THE LINK BETWEEN COMPETITIVE PRIORITIES OF THE FIRM, CULTURAL CHARACTERISTICS OF ITS TOP MANAGERS AND INNOVATION PERFORMANCE: AN EMPIRICAL STUDY IN TURKEY

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Abstract: The increasing global competition, rapid development in every area, uncertainty and complexity all threaten the life of the companies and lead them to be more creative and innovative. Today's business world needs innovation more than ever. Companies are struggling to increase their innovative capacities in every aspect of the business. Innovation is not an easy task. It is a process that requires tremendous effort and changes in various platforms.

The number of studies related to innovation has increased. Different aspect of innovation from theoretical and practical point of view has been studied so far. This study looks at the innovation from a two different perspective. First, the study investigates the link between cultural characteristics of the top managers and innovation performance of the companies. Second, the study investigates the relationship regarding the link between competitive priories of the companies and innovation performance. In order to accomplish the objectives of this study, an empirical study has been conducted across Turkey and data were analyzed through using SPSS program. Results were discussed in relation to literature and practice.

Key Words: Culture, Cultural Characteristics, Competitive Priorities, Innovation, Performance, Top Managers

FİRMALARIN ÜST DÜZEY YÖNETİCİLERİN KÜLTÜREL ÖZELLİKLERİ VE REKABETÇİ ÖNCELİKLERİ İLE İNOVASYON PERFORMANSI ARASINDAKİ İLİŞKİ: TÜRKİYE'DE BİR ALAN ÇALIŞMASI

Özet: Artan küresel rekabet, yaşanan hızlı değişimler, belirsizlik ve karmaşıklık işletmelerin hayatlarını tehdit etmekte ve onları daha yaratıcı ve yenilikçi olmaya sevk etmektedir. Günümüz işletmeleri yenilikçiliğe eskisinden daha çok oranda ihtiyaç duymaktadır. İşletmeler her alanda yenilikçilik kapasitelerini artırmak için çaba sarf etmektedirler. Yenilikçilik o kadarda kalay bir iş değildir. Yenilikçilik ciddi anlamda çaba gerektiren ve birçok alanda değişikliği zorunlu kılan bir süreçtir.

Yenilik konusunda özellikle son yıllarda çalışmalarda ciddi oranda artış olmuştur. Konunun farklı yönleri gerek teorik ve uygulama bağlamında araştırılmaktadır. Bu çalışmada yenilikçilik konusuna farklı iki perspektiften yaklaşılmaktadır. Birincisi, işletmelerde yenilikçilik performansı ile üst düzey yöneticilerin kültürel özellikleri arasındaki ilişki irdelenmektedir. İkincisi, firmaların rekabetçi öncelikleri ise yenilik performansı arasındaki ilişki araştırılmaktadır. Çalışmanın amaçlarına ulaşmak amacıyla Türkiye çapında bir alan çalışması yapılmış ve elde edilen veriler SPSS paket programı yardımı ile analiz edilmiştir. Çalışma sonuçları literatür ve uygulama bağlamında değerlendirilip tartışılmıştır.

Anahtar Kelimeler: Kültür, Kültürel Özellikler, Yenilikçilik, Rekabetçi Öncelikler, Performans, Üst Yöneticiler

1. Introduction

The increasing global competition, rapid developments in every area, uncertainty and complexity all threaten the life of the companies and lead them to be more creative and innovative. Today's business world needs innovation more than ever. Companies are struggling to increase their innovative capacities in every aspect of the business. Innovation is not an easy task. It is a process that requires relentless effort and changes. Hellström, (2003:1) argued that companies need to develop more efficient innovation process in order to meet the varying needs of customers across the countries. To do so, the companies try to cope with the social, political, economical and technological challenges of the day.

It is argued that companies need innovation to be more competitive and to survive in global business world (Özgenç, 2006; Salaman and Storey, 2002:147). Eren (1982) argues that

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innovation proved companies with several strategic advantages such as eliminating costs, differentiation through new product and services development and increased quality. Scholl (2005) firmly stated that if there is no innovation then no one can speak of growth and competitiveness. There are different types of obstacles that prevent companies to engage in innovation activities. Obstacles such as high investment costs, lack of competent people and insufficient financial resources have been reported in one study (Aygören et al., 2009). These obstacles can be surpassed with rationale, creative and innovative ways.

Theoretical and empirical studies show that different factors determine innovation potential, innovation level and innovation performance of the companies (Boatwright et al., 2006; Czinkota et al., 1996:47; Jassawalla and Sashittal 2003; Scholl, 2005; Wang and Costello, 2009: 67). These are personal, organizational and environmental related factors. Several studies have been conducted in the literature regarding the effect of these factors on the innovation. Each one of them is generally found to be significantly related to the innovation. Cultural factors and competitive priorities of the firms are also known as important factors for their effect on innovation potential and performance.

The aim of this study is to investigate the effects of the cultural characteristics of top managers and competitive priorities of the companies on the innovation related performance. The study is based on the fact that personal and organizational factors have an impact on innovation potential and innovation performance. Thus, this study argues that cultural characteristics and competitive priorities are very important for the innovation performance. Based on these perspectives and objectives, a number of hypotheses were developed. To test these hypotheses, an empirical study was undertaken across Turkey. The sample was drawn from the companies operating in Turkey. The following sections explain the conceptual framework, hypotheses development, empirical study and results respectively.

2. Conceptual Framework and Hypothesis Development

As stated before, the present study investigates the influence of cultural characteristics of top managers of the companies and their companies' competitive priorities on the innovation performance. The following section explains the hypotheses developed for this study along with the link between the hypothesized variables. First, the link between cultural characteristics of top managers of the companies and innovation performance are explained. After that, the link between competitive priorities of the companies and innovation performance are presented.

2.1. Cultural Characteristic of Top Managers of the Firms and Innovation Performance

Hambrick (1994), developed a framework for studying top management team. This framework suggests that characteristics of top manager affect team process and team performance. This study extends to the studies involving top management team characteristics and company performance. Those who lead the company are responsible for the success and failure of the companies thus, characteristics of these people are likely to affect the company performance. Based on this argument, a number of studies have been conducted in the literature linking difference characteristics of managers to the various performance outcomes including innovation. This argument is also supported by the upper-echelon paradigm of Hambrick and Mason (1984), which suggests hat upper level managers have an impact on organizational outcomes because of their decision-making role in organizations. Their background characteristics have implications for organizational outcomes.

As explained before, the literature on innovation also shows that individual characteristics play an important role in determining innovation potential and performance (Czinkota et al., 1996; Stephenson, 2006). This indicates those individual characteristics are very important for

the company performance on innovation. These arguments support the notion that top management characteristics affect the innovation performance. This study looks at the cultural characteristics of the top managers and their impact on innovation performance.

Culture is defined in various way following different perspectives and different disciplines. In the business literature, the most frequently used definition was provided by Hofstede (1984). According to him, culture is "the collective programming of mind, which distinguishes the members of one human group from another". Similarly, Trompenaars (1993:2) defined the culture as "a shared system of meanings. It dictates what we pay attention to, how we act, and what we value". Trompenaars (1993:24) further argued that "culture is man-made, confirmed by others, conventionalized and passed on for younger people or newcomers to learn. It provides people with a meaningful context in which to meet, to think about themselves and face the world". Culture is beneath awareness in the sense that no one bothers to verbalize it, yet it forms the roots of action (Trompenaars, 1993:24). DiStefano and Maznevski (2003) defined the culture as a system of values, beliefs, assumptions and norms, shared among a group of people. The group could be a country, region, religion, profession, organization, even a generation or a social or sporting club. The group's cultural system is a general agreement among people about what is important and how things will get done. Koçel (2003) argues that there is no such definition that can satisfy everybody. This is because of the fact that culture is studied in various disciplines and people who study culture take different perspectives and objectives. Koçel (2003:29) defines culture as the sum of learned and shared values, beliefs, attitudes and symbols.

These shared values, beliefs and attitudes and symbols differ from one culture to another. Studies conducted prove that cultural differences are a reality and are reflected through different values, beliefs and attitudes. These very differences reflect themselves in various areas of the life. Cultural studies (Chinese Culture Connection, 1987; Hofstede, 1980; Schwartz, 1994; Smith et al., 1996; Trompenaars, 1993) has found different dimension reflecting different aspect of the culture. Hofstede (1980) created a scale that is still accurately being used in order to obtain the cultural dimensions. In a survey conducted by the analysis of nearly 116.000 questionnaire forms from different countries all over the world, he established cultural framework for all countries. Each cultural dimension found in the study is related to the innovation potential and performance. Hofstede's four cultural dimensions have been the most widely used in the business literature. These are individualism-collectivism, uncertainty avoidance, power distance and masculinity-femininity. The fifth dimension, long term orientation was found later in a different study.

2.1.1 Individualism, Collectivism and Innovation Performance

Triandis (1995) summarizes different aspects of individualism-collectivism dimension of culture based on different studies. The individualist defines the self as an autonomous entity independent of groups, whereas a collectivist defines the self in terms of its connectedness to others in various in-groups. Social behavior of collectivists is more likely to be driven by social norms, duties, and obligations, whereas those of the individualists are more likely to be driven by their own beliefs, values and attitudes. An individualist is more oriented towards task achievement, sometimes at the expense of a relationship, whereas collectivists put more emphasis on harmonious relationships, sometimes at the expense of task accomplishment.

Jones and Herbert (2000), state that individualism related characteristics such as self-reliance, independence, individual initiatives and autonomy are important factors for the creativeness and innovativeness. The opposite of these collectivism related characteristics are less associated with innovation. Hofstede (1980) argued that individualist societies are advantageous compared to collectivist societies with respect to innovation potential. Kaasa

and Vaadi (2008) noted that people in individualist societies are more independent than people in collectivist societies. For this reason people in the companies tend to have more opportunities with respect to trying new things. Top managers with high individualism are likely to initiate changes and give more autonomy and freedom to the employees. This in turn is expected to elevate the innovation potential of the companies. Following these argument the following hypotheses are suggested.

H1: The level of individualism values of top managers is positively related to the innovation performance

H2: The level of collectivism values of top managers is negatively related to the innovation performance.

2.1.2 Uncertainty Avoidance and Innovation Performance

Hofstede (1985:347) defined uncertainty avoidance as "the extent to which people in a culture feel threatened by uncertain or ambiguous situations and try to avoid them". Further information about this dimension was given in Hofstede's famous book (1984:110). Uncertainty avoidance is reflected as high and low level cultures. In high-level uncertainty culture, people are more worried about future, have higher anxiety, job stress and less achievement motivation. On the other hand in low-level uncertainty cultures, people have greater readiness to live by the day, lower anxiety and lower job stress. Former studies show that communities with high level of uncertainty avoidance are more prone to formality (Kanousi, 2005). It is argued that low uncertainty avoidance cultures have more innovation potential than high uncertainty avoidance countries (Hofstede, 1980; Jones and Herbert,2000). Shane (1993) argued that there is a correlation between national innovation rate and low uncertainty avoidance. Innovation is said to be associated with change and uncertainty. It is expected that there will be more challenges of innovation in societies with high uncertainty avoidance (Kaasa and Vaadi, 2008; Shane, 1993). Top manager with high uncertainty avoidance is less likely to create an environment for the innovation to proliferate. Uncertainty associated with innovation activities will be more tolerated by the manager with low uncertainty avoidance. These arguments lead the researchers to formulate following hypothesis.

H3: The level of uncertainty avoidance values of top managers is negatively associated with the innovation performance.

2.1.3. Power Distance and Innovation performance

Power distance is defined as "the extent to which a society accepts the fact that power in institutions and organizations is distributed unequally" (Hofstede, 1985:347). Hofstede (1984:65) provided further information regarding this dimension. Power distance is divided as high and low power distance. People from high-power-differential cultures do not expect to participate in decision making or have a great deal of discretion in their work, whereas people from a low power-differential culture expect and demand such opportunities. People who are high on the power scale are very compliant to their superior and do not question authority. They accept hierarchy as an important and inevitable part of the work. In low power distance countries, people value independence rather than conformity. Hierarchies are seen as convenient arrangements rather than as having existential justification. Managers see themselves as practical and systematic, and they admit a need for support. They are likely to consult subordinates before making decisions. Subordinates dislike close supervision and prefer a participative superior and are relatively not afraid of disagreeing with him/ her. In the previous studies it is reported that in societies with lower power distance, people behave more democratically (Kuhlmann and Edler, 2003). Williams and McQuire (2005) argued that there

is a link between power distance and economic creativeness of the countries. Shane (1992) found that there is negative association between power distance and patent. It is argued that in low uncertainty culture, communication is more open and experienced company wide covering all people. This result in knowledge creation and knowledge sharing and consequently learning, which in turn lead more innovation potential and performance (Kaasa and Vaadi, 2008). Managers with low power distance behave more democratically and allow the organization to be more participative and flexible. The company wide insight, experiences and contribution will be translated into innovation potential and performance. These explanations lead to the following hypothesis.

H4: The level of power distance values of top managers is negatively associated with the innovation performance.

2.1.4. Masculinity-femininity and Innovation Performance

Hofstede (1984:176) explained the characteristics of masculinity and femininity. Masculinity refers to the extent to which dominant values in a culture reflect assertiveness, acquisition of tangible things, advancement, and earnings. On the other hand, femininity refers to values of cooperation, quality of life, and environment, empathy, and service. While some cultures reflect masculine characteristics, others may be in favor of feminine traits. Nakata and Sivakumar (1996) argued that characteristics of feminine societies such as nice atmospheres in the workplace, lack of conflict, trust and emotional support for the member of the organization are likely to eliminate obstacles for generating new ideas and being flexible and consequently being creative and innovative. Kaasa and Vaadi (2008) also stated the same kind of reasoning and noted that there is negative relationship between masculinity and innovation. These arguments lead to following hypothesis.

H5: The level of masculinity values of top managers is negatively linked to the innovation performance.

2.1.5. Long Term Orientation and Innovation Performance

This fifth dimension was found in a study among students in 23 countries around the world, using a questionnaire designed by Chinese scholars (www.geert-hofstede.com). It can be said to deal with Virtue regardless of Truth. Values associated with Long Term Orientation are thrift and perseverant; values associated with Short Term Orientation are respect for tradition, fulfilling social obligations, and protecting one's 'face'. Both the positively and the negatively rated values of this dimension are found in the teachings of Confucius, the most influential Chinese philosopher who lived around 500 B.C.; however, the dimension is also applied to countries without a Confucian heritage (Didero et al. 2008).

Culture affects the innovation performance. Tellis et al. (2009) argue that cultural dimensions are crucial for innovation As Hofstede (2007) states that in cultures with high level of long term orientation it is difficult to make changes and innovation is the change itself. Also Jung et al. (2008) couldn't find significant results in their TQM based study regarding the link between long term relationship and innovation performance. Since the related literature is not very rich in detecting the relationship between the long term orientation and innovation, the present study further investigates this relationship. These arguments lead to following hypothesis.

H6: The level of long term orientation values of top managers is negatively related to the innovation performance.

2.2. Competitive Priorities of Companies and Innovation Performance

Innovation potential and performance are affected by various factors. Individual, organizational and external factor are likely to play an important role in determining the innovation potential and performance. Özgenç (2006) argues that a healthy innovation practices depend on the characteristics of the organization, its systems, and leadership. Boatwright et al. (2006) noted that innovation requires radical changes and new vision. This vision needs to integrate marketing, engineering and industrial design factors. Innovation also requires high degree of R&D activities and investment (Czinkota et al., 1996:47). Salaman and Storey (2002:159), propose that innovation requires a new vision and promotion of innovation across the organization. The organizational systems, structures and approaches need to be changed so that they can allow innovation to be promoted and realized. Burgelman et al., (1996) argue that innovation requires high level of competence in the areas of technology, productions, logistic, marketing and human resource management. These arguments suggest that innovation does not come easy in the organizations. Radical changes need to be done on a number of critical factors such as vision, organizational systems, structures and approaches. This indicates that innovation can proliferate in some specific environment. Therefore, this new environment needs to be developed with essential characteristics so that companies can be successful in innovation activities and performance.

Rhyne and Teagarden (1995) proposed that high technology companies need a combination of physical, human and organizational capital to be able to compete in today's competitive business environment. It is argued that organization's human and physical assets need to be transformed into capabilities that would create competitive advantage. Organizational systems that support the creativity and innovation need to be developed and implemented so that innovations can be realized in the organizations. It is argued that the effective use of this capital should lead the firm to act more competitively (Coff, 1997). Competitive priorities have an affect on the new product innovation (Redondo and Fierro; Kanousi, 2005; Hung, 2009).

In summary what is argued here is that these competitive priories lead to creativity and innovation and consequently competitive advantage. Those having these priorities present in their companies are likely to be successful in term of innovation potential and performance. These competitive priorities are linked to innovation performance. The present study also follows the same path and hypothesis that competitive priorities are prone to affect the innovation performance. These competitive priorities consist of senior leadership, resources, organizational systems, human assets. Following the previous arguments, these competitive priorities are projected to influence the innovation performance. This led us to the following hypothesis.

H7: The level of competitive priorities of the firm is positively related to the innovation performance.

3. Empirical Study and Methodology

This study investigates the effects of cultural orientations of top managers and associated companies' competitive priorities on innovation performance. This objective has been translated into research hypotheses which are as follows:

H1: The level of individualism values of top managers is positively related to the innovation performance

H2: The level of collectivism values of top managers is negatively related to the innovation performance.

H3: The level of uncertainty avoidance values of top managers is negatively associated with the innovation performance.

H4: The level of power distance values of top managers is negatively associated with the innovation performance

H5: The level of masculinity values of top managers is negatively linked to the innovation performance.

H6: The level of long term orientation values of top managers is negatively related to the innovation performance.

H7: The level of competitive priorities of the firm is positively related to the innovation performance.

In order to investigate the relationships between the cultural dimensions, competitive priorities and innovation performance, an empirical study was undertaken. The empirical study involved designing a questionnaire and delivering them to the target respondent and analyzing the collected data. The questionnaire for this study consists of three main parts; the cultural dimensions, the competitive priorities and innovation performance.

The pilot study of the questionnaire was conducted on five selected companies to see if there is any mistake or misunderstanding regarding the questions. An initial result showed that there was no mistake or misunderstanding in the questionnaire. This has given some indication of validity and reliability of the questionnaire. We also received some positive feedback for the questionnaire and topic under study. The obtained data set were analyzed by the use of SPSS 16.0.

3.1. Sample and Data Collection

To construct the sample of this study, the database of the TOBB is utilized to reach address details of companies operating across Turkey. A randomly selected 1000 companies operating across Turkey formed the sample of this study. These companies were contacted via telephone to explain the research objectives and to ask their e-mail address so that they can participate in our study. Approximately 265 companies agreed to participate in our study. Questionnaire was sent to these randomly selected 265 companies via e-mail. The information regarding the objectives of this study along with who should fill the questionnaire was included in the e-mail. It was noted that questionnaire needs to be filled by the top managers due to objectives of this study. 173 usable responses were received back. Since the questionnaire is filled online, the transformation of the obtained data to a dataset was easy. The response rate of the study was %17, 3.

3.2. Measure Development

The questionnaire of the present study consists of three main parts. The first part of the questionnaire is based on the cultural dimensions. As stated before, the items related to the power distance are adapted from Dash et. al., (2006), the ones that are related to the uncertainty avoidance is obtained from Jung et. al., (2008). The items related to masculinity are adapted from Kanousi, (2005) and the ones which are included with the aim of measuring long term orientation are adapted from Redondo and Fierro, (2005). The items of collectivism and individualism are obtained from Rhyne et al. (2002).

The second part of the questionnaire is related to the competitive priorities and the items related to these components are adapted from Rhyne et. al.(2002). The third part of the questionnaire is related to the perceptions of the firm's innovative performance. This part was developed by the researchers based on the literature. Innovation performance was measured

with different ways. For example there are studies based on the use of R&D effectiveness (e.g. Löfsten and Lindelöf, 2005; Kirner et. al., 2009). Another type of research uses the patents (Rhyne et. al., 2002; Hidalgo and Molero, 2009) as innovation performance. In our study we also included number of patents as innovation performance of the companies. Because the initial results show unreliable and meaningless results, such performance measure was avoided in this study.

4. Data Analysis and Discussions

In order to reach the results of this study, the data were analyzed by using SPSS program with appropriate techniques. This part of the article will proceed with the analysis of the obtained data set. First of all demographic features of the sample will be demonstrated. Then, the main data analyses will be presented. The main analysis technique used in this study is the regression analysis. Before conducting regression, a preliminary analysis was also conducted. For example, a factor analysis was performed to obtain different dimensions of the construct (cultural dimensions and competitive priorities) selected for this study. The results obtained from factor analysis were then used in the regression analysis to test the main hypotheses of the study.

4.1. Sample Characteristics

Table 1: Characteristics of respondents and companies in terms of age, sex, seniority and establishment year

Age	**Frequency**	**Valid Percent**	**Seniority**	**Frequency**	**Valid Percent**
20-25	10	5,8	1-5	87	50,3
26-30	46	26,6	6-10	54	31,2
31-35	34	19,7	11-15	17	9,8
36-40	22	12,7	16-20	10	5,8
41-45	28	16,2	21-25	5	2,9
46-50	14	8,1	**Total**	173	100,0
51-55	9	5,2	**Sector**	**Frequency**	**Valid Percent**
56-60	9	5,2	Furniture	29	16,8
61-70	1	,6	Textile	32	18,5
Total	173	100,0	Steel	5	2,9
Sex	**Frequency**	**Valid Percent**	Food	41	23,7
Male	148	85,5	Communication	8	4,6
Female	25	14,5	Metal	17	9,8
Total	173	100,0	Cleaning	2	1,2
Establishment	**Frequency**	**Valid Percent**	Ready-made clothes	3	1,7
1940-50	1	,6	Petroleum products	3	1,7
1951-60	1	,6	Machinery	11	6,4
1961-70	2	1,2	Electronic	8	4,6
1971-80	9	5,2	Forestry	2	1,2
1981-90	24	13,9	Agriculture	3	1,7
1991-00	91	52,6	Tourism	2	1,2
2001-10	45	26,0	Arm	1	,6
Total	173	100,0	Spare Parts	3	1,7
			Cement	2	1,2
			Catering	1	,6
			Total	173	100

Table 1 shows the characteristics of the respondents and the companies participated in this study. The data collected for this study came from 173 Turkish firms from 44 different cities of Turkey. Most of the firms are from İstanbul (%27.7), Kahramanmaraş (%15) and Ankara (%7.5). This result was not shown in the table because of the limited space. The sample is also rich in eighteen sectors including mainly from food (%23.7), textile(%18,5), furniture(%16.8), metal (%9,8) and machinery (%6,4). The ages of the respondents vary between 20 and 70. The respondent's age tend to be around 26-45 (%75), reflecting that people responded our survey tends to be young. The experience of the respondents in their firm varies from 1 to 25 years. % 85.5 of the sample is male and the remaining part (%14, 5) is female. Establishment year of the participant firms tend to be after 1990 (%78, 6). The rest of the firms tend to be established before 1990.

4.2. Preliminary Analyses and Results

In the questionnaire development phase, since the researchers aimed to measure cultural dimensions, competitive priorities with more than one single variable for each of them, a factor analysis is applied in reach the dimensions of culture and competitive priorities established in the literature. First of all, all of the variables are put in a factor analysis, but some of them failed to be the intended factors. By omitting them, the researchers obtained 10 factors.

Table 2: Results of factor analysis of cultural characteristics and competitive priorities

	Factor 1	Factor 2	Factor 3	Factor 4	Factor 5	Factor 6	Factor 7	Factor 8	Factor 9	Factor 10
Power distance related item 1	-,055	,006	**,972**	,132	,033	,001	-,120	,000	,048	-,076
Power distance related item 2	,108	-,080	**,927**	,263	-,080	-,019	,012	-,035	,140	-,088
Uncertainty related item 2	-,083	-,073	-,037	,114	**,970**	-,028	-,003	-,047	-,026	-,077
Collectivism related item 1	-,049	-,111	-,026	-,046	-,047	-,015	,008	**,989**	-,023	-,044
Long term relationship related item 2	,258	,016	-,107	,023	,007	-,108	**,924**	,010	,150	,129
Senior Leadership related item 4	**,886**	-,150	-,056	,014	,275	,120	,004	-,025	,225	-,005
Senior Leadership related item 5	**,897**	-,080	,140	,157	-,230	,005	,101	-,044	-,100	-,044
Senior Leadership related item 6	**,803**	,048	-,043	-,162	-,186	-,212	,306	-,002	-,166	-,177
Resources related item 2	-,023	,259	,204	,267	-,028	,004	,171	-,031	**,872**	,077
Organizational systems related item 3	,092	,035	,244	**,913**	-,050	,114	-,048	-,020	,147	,013
Organizational systems related item 4	-,070	,127	,196	**,805**	,319	-,279	,099	-,057	,132	,124
Human Assets 3	-,147	**,871**	-,116	,130	-,151	,224	,009	-,055	,120	,219
Human Assets 4	-,020	**,966**	,035	,010	,039	,113	,008	-,087	,114	,068
Individualism related item 3	-,024	,287	-,008	-,055	-,030	**,936**	-,106	-,018	,006	-,034
Masculinity related item 1	-,203	,407	-,235	,125	-,125	-,059	,192	-,077	,095	**,797**

Extraction Method: Principal Component Analysis, Rotation Method: Varimax with Kaiser Normalization

The results of the factor analysis are depicted in Table 2. Kaiser-Meyer-Olkin Measure of Sampling Adequacy (, 513) seem to be a low value probably due to sample size. Yet it is argued that it can be acceptable (Field, 2005). Considering the time limitations, there was no chance of increasing the sample size.

For each of the factor that has been destructed from the main data are as follows: cultural orientations (individualism, collectivism, power distance, uncertainty avoidance and long term relationship), competitive priorities (resources, human assets, senior leadership and organizational systems). The Cronbach's Alfa for the variables are as follows: Power Distance (,926), Senior Leadership (845), Human Assets (,773), Organizational Systems (,716). The Cronbach's Alfa for the other variables has not been calculated due to only one items loaded for the respective factor.

In addition to the factor analysis, a correlation among the main variables of this study were also performed and presented in Table 3.

Table 3: Correlation Coefficients, Mean and Standard Deviations of the Main Variables of the Study

	Mean	S. D.	1	2	3	4	5	6	7	8	9	10
1.Power distance	4,2616	1,13379										
2.Uncertainty Avoidance	4,6647	,81610	**-,354****									
3. Masculinity	4,2428	1,20513	**-,198****	,086								
4.Collectivism	2,9514	1,41998	**,283****	-,081	**-,418****							
5.Individualism	2,5025	1,50391	**-,172***	,111	,031	**-,290****						
6.Long term Relationship	3,5723	1,12670	,064	**,226****	-,154*	**-,274****	**,191****					
7.Resources	1,6474	,97197	,071	**-,173***	,032	-,029	**-,168***	**,147***				
8.Senior Leadership	4,2312	,44949	-,120	-,115	-,115	-,105	**,240****	**-,650****	**-,322****			
9.Organizational Systems	4,1792	,37870	**-,233****	**,171***	**-,170***	-,036	**,259****	-,071	**-,565****	**,280****		
10. Human Assets	2,0376	1,02868	**,158***	,025	**-,139***	**,256****	**-,503****	**-,316****	,107	,028	**229****	
11.Innovation performance	3,8763	,63955	-,065	**-,212****	**-,201****	-,015	**-,453****	**-,295****	**,432****	**,221****	-,048	**,496****

N= 173 *p < .05 **p < .01

According to the Table 3, there are a number of significant correlations among the variables of this study. From the perspectives of this study, it can be seen that innovation performance is negatively correlated with individualism (-,453, p<.01), uncertainty avoidance (-,212, p <.01), masculinity (-,259, p<.01) and long term orientations (-,295, p<.01) while it has positive correlation with senior leadership (,221**, p<.1) , resources (,432, p<.01) and human assets (,496, p<.01). Table 3 also shows that there is no significant correlation between innovation performance and collectivism, power distance and organizational system. These results seem to support some of the research hypotheses (H3, H5, and H6) except the negative relationship between individualism and innovation performance (H1). There was no correlation between collectivism (H2), power distance (H4) and innovation performance. The results regarding the relationship between competitive priorities of the firm and innovation performance show the support for the hypotheses (H7) except for the fact that no correlation between organizational systems and innovation performance was found.

4.3. Main Analysis: Results of Regressions Regarding the Link between Cultural Dimensions, Competitive Priorities and Innovation Performance

In order to get insight into the relationship between cultural characteristics, competitive priorities and innovation performance, a regression analysis was run and the results are shown in Table 4. According to the Table 4, it can be seen that many of the independent variables are related to the dependent variable. The table indicates significant beta scores for the following variables; individualism (-,621, p<.01), collectivism (-,250, p<.001), uncertainty avoidance (-,121, p<.01), power distance (-,229, p<.05), masculinity (-,259, p<.01), senior leadership (,403, p<.01), resources (,593, p<.01), organizational systems (,231, p<.01). This result means that cultural dimension variables have a significant negative effect on innovation performance while competitive priories (except for human assets) have a positive influence on innovation performance. The independent variables explain approximately %70 of the variance. The remaining variance is explained by other factors. F statistics (38,075, p <.01) is also significant reflecting the model fit.

According to the results, hypotheses (H2, H3, H4, and H5) related to cultural orientations of collectivism (H2), uncertainty avoidance (H3), power distance(H4) and masculinity (H5) are accepted while the hypotheses (H1 and H6) related to cultural orientation of individualism (H1), and long term orientation (H6) are rejected. Although the regression results showed no effect of long term orientations on the innovation performance, the correlation result indicates there is negative relationship between long term orientation and innovation performance. The result regarding negative effect of individualism on innovation performance is also interesting because the expected relationship was opposite. The fact that Turkey is known as a collectivist country and people tend to reflect collectivist values rather than individualist values. The individualist cultural values are reflected less in the managers participated in the study. Thus, the negative effect of low individualism values on performance in this study is understandable.

Table 4: Regression Results

Dependent Variable: Innovation Performance

Independent Variables	**β**	**t**
Individualism	-,621**	-7,773
Collectivism	-,250**	-3,588
Uncertainty Avoidance	-,121**	-2,277
Power distance	-,229**	-3,780
Masculinity	-,259**	-3,716
Long term Relationship	**,028**	**,268**
Senior Leadership	,403**	4,205
Resources	,593**	9,224
Organizational Systems	,231**	3,177
Human Assets	**,103**	**1,431**
R^2	**,716**	
ΔR^2	,697	
F	**38,075****	

N= 173 *p < .05 **p < .01

According to the results, the hypothesis (H7) related to competitive priorities of the companies is mainly accepted. The result indicates that senior leadership, resources and organizational systems have a positive link with innovation performance. Component of competitive priorities, human assets did not show any significant effect on innovation performance. Even though the regression result showed no effect of human assets on the innovation performance, the correlation result indicates there is a positive relationship between human assets and innovation performance.

5. Conclusion

The rapidly changing competitive business environment has made it difficult for the companies to survive. Companies need to understand new business realities and adapt to the changing internal and external environmental conditions. An important strategy to survive and compete in today's business world is to engage in innovation activities. Innovation has become a must for most of the companies to survive and achieve sustainable competitive advantage. In order to be successful, companies need to grasp the importance of innovation and try to be innovative in every areas of their business.

This study looks at the innovation from a two different perspectives and investigates the role of personal and organizational factors on innovation performance. The study is specifically conducted to investigate the effect of cultural orientations of top managers of the companies and competitive priorities of their respective companies on the innovation performance. A number of related hypotheses were formulated based on the objectives of this study. In order to achieve the objectives of the study and test the hypotheses, an empirical study was undertaken involving surveying companies operating across Turkey.

The results showed that cultural orientations of the top managers of the respondent companies have a significant negative effect on the innovation performance as hypothesized except for two hypotheses (H1 and H6) while competitive priorities of the companies has a positive link with innovation performance (except for human assets). The related hypotheses and results are summarized in the following Table 5.

Table 5: The Results of Hypotheses Test of the Study

Hypotheses Developed For This Study	**Result**
H1: The level of individualism values of top managers is positively related to the innovation performance	Rejected
H2: The level of collectivism values of top managers is negatively related to the innovation performance.	**Accepted**
H3: The level of uncertainty avoidance values of top managers is negatively associated with the innovation performance.	**Accepted**
H4: The level of power distance values of top managers is negatively associated with the innovation performance.	**Accepted**
H5: The level of masculinity values of top managers is negatively linked to the innovation performance	**Accepted**
H6: The level of long term orientation values of top managers is negatively related to the innovation performance.	Rejected
H7: The level of competitive priorities of the firm is positively related to the innovation performance.	**Mainly Accepted**

The main results of the study in general show that personal and organizational factors affect the innovation performance. The results of this study are in line with the related literature and also support the previous studies. This study found that cultural orientations of top managers of the companies and competitive priorities of their respective companies have an important effect on the innovation performance. Companies that want to increase their innovative capacities and performance need to pay attention to the competitive priorities and cultural orientations of their top managers. They need to make sure that appropriate level of resources, human assets, organizational systems and leadership are place in their organizations. In addition to that, they need to be aware that cultural characteristics of the managers also affect the innovation capacity and performance. Right combinations of people with right cultural characteristics are likely to play an important role in determining the innovation performance.

The present study has some limitations that need to be taken into account while considering the results. The main limitation of this study is the size of the sample. A relatively big sample size would have resulted in better results for the factor and regression analysis. One also needs to consider the relative small sample size of the study when generalizing the results.

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