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CONTRIBUTION OF PSYCHOLOGICAL CHARACTERISTICS TO TEAM SUCCESS IN FOOTBALL

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Abstract

Previous base in theoretical analysis and the present findings of the research on psychological factors that contribute to the successful sport implementation, specifically the Hypothetical model of success in team sports (Mlacic and associates 2010) we have design this research project in order to integrate the knowledge of the Five-Factor Personality Model (McCrae and Costa, 1992), self-efficacy (Bandura, 1986) and the locus of control (Rotter, 1971) and group cohesion (Corron and associates, 1985) in prediction of a team sport success in football. The aim of this paper is to present the results of a study in which we tested the contribution of individual characteristics (neuroticism, extraversion, agreeableness, openness, conscientiousness, self-efficacy, locus of control and length of football training- as one determinant of experience) and group psychological characteristics (perceived group cohesion) in explanation of team success (placement on the table) of various football selections (junior and senior) in Bosnia and Herzegovina. 417 football players from 12 football clubs in Bosnia and Herzegovina participated in the research. For the assessment of predictor variables were used: Questionnaire on general data of football players, NEO-PI R (Coste and McCrae, 1992) to examine five personality factors, Scale of self-efficacy of football players (Šamija and Bosnar, 2010) to assess self-efficacy in football, Scale of externality , 1990) to examine the locus of control, UGO – R (Carron et al., 1985) to assess group cohesion. The group performance indicator was used as a criterion, which is the position of the team on the table at the end of the autumn part of the competition for the 2016/2017 season. of the Premier League of Bosnia and Herzegovina. We conducted the Hierarchical Linear Regression procedure and concluded that the dimension of neuroticism of the five-factor personality model and group cohesion proved to be significant in predicting team success for seniors. That is, better placed teams on the table have more individuals with greater emotional stability, and have more individuals who are better connected and integrated with each other. The research confirmed that greater group cohesion, external locus of control and longer football training are important for the forecast of the position on the table for junior teams. The set model of individual and group characteristics did not have an equal contribution to success in football among juniors and seniors.

Key words: individual and group psychological characteristics, football, success.

Introduction

If we take into account and review various literature and research findings, we will find the connection between the contribution of psychological factors to success in sports. However, many findings make a partial contribution, explain the contribution of personality, or individual cognitive, or group aspects, or are focused on environmental influences. Partialized contributions are not enough, so it is appealing to researchers to look for answers in an interaction model. Thus, Carron (1975) and Bowers (1973) emphasized the importance of the interaction between a person and a specific situation, that is, they set up a model that assumes a complex relationship between a person, the environment, and athletic achievement. Thus, the model suggests that the degree to which a personality trait will have an impact on achievement depends on the interaction between the person (personality) and the situation (environment). According to the interaction model (Cox, 2005), physical and motor abilities explain as many as 64% of the factors that contribute to an athlete's achievement, while the remaining parts of the contribution to performance relate to personality, environment / situation, and person-situation interaction. Personality according to this model contributes 10% to 15% to sports achievement. Also, the same percentage explained the

interaction of personality and situation. Thus, the interaction model clearly emphasizes the distinction between personality traits as relatively permanent dispositions and mental states that depend on the situation in which the person finds himself.

According to Cox (2005), most researchers report that personality is not a strong predictor of success in sports. However, no matter how weak the predictor is, or no matter how small the differences in personality among athletes, in top sports just such small advantages can be crucial. In a situation where most top athletes have very similar morphological, motor and functional abilities, and they are all subjected to top training, it is precisely the differences in personality that can prove to be crucial (Bosnar and Balent, 2009). When we talk about success in sports, it is not enough to speak in general, because it is necessary to take into account the specifics of the sport itself. Our research is focused on footballers and football, and football belongs to complex sports activities in terms of structural complexity in the classification of sports. This includes various technical performances in terms of mutual cooperation of all team members within the planned tactical framework. Success in football requires a large number of abilities, characteristics and knowledge, and the most important are anthropological characteristics (health status, morphological characteristics, motor and cognitive abilities), specific abilities and knowledge of football players (technical abilities, specific motor skills, tactical abilities and knowledge). theoretical knowledge as well as characteristics important for social adaptation) and situational efficiency and results in competition (Dujmović, 2000).

One of the works that tries to combine the contribution of a large number of psychological factors to success in team sports in one place is the work of Mlačić, Trninić and Kardum (2010). Namely, the authors conceived a hypothetical model in which they sought to include a number of individual and group characteristics important for sporting achievement in team sports. Accumulated knowledge from the psychology of sports, especially the results of research on the relationship between personality traits and sports performance, served Mlačić et al. (2010) to include cognitive and social aspects of personality in the model in addition to the traits included in the five-factor model. This model served as the basis for the work of Šetić (2018) where the contribution of individual psychological characteristics in predicting the individual success of football players was investigated. The model describes 17 specific characteristics of top athletes in team sports that are assumed to affect the competitive performance of players and teams. The hypothetical model of athlete

performance is much broader than the model of the big five, the basic determinant of this approach is the five-factor model of personality, which is the basis in this research, so below we will say something about the concepts covered. Thus, in our research we use a five-factor model of personality as a theoretical rational explanation of personality traits (McCrae and Costa, 1995). The five-factor model of personality presupposes the existence of five basic dimensions that underlie personality traits, as follows: (1) Neuroticism (N) is a personality factor that distinguishes adjustment or emotional stability from maladaptation and emotional instability. The narrower aspects of this domain are: anxiety, hostility, depression, social discomfort, impulsivity and vulnerability. (2) Extraversion (E) is a factor of interpersonal character. This domain includes: warmth, friendliness, assertiveness, activity, search for excitement and positive emotions. (3) Openness (O) encompasses active imagination, aesthetic sensitivity, intraceptiveness, preference for diversity, intellectual curiosity, and independence of thought. This factor includes: openness to fantasy, aesthetics, feelings, action, ideas, and values. (4) Agreeableness (A) is a dimension of interpersonal relationships, and the narrower aspect of this domain includes: trust, honesty, altruism, indulgence, modesty and gentle nature. (5) Conscientiousness (C) is the ability to self-control in terms of disciplined pursuit of goals and strict adherence to one's own principles. The narrower aspects are: competence, order, sense of duty, achievement, self-discipline.

Perceived self-efficacy is also included in the research. According to Bandura (1986), in his social-cognitive approach, self-efficacy is a fundamental aspect of achievement. Self-efficacy is synonymous with an individual's belief in their competence and success in a particular task. In addition to a number of factors, an individual's belief that a certain task will be successfully completed is also important for the efficient and successful performance of a certain task. A person with a high perception of self-efficacy enters a competitive situation with enthusiasm and self-confidence. The degree of self-efficacy that an individual possesses determines approaching or avoiding a situation of achievement. In competitive circumstances, the higher the level of self-efficacy, the better the achievements and the lower the emotional arousal (Bandura, 1986). The construct of self-efficacy and self-confidence are not exactly the same but there is a clear similarity between the two constructs. Self-efficacy does not include the skills that an individual has, but an assessment of what can be done with those abilities that he or she possesses. Self-efficacy can be considered situation-specific self-confidence (Feltz,

1988). In addition to the previously mentioned in the research, we also included a locus of control that belongs to the concept of attribution or attribution style, ie attributing the causality of behavior. Research on the locus of control began in the mid-1950s when psychologist Julian Rotter developed a theory of social learning and operated within traditional learning theory, which emphasizes that people learn for reinforcement. Rotter expanded these ideas and argued that learning depends on the degree to which a person attaches importance to a particular reinforcement, that is, forms an expectation of reinforcement. Rotter emphasized that a person's expectations of reinforcement are stable in a number of different situations, which he called generalized expectations (Rotter, 1971). Generalized expectations that events are beyond one's control are called the external locus of control. On the other hand, the internal locus of control is the generalized expectation that corroborating events are under the control of the person, and that everyone is responsible for important outcomes in their own lives. People with a high internal locus of control believe that outcomes depend largely on their own efforts, while people who have an external locus of control believe that outcomes depend on forces beyond their personal control.

Since this research is designed to check the contribution of individual psychological characteristics to success in football, and to get a more comprehensive picture of team success, it is necessary to include group cohesion in the research as a characteristic of the team. Thus, cohesion is a term that attracts attention and there are a large number of definitions of cohesion. The simplest definition of group cohesion was given by Brown (2006, p. 46), who says that "a group in which everyone is inclined to everyone is cohesive". Albert Carron, a sports social psychologist (1998), defined group cohesion as a dynamic process that manifests itself in the tendency to hold a group together and be united in the realization of goals.

Definitions of cohesion are also considered from the aspect of construct dimensionality, so Cota, Evans, Dion, Kilik and Longman (1995) reviewed the literature and found that some authors consider cohesiveness as a one-dimensional construct (Martens et al., 1972, according to Carron, Bray and Eys, 2002), while others with a multidimensional construct (Cota et al., 1995), or Bollen and Hoyle (1990) who developed a two-dimensional concept of perceived cohesion, while Carron, Widmeyer, and Brawley (1985) treat group cohesion as a four-dimensional model.

Carron, Widmeyer, and Brawley (1985) developed the Group Environment Questionnaire (UGO) based on a multidimensional approach. This model served as the basis for developing an instrument for measuring group cohesiveness. The questionnaire consists of two superior dimensions: the athlete's perception of the team and the group orientation of the athlete. Each of these two dimensions encompasses two factors. The athlete's perception of the team includes: group integration and individual preference; while the group orientation of athletes can be focused primarily either on meeting social needs or on connecting with other players in order to accomplish a common task. The questionnaire developed from this model is the most commonly used instrument for measuring cohesion in the current professional literature, especially in the field of sports. In this model, group cohesion is defined using four dimensions.

1. The attractiveness of a group task for an individual (PGZP) includes the member's feelings about his personal activity regarding the group task.
2. Social attractiveness of a group for an individual (SRSG) refers to the feelings that a group member has about his or her own interactions with the belonging group (except in relation to a group task).
3. Group integration with regard to task accomplishment (GIZ) reflects an individual's perception of the similarity and uniqueness of the group in relation to the group's tasks and goals.
4. Group integration in order to meet social needs (SIG) implies the perception of the member about the similarity and uniqueness of the group as a social unit. In other words, group integration reflects the perception of closeness, similarity and connection of an individual with the belonging group.

Group cohesion in the field of sports can be specific in relation to the cohesion of other (especially "non-sports") types of groups, but also with regard to the type of team sport. It is certain that success in team sports cannot be observed without this psychological variable.

Based on previous theoretical and research findings on the contribution of psychological factors to successful performance in sports, specifically the Hypothetical model of success in team sports (Mlačić et al., 2010), we conceived a research project to integrate the findings of the five-factor personality model (McCrae and Costa, 1992). , self-efficacy (Bandura, 1986), locus of control (Rotter, 1971), and group cohesion (Carron et al., 1985) in predicting team success in football. In a similar paper by Šetić (2018), the findings of the contribution of predictor variables of individual psychological characteristics in predicting the individual success of football players (STTSKT) are

presented. A hierarchical multiple regression procedure was performed. According to logical and content features, predictor variables were introduced in two blocks, in the first block there were personality traits of the five-factor model, and in the second block self-efficacy, locus of control and experience. Individual personality traits of the five-factor model explained 6.6% of the STTSKT variance, and after introducing perceived self-efficacy, loci of control, and experience in the second step, the model explains 13.3% of the total variance. The model as a whole with both blocks of individual characteristics is significant F (8.136) = 2.597, p <0.01. Of all predictor personality variables, only perceived self-efficacy significantly contributes to predicting individual success in football (β = 0.251; p <0.05). The aim of this paper is to present the results of a study in which we tested the contribution of individual characteristics (neuroticism, extraversion, agreeableness, openness, conscientiousness, self-efficacy, locus of control and length of football training - as one determinant of experience) and group psychological characteristics (perceived group cohesion). explanation of team success (placement on the table) of various football selections (juniors and seniors) in Bosnia and Herzegovina.

We expect that individual traits (primarily neuroticism, extraversion, and conscientiousness from the five-factor personality model - Kovacs, 2008 according to Tran, 2012; Barrick and Mount, 1991; Webbe and Ochs, 2007), and self-efficacy (Cox, 2005; Mlačić et al., 2010; Tresure, Monson, Lox, 1996; Kane, Marks, Zaccaro, Blair, 1996; Heazlewood and Burke, 2011), locus of control (Mlačić et al., 2010), length of football training (Mlačić et al., 2010) with a group model cohesion (Caron et al., 1985), we expect that individual characteristics and perceived group cohesion will make a significant contribution to better team placement in the table. We expect that the set model of individual and group characteristics will not have an equal contribution to the success in football among juniors and seniors. Namely, we base the fact that two facts: (1) personality traits as a function of age become more consistent, and the greatest changes occur during the twenties, and (2) natural selection in sports and which suggests that athletes climb the sports pyramid (different) levels of competition from local, regional, state to international), as a population are increasingly homogeneous, given the psychological characteristics. Therefore, we expect that in football players of different selections (juniors and seniors) individual and group psychological characteristics will have different importance in the contribution of team placement on the table.

Methods

Sample

The study involved 417 football players, with an average age of 21.82 years. Out of the total number of participants, 252 participants are football players (seniors) of the first team from 12 clubs of the Premier BH Telecom League of Bosnia and Herzegovina (season 2016/2017), average age 24.73 years. The second subsample consists of 165 football players of the first team (juniors) from eight clubs of the Premier Youth League of Bosnia and Herzegovina, with an average age of 17.38 years.

Measuring instruments

Several self-assessment instruments were used in the research. Predictor variables, included in the measuring instruments we used were: neuroticism, extraversion, openness, agreeableness, conscientiousness, self-efficacy, locus of control, experience, perceived group cohesion, while the criterion variable team success was placement on the table after 18 rounds of competition, at the end of autumn. championship) in the BH Telecom Premier League of Bosnia and Herzegovina for the 2016/2017 season.

Questionnaire on general data of football players

The questionnaire on general data of football players (UOPN) included personal data on the football player, the selection to which he belongs, age, length of football training as one of the characteristics of the experience in football. Given the complexity in defining experience in research, we operationalized experience according to Petz's definition (1992) where it is stated that "experience is the totality of cognition acquired in everyday life in direct contact with reality". Experience does not have the characteristic of an objective scientific order, it is different for each person. Football experience can be partly determined by the length of football coaching. We start with the assumption that during the length of their football career, each football player had the opportunity to gain more experience in the football game. Thus, we operationalized the experience variable by the length of the football coaching.

Questionnaire for examining the five-factor personality model

We used the NEO PI-R questionnaire by Costa and McCrae (1992) to examine five personality factors. The translation and empirical verification of this questionnaire was conducted by Knežević, Džamonja, Ignjatović and Đurić-Jocić (2004), and the language adaptation for Bosnia and Herzegovina was conducted by Kolenović-Đapo (2005). The questionnaire examines five basic factors (dimensions): Neuroticism, Extraversion, Openness, Agreeableness and Conscientiousness. The NEO PI -R questionnaire has 240 particles, where each factor has eight subscales or aspects, each of which has eight particles. The respondent expresses his answers on a five-point Likert-type scale. The reliability of the NEO PI -R questionnaire scales is high and the internal reliability coefficient for the neuroticism subscale is $\alpha = 0.92$, for the extraversion subscale $\alpha = 0.89$, for the openness subscale $\alpha = 0.87$, for the cooperation subscale $\alpha = 0.86$, and for the conscientiousness subscale $\alpha = 0.90$ (Knezevic et al., 2004). In our study, the following internal reliability coefficients were obtained: neuroticism $\alpha = 0.838$, extraversion $\alpha = 0.722$, openness $\alpha = 0.477$, cooperation $\alpha = 0.776$, and conscientiousness $\alpha = 0.850$.

Scale for assessing the self-efficacy of footballers

Footballer self-efficacy was measured using the Footballer Self-Efficiency Assessment Scale (SPSN) constructed by Šamija and Bosnar (2010). The scale contains 21 statements to which footballers respond on a five-point Likert-type scale. The results are formed as a simple linear combination of scores on each of the particles, and the higher overall score on the scale reflects the higher level of self-efficacy in football. The authors in their study obtained a satisfactory internal reliability coefficient of the scale $\alpha = 0.841$, while in our study the reliability coefficient is $\alpha = 0.988$.

Externality scale

The externality scale (LOK - Bezinović, 1990) is a one-dimensional scale in accordance with Rotter's (1971) construct of the locus of control. It consists of ten statements whose contents determine the fatalistic orientation according to which only destiny, predestination, happiness and chance determine what will happen to an individual and what will be the outcomes of his behavior. Subjects evaluate claims on a five-point Likert-type scale, and the overall score is formed by a linear combination of estimates on all particles. A high score reflects the external orientation. The internal reliability coefficient in previous research was $\alpha = 0.815$, while in our research the reliability coefficient $\alpha = 0.824$ was obtained.

Group environment questionnaire (perceived group cohesion)

The Group Environment Questionnaire (UGO), constructed by Carron, Brawley, and Widmeyer, 1985, was used to examine perceived group cohesion. This questionnaire was translated by the author Sindika (2009) and the author obtained consent for the use of this questionnaire for the purposes of our research. The questionnaire contains 18 items and according to the authors' findings measures four aspects of group cohesion: (1) the attractiveness of the group task for the individual (PGZP; contains four items); (2) the social attractiveness of the group to the individual (SPGP; contains five particles); (3) group integration on task (GIZ; contains five particles) and (4) social integration of the group (SIG; contains four particles). The task of the respondents is to assess on the Likert scale of 9 degrees (from 1 - I do not agree at all, to 9 - I completely agree), to what extent they agree with the content of statements related to various aspects of group functioning. The results are formed as a simple linear combination of estimates on the particles that define a particular dimension. Higher estimates mean greater expression of a particular dimension of group cohesion. However, a larger number of particles is recoded when calculating the total score on the subscales, ie lower values of the number on the evaluation scale in the processing of the results carry a higher value of the number and vice versa. The questionnaire has an acceptable internal consistency, which was evident from the values of the internal reliability coefficient for individual questionnaire scales, which ranged from $\alpha = 0.68$ to $\alpha = 0.75$, in a study conducted by Carron, Brawley and Widmeyer (1985). The scale was used in Croatia in the research with basketball teams (Sindik, 2009) and the coefficient of internal reliability in this research for the whole questionnaire was $\alpha = 0.85$, while for some scales it was from $\alpha = 0.50$ to $\alpha = 0.63$. Given the low reliability coefficients for the subscales of this questionnaire used in Croatia, we decided to conduct a pilot study and check the reliability of UGO on a sample of football players in Bosnia and Herzegovina. For the needs of preliminary analyzes, football players (N = 53) from two clubs of the First League of the Federation of Bosnia and Herzegovina (FK Rudar Kakanj and FK Bosna Sema Sarajevo) participated in the research. The values of the internal reliability coefficient for the whole scale were $\alpha = 0.58$, while for individual subscales the values are as follows: PGZP $\alpha = 0.224$; SPGP $\alpha = 0.664$; GIZ $\alpha = 0.567$; SIG $\alpha = 0.582$. Inter-item correlation values ranged from 0.04 to 0.31 for subscales and 0.07 for the whole scale.

Based on the results obtained in the pilot study, UGO was modified and adapted to the target group. By visual inspection, we detected that the respondents had problematic claims with double negation and assessments on a nine-point scale. In order to eliminate the recorded shortcomings, we modified the UGO and in further research we used the Revised Group Environment Questionnaire (UGO-R). In this revised version, the two particles in the questionnaire are recoded when calculating the total score on the subscales. In the target study, we obtained the coefficient of internal reliability for the whole questionnaire is $\alpha = 0.901$, ie for subscales slightly lower coefficients of internal reliability were obtained, as follows: PGZP $\alpha = 0.742$, SPGP $\alpha = 0.696$, GIZ $\alpha = 0.691$, SIG $\alpha = 0.802$. Average correlations were obtained between the particles, which are positive and satisfactory, except for particle 14 (For example: My teammates do not have the same opinion as me about conflicts during the game). The correlations of this particle with all particles in the questionnaire are low, and the result on this particle indicates that the content of the particle was less understandable, so the answers to it were not in accordance with the answers on other particles. After removal of particle 14, an internal reliability coefficient was obtained for the whole scale of $\alpha = 0.915$, while the average correlation between particles was 0.389. Average correlations among particles in the subscales ranged from 0.431 to 0.696. Since particle 14 belongs to the GIZ subscale, the reliability coefficient was recalculated, and ultimately $\alpha = 0.813$ was obtained (the previous value was 0.691). In order to assess the factor structure of the questionnaire, we conducted an exploratory factor analysis procedure using the principal components method. To check the suitability of the correlation matrix for conducting the factor analysis, the Kaiser-Meyer-Olkin test and the Bartlett sphericity test were performed. The obtained values of the Kaiser-Meyer-Olkin sample adequacy test are 0.939, which indicates that our data are suitable for conducting a factor analysis. The Bartlett test of sphericity determined over the approximate chi-square is 3729,619 and is statistically significant at the level of 99.9%, which indicates that the data are suitable for factorization, and the assumption of equality of correlation matrices and identity matrices is rejected. In this set of manifest variables, using the Kaiser-Gutmann criterion, one component with a characteristic root greater than one was determined, which explains 52.286% of the total variance. A review of the pass diagram revealed a clear breakpoint behind the first component, and according to the results shown in Table 1, which shows the factor saturations, distributions of individual particles per component, and the values of characteristic roots and

the percentage of explanation of variance after Oblimin rotation. The obtained factor structure is interpretable and in line with expectations. Thus, the exploratory factor analysis of this questionnaire is presented in one factor which explains 52.286% of the total variance.

Table 1. Factor saturations, distributions of individual particles by the obtained component, values of characteristic roots and percentages of explained variance of the obtained component after application of Oblimin rotation

Particles	Components
	1
I like participating in the joint activities of our team.	.737
I am pleased with how long our team has been playing together.	.617
When the competition season is over, I will be happy to continue hanging out with my teammates.	.652
My desire to win is equal to that of the majority in the team.	.590
I have good friends in this team.	.689
This team offers me enough opportunities for my personal development.	.744
I like the style of play of our team.	.652
Belonging to this team is very important to me.	.743
Our team is a whole in which everyone can achieve their sports goals.	.737
It is very important for our team members to remain united as a group.	.750
Our team players accept our shared responsibility for defeats or poor team results.	.693
The players of our team accept our team as a community.	.747
Our team would like to have a pleasant time until the end of the competition season.	.708
If someone has difficulties during training and the game, we are all ready to help them, so that everyone gets support in accomplishing our tasks.	.754
The players of our team see each other and hang out outside of training or the game.	.734
The players of our team talk freely about the responsibilities that each player has in a game or training.	.741
I have more fun at other parties than at those organized by our team.	.617
Eigen value	9. 349
% explanation of variance	52.286

Considering the results obtained at EFA, the Group Environment Questionnaire in our research shows a one-factor structure, and considering the content of particles, we called this factor Group Cohesion. For further statistical operations in our study use only the total, the result obtained on this questionnaire.

Team placement

The indicator of group success is the position of the team on the table after 18 rounds of the competition, and at the end of the autumn part of the competition for the 2016/2017 season. years. More successful teams are placed better in the table (from first to last place)

according to the number of points won. In Table 2. the placement of the seniors of the BH Telecom Premier League of Bosnia and Herzegovina is shown, while Table 3 shows the placement of the junior teams of the Youth League of B&H.

Table 2. Placement of senior teams of BH Telecom Premier League of B&H after 18 rounds of competition.

	Club	N0 of games	Points
1	CSC ZRINJSKI	18	38
2	FC SARAJEVO	18	34
3	FC ŽELJEZNIČAR	18	32
4	FC KRUPA KRUPA NA VRBASU	18	30
5	FC RADNIK	18	30
6	FC SLOBODA TUZLA	18	29
7	FC ŠIROKI BRIJEG	18	26
8	FC MLADOST DOBOJ KAKANJ	18	22
9	FC VITEZ	18	20
10	FC METALLEGHE-BSI JAJCE	18	15
11	FC ČELIK	18	9
12	FC OLIMPIC	18	9

Table 3. Placement of junior teams of the Youth League of B&H after 18 rounds of competition.

	Club	N0 of games	Points
1	FC ŽELJEZNIČAR	18	46
2	FC SARAJEVO	18	43
3	FC SLOBODA TUZLA	18	43
4	FC ŠIROKI BRIJEG	18	39
5	FC RADNIK	18	30
6	CSC ZRINJSKI	18	30
7	FC KRUPA KRUPA NA VRBASU	18	20
8	FC MLADOST DOBOJ KAKANJ	18	19
9	FC VITEZ	18	15
10	FC OLIMPIC	18	11
11	FC ČELIK	18	9
12	FC METALLEGHE-BSI JAJCE	18	7

Procedure

The research was conducted in the period August - November 2016 and is part of a large study where we presented some of the results in the previously published paper Šetić (2018). During August, a preliminary examination and adaptation of measuring instruments was conducted, and in the period from September to November 2016, the main survey was conducted. For the implementation of the research, the consent of the Football / Soccer Federation of Bosnia and Herzegovina was obtained. SPSS 21 was used in the processing of the obtained data.

Results

In this paper, we examined the contribution of individual characteristics (neuroticism, extraversion, agreeableness, openness, conscientiousness, self-efficacy, locus of control, experience) and group cohesion to team success in juniors and seniors. The statistical procedure we used is a hierarchical linear model. Club affiliation was set as a random factor allowing variation of the regression line intercept in different clubs (Table 4).

Table 4. Values of the position prediction model in the table.

	Selectioon	
	Seniors	Juniors
−2 Restricted Log Likelihood	1339.315	856.471
Akaike's information criterion (AIC)	1341.315	858.471
Hurvich and Tsai criteria (AICC)	1341.332	858.498
Bozdogan's criterion (CAIC)	1345.804	862.515
Schwarz's Bayesian criterion (BIC)	1344.804	861.515

We found that in predicting the position of teams at the end of the football season in the B&H Premier League (seniors) statistically significant predictors are: neuroticism and group cohesion. Teams whose members (footballers) achieve lower results on the neuroticism factor and higher results on group cohesion have a better position on the table. When neuroticism decreases by 1 (one) in one football player, the average improvement in the position in the league is expected by 0.038 (assuming control of other predictors). When the results on group cohesion increase by 1, the position in the league is expected to improve by 0.098 (assuming control of other predictors).

Therefore, of the individual psychological characteristics for placement on the table of the B&H Premier League, the lower neuroticism of football players in the team and their greater group cohesion is significant, while other individual psychological characteristics do not have a significant impact on placement on the table of the BiH Premier League.

In the teams of the Premier Youth League (juniors), statistically significant predictors of the position on the table are group cohesion, locus of control and experience (length of football training). That is, junior football teams that achieve better group cohesion, and higher results at the locus of control and who train football longer have a better placement on the table, while other individual psychological characteristics do not significantly contribute to the placement of the B&H Youth League table. The results indicate that when the results on group cohesion increase by 1, the position in the league is expected to improve by 0.083. Also, if the results at the locus of control increase by 1, the position in the league is expected to improve by 0.093, as well as when the value of experience increases by

Table 5. Regression model of the position forecast in the table

	Parameter	Est	SE	df	T	p	95%CI Low	95%CI Upp
Seniors	Intercept	4.47	5.44	242	.821	.412	-6.26	15.21
	NEUROTICISM	.038	.013	242.	2.835	**.005**	.01	.066
	EXTRAVERSION	.014	.018	242	.826	.410	-.02	.05
	OPENNESS	.012	.018	242	.679	.498	-.02	.04
	AGREEABLENESS	.007	.016	242	.468	.640	-.02	.04
	CONSCIENCE	-.008	.015	242	-.580	.563	-.03	.02
	SELF-EFFICIENCY	.022	.016	242	1.357	.176	-.00	.05
	LOC	-.038	.029	242	-1.312	.191	-.09	.01
	EXPERIENCE	-.091	.050	242	-1.800	.073	-.19	.00
	GROUP COHESION	-.098	.020	242	-4.739	**.000**	-.13	-.05
Juniors	Intercept	14.46	6.60	155	2.190	.030	1.41	27.52
	NEUROTICISM	-.004	.017	155	-.262	.794	-.04	.03
	EXTRAVERSION	.031	.020	155	1.539	.126	-.00	.07
	OPENNESS	.005	.020	155.	.269	.788	-.03	.04
	AGREEABLENESS	-.000	.019	155	-.025	.980	-.03	.03
	CONSCIENCE	-.026	.017	155	-1.515	.132	-.06	.00
	SELF-EFFICIENCY	.0168	.027	155	.622	.535	-.03	.07
	LOC	-.093	.036	155	-2.524	**.013**	-.16	-.02
	EXPERIENCE	-.289	.094	155	-3.049	**.003**	-.47	-.10
	GROUP COHESION	-.083	.025	155	-3.236	**.001**	-.13	-.03

1, the position in the league is expected to improve by 0.289. Of course, all of the above in terms of forecasting the improvement of placements in the table is under the assumption of control of other predictors. Table 5 presents the regression model of the position forecast in the table.

Based on the results obtained in juniors, none of the personality dimensions of the five-factor model showed a significant contribution to the placement on the table, which is a probable result of the pronounced homogeneity of the sample. This sample is more homogeneous in terms of age than the sample of seniors because the age of the football players in the junior selections is 17 and 18 years. We also note that group cohesion is an equally important determinant of team placement in the table for juniors and seniors. In addition to the group characteristics that are important for the placement on the table, we can observe that in junior teams, the external locus of control contributes to a better placement on the table. The obtained finding is in line with previous findings from the psychology of sports that the external locus of control is more pronounced in team athletes. Although, some authors believe that sport affects the shift of the child's locus of control inward (e.g., Duke, Johnson, & Nowicki, 1977), it is not specified in which sport. In fact, it is quite expected that in our sample, taking into account the context, we expect respondents to attribute failure to external factors (poor terrain, wrong refereeing decisions, inadequate weather conditions), thus diminishing their own role in experiencing failure, which can be labeled as defensive. attribution. Furthermore, by analyzing the length of football coaching in juniors, we can see that teams that have individuals with more playing experience in their composition achieve a better placement on the table. The obtained finding is logical because people who train football longer increase their motor and functional abilities.

The average variation of the intercept is higher in junior than in senior clubs (Table 6).

Given that in our study, group cohesion proved to be statistically significant in predicting team success, by looking at the correlation matrix, we can see that low to moderate and statistically significant correlations were found at the univariate level. It is interesting that there is a positive correlation between self-efficacy and group cohesion (r = .412, p <0.01), then between collaboration and group cohesion (r = .232, p <0.01); between extraversion and group cohesion (r = .212, p <0.01). A low but statistically significant negative correlation was found between neuroticism and group cohesion r = - .146, (p <0.01), and finally between conscientiousness and group cohesion the correlation coefficient is r = .145 (p <0.01), although the established intercorrelations between group cohesion and the mentioned personality traits show us that this psychological construct is positively connected with self-efficacy, agreeableness, extraversion and conscientiousness, while as we stated, group cohesion is negatively connected with neuroticism. We can interpret this finding in several ways.

Table 6. Estimation of intercept variation between clubs

selection	Par	Est.	sta. error	Wald Z	p	95% CI Lower	95% CI Upper
seniors	Residual	9.91	.90	11.00	.000	8.30	11.85
juniors	Residual	8.18	.93	8.80	.000	6.55	10.22

Group cohesion increases with increasing self-efficacy assessment of each individual within the target group, further in groups made up of emotionally stable extroverts, conscientious and cooperative individuals. However, since this is a correlation method, the obtained finding can be interpreted in the opposite direction. That is, individuals who possess the stated personality traits, by their personality contribute to group cohesion. However, it is quite possible that this correlation may have been influenced by some third group of variables that we did not control in our study. The starting point of this research was that we expect significant contributions of individual and group psychological characteristics to team success in football in juniors and seniors. Given that personality traits are a relatively stable psychological construct,

this is the primary reason why we expected their contribution to athletic achievement. We tried to identify personalities that would indicate individual differences between athletes of different competition rank (juniors and seniors), more precisely given their focus in this professional life area, we expected these two groups of footballers to share a certain common percentage of explained success variance in football. However, all the factors and limitations of the relationship between an athlete's personality and success in sport will be discussed in the next section. Theoretical assumptions about the basic personality traits assume that from the age of 17, most personality traits are more or less "stabilized". That is, as the research findings suggest, this happens on average during the twenties, so one of the explanations of the findings in our study can be attributed to this factor, since juniors are developmentally in middle adolescence and are more homogeneous with age teams. Senior football teams are heterogeneous, in our study they are made up of footballers in the age range of 17 to 38 years, which we assume is one of the reasons why neuroticism has proven significant for predicting placements on the senior table. The importance of lower neuroticism, or greater emotional stability, for predicting success in football has been confirmed by other researchers (Kovacs, 2008; Tran, 2012; Mirzaei et al., 2013). However, according to the research findings so far, we expected that conscientiousness would be a significant predictor of success in football, in this case team success. The reason why conscientiousness did not prove to be significant can be found in the specifics of the sample and the norms that prevail among these sports groups. We must take into account that football is a complex sport and that a large number of factors determine the ultimate outcome and success. The fact is that many of the factors that affect team placement in the table we cannot control.

Discussion

In this paper, we have tried to contribute in another way to the explanation of the contribution of psychological factors to success in sports. After we presented a number of other findings, especially the contribution of Šetić (2018) where the contribution of individual psychological characteristics to individual success in football is shown, personality traits did not prove to be a significant predictor of individual success in football. That is, the personality dimensions of the five-factor model explained 6.6% of the individual success criteria, while together with the variables perceived self-efficacy, locus of control, and experience the percentage explaining the variance of individual

success in football increased to 13.3%. The model as a whole with both blocks of individual characteristics is statistically significant. However, of all the predictor variables, only perceived efficiency is statistically significant in the contribution to predicting success in football ($\beta = .251$; $p < 0.05$). We can assume that one of the reasons why the basic personality traits no longer proved to be significant is that there are big differences between BiH Premier League clubs in terms of training and competition, which will probably be true when interpreting the findings of this paper.

Thus, in this paper, we examined the contribution of individual traits (neuroticism, extraversion, agreeableness, openness, conscientiousness, self-efficacy, locus of control, experience) and group cohesion to team success in juniors and seniors. and juniors based on individual (neuroticism, extraversion, openness, agreeableness conscientiousness, self-efficacy, locus of control, experience - length of football training) and group cohesion. We have determined that in the senior teams of the BiH Premier League, significant predictors of placement on the table are neuroticism and group cohesion. Senior teams of the BiH Premier League, which have more individuals with greater emotional stability (less neuroticism) and a higher result in group cohesion, achieve a better placement on the table. This result confirms some previous research that has shown that there is a link between neuroticism and sports performance, ie performance, motivation and ways of dealing with problems and stress in sports (Mirzaei, 2010; Ingledew et al., 2004; Kaiseler et al. 2012; Kovacs, 2008). Thus, in our research, it was shown that of the individual psychological characteristics, lower neuroticism significantly contributes to team success. In fact, individuals who have low neuroticism, possess greater adaptability, are emotionally stable, calm, relaxed, and are able to cope with stressful situations. We assume that senior teams that have more individuals with these characteristics are likely to have a better placement on the table if they control other predictors. In addition to emotional stability, an important predictor of team success in football for our sample is group cohesion. Unfortunately, we could not analyze in more detail the specific contributions of group cohesion dimensions to team success in our sample, but it is obvious that group cohesion is an important factor in predicting team success in football. A significant predictor of the position on the table for junior teams is group cohesion, locus of control (LOC) and the length of football training (experience). Junior football teams have a better placement on the table if they have more individuals with a high score on group cohesion, which is the case with senior teams, and if they have more individuals with an external locus of control and more experience, or with longer football

training. In this research, none of the personality dimensions of the five-factor model proved to be significant for placement on the table with juniors, which is a probable result of the pronounced homogeneity of the sample and unequal conditions of competition of junior teams.

In terms of the locus of control, according to previous research (Rotter, 1971) the locus of control becomes more internal as a function of age, but in our study, this is not the case, in fact the results indicate that the entire sample has an external locus and it became more and more external. The locus of control has shown to be significant in predicting team success in juniors, but not in seniors. The results obtained are not in line with the research of Stewart and Mayers (2004) which showed that older footballers are more of an internal locus of control, in our case it is the opposite. Research on the locus of control in sport and its impact on success should certainly be the subject of some future research with a focus on the specificity of sport and the situational adaptation of the examination of the locus of control. The expression of the external locus of control in our sample can also be explained by the specifics of the culture in which we live. Namely, a large part of the population in B&H has an external locus of control where importance in life events is given to factors beyond personal control, which is a likely result of life experience where often "large" life (social) events were beyond the control of the individual and which is significantly present in our environment religious beliefs and belief in the external determinants of our life events. In general, people in less developed countries rely more on external factors of both everyday and other life events.

Regarding the contribution of experience, meaning the length of football training to the prediction of placement on the table, the causes should be sought in the situational circumstances in which the clubs are located, in terms of their organization, player selection, training and participation in extra-league competitions (tournaments), financial opportunities, infrastructural and personnel capacities of clubs. Namely, better connoisseurs of junior football in Bosnia and Herzegovina will surely agree that junior teams are very heterogeneous in the experiential part, as well as in other aspects.

Conclusion

Based on all the above, we can conclude that in predicting team success for seniors of the Premier Football League of Bosnia and Herzegovina, the dimension of neuroticism of the five-factor personality model proved to be significant, meaning that the greater emotional stability has a significant predictive effect on team success. Better placed teams on the table have more individuals with greater emotional stability. In addition to emotional stability in predicting team success for seniors in the Premier League of Bosnia and Herzegovina, group cohesion has been demonstrated. There for, teams that have more individuals who are better connected and integrated with each other achieve a better placement on the table. The research confirmed that greater group cohesion, external locus of control and longer football training are important for the prognosis of the position on the table for junior teams. None of the features of the five-factor personality model proved to be significant for predicting the position on the table of junior teams. The results of the research confirmed that some of the individual and group psychological characteristics have a significant impact on group performance in football.

The set model of individual and group characteristics did not have an equal contribution to success in football among juniors and seniors. That is, different characteristics have been shown to be significant in juniors and seniors.

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