PRELIMINARY STUDY FOR THE DEVELOPMENT OF UNCERTAINTY AVOIDANCE INSTRUMENT IN TURKEY

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KEYWORDS	ABSTRACT
Uncertainty avoidance, scale development, Turkish culture.	Hofstede's five cross-cultural dimensions have been broadly studied in the literature. One of these dimensions, uncertainty avoidance (UA) is defined as the extent to which the members of a culture feel threatened by uncertain or unknown situations. This is a preliminary study for the development of a new UA scale for Turkish culture. First, an item pool was generated by a qualitative analysis that included collecting suggestions from a group of respondents and by using items from pre-existing scales. Then, an advisory board assessed the similarity of the generated items and deleted those items that meant the same thing with different words. After the experts' evaluation process, the remaining 61-items were distributed to 378 participants, and the data was analyzed by conducting exploratory factor analysis. The results revealed 35 items with six factor solutions – (1) Openness to Innovation and Change, (2) Authority of Rules, (3) Information Seeking and Controlling, (4) Anxiety, (5) Definiteness and (6) Strictness of Rules. Finally each factor was discussed in terms of current literature and characteristics of Turkish culture.

1. INTRODUCTION

Nowadays, due to the effect of globalization and the development of technology, most of the problems have become "common" all over the world. The problems do not belong to the national or organizational borders anymore. Although, all societies, whether modern or traditional, are facing the same basic problems; answers to these problems differ. Hofstede's research which was conducted over IBM countries has also revealed the existence of "*common problems*" and "*differing solutions*" among different nations. For Hofstede (1991), solutions to the problems differ according to four dimensions: Power Distance, Individualism / Collectivism, Masculinity / Femininity, and Uncertainty Avoidance. (Hofstede,1991, p.14). Hofstede(1991) defined these dimensions as stated below:

Power Distance: It refers to the degree of preference for, or tolerance of, inequality. It reflects the consequences of power inequality and authority relations in society. Power distance affects hierarchy and dependence relationships in the family and organizational contexts. It reflects the degree of equality and inequality among people in a society.

Individualism / Collectivism: This dimension describes the relationships individuals have in each culture. In individualistic societies, individuals look after themselves and their immediate family only whereas in collectivistic cultures, individuals belong to groups that look after them in

exchange for loyalty. It refers to what extent the society is individual or collective in relation to achievement and interpersonal relationships

Masculinity / Femininity: This dimension refers to the degree the society reinforces, or does not reinforce, the traditional masculine work role model of male achievement. This is shown by the level of inequality between males and females. High masculine cultures are characterized by higher degree of gender differentiation. In these cultures, the male controls a significant portion of the society and power structure, with females being dominated by males. On the other hand, a low masculinity culture has a small level of differentiation and discrimination between genders; females are treated equally with males. Dominant values in masculine cultures are achievement and success and in feminine cultures caring for others and quality of life.

Uncertainty Avoidance: This dimension refers to "the extent to which people feel threatened by and try to avoid uncertainty and ambiguity" (Hofstede, 1991, p. 113). It is strongly associated with individual attitudes towards risk and uncertainty. According to Hofstede (2001), high uncertainty avoidance culture feels threatened by uncertain or unknown situations. In these cultures, people look for structure in their organizations, institutions and relationships, for clear interpretation and prediction of events (Hofstede2001).

Since the aim of this study is UA scale development, UA dimensions will be reviewed in detail.

2. UNCERTAINTY AVOIDANCE

Uncertainty avoidance has been defined by different researchers in different ways. These definitions reflect different approaches to the concept.

2.1. The Concept of Uncertainty Avoidance (UA)

Uncertainty Avoidance is used as aconcept for the first time, by U.S. organization theorists Richard M. Cyert and James G. March in 1963, in their book "A Behavioral Theory of the Firm" (Hofstede, 2001, p.147). For them, "*Uncertainty Avoidance measures the extent to which people feel threatened by ambiguity and uncertainty*". Hofstede treats the dimension at two levels: society and organization. Hofstede links the two levels stating that: At the organizational level, the concept of uncertainty is often linked to the concept of environment*; "The environment which is usually taken includes everything not under the direct control of the organization is a source of uncertainty for which the organization tries to compensate*" (Schramm-Nielsen, 2000, p.5).

Uncertainty can be defined as ''*an individual's perceived inability to predict something accurately*'' (, 2004; Milliken, 1987). As Schuler (1980) stated UA is considered to be an aversive state. Not knowing something about ourselves or the environment around us is maladaptive as we cannot prepare for or deal with the unknown (Bordia, 2004).Uncertainty avoidancerefers to the individual's need for security. As Van Oudenhoven and colleagues (1998) stated, in some cultures, the need of security is low, "*people tend to accept life as it comes, they get more easily engaged in new situations, and different religions or political views may coexist rather peacefully*". In cultures with high UA there is more need for security, and then people stick to the routines and are reluctant to absorb new ideas. Formal and informal prescriptions regulate daily life strongly (Van Oudenhoven et al., 1998)**.**

Yan & Hunt (2005) stated that "*Uncertainty avoidance reflects a culture's stance toward the authority of rules*". According to this definition, it is expected that in cultures that have high UA scores, institutions adopt structural formalization and centralization (Yan & Hunt, 2005; Wong and Birnbaum-More, 1994). Additionally, cultures with high UA prefer to reduce the degree of information sharing with subordinates about important situations and do not permit subordinates to take part in decision-making process. Again, in such cultures, followers show great obedience to the authority, and "*they also expect their leaders to act according to the ways that are historically accepted. Any new initiatives by the leaders, even though they may be successful, will tend to bring a feeling of uncertainty to the followers, thus reducing their trust in the leadership*".

In contrast, cultures with low UA scores are expected to be more tolerant about deviations from social norms, because they are more tolerant of uncertainty and also open to new ideas.Cultures with low UA scores, give more importance to the results of a behavior rather than behavior's conformity to rules and norms.Entrepreneurship is supported in cultures with low UA (Shane, 1995). *Leadership is often perceived not because of a leader's maintenance of and compliance with tradition but because of the leader's performance" (Yan & Hunt, 2005).*

People from cultures with high UA may perceive norms as courses of action when facing ethical situations. For cultures with high UA, following the norms may be a way of avoiding uncertain or risky consequences. People in such cultures, stick dogmatically to historically tested patterns of behavior. Such behaviors become inviolable rules that are used by people as a way to reduce uncertainty, in time. It is important to conform to social and organizational norms and procedures to reduce ambiguity (Yan & Hunt, 2005). Schneider (1989) stated that cultures with high UA are intolerant of ambiguity and prefer historically tested patterns of behavior. These behaviors become inviolable rules which are used as a tool to reduce uncertainty. In such countries, it is important to conform to social and organizational norms and procedures to reduce ambiguity.

Steenkamp et al. (1999) found that innovativeness is weaker in cultures with higher uncertainty avoidance (Sundqvista, Franka&Puumalainenb, 2005,). On the other hand, in a culture with low UA, people are more tolerant of uncertainty and they are open to new ideas and norms (Yan & Hunt, 2005).Not knowing the aim of change and not knowing the outcomes of change creates uncertainty about the aim, process, and the outcomes of the change (Bordia, 2004).

Simeon et al (2000) proposed that uncertainty avoidance has an impact on the individual's information gathering process before making decisions. Their assumption is that "individuals who try to avoid uncertainty will take the necessary steps to reduce ambiguity". They asked two questions to respondents to measure uncertainty avoidance. One of the questions is: "*I prefer having clear rules & procedures where I work*" to measure work related uncertainty avoidance. And the other is "*I like to plan as far into the future as possible*". These two questionsmeasure general uncertainty avoidance. They found that general uncertainty avoidance measures the *predictive power* for consumer product purchasing and general non-work decisions.

Simeon (2000) stated that this cultural concept has rarely been linked with studies on information gathering behavior. He argued that UA orientation should have an impact on the extent to which individuals gather information before reaching certain decisions. The assumption of his work is that "*individuals who try to avoid uncertainty will take the necessary steps to reduce ambiguity. This will be especially pertinent when information is needed to make decisions*".

All the mentioned characteristics of UA have arisen the curiosity related with the applicability of the scales based on the data collected in other nations but applied in Turkish culture. It is decided to develop a scale for measuring "UA" in Turkish organizations. Before the scale development process, literature on measurement of UA should be reviewed.

2.2. Measurement of Uncertainty Avoidance

Many cross-cultural studies over the last two decades have found national differences in uncertainty avoidance (Quintal et al., 2005). Hofstede (1980) developed the most influential instrument of measuring UA by analyzing national-level cultural values in more than 50 countries. Hofstede defined uncertainty avoidance as "the extent to which people are threatened by uncertain or unknown situations" (Hofstede, 1991, p.113).

For Hofstede, cultures with high UA place much value on strict rules, protocols and procedures which make conduct more predictable and life more secure. Managers tend to favor decisions with low-risk and lifetime employment is common (Culpepper et al., 1999). Most of the studies, like the study of Hofstede conducted in countries where IBM is conducting business, measured culture's dimensions at the societal level by aggregating respondent scores within cultures. Hofstede made UA measurable by utilizing three survey questions about "*adherence to company rules*", "*expected job stability of employees*" and "*how often they feel nervous or tense at work*" (Wennekers et al., 2003). People were asked to assess the situations like the ones below in a likert scale:

Company rules should not be broken - even if the employee thinks it is in the company's best interests (Rule orientation).

How long do you think you will continue working for this company? (Employment stability).

How often do you feel nervous or tense at work? (Stress).

In addition, there are also a group of studies which replicated Hofstede's UA Index (UAI) in different populations. One of them is the replication of Shane (1995). Shane used the original UAI in 68 countries, over more than 4400 employees in work organizations. From 68 countries, 32 countries were from IBM set. Shane had similar results with Hofstede and found a correlation of r= .44** with the IBM results. Some others are Hoppe's (1990, 1993), Helmreich& Merritt's (1998) and EMS 97 (European Media and Marketing Survey) replication studies. Hoppe's scale contained the three questions of Hofstede's UAI. Hoppe applied his scale on 1.590 Salzburg Seminar Alumni from 17 European countries plus Turkey and USA. This study had r= .64** correlation with Hoppe's scores and the IBM scores. Helmreich& Merritt's (1998) study was applied on more than 15.000 commercial airline pilots from 23 countries. They carried the survey between 1993-1997 and asked the three questions of Hofstede. They found a correlation of r= .49** with the scores of IBM and the pilots. This study is important because in IBM case respondents of UAI had the same "employer" but in the pilots case, respondents had the same "profession". Then, this study revealed that "for people in this profession the three questions of "rule orientation", "employment stability", and "stress" carried different connotations from those carried within IBM (Hofstede, 2001). EMS 97 surveyed higher income consumers in Europe. Scales included two questions from IBM survey, "rule orientation" and "stress" questions. The employment question was dropped from this survey. Instead of employment question, two questions were inserted into the scale. One question is: "One can be a good manager without having precise answers to most questions that subordinates may raise about their work. For this question "strongly agree" means "low UA". The other question is "Competition between employees usually does more harm than good". For this question "strongly agree" means "high UA". EMS 97 survey was carried out in 15 overlapping countries with IBM sample. The correlation between EMS 97 UAI scores and IBM UAI scores is r=.86** (Hofstede, 2001).

On the other hand, there are more recent attempts to measure the dimensions of Hofstedeat the individual level(*Dorfman& Howell, (1988);* Culpepper & Watts, (1999). The scale items used by Dorfman& Howell (1988) to measure UA at individual level are as follows:

It is important to have job requirements and instructions spelled out in detail so that employees always know what they are expected to do.

Managers expect employees to closely follow instructions.

Rules and regulations are important because they inform employees what the organization expects of them.

Standard operating procedures are helpful to employees on the job.

Instructions for operations are important for employees on the job.

Dorfman and Howell (1988) did a great contribution to the measurement of culture's dimensions by developing scales assessing *all of the four Hofstede's dimensions* at the individual level, firstly. Scales were applied to a sample of managers employed in multinational firms; 243 in Mexico, and 509 in Taiwan. The only information provided about measurement properties of the new scale was reliability coefficients. "*No factor loadings or other information relating to discriminant validity was provided. Respective reliability for Mexican and Chinese samples were 0.71 and 0.73 for the uncertainty avoidance scale.Regarding construct validity, the relationships between individual level culture constructs were similar to those obtained using Hofstede's society-level measures*" (Culpepper et al., 1999).

Another study was conducted by Quintal et al. (2005). They developed a scale by reviewing the *risk avoidance* and *UA literature* to see whether "risk" and "uncertainty avoidance" are distinct constructs. They constructed 5- item UA scale, and then added 6 more. After elimination of vague, repetitive or ambiguous items, there remained 8 UA items. These items were included in a large Australian consumer survey administered over the Internet. Approximately 650 people were invited to participate in the survey and 96 percent completed the survey. After elimination of low-scored items, only the items measuring "*uncertainty avoidance in the workplace*" remained. These items used in that scale to measure UA are listed below, and they are quite similar in wording, to those items developed by Dorfman and Howell (1988):

It is important to have instructions spelled out in detail so that I always know what I am expected to do

It is important to closely follow instructions and procedures

Rules and regulations are important because they inform me of what is expected of me

Instructions for operations are important

Standardised work procedures are helpful

As a result of Quintal et al.'s research, the reliability, factor structure, and validity tests undertaken indicated that the final scales had sound measurement properties and that, unlike previous measures, risk avoidance and uncertainty avoidance are shown to be related, but different constructs (Quintal et al., 2005).Jung and Kellaris (2004) also developed an individual level 8-itemed Uncertainty Avoidance Scale through an independent measure development study. "*The scale items were based on Hofstede's definition of UA. The UA scale was found to have convergent, discriminant, and predictive validity in a study with American and Korean subjects*". Participants of scale were upper-level undergraduate students attending marketing classes at a

large university in the midwestern United States and three business schools in France(Jung &Kellaris, 2004). One of the items stating "*I would prefer to stay with one employer as long as possible*" was dropped because the confirmatory factory loading was less than 0.4. The items and their factor loadings are listed below:

• I prefer structured situations to unstructured situations.	0.73
• I prefer specific instructions to broad guidelines.	0.66
• I tend to get anxious easily when I don't know an outcome.	0.74
• I feel stressful when I cannot predict consequences.	0.79
• I would not take risks when an outcome cannot be predicted.	0.64
• I believe that rules should not be broken for mere pragmatic reasons.	0.58
• I don't like ambiguous situations.	0.55

3. METHODOLOGY

The aim of the study was to develop a scale for measuring uncertainty avoidance in Turkish Culture. There was threefold of item generation analysis: conceptual analysis, item pool generation with a qualitative study, assessment of advisory board committee. Hinkin (1995) emphasizes that item generation is the most important part of scale development. Two basic approaches in item generation were used in the study: deductive and inductive classification. Firstly, for deductive classification, conceptual analysis which runs from theory to practice through literature review is utilized. Then qualitative analysis which includes information at individual level and generates measures from individual responses was conducted for inductive classification. Lastly, exploratory factor analysis was run for exploring and verifying factors of the construct.

3.1. Item development

3.1.1. Conceptual Analysis

Uncertainty avoidance which is conceptually defined as the extent to which individuals of a culture feel threatened by uncertain or unknown situations is the definition primarily used in the study (Hofstede, 2001). Dimensions of uncertainty avoidance were reviewed by the research committee. Literature review revealed various dimensions of uncertainty avoidance. Uncertainty avoidance is the reactions against the unknown which is the result of inability to predict the possible outcomes (Bordia, 2004). Another dimension considered as a reflection of cultural stance is towards the authority of rules. High uncertainty avoidance cultures are likely to be distrustful towards new ideas and behaviors and prefer to obey rules and regulations (Schneider, 1989).

The need for security is also a motivational factor lying behind psychological distress due to uncertainty. Information seeking behavior is a dimension of uncertainty avoidance cultures. Knowledge is the power against the shadows created in the uncertainty avoidance minds. Technology, law and religion help to cope with the unknown through rules, regulations and rituals (Hofstede, 1991). The items which reflect the characteristics of uncertainty avoidance were collected from different scales used in the literature and among them, the most accepted and promising factors were selected based on the repetition of the similar items related to uncertainty avoidance within the literature.

3.1.2. Qualitative Analysis

Along with literature review, a qualitative study was conducted in order to generate items at the individual level. Initially a brief description of uncertainty avoidance which was used at the rest of the analysis was given to the participants. The description used in the study is as follows:

"Uncertainty avoidance is the extent which an individual feel anxious in the circumstances where the information is perceived as inadequate. Individuals with high uncertainty avoidance are anxious and distressed in unpredictable situation as compared to those with low uncertainty".

In order to determine underlying dimensions of uncertainty avoidance, an open ended questionnaire was developed to consolidate thoughts, feelings, behaviors that fit the definition of uncertainty avoidance given above. In qualitative study, four open ended questions were generated to collect relevant behaviors related to the uncertainty avoidance and distributed to 73 participants by the research committee members.

After a brief definition of uncertainty avoidance, the four questions asked are as follows:

How can you describe an uncertainty avoidant individual?

How can you describe an individual who is not uncertainty avoidant?

What kind of adjectives would you use to describe uncertainty avoidant individual?

What kind of adjectives would you use to describe an individual who is not uncertainty avoidant?

For the item pool, 297 descriptions related to uncertainty avoidance were collected. The recurrent items were eliminated. Integrating qualitative data with the items generated from the literature review and different questionnaires used in previous research were combined and 89-item questionnaire was developed after deleting the ambiguous, repeated and similar items.

3.1.3. Advisory Board Commitee

89-item questionnaire generated from the qualitative study with four questions and the literature review related to uncertainty avoidance was distributed to advisory board which consists of 12 academicians. After giving the previously mentioned definition of the concept of UA, items which were randomly ordered were rated by the academicians in terms of "relatedness to uncertainty avoidance" on 3-point scale as related, unrelated, not understood. The research committee agreed to include the items which were rated as related by 66% of the academicians. 61 items were left after the academicians' evaluations. According to the item generation process, 61 items were eventually included in the questionnaire and distributed online and by hand to the participants who were working in private as well as public sector.

3.1.4. Instruments

Scale purification accomplished through conceptual analysis, qualitative analysis, advisory board committee assessment and 61 items were generated. The 61 items were asked to be assessed on a 5-point scale (ranging from not related (1), to very much related (5)) regarding their relatedness to the construct "uncertainty avoidance" following the uncertainty avoidance description.

3.1.5. Participants

Convenience sampling method is used in the study. The data was gathered from 378 volunteer participants who were employed in public and private sector. However, the questionnaires of 17 participants were excluded due to missing data. Two participants did not answer gender question, 15 participants did not answer their status in the organization as manager or employee. The demographical characteristics of the remaining participants (N=361) are given in TABLE 1. Participants' ages ranged from 18 to 55.

Table1: Demographics (N=361)

	Mean
AGE	
Male (n=169)	33,67(sd=6,69)
Female (n=192)	30,30(sd=6,47)
JOB EXPERIENCE	
Tenure in work life	10,44(sd=7,72)
Tenure in current organization	5,18(sd=5,26)
POSITION IN THE COMPANY	
Manager	101(28%)
Employee	260(72%)

4.RESULTS

4.1. Exploratory Factor Analysis

To analyze the data, exploratory factor analysis was conducted in order to determine factorial structure of the sixty one items. These items were subjected to Principal Component Analysis with Varimax Rotation. After the first analysis, the items were gathered under 12 factors. When examined in detail, it was found that 15 items had factor loadings in two or more factors or loaded under 0.50. Six items were single loaded in one factor. Thus, these items were eliminated from the analysis.The factor analysis was repeated with the remaining 40 items. The items were loaded in six factors and reliability analysis was run for all factors. As a result of the analysis, the five items with higher cronbach alpha level from the overall cronbach alpha level of each factor were excluded (Table2). With the remaining 35 items, a final Principal Component Analysis was conducted. In order to check sampling adequacy Kaiser – Meyer – Olkin (KMO) and Bartlett's test of sphericity were controlled. KMO measure of sampling adequacy test showed that partial correlations among items were small and KMO value of ,92 was above the recommended value of ,50. Furthermore, Bartlett's test of sphericity was significant, $\chi^2 (595) = 6608,834, p < .001$. These results indicated that it was appropriate to conduct factor analysis for 35 items.

The results showed that there were 6 factors with eigenvalues above 1,00. Items of each factor and their loadings are given in Table 2. Reliability analysis showed that the overall Cronbach's alpha for 35 items was 0.87, where the whole scale explained 60,74% of the total variance of uncertainty avoidance concept.

Table 2: Results of Principal Components Analysis of Uncertainty Avoidance Factors (N =361)

FACTOR 1: Openness to Innovation and Change	
Cronbach's Alpha= ,92	Factor Loadings
18. Flexible (R)	0.744
36. Entrepreneur (R)	0.766
38. Open to learning (R)	0,790
40. Creative (R)	0,835
34. Brave (R)	0,800
56. Easily adopting to changes (R)	0,737
64. Making instant decisions (R)	0,725
65. Innovative (R)	0,868

FACTOR 2: Authority of Rules	
Cronbach's Alpha= ,880	Factor Loadings
68. Emphasizing details	0,528
61 Cautious	0,645
53. Asking detailed questions to clarify an ambiguous problem	0,584
47.Preferring tohaveinstructionsspelledout in detailsothatemployeesknowwhat is expectedto be done	0,734
48. Preferring specific instructions for the tasks to be performed	0,772
49.Wanting tohavemorecontrol on one'sfuture	0,676
50.Believing in the requirement of the rules to be able to know what is expected of oneself	0,723
41.Spending effort to comply with the rules	0.573
33. Expecting subordinates to follow the instructions strictly	0,554

FACTOR 3: Information seeking and controlling	
Cronbach's Alpha= 0,814	Factor Loadings
13.Preferring to be sure of something before buying	0,681
14.Strictly following instructions and procedures	0,669
15. Strictly differentiating between what is forbidden and what is allowed	0,614
16. Taking precautions for the unexpected before starting a task	0,691
17.Controlling one's behavior	0,611
26.Prudent	0,558

FACTOR 4: Anxiety	
Cronbach's Alpha= ,851	Factor Loadings
23. Anxious	0,701
31. Feeling stresses when faced with situations for which the results cannot be predicted	0,737
32. Getting worried when the end results are not known	0,779
44. Feeling anxious about the future	0,725
66.Tense	0,757
67.Having difficulty in making decisions	0,510

FACTOR 5: Definiteness	
Cronbach's Alpha=0,693	Factor Loadings
62. Postponing a prospective ambiguous situation	0,684
63. Keeping away from the danger	0,617
69.Not choosing risky alternatives when needed to make decision.	0,637

FACTOR 6: Strictness of rules	
Cronbach's Alpha= 0,643	Factor Loadings
29.Believing in the strictness of the truth, that the truth can't change from person to person	0,686
52.Thinking that the women's and men's roles are strictly different	0,760
71. Believing in the requirements of the rules that show how to behave in a social situation	0,560

R= Reverse item

Eight items of F1 are about "Openness to Innovation and Change", which reflected adaptability to new situations, resilience and entrepreneurship. This factor explained 16,1 % of the total variance and Cronbach's α coefficient was ,92. Nine items of F2 emerged as "Authority of Rules"; and was related to be rule oriented, follow instructions, and struggle for obedience to rules. This factor explained 13,8 % of the variance with a Cronbach's α coefficient of ,88. "Information seeking and controlling" emerged as the third factor with six items explaining 9,8 % of the total variance with Cronbach's α coefficient of ,81. This factor is related to planning the future and seeking information to clarify uncertainty, being precautious and prudent with the unknown. Forth factor emerged from the analysis was "Anxiety". This factor included 6 items measuring the stress and

anxiety of a person as well as his/her perception of threat. The factor explained 9,8 % of the total variance and its inter item consistency was *,85*. Fifth factor had three items and named as "Definiteness". The items were related to avoiding risk and ambiguity. The factor explained 5,5% of the total variance and had Cronbach'sα coefficient of ,693. The lastthree items were related to "Strictness of rules" such as believing in the strictness of the Truth and the rules. The factor explained 5,8% of the total variance and had Cronbach's α coefficient of ,643.

4.2. Descriptives and Correlations of the Dimensions

Zero-order bivariate correlations were calculated among all uncertainty avoidance factors. Means, standard deviation scores, significant and non-significant correlations among the factors are presented in Table 3.

Table 3: Means, Standard Deviations, and Bivariate Correlations for Variables of Scale Development Study (N = 361)

		Mean	Std. Dev.	1	2	3	4	5
1	Opennes to innovation and change	3,72	0,86					
2	Authority of rules	3,88	0,59	-,180**				
3	Information seeking and controlling	3,22	0,78	-0,277**	0,664**			
4	Anxiety	4,01	0,61	0,434**	0,262**	0,092		
5	Definiteness	2,93	0,90	0,188**	0,492**	0,348**	0,414**	
6	Strictness of rules	3,50	0,78	0,035	0,466**	0,400**	0,271**	0,417**

**p<0,001.

The results revealed that there was significant negative correlation between "Openness to Innovation and Change" and "Authority of Rules" ($r (361) = -0 ,180, p< ,01$), positive correlations between "Openness to Innovation and Change" and "Anxiety" ($r (361) = 0,434, p< ,01$).

There is a significant positive correlation between "Authority of rules" and "Information seeking and controlling" ($r (361) = 0,664, p<,01$). In addition, there were medium positive correlation between "Authority of rules" and "Anxiety" ($r (361) = 0,262, p< ,01$).Additionaly, "Anxiety" found to be significantly correlated with "Strictness of rules" ($r (361) =0 ,271, p< ,01$).

Finally, there is a significant positive correlation between "Information seeking and controlling" and "Strictness of rules" ($r (361) =0,400, p< ,01$). These positive correlations indicate that although there are six factors of uncertainty avoidance, these factors are related factors rather than being independent ones.

5.DISCUSSION

As discussed in Literature Review part of the current study, the Uncertainty Avoidance (UA) concept has differing conceptualizations. However, present paper was not an attempt to clarify the discussions in the literature, but to test relevant theories, and start a preliminary study to develop "Uncertainty Avoidance" scale in Turkey.When compared with Hofstede's (1980) factors for UA, there were meaningful similarities and differences in the results of the current study. To start with, one factor of UA stated by Hofstede was the rule orientation. Similar to this label, Schneider (1989) defined UA to be related with "Authority of Rules". Congruently with these suggestions, a similar factor emerged in the current study. This factor, measuring the conformity to rules, being rule oriented, following instructions, and struggle to obey rules, were named as "Authority of Rules".

According to Hofstede, another factor of UA is related to perceived level of stress. Similar to what Hofstede suggested, our findings revealed a factor covering the stress and anxiety of a person as well as his perception of threat. This dimension is named as "Anxiety", which is underlying motive of the concepts such as avoidance of anxiety, stress, and threat.Hofstede's final factor of UA was related with employment stability. Current study contained items such as "preferring having a consistent salary", "easily changing job" and "preferring stable conditions" in pre-analysis version of the UA scale. However, these and similar items did not emerge as a separate factor, but cross-loaded under two or more different factors. Therefore, they are excluded from the final version of the scale.

In the present study, three factors were found in addition to the three above mentioned dimensions of Hofstede. The first one was named as "Openness to Innovation and Change", as it measured adaptability to new situations, resilience, entrepreneurship and flexibility. This finding supported the theory of Steenkamp et al. (1999) and Yan and Hunt (2005), who claimed that innovativeness and being open to the new ideas are related to the concept of UA, where high UA suggested to lead to less level of creativity. Similarly, Bordia et.al (2004) proposed that change may be a source of UA, especially when the aim and outcomes of the change are unclear. In the current analysis, change and innovation related items unified and loaded in a single factor, i.e. "Openness to Innovation and Change", which emerged as the first factor with the highest variance explanation power.Simeon et. al. (2000) assumed that, information gathering is an important aspect of UA. They suggested that to avoid uncertain situations, people attempt to reduce ambiguity by taking some *proactive actions*. Although they proposed items like "I prefer having clear rules and procedures where I work" to measure information gathering dimension, these types of items loaded under "Authority of Rules" factor in the present study. The reason of this may be the fact that the items proposed to measure information gathering by these researchers are not relevant to the information gathering action, but with a choice of situation, where the *rules/procedures* are clear. On the other hand, in the current study, items directly related with information gathering, such as "taking preventive actions to avoid the troubles while doing something" or "asking detailed questions in order to clarify uncertain situations" constituted the third factor. This dimension is called as "Information seeking and controlling" factor of UA, and supported the idea that information seeking/gathering to clarify ambiguous situation is an important part of the investigated construct.

Another factor emerged in the current study is called as "Strictness of rules". This dimension included items such as "Preferring that there should be clear rules describing how to behave in social environments" and "Believing in the strictness of the truth" and "Requirements of the rules" Although these items seem to be related to "Authority of Rules" factor, in Turkish sample, they constituted another factor, which emphasize not the written rules and procedures, but the unwritten

social norms. Considering the importance of traditional values in Turkish society (Tuncer, 2005), this new factor suggested to be an important part of UA construct, especially in cultures promoting traditional values.One of the limitations of this study is the sample size. In scale development studies, higher numbers of participants ensure the reliability and generalizability of the results. Therefore, confirmation of the current study should be done with a larger sample, preferably with participants coming from different socio-economic levels.

While conducting this study, there was a global economic crisis which might influence the people's preferences/attitudes toward uncertainty. On the other hand, high test-retest reliability coefficient as a sign of stability and consistency indicates that measurement of underlying construct is not influenced by temporary changes in a person's state at the time of testing (Sekaran, 2003). Therefore, test reliabilities give important insights about the existence of UA construct. The current study did not investigate this kind of reliability, due to limited resources. Further studies should be conducted to test the consistency of the UA scale over time.

Finally, the researchers believe that the new dimension "Strictness of the Rules" emerged in the current study should be further investigated as a part of UA construct. As this dimension is suggested to be related with cultural values in Turkish society, cross-cultural studies would shed light to the generalizability of this factor across cultures.

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