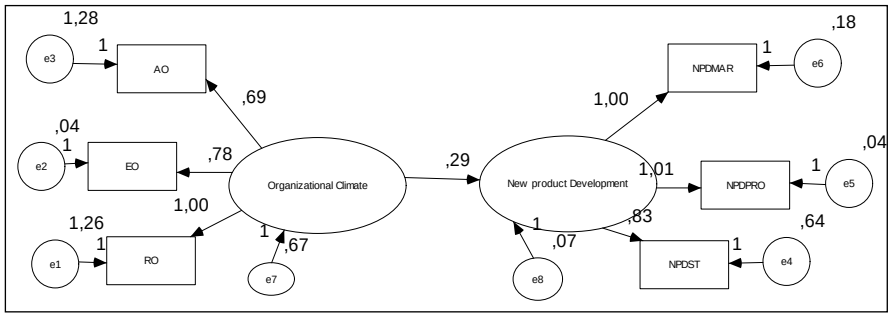
Table 6. Regression Weights: (Group number 1 - Default model)

			Estimate	S.E.	C.R.	P
NPD	**<---**	**OC**	**,291**	,051	5,681	***
EO	<---	OC	,780	,107	7,283	***
AO	<---	OC	,690	,120	5,740	***
RO	<---	OC	1,000			
NPDMAR	<---	NPD	1,000			
NPDST	<---	NPD	,829	,186	4,461	***
NPDPRO	<---	NPD	1,007	,134	7,533	***

*** denotes significance level with p<0.01

The regression weights show that new product development process is being affected by the organizational climate (0,291; p<0.01). This result also verifies the first hypothesis of the study. So, the test of the SEM is completed and the SEM is depicted in Figure 2.

Figure 2. The tested SEM model



4. CONCLUSION

This study aimed to put forth the impact of the level of the organizational climate on new product development process. In order to do so, the authors conducted a detailed literature review and sub-factors that indicate the major ones are defined. After reviewing the literature by constructing the conceptual framework, it is decided to develop a measure.

A questionnaire is developed with the help of the literature and academics as well. Necessary changes are made by looking at the results of the pre-test and also the decisions of the respondents and as well as the applicants. Random responses are obtained by the use of a web-site which enables the user to acquire them as a Microsoft Excell document.

211 people from different firms responded the questionnaire and the data set is analyzed via the use of SPSS 16. Initially sample characteristics are rewised and some preliminary tests are applied to the data set (reliability, factor analysis, correlations). Then, test of a structural equation model (SEM) is done by selecting the items in the data set as the indicators of the variables. Then, the test of SEM is carried out.

The results of the analysis indicate that NPD performance of the firm is being affected by the organizational climate (0,291; p<0.01). This prominent finding is similar to Nystrom *et. al.* (2002) and Chen *et. al.*' (2010) findings but they conducted their research on innovativeness. All of the hypothesis derived from the literature are verified. The test of a SEM which is again derived from the literature indicated that the model fits with the data.

After carriying out all these stuff, the researchers of the present study are glad to assert that NPD performance of the firm is being affected by organizational climate. This finding connotes that managers of the firms should

consider the issues related to the employees from their point of view as climate reflects the perceptions of the employees, if they want to have more (both quantitively and willingness) participation of the employees in new product development processes.

Limitations and ideas for future research

The primary limitation of this study is the number of items used to indicate the variables. However, previous experieces of the researchers have shown that Turkish people are not willing to fill in long questionnaires. Another limitation of the research is it is applied in only one country. Comparative studies are thought to be more contributive to the literature by the authors. Also this study can be criticized by the simplicity of the SEM but the reason for simplicity is similar to the reason that the Occam's Razor (Domingos, 1999) has been utilized.

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