

## A Research on Determining the Effects of Five Factor Personality Traits of Turkish Football Referees on Cultural Intelligence

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### **Abstract**

Adapting to new cultures and understanding them differ in each individual. This difference is based on different personality traits. Personality traits affect success in communicating, active behaviours, relationship structures and the capability to perform. Cultural Intelligence is, in broad terms, described as the capability to effectively interact with individuals with different cultural backgrounds or the result of those interactions. Starting with the point that there is a relation between personality traits and Cultural Intelligence, it is aimed in this research to determine the effect of Five Factor Personality Traits on Cultural Intelligence. To this end, a research has been conducted by asking the opinions of Top Ranking Football Referees who referee matches within different cultures. The data gathered in the research have been evaluated with SPSS software package and findings have been obtained by testing the hypotheses. At the end of the research, it has been concluded that there are personality traits that affect the dimensions of Cultural Intelligence. Especially the result that the personality traits of openness to experience and conscientiousness affect all the dimensions of Cultural Intelligence is of great importance with regard to the results of the research.

**Keywords:** Five factor personality traits, cultural intelligence, football referees

**JEL Classification:** L83, M10, M39

## **1. Introduction**

Cultural Intelligence (CQ) is, in broad terms, described as the capability to effectively interact with individuals with different cultural backgrounds or the result of those interactions (Earley and Ang, 2003: 9). CQ has a structure which is directly affected by personality traits. Because it is thought that CQ is shaped on the basis of personality traits. When considered within this scope, Top Ranking Football Referees' being in interaction with individuals of different cultures has caused the shaping of the focus of this study.

Starting with the hypothesis that cultural intelligence played an active role especially in the success of Turkish football referees in games abroad in the recent years, it is aimed to make an evaluation with the five factor personality traits scale which is thought to play a role in success. Because cultural intelligence helps a leader to a great extent for managing individuals coming from different cultures and constitutes an important capability of the leader. Considering that football referees too are leaders on the field, it is a recognised fact that they manage individuals from a number of different cultures (such as local and foreign football players, technical committee, director, spectators-supporters...). Especially the great success of referees, who have refereed matches abroad recently, in games that included more complex cultural characteristics, supports this proposed hypothesis. However, the framework of this research has been formed considering that when the subject is researched with scientific methods, the proposed hypothesis can be explained with scientific information and deductions can be made. Therefore, the determined target has been tested with a questionnaire form which was gained from related literature in order to make deductions. The questionnaire form was customised for top ranking football referees and top ranking assistant referees, and deductions were aimed to be made.

Personality can be regarded as an important factor affecting CQ. When the literature of personality is considered, the Five Factor Model and as it is referred to, "the Big Five" represents the five factors of personality traits discovered as a result of empirical researches. These factors consist of; extraversion, conscientiousness, openness to experience, agreeableness and neuroticism (Goldberg, 1993: 26). In this study, a research has been done in order to determine the effect of five factor personality traits of top ranking referees on their CQ capabilities.

It is thought that this research will contribute in many aspects into sports marketing literature in terms sports management, sports psychology and understanding behaviours of sports consumers. First of all, this research will add important findings and contributions to the empirical aspect of (CQ) literature. Secondly, this research will contribute to and direct researches conducted as for how the success and effectiveness of one of the important actors of football, referees (top ranking), throughout different cultures are affected by the four components of CQ. Thirdly, it will make a major contribution into personality theory in terms of how the displays and effects of the personality structures of referees (top ranking) who take on duties in different and new cultural settings outside their own and as an actor in the relationships with the individuals in those settings are. Finally, it is thought that this research, examining both the components of CQ and personality traits within the context of football actors; by offering a framework with regard to the effect of big five personality traits of top ranking referees on the four components of their CQs, will transfer the reflections of that framework into the field of sports psychology.

## **2. Conceptual Framework**

Two main scales make up the conceptual framework of the study. In this part of the study, the scales which are the subjects of the study will be introduced and the hypotheses proposed with regard to the dimensions of the scales will be offered. First, the scale which consists of Five Factor Personality Traits will be addressed with its five main dimensions, and then the four different dimensions making up Cultural Intelligence (CQ) will be mentioned.

### **2.1. Big Five Personality Traits**

An individual's competence in understanding and adjusting to new cultures differs (Earley and Ang, 2003: 9). Incompetence in interacting appropriately when in diverse settings and situations causes inappropriate language and behaviours, and may negatively affect structures of emotional relationships and the ability to perform with the people interacted with. Personality differences are used when explaining those differences in the accomplishment of this kind of international tasks (Caligiuri, 2000: 68). Past researches laid that personality traits, abilities and skills are the most important elements indicating the success and adaptation of especially individuals working in cultures outside their own (Ramalu et al., 2011: 59; Downes et al., 2010: 245).

As the basic structure of personality, "the Big Five" or "Five Factor Model" has recently started to be used in organisations with an increased interest in the subject of personality (Barrick and Mount, 1991: 1). Also, this personality model is seen as the most significant classification of personality traits in providing an errorless and unbiased description of self and others (Widiger and Trull, 1997: 229) and it is regarded as one of the most strongly supported models in theoretical terms in psychology of personality traits which explains the classification of the five personality traits (Migliore, 2011: 39). The Big Five consists of the traits called; agreeableness, conscientiousness, extraversion, openness to experience and emotional inconsistency (emotional instability or neuroticism) (McCrae and Costa, 2003: 3; Goldberg, 1993: 27) and can be explained in short as follows:

- Agreeableness indicates individual differences in cooperation and social harmony,
- Conscientiousness is about individuals' ways of controlling, regulating and directing their impulses,
- Extraversion indicates a strong participation into the external world,
- Openness to Experience separates imaginative and creative individuals from realistic and traditional individuals,
- Emotional Instability indicates the tendency to experience negative emotions.

The Big Five classification enables those who conduct researches in the field of personality to map greatly various personality scales and thus accumulate research findings in a meaningful and systematic way (Costa and McCrae, 1995: 46). Because the Big Five anticipate work behaviour strongly, with regard to time, contexts and cultures, both within a culture (Barrick and Mount, 1991: 17-18) and in the frame of overseas responsibilities (Caligiuri, 2000:67-88; Lievens et al., 2003: 476-489; Shaffer et al., 2006: 109-125). The Big Five personality traits have the power to affect even the networking skills of employees and individuals responsible working abroad (Wolff and Kim, 2012: 58).

The Big Five universal adaptive mechanisms based on developmental personality psychology make it easy for individuals to meet and unravel the demands of a great variety of physical, social, cultural and educational settings (Buss, 1991:459-492; Özer and Benet-Martinez, 2006: 401-421). Secondly, while all individuals have some degrees of these universal Big Five adaptive mechanisms, to what degree they have these personality traits which are required for success in realising a goal differs. Therefore, individuals who have the key personality traits

which are required by a role given in a certain physical and social environment would adjust more effectively than those who do not have them for the same role. Since cultural intelligence includes the capability to adapt effectively to culturally diverse situations (Metacognition, cognition, Motivational and behavioural aspects), certain personality traits will be in relation with certain constituents of CQ and will be able to anticipate CQ levels among individuals (Rose, Kumar and Subramaniam, 2008:508).

## 2.2. Cultural Intelligence

The concept of cultural intelligence is based on Gardner's (1993) "theory of multiple intelligences". As it is known, Gardner (2006) defined many different types of intelligence (Gardner, 2006: 8-17). There are researchers who claim that cultural intelligence is different both from general intelligence (IQ) and emotional intelligence (EQ) (Alon and Higgins, 2005: 503). While general intelligence (IQ) indicates logical and mind-based verbal and quantitative intelligence, emotional intelligence (EQ) signifies an individual's competence in understanding and attributing meanings into emotional structures of people (Earley and Peterson, 2004: 105).

The lack of intercultural look in Gardner's (2006) theory of multiple intelligences led Earley and Ang (2003) to develop the concept of cultural intelligence (Earley and Ang, 2003: 4). They proposed the CQ approach in order to get the ability to adjust to different cultures and this concept reflected an individual's competence in collecting, interpreting different symbols and acting according to those symbols so as to function effectively in different cultural settings or in a multicultural situation (Earley and Ang, 2003: 9).

Cultural Intelligence is quite a new concept, therefore a clear consensus have not been reached as to how it should be defined. As a result, many researchers defined the concept of CQ by attributing meanings to it in different ways. In the researches conducted in this subject, CQ is defined as "the capability of an individual to adapt effectively to new cultural contexts (Earley and Ang, 2003: 26)"; "a seemingly natural ability to interpret someone's unfamiliar and ambiguous gestures in just the way that person's compatriots and colleagues would, even to mirror them (Earley and Mosakowski, 2004: 140)"; "being skilled and flexible about understanding a culture, learning more about it from your ongoing interactions with it, and gradually reshaping your thinking to be more sympathetic to the culture and your behaviour to be more skilled and appropriate when interacting with others from the culture (Thomas and Inkson, 2005: 14-15)"; "individuals' success in adapting to another culture, for instance their success (or lack of success) during overseas assignments (Brislin et al., 2006: 40)"; "capability to be effective in cross-cultural settings (Ng and Earley, 2006: 6)"; "an individual's activity in a set of knowledge, skills and personality traits with the aim of successfully working with people with different national cultural histories in and outside the country (Johnson et al., 2006: 525-526)"; "the competency of interacting effectively with individuals who are culturally different (Thomas, 2006: 78)". As it can be seen from these definitions, CQ can be described in broad terms as the capability to interact effectively with individuals of different cultural backgrounds or the result of those interactions.

Finding a way directed to making a sense of culturally different settings provides an important viewpoint in the development of CQ. Culturally intelligent people (administrators, referees, employees etc.) form a new mental frame towards understanding what they experience and see, and they comprehend why the way of thinking which psychologists call high level thinking (indicates how individuals learn, not what they do not learn) also means cultural intelligence (Tan, 2004: 20).

The CQ model provides a development based on other concepts. That is, this model contributes to existing approaches to a great extent because of these reasons: i) it has a specific nature of adapting to an individual's strengths and weaknesses; ii) it provides an integrated approach to training which deals with knowledge and learning, motivation and behaviour; iii) as to the training of those employed, it is built upon a unifying psychological model of cultural adaptation rather than piecemeal and country-specific approaches (Earley and Peterson, 2004: 101).

A number of researchers theorised CQ as a multidimensional concept as follows: Metacognitive (cognitive strategies directed to developing and attaining solving strategies); cognitive (acquired information about different cultures); motivational (desire and self-efficacy) and behavioural (repertoire of most culturally appropriate behaviours) (Ang et al., 2007: 337; Earley and Ang, 2003: 9-11). These four constituents of CQ are going to be described below.

**Metacognitive CQ:** This concept refers to the individual's level of conscious cultural awareness during cross-cultural interactions (Ang and Van Dyne, 2008: 5) or processes individuals use to acquire and understand cultural knowledge, including knowledge of and control over individual thought processes relating to culture (Ang, Van Dyne and Koh, 2006: 105). Mental processes that individuals use to acquire and understand cultural knowledge reflect individuals' self-awarenesses through experiences they had along different cultures (Ang and Van Dyne, 2008: 5). The component of Metacognitive CQ forms a suitable mapping of the social conditions and the setting in order to function effectively in an inductive way (Earley and Peterson, 2004:107). The component of Metacognitive CQ is important for several reasons among the other CQ components. Firstly, this component incites active thinking about individuals and situations in different cultural settings. Secondly, it accelerates active discussions and acts depending strongly on thinking and assumptions based on culture. Thirdly, it causes individuals to adapt and review their strategies so that they would reach desired outcomes in cross-cultural encounters and be even more culturally appropriate (Ang and Van Dyne, 2008:5).

**Cognitive CQ:** Cognitive CQ reflects an individual's knowledge of specific norms, practices, and conventions in different cultural settings (Ang et al., 2007: 338) or their competence in acquiring general knowledge about a culture (Earley and Peterson, 2004: 106). In this sense, cultural knowledge includes an individual's own knowledge intertwined with the cultural context of the setting. When a great variety of cultures in the modern world are considered, cognitive CQ indicates the knowledge of cultural universal facts as well as the knowledge of cultural differences (Ang and Van Dyne, 2008: 5). To what extent an individual has knowledge about the legal and economic systems, foreign language rules, non-verbal communications, cultural values and religious beliefs of a culture is about the cognitive component of CQ (Huff, Song and Gresch, 2014: 152). Cognitive CQ is very important in that the knowledge acquired about a culture would affect thoughts and behaviours of individuals. Understanding the culture of a society and the constituents of that culture enables individuals to evaluate the systems which shape the specific patterns of interactions in that culture, in a better way. In conclusion, individuals with higher levels of cognitive CQ can interact better with people from culturally different societies (Ang and Van Dyne, 2008:6).

**Motivational CQ:** Motivational CQ, also called Motivational, refers to an individual's ability to direct their interest and energy oriented to cultural differences (Van Dyne, Ang and Koh, 2006: 17) or their being efficient for intercultural interactions (Earley and Peterson, 2004: 108). In this sense, an individual's orientation aimed to adapting to different cultural conditions is

about Motivational CQ and that orientation is conceptualised as intrinsic motivation in cross-cultural contexts (i.e., the motives of an individual's inner-born performance) and cross-cultural self-efficacy (i.e., an individual's belief in their ability to be effective in a certain task) (Kim, Kirkman and Chen, 2008: 72). The reason for this is that self-efficacy and intrinsic motivation play an important role in CQ, because a successful intercultural interaction requires a basic approach of confidence and interest in unfamiliar and new settings (Van Dyne, Ang and Koh, 2008: 17). At the base of Motivational CQ's being an important component lies its being the source of drive which directs individuals to behave. It accelerates the effort and energy oriented to being functional in new cultural settings (Ang and Van Dyne, 2008:6).

**Behavioural CQ:** Behavioural CQ refers to an individual's ability to use culturally sensitive communications and behaviours when they engage in interactions with individuals coming from different cultures than their own (Kim, Kirkman and Chen, 2008: 72) or an individual's aptitude to determine where new behaviours are needed and how to execute them (Earley and Peterson, 2004: 108). In other words, behavioural CQ is an individual's level of being able to exhibit the appropriate behaviour both verbally and non-verbally in cross-cultural settings (Ang and Van Dyne, 2008: 6). Behavioural CQ is related to self-presentation and management of impression-making. Because leaving a good first impression in cross-cultural settings requires not just an individual's participation into verbal and non-verbal communications, but it also requires their participation into the use of body movements, mimics, distance and time which change from one culture to another (Earley and Ang, 2003: 10-11; Livermore, 2010: 28-29). Behavioural CQ represents an important component in CQ; because behaviour is the most visible feature of social interactions. In addition, non-verbal behaviours are important as well, in that they function as a "silent language" which conveys meaning in an implicit and covert way (Van Dyne, Ang and Koh, 2008:17).

### **2.3. The Effect of Five Factor Personality Traits on Cultural Intelligence**

Researches which are focused on individual differences claim there is a distinction between trait-like constructs and state-like constructs. While (personality) trait-like individual differences refer to unspecified task or situations that are stable over time; state-like individual differences represent specific situations or tasks and tend to be changeable over time (Chen et al., 2000: 835). In accordance with the essence of the study, although personality and cultural intelligence are interrelated structures, they differ; because each is related to a specific order directed to individual differences (Ang, Van Dyne and Koh, 2006: 116-118). While personality traits represent trait-like individual differences that define more comprehensible and stable tendencies; CQ reflects state-like individual differences which define changeable competencies, skills and behaviours which would change in order for one to act effectively in situations that stand out as cultural diversities (Earley and Ang, 2003: 160). In literature, some researches have conceptualised CQ as state-like individual differences which can be affected by trait-like individual differences such as personality traits (Chen et al., 2000: 835). Also, a number of researches have demonstrated that there are important relationships between certain personality traits and CQ (Ang et al., 2007: 349; Moody, 2007: 61-62; Oolders, Chernyshenko and Stark, 2008: 145-158; Ward and Fisher, 2008: 159-173; Caligiuri, 2000: 67-88; Rose, Kumar and Subramaniam, 2008: 508-513; Kumar, Subramaniam and Rose, 2008: 320-328; Lee and Sukoco, 2007: 922-931). In the light of these researches, the effect of each of the Five Factor personality traits on the four constituents of CQ will be

examined within the frame of the findings in the literature, and hypotheses in accordance with them will be created.

### 2.3.1. Extraversion and Cultural Intelligence

Extraversion reflects a self-confident, dominant, active and excitement-seeking tendency. Individuals who, in their lives, prefer positive emotions, frequency and intensity in personal interactions, who require a higher level of action, and who prefer to be optimistic and to go over positive aspects of problems are defined as extrovert people (Costa and McCrae, 1992: 5). On the other hand, the exact opposite, introversion refers to being less dependant on socialisation, being reserved and a higher tendency for protection (Ang et al., 2006: 107). In work environment, extrovert individuals adopt behaviours based on cooperation (Lepine and Dyne, 2001: 327), experiencing a positive social environment because they receive positive reactions from their colleagues (Alarcon, Eschleman and Bowling, 2009: 246-247), exhibiting better performances because of their better chances in triggering practices (Huang et al., 2013: 4). In addition, some researches revealed that the extraversion trait is closely related to problem-based solving, rational action, reviews in a positive sense and cognitive framing (Bouchard et al., 2004: 230; De Longis and Holtzman, 2005: 1650).

Encountering a new cultural setting gives extrovert individuals the opportunity to interact with people from different cultural histories and to recognise and learn the norms, practices and conventions that are settled in different cultures (Şahin et al., 2014: 154). Extraversion contributes to and makes it easy for individuals who take on assignments in different cultures to adjust to host cultures. This easiness is based on extrovert individuals' skills of gregariousness and assertiveness reflecting their tendency for positive behaviours, and on their use of lively behaviours (Şahin et al., 2014: 154). In addition, having an extrovert personality encourages individuals who work in different cultures to be more enthusiastic about international assignments so that they would socialise in the country they would be a guest in (Caligiuri, 2000: 73).

A number of studies conducted in the literature established that the personality trait of extraversion exhibits a significantly positive correlation with cognitive CQ (Ang et al., 2006: 118) and Metacognitive CQ (Moody, 2007: 55). According to these studies, in the case of encountering a great variety of experiences in different cultural settings, extrovert people would examine the assumptions and cultural values related to their own cultures more and learn cultural information. Moreover, they would understand other cultures' systems, those very cultures, their economies and legal structures better, and thus be open-minded to cultural differences and similarities (Şahin et al., 2014: 154). In the light of these explanations, following hypotheses have been proposed:

"H1a: Top ranking referees' trait of extraversion affects metacognitive cultural intelligence"

"H1b: Top ranking referees' trait of extraversion affects cognitive cultural intelligence".

Motivational CQ refers to an individual's capability to direct their attention and energy into working in culturally diverse settings and learning those settings (Rockstuhl et al., 2011:827). Since extrovert individuals are more intrinsically motivated individuals with their sociable aspects (Peltokorpi and Froese, 2014:294) and look more brave, powerful, convincing and self-confident; they tend to try new things, throw themselves into new situations and ask questions more (Rose, Kumar and Subramaniam, 2008:511; Moody, 2007: 26). Within this scope, the following hypothesis has been proposed:

"H1c: Top ranking referees' trait of extraversion affects motivational cultural intelligence".

Behavioural CQ is about whether individuals convey the most appropriate verbal or non-verbal feedback in different cultural settings. This requires an individual to be flexible in coding verbal and non-verbal signals and in decoding those signals (Huff, Song and Gresch, 2014: 153). Extrovert individuals' being significantly sociable, enjoying being around people, being active, venturesome, enthusiastic and action-oriented (McCrae and John, 1992: 5) make them superior to introverts; especially in addressing new and unfamiliar intercultural interactions and exhibiting more flexible behaviours (Rose, Kumar and Subramaniam, 2008: 511; Ang et al., 2006: 107-108). In accordance with this, the following hypothesis has been proposed:

"H1d: Top ranking referees' trait of extraversion affects behavioural cultural intelligence.

### **2.3.2. Conscientiousness and Cultural Intelligence**

The personality trait of conscientiousness refers to an individual's level of being success-oriented, reliable, organised and responsible (Costa and McCrae, 1992:6). Individuals with these traits who take on responsibilities in different cultures spare more time to the completion of the task and as a result of this task-oriented behaviour of theirs, they make effective adaptation to the assignment and accomplishment of the task possible (Shaffer et al., 2006: 10). The determination and self-discipline of an individual who have the trait of conscientiousness are beneficial in the completion of assignments and tasks, their devotion to the requirements of the assignment plays an active role (Witt et al., 2002: 150). While having high scores on the personality trait of conscientiousness shows focus, carefulness and order, reliability; having low scores in this personality trait indicates distractibility, flexibility and indifference (Migliore, 2011: 40). When a relation between these definitions of the personality trait of conscientiousness which stand out and the four constituents of CQ is made, it can be suggested that the personality trait of conscientiousness is closely related to Metacognitive CQ. Because Metacognitive CQ represents an individual's cultural awareness in their interactions with people in different cultural settings and the type of intelligence which develops cognitive strategies and solution strategies directed to dealing with the problems in different cultural settings (Ng and Earley, 2006: 7). Self-regulation and awareness, which are the distinguishing aspects of the personality trait of conscientiousness, are counted among the abilities of Metacognitive CQ. Also, the traits of strategic thinking, planning and questioning which individuals with high levels of Metacognitive CQ have, are among the primary traits which responsible individuals have as well (Rose, Kumar and Subramaniam, 2008:508). Therefore, the following hypothesis has been proposed:

"H2a: Top ranking referees' traits of conscientiousness affect metacognitive cultural intelligence".

It is said that conscientious individuals complete the assignments given to them effectively and successfully, both in autonomous and hierarchical structures (Witt et al., 2002:150). Their ability to monitor their development and adapt their behaviours to the states the situation requires plays a role in that success. Behavioural CQ, referring to the flexibility in exhibiting the most appropriate behaviour and to transactional adaptation in engaging in interactions with people from different cultural histories coincides with this aspect of self-regulation of the trait of conscientiousness. Individuals with high levels of behavioural CQ have the ability to exhibit the most appropriate verbal and non-verbal behaviours while interacting with representatives of different cultures in intercultural settings (Ang et al., 2007: 342). Within the scope of these explanations, the following hypotheses have been proposed:

"H2b: Top ranking referees' trait of conscientiousness affects cognitive cultural intelligence"

"H2c: Top ranking referees' trait of conscientiousness affects motivational cultural intelligence"

"H2d: Top ranking referees' trait of conscientiousness affects behavioural cultural intelligence".

### **2.3.3. Openness to Experience and Cultural Intelligence**

The personality trait of openness to experience indicates a dimension that distinguishes creative and imaginative individuals from individuals who have a superficial view of the world and a stereotypical framework. It refers to an individual's having unique characteristics, their level of desiring change and variety (Costa and McCrae, 1992: 6). While individuals who score high on the dimension of openness to experience have a deep intellectual curiosity distinguished by an individualistic way of thinking which is far from adapting; individuals with low scores prefer familiarity and a narrow intellectual focus (Migliore, 2011: 40). Individuals who choose unconventional methods over status quo and steadiness, who have high inner sensitivity, who are sophisticated and have original ideas represent generally a personality which is open to experience (Thoms, 1996: 349). Among the Big Five factors of personality, Openness to Experience is the one that is most related to matters about performance. A culturally intelligent individual can easily switch between cultural settings and interpret social symbols embedded in cultural contexts correctly. One of the raw contents of acquiring these skills would be Openness to Experience. This personality trait includes these skills with the aspects of relatively high-level intellectual effectiveness, tolerance, curiosity, flexibility and depth (Ramalau, et al., 2011: 62). The individuals adopt stereotypes based on race and other fallacies less (Flynn, 2005: 823). Individuals with the personality traits of having a broader range of interests and being imaginative, who carry out assignments in different cultures would adapt to the host country more rapidly and develop their performances towards high efficiency (Olders, Chernyshenko and Stark, 2008: 148).

Ang et al. (2006) found that constituents of CQ exhibit the strongest relationship with Openness to Experience among all the other Big Five factors. This personality trait exhibits a relation with Metacognitive CQ because of the curious sides of the individuals who are open to experience and their tendency to spare more time to think about thinking. Those people adopt Metacognitive strategies in thinking and interacting with people from different cultures. Questioning their own cultural assumptions, examining cultural tendencies and reconsidering other intellectual models in the case of forming relationships with representatives of other cultures bring individuals who are open to experience into mind (Ang et al., 2006: 118). Therefore, the following hypothesis has been proposed:

"H3a: Top ranking referees' trait of openness to experience affects metacognitive cultural intelligence".

New and unfamiliar cultural settings provide individuals with cultural consciousness, awareness and knowledge. Intelligent, curious, open-minded and versatile individuals who are open to experience would increase the cognitive constituent of CQ when they face an opportunity of consciously examining their own cultural assumptions and values, and of learning the norms, practices and traditions of other cultures (Şahin et al., 2014:154). When considered with this aspect, the following assumption has been made:

"H3b: Top ranking referees' trait of openness to experience affects cognitive cultural intelligence".

Individuals who have high levels of motivational CQ are more open and seem to be determined to adapt persistently to a new culture in terms of both in and outside work environments. Because they have the self-efficacy and intrinsic motivation for participating in cross-cultural experiences (Huff, Song and Gresch, 2014:153). According to these explanations, the hypothesis below has been proposed:

"H3c: Top ranking referees' trait of openness to experience affects motivational cultural intelligence".

Behavioural CQ refers to an individual's flexibility in verbal and non-verbal signs and increasing the job performance and general harmony in intercultural settings, and includes that individual's displaying interpersonal and social skills during cross-cultural encounters (Ang et al., 2004: 6-7). The curious and imaginative sides of individuals who are open to experience require them to look for new experiences and then put them into action, and to expand their repertoire of behaviours beyond daily habits (Rose, Kumar and Subramaniam, 2008:512). Therefore, the following hypothesis has been proposed:

"H3d: Top ranking referees' trait of openness to experience affects their behavioural cultural intelligence".

#### **2.3.4. Agreeableness and Cultural Intelligence**

Agreeableness generally reflects considerate and friendly individuals who are desirous of a consensus. It constitutes the personality trait which represents the interpersonal sides of personality (McCrae and John, 1992: 6). Agreeableness is related to putting effort into getting on with other people in the environment (Shaffer et al., 2006: 9). Among the aspects of the trait of agreeableness which stand out; considering others, assuming a humble attitude and getting along in interpersonal relationships and being respectful can be counted (John, 1990: 66-100). While individuals who score higher on this dimension are perceived as reliable, cooperative and loveable; those who have low scores are perceived as argumentative and tending to be quarrelsome, indifferent to the people in the environment, looking at events over their own egos, and jealous individuals (Digman, 1990: 422-424). Agreeableness enables individuals who take on assignments in different cultures to develop better relationships with the members of the host country, to communicate effectively, and additionally, to lower the stress levels in international assignments both in work-related aspects and the aspects that are not work-related, via their cooperative behaviours (Shaffer et al., 2006: 9-10). Individuals with the trait of agreeableness, especially those who work in different cultures, are known to be individuals whose ability in inner networking relationships stands out (Wolff and Kim, 2012: 48), who can establish mutual social partnerships, preserve their social positions successfully, and have the determination to complete transnational assignments (Caligiuri, 2000: 73). It is easy for individuals who have the trait of agreeableness to adapt to a different culture and carry out international assignments successfully. Because those people are more flexible and less aggressive to others; it is easier for them to adapt to a new culture (Ramalu et al., 2011: 60-62).

When the relationship between the personality trait of agreeableness and the four constituents of CQ is considered; it can be suggested that agreeableness is in relation with behavioural CQ, however, it does not display any relation with Metacognitive, cognitive or Motivational CQ (Rose, Kumar and Subramaniam, 2008:509). Because the personality trait of Agreeableness has the competence for interpersonal aspects and the ability for understanding people and the competence in acting in cooperation. This aspect and the aspect of the constituent of behavioural CQ, which is the ability to exhibit appropriate verbal

and non-verbal behaviours when interacting with people coming from different cultural settings, reflect a relationship (Ang et al., 2007: 342). Starting from this point, the following hypotheses have been proposed:

"H4a: Top ranking referees' trait of agreeableness affects metacognitive cultural intelligence"

"H4b: Top ranking referees' trait of agreeableness affects cognitive cultural intelligence"

"H4c: Top ranking referees' trait of agreeableness affects motivational cultural intelligence"

"H4d: Top ranking referees' trait of agreeableness affects behavioural cultural intelligence".

### **2.3.5. Emotional Instability (Neuroticism) and Cultural Intelligence**

Emotional Instability represents the tendency to experience negative and stressful emotions and having behavioural and cognitive traits related to those emotions (Costa and McCrae, 1987: 300-301). Individuals who have high scores on Emotional Instability scale experience negative emotions like anger, anxiety and depression more. They regard conventional situations as threatening and valueless disappointments (Cooper, Golden and Socha, 2013: 69). However, individuals who score low on the scale of Emotional Instability are known to be emotionally stable and calm (Migliore, 2011: 40), relaxed, equanimous or poised (Costa and McCrae, 1992:5). Emotional stability helps individual face cultural differences and takes them with toleration; it also unlocks the way of getting on with colleagues. Accordingly, if individuals who take on assignments in different cultures tolerate the difference between their own country and the host country, they can develop relationships for the matter of getting accustomed to the host country and functioning better more rapidly (Migliore, 2011: 40). Emotional stability is known to be a universal adaptive mechanism that enables people to cope with stressful situations around them (Caligiuri, 2000: 74; Shaffer et al., 2006: 8-9). Within the scope these evaluations, the following hypotheses have been proposed:

"H5a: Top ranking referees' trait of emotional instability affects metacognitive cultural intelligence"

"H5b: Top ranking referees' trait of emotional instability affects cognitive cultural intelligence".

Motivational CQ refers to an individual's tendency for learning or functioning in other cultural settings, and reflects the individual's intrinsic motivation and self-efficacy towards experiencing cross intercultural experiences. The tendency to be determined and more open when adapting to a new culture is related to Motivational CQ (Ang et al., 2007: 342; Ang and Van Dyne, 2008: 6). Since the tendency for acting neurotically represents neurotic individuals' pessimism and lack of self-confidence, it can be claimed that there is a negative relationship between Emotional Instability and Motivational CQ (Rose, Kumar, and Subramaniam, 2008: 510). According to these, the following hypothesis has been proposed:

"H5c: Top ranking referees' trait of emotional instability affects motivational cultural intelligence".

According to Gudykunst and Kim (1997: 348), who evaluated the five factor personality traits in different cultural settings, emotional stability plays an important role in the adaptation of individuals, who carry out assignments outside their own culture, to the host country they are guests in. Emotionally stable people have a higher tendency towards dealing with unpleasant environments in cultural settings they are unfamiliar with and solving the related problems (Shaffer et al., 2006: 8). Again, it is more probable to see the ability to display flexible verbal and non-verbal behaviours which would give other people peace in cross-cultural settings, in individuals who tend to be emotionally stable (Ang et al., 2006: 107). According to these explanations, the following hypothesis has been proposed:

"H5d: Top ranking referees' trait of emotional instability affects behavioural cultural intelligence".

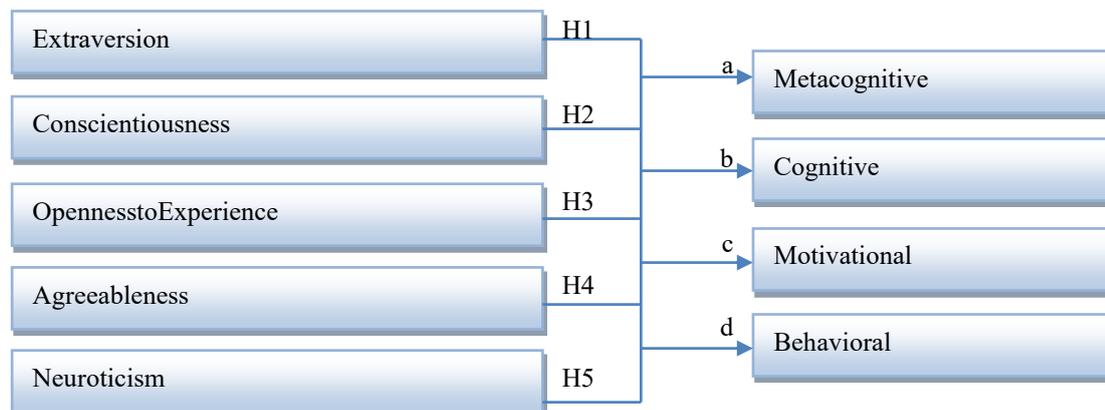
The hypotheses proposed in the research shape the model of the research as well. When the general model of the research is reviewed, it is assumed that "Five Factor Personality Traits" affect "Cultural Intelligence". Therefore, the general model of the research has been formed as shown in the figure below:

**Figure 1: General Model of the Research**



Detailed model of the research has been shaped depending upon the general model of the research. Both two scales discussed in the research consist of sub-dimensions. In Figure 2, the effects of the five factors which define "Five Factor Personality Traits" on the four factors which define "Cultural Intelligence" display the detailed model of the research.

**Figure 2: Detailed Model of the Research**



**3. Method of the Research**

In order to test the model formed and the hypotheses proposed in the research, a questionnaire work with the Top Ranking Football Referees working within the body of Turkish Football Federation was carried out. The questionnaire form was prepared online, in a way that could be filled on electronic environment and was sent to e-mail addresses of the referees. There are 119 football referees working in the top classification of the 2013-2014 football season, 40 being referees and 79 being assistant referees (TFF, 2013: 1-3).

Literature was searched in depth for the use of the scales in the online questionnaire form. While preparing the questionnaire form, attention was paid to creating the scales from questionnaire questions of which the validity and reliability had been tested before, taking the theoretical and practical structure of variables into consideration.

The Big Five Inventory (BFI) was developed by John, Donahue and Kentle (1991). There are some statements people use to describe themselves and their personality traits. BFI, the five point Likert scale (1= Strongly disagree and 5= Strongly agree) consists of 44 questions and 5 subscales. Those subscales are Emotional Instability, Extraversion, Agreeableness, Conscientiousness and Openness to Experience. The reliability coefficients John et al. (1991) got are: emotional instability, 84; extraversion, 88; agreeableness, 79; conscientiousness, 82; openness to experience, 81.

The inventory was adapted to our language by Alkan (2007) and its reliability work was done. Then, the inventory was taken from Gümüş's (2009) doctorate study called "Relationships among Culture, Values, Personality and Political Ideology: An Intercultural Comparison (Turkey-USA)" in order to be used in this study. The form of the Big Five Inventory (BFI) developed by John et al. (1991) and brought into local literature by Alkan (2007) was used in this research.

The 20-item scale developed by Ang et al. (2007) for cultural intelligence was used in the research. The scale was brought into local literature by Şahin et al. (2013), testing its reliability and validity.

5 point Likert attitude scale was used for the answering of the scales used in the research. Participants were asked to make evaluations as 1-Strongly Disagree, 2-Disagree, 3-Neither Disagree nor Agree, 4-Agree and 5-Strongly Agree for the Big Five Inventory and Cultural Intelligence scale in the questionnaire form. Also, the questionnaire form includes statements directed to determining the participants' demographical characteristics.

In the research, the questionnaire form which had been prepared online was sent to the e-mail addresses of all the referees. The online questionnaire form worked as a web-based one and as the individuals who completed the questionnaire clicked the "send the questionnaire" button, their answers to the questionnaire were automatically recorded. In the online questionnaire form, especially the parts which were related to the scales were marked as must-be-answered and thus, an individual's, who had started to answer the questionnaire, sending the questionnaire incomplete, was prevented. Therefore the risk of the questionnaires' being filled incompletely was eliminated. The online questionnaire form was sent to the e-mail addresses of all the top ranking referees, however, for the number of samples gained was not enough in the first run, the same questionnaire form was sent to the e-mail addresses of top ranking referees for the second time so that the ones who had not participated in the questionnaire would join. At the end of the process of data gathering in the first run, it was determined from the database that between October 2013 - January 2014, 94 questionnaires (return ratio= 78.99%) had been filled. When examined according to sampling determination table, the suggested sampling size was determined as 92, at the level of 95% reliability with 5% acceptable errors. (Böke, 2009: 135). The fact that 94 questionnaires were reached in the data gathering process of the research shows that sampling is sufficient. SPSS software package was made use of in analysing the data. In the research, frequencies of the demographical characteristics of those who participated in the questionnaire, heuristic factor analysis, reliability test, regression analysis to test the hypotheses proposed in the research, correlation analysis that shows the relations among variables were used. Acceptable error margin (statistical significance: p value) were taken as 5% in all the analyses.

#### **4. Findings**

Demographical characteristics of those who participated in the research will be addressed before evaluating the hypotheses proposed in the research. The demographical characteristics gathered in the research are addressed within the scope of the evaluations at the last part of the questionnaire form. They were compiled in the light of the data acquired from the statements in the last part of the questionnaire, directed to determining the participants' age, title, time of being a referee in the top classification, total time of being a referee, level of education, skill of speaking a foreign language, number of trainings/seminars/courses they had at international level and the number of assignments they had in international games.

**Table 1: Demographical Characteristics**

Age	Frequency (f)	Percent (%)
Younger than 30	8	8.70
Between the ages 31 - 35	38	41.30
Between the ages 36 - 40	32	34.78
Above the age of 41	14	15.22
Title	Frequency (f)	Percent (%)
Referee	29	31.52
Assistant Referee	63	68.48
Time of Being a Referee in the Top Classification	Frequency (f)	Percent (%)
Less than 3 years	17	18.48
4 - 6 years	33	35.87
7 - 9 years	24	26.09
More than 10 years	18	19.57
Total Time of Being a Referee	Frequency (f)	Percent (%)
Less than 5 years	20	21.74
6 - 10 years	35	38.04
11 - 15 years	21	22.83
More than 16 years	16	17.39
Skill of Speaking a Foreign Language	Frequency (f)	Percent (%)
Speaker	29	31.52
Non-speaker	63	68.48

Level of Education	Frequency (f)	Percent (%)
High school and equivalent	0	0.00
Associate	12	13.04
Bachelor's Degree	68	73.91
Master's Degree	11	11.96
Doctorate	1	1.09
Number of Trainings/Seminars/Courses Had at International Level	Frequency (f)	Percent (%)
Less than 5	13	14.13
Between 6 - 10	25	27.17
Between 11- 15	17	18.48
Between 16 -20	21	22.83
More than 21	16	17.39
Number of International Assignments	Frequency (f)	Percent (%)
Less than 5	7	7.61
Between 6 - 10	26	28.26
Between 11- 15	34	36.96
Between 16 -20	17	18.48
More than 21	8	8.70

On Table 1, it is seen that a large majority of the participants accumulated between the age range of 31 - 40 (41.30%+34.78%). When the participants are evaluated in terms of their titles, it can be seen that assistant referees are dominant (68.48%). Since a large majority of the squad of top ranking referees consists of assistant referees (39 referees, 80 assistant referees), it can be said that this ratio is normal and there is a balanced distribution. In the research, the distribution of the participants' times of being a referee in the top classification and the distribution of total times of being a referee are demonstrated on Table 1. According to these data, it can be said that the top ranking referees have sufficient experience both in terms of years of being a referee and task durations in upper leagues. It is seen that a large majority of the football referees who participated in the research have bachelors' degrees (73.91%) and are not at a level of speaking a foreign language (68.48%). Also, the number of trainings/seminars/courses at international level the football referees who participated in the research had and the number of assignments they had in international games can be seen on Table 1.

Since the validity of the scale primarily depends on its reliability (Nakip, 2003: 123); before testing the hypotheses of the research, evaluating reliability, consistency of the questions included in the research with each other and to what extent the scales used reflected the issue which was discussed was considered (Kalaycı, 2005: 403). In order to measure the internal consistency of the data gathered in the research, reliability analysis (Cronbach Alpha) was conducted and the achieved value is accepted as an indicator that the evaluation made is homogenous. Reliability of the scale is measured by the value the alpha coefficient got and its having a value close to 1 is accepted as an indicator that reliability is high (Tavşancıl, 2002: 29). In social sciences, the alpha ( $\alpha$ ) coefficient's being higher than 0.70 indicates that the scale can be regarded as reliable (Hair et al., 1998: 118). In addition, the alpha ( $\alpha$ ) coefficient's

being higher than 0.60 can also be accepted as sufficient in exploratory researches (Kalaycı, 2005: 405).

**Table 2: Results of Factor Analysis Regarding Five Factor Personality Traits**

	Extraversion	Agreeableness	Conscientiousness	Emotional Instability	Openness to Experience
I am a talkative person.	0.75				
	1				
I am an introvert person.	0.73				
	3				
I am quiet.	0.72				
	8				
I can encourage other people.	0.70				
	6				
I am full of energy.	0.68				
	4				
I am not inhibited, I am gregarious.	0.66				
	1				
I am sometimes shy and inhibited.	0.62				
	9				
I am an extrovert, sociable person.	0.51				
	2				
I don't have much interest in arts.	0.46				
	4				
I tend to find fault with others.		0.80			
		2			
I am helpful.		0.76			
		8			
I start quarrels with others.		0.62			
		1			
I have a forgiving nature.		0.61			
		4			
I am a person that other people trust.		0.58			
		6			
I am cold and aloof to other people.		0.54			
		7			
I am considerate and respectful to everybody.		0.51			
		2			
I am sometimes rude to others.		0.50			
		6			
I do a thorough job.			0.79		
			5		

I can be careless sometimes.	0.78	2
I am a reliable person to give an assignment (study, homework, work).	0.76	2
I am a disorganised person, I am not very tidy.	0.75	1
I tend to be lazy.	0.73	8
I persevere until the task is finished.	0.62	8
I do things efficiently, well; I sustain.	0.51	4
I make plans and I follow through with them.	0.50	1
I like cooperating with others.	0.49	9
I am easily distracted.	0.48	2
I am pessimistic, blue.	0.66	5
I am relaxed, I don't get stressed.	0.64	8
I can be tense.	0.61	5
I worry a lot.	0.60	7
I am emotionally stable, not easily upset.	0.58	4
My mood is unsteady.	0.57	1
I can remain calm in tense situations, environments.	0.51	2
I get nervous easily.	0.50	3
I am original, I come up with new ideas.	0.62	2
I am curious about many different things.	0.61	3
I am ingenious, a deep thinker.	0.60	4
I have an active imagination.	0.58	7
I am inventive.	0.56	8
I value artistic, aesthetic experiences.	0.54	2

I prefer doing things that are routine.	0.50 9
I like to play with ideas, think over what they mean to me.	0.41 2
I am interested in art, music, and literature.	0.40 1
<b>Total Variance Disclosed: 62.12%</b>	

Whether the data gathered in the research were suitable for factor analysis was decided by evaluating the results of KMO (Kaiser-Meyer-Olkin) test and Bartlett test (KMO=0.849; Bartlett Test  $\chi^2=3873.639$ ;  $p<0.01$ ). According to these results, it is seen that as for KMO, the result is  $KMO>0.60$  and the chi square value of Bartlett test gave a significant result. Two different scales were used in the research. Items analysis about the 44-item Big Five Inventory and the 20-item Cultural Intelligence Scale, and rotation process in which varimax factor analysis was carried out were performed. As a result of the factor analysis carried out, while 5 factors the eigenvalues of which were higher than 1 were found in the Big Five Inventory, 4 factors the eigenvalues of which were higher than 1 were obtained in the Cultural Intelligence Scale. The obtained factor figures are consistent with the literature. In addition, the total variance ratios explained for each scale are 62.12% and 68.19% respectively. The factors under which the items included in the scales are, and load values of the factors are demonstrated on Table 2 and Table 3.

**Table 3: Results of Factor Analysis Regarding Cultural Intelligence**

	Metacognitive	Cognitive	Motivational	Behavioral
I am conscious of the cultural knowledge I use when interacting with people with different cultural backgrounds.	0.876			
I adjust my cultural knowledge as I interact with people from a culture that is unfamiliar to me.	0.816			
I am conscious of the cultural knowledge I apply to intercultural interactions.	0.782			
I check the accuracy of my cultural knowledge as I interact with people from different cultures.	0.694			
I know the legal and economic systems of other cultures.		0.89 1		
I know the rules (e.g., vocabulary, grammar) of other languages.		0.84 1		
I know the cultural values and religious beliefs of other cultures.		0.75 4		
I know the marriage systems of other cultures.		0.74 2		
I know the arts and crafts of other cultures.		0.68 1		

I know the rules for expressing non-verbal behaviours in other cultures, such as gestures and facial expressions.	0.795
I enjoy interacting with people from different cultures.	0.762
I am confident that I can socialize with locals in a culture that is unfamiliar to me.	0.740
I am sure I can deal with the stresses of adjusting to a culture that is new to me.	0.711
I enjoy living in cultures that are unfamiliar to me.	0.675
I am confident that I can get accustomed to the shopping conditions in a different culture.	0.648
I adjust my verbal behaviours (accent, tone etc.) according to the requirements of intercultural communication.	0.798
I use intonation and pause differently to suit different intercultural situations.	0.761
I adjust my way of speaking according to the requirements of intercultural communication.	0.703
I adjust my non-verbal behaviours as much as intercultural communication requires it.	0.689
I alter my facial expressions according to the requirements of intercultural communication.	0.612
<b>Total Variance Explained: 68.19%</b>	

In line with the aim of the research, the effect of the Five Factor Personality Traits of Top Ranking Referees on Cultural Intelligence has been studied with simple regression analysis. Starting from this point, as it is shown in the research model, the Dimensions of Five Factor Personality Traits (Extraversion, Agreeableness, Conscientiousness, Emotional Instability, Openness to Experience) have been subjected to analysis as independent variables, and the Dimensions of Cultural Intelligence (Metacognitive, Cognitive, Motivational, Behavioural) as dependant variables. Effect of the Dimensions of Five Factor Personality Traits, which have been taken as independent variables, on the dependent variables will be examined respectively.

**Table 4: Effect of the Dimensions of Five Factor Personality Traits on Metacognitive Cultural Intelligence**

Independent Variables	Standard Beta	t value	p value
Extraversion	0.127	1.784	0.105
Conscientiousness	0.241	2.513	0.003
Openness to Experience	0.186	1.894	0.001
Agreeableness	0.213	2.425	0.001
Emotional Instability	0.194	2.012	0.001
	<b>R<sup>2</sup>=0.312</b>	<b>F=16.529</b>	<b>p= 0.001</b>

Table 4 includes the results of the regression analysis showing the Effect of the Dimensions of Five Factor Personality Traits of top ranking referees on Metacognitive Cultural Intelligence. As it is seen on Table 4, the regression model gave a significant result ( $F=16.529$ ;  $p=0.001$ ). The  $R^2$  value, which is taken as the independent variables' (Extraversion, Agreeableness, Conscientiousness, Emotional Instability, Openness to Experience) explanation ratio of the variance of the dependent variable (Metacognitive Cultural Intelligence) has been measured as 0.312. The independent variables of the personality trait of Agreeableness ( $\beta=0.213$ ;  $p=0.001$ ), the personality trait of conscientiousness ( $\beta=0.241$ ;  $p=0.003$ ), the personality trait of emotional instability ( $\beta=0.194$ ;  $p=0.001$ ) and the personality trait of openness to experience ( $\beta=0.186$ ;  $p=0.001$ ) in the regression model display a significant effect. Therefore, it can be said that the hypotheses of H2a, H3a, H4a and H5a proposed in the research are supported. However, because the personality trait of extraversion, one of the independent variables displayed in the regression model did not give a significant result; the hypothesis H1a is not supported ( $\beta=0.127$ ;  $p=0.105$ ).

The results of the regression analysis showing the Effect of the Dimensions of Five Factor Personality Traits of top ranking referees on Cognitive Cultural Intelligence are demonstrated on Table 5.

**Table 5: Effect of the Dimensions of Five Factor Personality Traits on Cognitive Cultural Intelligence**

Independent Variables	Standard Beta	t value	p value
Extraversion	0.155	1.164	0.102
Conscientiousness	0.212	2.418	0.001
Openness to Experience	0.114	1.217	0.001
Agreeableness	0.238	2.541	0.418
Emotional Instability	0.091	0.128	0.201
	<b><math>R^2=0.198</math></b>	<b><math>F=9.581</math></b>	<b><math>p=0.001</math></b>

As it is seen on Table 5, the regression model gave a significant result ( $F=9.581$ ;  $p=0.001$ ). The  $R^2$  value, which is taken as the independent variables' (Extraversion, Agreeableness, Conscientiousness, Emotional Instability, Openness to Experience) explanation ratio of the variance of the dependent variable (Cognitive Cultural Intelligence) has been measured as 0.198. The personality trait of conscientiousness ( $\beta=0.212$ ;  $p=0.001$ ), which is one of the independent variables in the regression model, and the personality trait of openness to experience ( $\beta=0.114$ ;  $p=0.001$ ) display a significant effect. Therefore, it can be said that the hypotheses H2b and H3b proposed in the research are supported. However, because the personality trait of extraversion ( $\beta=0.155$ ;  $p=0.012$ ), the personality trait of agreeableness ( $\beta=0.238$ ;  $p=0.418$ ) and the personality trait of emotional instability ( $\beta=0.091$ ;  $p=0.201$ ) which are of the independent variables displayed in the regression model, did not give significant results; the hypotheses H1b, H4b and H5b are not supported.

The results of the regression analysis showing the Effect of the Dimensions of Five Factor Personality Traits of top ranking referees on Motivational Cultural Intelligence are demonstrated on Table 6.

**Table 6: Effect of the Dimensions of Five Factor Personality Traits on Motivational Cultural Intelligence**

Independent Variables	Standard Beta	t value	p value
Extraversion	0.314	3.258	0.001
Conscientiousness	0.261	2.812	0.001
Openness to Experience	0.186	1.957	0.001
Agreeableness	0.245	2.641	0.004
Emotional Instability	0.157	1.463	0.124
	<b>R<sup>2</sup>=0.418</b>	<b>F=13.257</b>	<b>p= 0.001</b>

As it is seen on Table 6, the regression model gave a significant result ( $F=13.257$ ;  $p=0.001$ ). The  $R^2$  value, which is taken as the independent variables' (Extraversion, Agreeableness, Conscientiousness, Emotional Instability, Openness to Experience) explanation ratio of the variance of the dependent variable (Motivational Intelligence) has been measured as 0.418. The personality trait of extraversion ( $\beta=0.314$ ;  $p=0.001$ ), the personality trait of agreeableness ( $\beta=0.245$ ;  $p=0.004$ ), the personality trait of conscientiousness ( $\beta=0.261$ ;  $p=0.001$ ) and openness to experience ( $\beta=0.186$ ;  $p=0.001$ ), of the independent variables in the regression model display a significant effect. Therefore, it can be said that the hypotheses H1c, H2c, H3c and H4c proposed in the research are supported. However, because the personality trait of emotional instability, one of the independent variables displayed in the regression model did not give a significant result; the hypothesis H5c is not supported ( $\beta=0.157$ ;  $p=0.124$ ). The results of the regression analysis, showing the Effect of the Dimensions of Five Factor Personality Traits of top ranking referees on Behavioural Cultural Intelligence are demonstrated.

**Table 7: Effect of the Dimensions of Five Factor Personality Traits on Behavioural Cultural Intelligence**

Independent Variables	Standard Beta	t value	p value
Extraversion	0.198	2.120	0.221
Conscientiousness	0.274	2.912	0.001
Openness to Experience	0.218	2.311	0.002
Agreeableness	0.263	2.861	0.124
Emotional Instability	0.084	1.131	0.189
	<b>R<sup>2</sup>=0.387</b>	<b>F=8.674</b>	<b>p= 0.001</b>

As it is seen on Table 7, the regression model gave a significant result ( $F=8.674$ ;  $p=0.001$ ). The  $R^2$  value, which is taken as the independent variables' (Extraversion, Agreeableness, Conscientiousness, Emotional Instability, Openness to Experience) explanation ratio of the variance of the dependent variable (Behavioural Intelligence) has been measured as 0.387. The personality trait of conscientiousness ( $\beta=0.274$ ;  $p=0.001$ ) and the personality trait of openness to experience ( $\beta=0.218$ ;  $p=0.002$ ), of the independent variables in the regression model display a significant effect. Therefore, it can be said that the hypotheses H2d and H3d proposed in the research are supported. However, because the personality trait of extraversion ( $\beta=0,198$ ;  $p=0,221$ ), the personality trait of agreeableness ( $\beta=0,274$ ;  $p=0,124$ ) and the personality trait of emotional instability ( $\beta=0,189$ ;  $p=0,189$ ), of the independent

variables displayed in the regression model did not give significant results; the hypotheses H1d, H4d, H5d are not supported.

## **5. Conclusion**

Cultural diversity of football players in football leagues increases each passing day. Managing the cultural diversity of football players, communicating/interacting effectively with football players who have different mental programmes (Hofstede, 1980: 25) and information and belief systems describe an important competence of referees. The most important of these areas of competence can be described as referees' cultural intelligences.

In this study, a research has been done in order to determine the effect of five factor personality traits (FFPT) of Top Ranking Football Referees (TRR) on Cultural Intelligence (CQ). Obtained findings indicate that FFPT of Top Ranking Football Referees affect CQ at certain dimensions, and the effects are supported with certain hypotheses.

The results obtained in the research will be discussed within the scope of the dimensions of CQ. The result that the dimensions of conscientiousness, openness to experience, agreeableness and emotional instability of FFPT affect Metacognitive CQ has been found out. Conscientiousness describes focus, carefulness and order, reliability (Migliore, 2011: 40). Therefore, as Ng and Earley (2006) explain as well, Top Ranking Referees' cultural awareness in their interactions with people in different cultural settings shows cognitive strategies directed to dealing with problems in different cultural settings and the structure that develops solution strategies. Along with that, TRRs' traits of strategic thinking, planning and questioning stand out as well (Rose, Kumar and Subramaniam, 2008: 508). Ang et al. (2006) discovered that the constituents of CQ display the strongest relationship with Openness to Experience among the Big Five factors. That result supports the result we had in the research because Openness to Experience is the one that affected all the dimensions of CQ. Because of the curious side of individuals who are open to experience and their tendency to spare more time to think about thinking, this type of personality displays a relationship with Metacognitive CQ. Therefore, it can be said that TRRs adopt metacognitive strategies in the matters of thinking and interacting with people from different cultures. Also, in the research, it has been found that emotional instability affects metacognitive CQ. With this result, it can be said that TRRs experience negative emotions like anger, anxiety and depression from time to time. Moreover, their conventional states could form as threatening and valueless disappointments too (Cooper, Golden and Socha, 2013: 69).

In the research, it has been concluded that TRRs affect cognitive CQ with their dimensions of conscientiousness and openness to experience. Therefore it can be stated that TRRs can accomplish the assignments which were given to them effectively and successfully, both in autonomous and in hierarchical structures (Witt et al., 2002: 150). Additionally, according to the result obtained in parallel with the study of Şahin et al. (2014); it can be said that TRRs are intelligent, curious, open-minded and versatile individuals who are open to experience, when they face an opportunity of consciously examining their own cultural assumptions and values, and of learning the norms, practices and traditions of other cultures.

As another finding of the research; it has been concluded that TRRs affect motivational CQ with their dimensions of extraversion, conscientiousness, openness to experience and agreeableness. According to this result, it can be said that TRRs have the capability of directing their attentions and energies to performing in culturally diverse settings and learning about those settings; as Rockstuhl et al. (2011), Kim et al. (2008) and Moody (2008) stated. Along with that, as Huff et al. (2014) stated in their study, it can be said that TRRs have the self-

efficacy and intrinsic motivation for engaging in cross-cultural experiences. Although, in the literature, Rose et al. could not find a relationship between motivational CQ and agreeableness; it has been found out in this research that TRRs' traits of agreeableness affect motivational CQ. Thus, according to the results of this research, it can be said that TRRs have interpersonal aspects, ability of understanding individuals and the competence of acting in cooperation (Fischer, 2011).

Another finding obtained in the research is that the dimensions of conscientiousness and openness to experience affect behavioural CQ. Ang et al. (2007) stated that individuals who have high levels of behavioural CQs have the capability of exhibiting the most appropriate verbal and non-verbal behaviours while engaging in interactions with representatives of different cultures in intercultural settings. It has been concluded in the research that TRRs have such kind of capability as well. This conclusion could be one of the important results of the research. Also, the results of the research explain TRRs' personality structures of being open to experience and their curious and imaginative sides (Rose, et al., 2008).

When the results of the research are evaluated overall, it is seen that while the research gave results in line with some researches in the literature; it differed in some traits. Van Dyne and Ang (2006) and Oolders et al. (2008), found that the dimension of openness to experience is in relation with the four constituents of CQ in their studies, along similar lines with the results of this research. Also, this research provided results that are similar to the results of the studies of Lee and Senkoco (2007) to a large extent. While Lee and Sukoco (2007) found the effect of the dimension of conscientiousness on cognitive CQ, motivational CQ and behavioural CQ; it has been found in this research that it affects metacognitive CQ in addition to those.

This research has been carried out in order to find the effect of FFPTs of TRRs on the constituents of CQ. Therefore a broader or more comprehensive perspective has been preferred in evaluating personality traits. Considering the fact that there are discussions whether this broad perspective is the best or not in the literature, future studies should include some specific personality traits in examinations as well if they are to prove higher validity than the broad-perspective personality traits tested in this study. One's self-monitoring, tolerance for uncertainty represent such specific personality traits.

Possible future studies can focus on dynamic competencies representing the knowledge and skills which are acquired via education and which change over time, apart from the personality traits -which are stable over time-, of individuals who are and who take on assignments (directors, consultants, students, trainers, referees etc.) in cultures other than the ones they went through socialisation process. In other words, relations between dynamic activity areas such as flexibility, cultural empathy, social enterprise, consumer behaviours, consumer trends, ethnocentrism and CQ can be studied.

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