

**Effect of Athletes Social Intelligence Levels on Decision Making**

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ORIGINAL ARTICLE

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**Abstract**

Our study aims to examine the effect of social intelligence level in athletes on decision making since it is thought that social intelligence increases the relationships between individuals and at the same time, exchanging ideas with other people will directly affect their decision-making skills. The universe of the research consists of licensed athletes in Elazığ in 2022. The sample of the research consists of 812 athletes selected by random method. In order to determine the demographic characteristics of the athletes participating in the research The personal information form (gender, age, sports branch) and, to determine the social intelligence levels the Tromso Social Intelligence Scale (TSIS), the Melbourne Decision Making I Scale (Melbourne Decision Making Questionary) was used to determine the decision-making levels. SPSS 22 program was used for data analysis. There was no statistically significant difference between gender and branch type variables with social intelligence levels and decision-making levels of licensed athletes in Elazığ province. According to the age variable, statistically significant differences were found between the total scores of the social intelligence scale and the sub-dimension levels of the social knowledge process. The total score of the social intelligence scale is 66.01 and the decision-making scale's total score is higher than the average with 9.66 in line with the study findings. In conclusion, according to the linear regression analysis, a positive and significant relationship between social intelligence level and decision-making has been identified.

**Anahtar kelimeler:** Sports, Social Intelligence, Decision Making

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**Sporcuların Sosyal Zekâ Düzeylerinin Karar Verme Üzerine Etkisi**

**Öz**

Sosyal zekanın bireyler arasındaki ilişkileri arttırdığı ve aynı zamanda diğer insanlarla fikir alışverişinde bulunmanın karar verme becerilerini doğrudan etkileyeceği düşünüldüğünden çalışmamız, sporcularda sosyal zeka düzeyinin karar verme üzerindeki etkisini incelemeyi amaçlamaktadır. Araştırmanın evrenini 2022 yılında Elazığ ilinde lisanslı sporcular oluşturmaktadır. Araştırmanın örneklemini tesadüfi yöntemle seçilen 812 sporcu oluşturmaktadır. Araştırmaya katılan sporcuların demografik özelliklerini belirlemek amacıyla kişisel bilgi formu (cinsiyet, yaş, spor branşı) ve sosyal zeka düzeylerini belirlemek için Tromso Sosyal Zeka Ölçeği (TSIS), Melbourne Karar Verme I Ölçeği karar verme düzeylerini belirlemek için Melbourne Karar Verme Anketi kullanılmıştır. Verilerin analizi için SPSS 22 programı kullanıldı. Elazığ ilinde lisanslı sporcuların sosyal zeka düzeyleri ve karar verme düzeyleri ile cinsiyet ve branş türü değişkenleri arasında istatistiksel olarak anlamlı bir fark bulunmamıştır. Yaş değişkenine göre sosyal zeka ölçeği toplam puanları ile sosyal bilgi sürecinin alt boyut düzeyleri arasında istatistiksel olarak anlamlı farklılıklar bulunmuştur. Araştırma bulgularına göre sosyal zeka ölçeği toplam puanı 66.01 ve karar verme ölçeği toplam puanı 9.66 ile ortalamanın üzerindedir. Sonuç olarak linear regression testine göre sosyal zeka düzeyi ile karar verme arasında pozitif ve anlamlı bir ilişki olduğu tespit edilmiştir.

**Keywords:** Spor, Sosyal Zeka, Karar Verme

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## Introduction

Social intelligence takes on a completely different dimension in each person, such as understanding, adapting, reasoning, planning, problem solving, abstract thinking, understanding complex thoughts, rapid comprehension and learning from experience. The case studied to comprehend, classify and measure changes between individuals is expressed as intelligence (Çapraz et al. 2009). During the 20th century, theoretical and experimental studies gained momentum in research on intelligence. The term social intelligence was first used by John Dewey (1909) and Herbert Lull (1911). As for the modern use of social intelligence, its origins can be traced back to Edward L. Thorndike (1920) (Özaslan, 2017).

Classifying people according to the trait that represents their personality, such as social intelligence, behavior and mental structure, is defined as the ability to determine their wishes and wishes by examining this group. It is also defined as the ability to influence people (Basbay, 2005). Social intelligence is of great importance because it is an intellectual field where people have the ability to exchange ideas effectively, find suitable solutions to problems, make active friends, be positive, persuasive, and put themselves in the shoes of others (Vural, 2004). Scientists have mentioned that this field of intelligence is important. They have clearly stated that it has the ability to effectively predict all events occurring around us on an individual and social scale. People who are aware of social situations and exhibit satisfactory behaviors in the face of these situations, in a word people with high social intelligence, are perceived by those around them as friendly and kind, and those with high social intelligence are perceived as friendly and kind by those around them. People with low social intelligence are considered silent and rude (Lacanlale, 2013). People with social intelligence have important characteristics such as minimizing the negativity that may arise, not only thinking about themselves, but also cooperating and helping everyone achieve their goals by showing unifying behaviors instead of dividing them into the same goal (Albrecht, 2006).

The situation that can be seen at every stage of a person's life, from very important decisions such as business and career plans, to what to wear and what to eat, to unnecessary complex situations, is expressed as decision making (Acat, 2012). One of the most important skills in life is decision making. While the right and timely decisions lead to positive changes in one's life, bad decisions can negatively affect a person's life. In social relationships, which are increasingly complicated over time, individuals face new problems and different alternative solutions and need to make the right and most appropriate decisions for themselves. In literature, decision-making styles are divided into five: rational decision-making style, intuitive decision-making style, dependent decision-making style, avoidant decision-making style and spontaneous decision-making style. According to some theorists, indecision from decision-making is a separate area and claim

that indecision is a process that should be avoided. It is said that the most appropriate style for effective decision-making is the rational decision-making style (Bacanli, 2000) when examining the decision-making styles.

Our study aims to examine the effect of social intelligence level in athletes on decision making since it is thought that social intelligence increases the relationships between individuals and at the same time, exchanging ideas with other people will directly affect their decision-making skills.

## **Materials and Methods**

### ***Model of the Research***

Relational screening model is a screening approach that aims to determine the existence of co-variation between two or more variables. In the relational screening model, whether the variables change together; If there is a change, it is tried to determine how it happened (Karasar, 2014).

### ***Universe and Ssample***

The universe of the research consists of licensed athletes in Elazig in 2022. The sample of the research consists of 812 athletes selected by random method.

### ***Data Collection Tools***

In order to determine the demographic characteristics of the athletes participating in the research The personal information form (gender, age, sports branch) and, to determine the social intelligence levels the Tromso Social Intelligence Scale (TSIS), which was developed by Silvera et al. (2001) and adapted to Turkish by Doğan (2009), the Melbourne Decision Making I Scale, developed by Mann et al. (1998) (Melbourne Decision Making Questionary) and adapted to Turkish by Deniz (2004), was used to determine the decision-making levels.

The Tromso Social Intelligence Scale is a 21-point self-report tool designed to reveal an individual's social intelligence status. This developed scale consists of three separate sub-dimensions. Sub-dimensions consist of social knowledge process 8, social skills 6 and social awareness 7. The lowest score from the scale is 21 and the highest score is 105. The score from the scale determines the level of social intelligence. Cronbach's alpha value for the whole scale was 0.83, and when the sub-dimensions were examined, it was determined that the social knowledge process sub-dimension was 0.77, the social skills sub-dimension was 0.84, and the social awareness sub-dimension was 0.67.

The Melbourne Decision Scale I, was prepared to assess self-esteem in decision making. There are a total of 6 items on the scale. 3 substance reverse coding methods were used. Triple Likert type is used for scale. The highest score to be taken from the scale is calculated as 12. It was determined that highly rated individuals had a high self-esteem in decision making. As a result of the reliability analysis, it was determined that the cronbach alpha value of the scale was 0.74 and the scale was reliable.

### ***Analysis of Data***

SPSS 22 program was used for the analysis of the data of the participants who participated in our study. The percentage and frequency distributions of the participants' personal information were calculated. Normality test was performed before proceeding to the analysis of the data in the study. Parametric tests were used because the data showed normal distribution. Accordingly, the levels of significance between groups were determined by independent t test and one way anova tests. The Tukey test was used to identify statistical differences among the detected groups. The correlation test was used for the relationship between the scales and the regression test was used to determine the effect. The error level was taken as  $p < 0.05$  in the study.

### ***Ethics of Research***

In order to carry out this research, the ethics committee approval dated 03.03.2022 and numbered E.45819 was obtained from the Non-Interventional Research Ethics Committee of Munzur University. During the current research, "Higher Education Institutions Scientific Research and Publication Ethics Directive" has been acted upon.

### **Results**

The data obtained from the participants will be analyzed and tables and interpretations of the tests related to the scale of social intelligence and decision-making scale will be discussed in this part of the study.

Table 1

Distribution Table of Demographic Characteristics

<b>Variable</b>	<b>Groups</b>	<b>N</b>	<b>%</b>
<b>Age</b>	18-19 Years	248	30,5
	20-21 Years	396	48,8
	22 Years and older	168	20,7
	<b>Total</b>	812	100,0
<b>Gender</b>	Male	492	60,6

	Female	320	39,4
	<b>Total</b>	812	100,0
<b>Sports Branch Type</b>	Team Sports	372	45,8
	Individual Sports	440	54,2
	<b>Total</b>	812	100,0

Table 1 mentioned the number and percentage distribution slices according to the groups of participants in our study. When we look at the distribution of athletes by age group, it is seen that 30.5% (n=248) are 18-19 years old, 48.8% (n=396) are 20-21 years old and 20.7% (n=168) are athletes aged 22 and older. It was determined that 60.6% (n=492) of the athletes who participated in the study were male and 39.4% (n=320) were female. When the branch types of athletes were examined, the proportion of those engaged in team sports was 45.8% (n=372) and the proportion of those engaged in individual sports was 54.2% (n=440).

Table 2

Anova Test Results by Age Variable of The Participants in the Study

Scales	Age	N	X	Ss	F	P	Tukey
Social Intelligence Scale	18-19 Years	62	66,00	7,699	2,791	,064	<b>B-C</b>
	20-21 Years	99	66,90	5,640			
	22> Years	42	63,92	8,043			
	Total	203	66,01	6,911			
Social Knowledge Process Sub-dimension	18-19 Years <sup>A</sup>	62	30,35	3,497	4,468	,013	<b>C-A,B</b>
	20-21 Years <sup>B</sup>	99	30,03	2,977			
	22> Years <sup>C</sup>	42	28,33	4,811			
	Total	203	29,77	3,641			
Social Skills Sub-dimension	18-19 Years <sup>A</sup>	62	19,00	2,456	3,173	,044	
	20-21 Years <sup>B</sup>	99	18,93	2,485			
	22> Years <sup>C</sup>	42	17,83	3,003			
	Total	203	18,72	2,619			
Social Awareness Sub-dimension	18-19 Years	62	16,64	4,760	1,645	,196	
	20-21 Years	99	17,93	4,471			
	22> Years	42	17,76	4,270			
	Total	203	17,50	4,536			
Decision Making Scale	18-19 Years	62	9,70	1,796	,040	,961	
	20-21 Years	99	9,66	2,138			
	22> Years	42	9,59	2,072			
	Total	203	9,66	2,016			

Statistically significant differences were found between the social intelligence levels of the participants and the age variable between those aged 20-21 and those aged 22 years and older (p<0.05) in Table 2. Statistically, a significant difference was found between the lower dimension levels of the social intelligence scale and the age variable between those aged 22 years and older

with those aged 18-19 and 20-21 years ( $p < 0.05$ ). There was no statistically significant difference between the social intelligence scale, social skills, and social awareness sub-dimensions with the age variable of the participants in the study ( $p > 0.05$ ). There was no statistically significant difference between the decision-making scale levels and the age variable of the participants in the study ( $p > 0.05$ ).

Table 3

Anova Test Results by Gender Variable of Participants

Scales	Gender	N	X	Ss	t	p
Social Intelligence Scale	Male	123	65,61	6,899	-1,015	,312
	Female	80	66,62	6,928		
Social Knowledge Process Sub-dimension	Male	123	29,44	3,837	-1,613	,108
	Female	80	30,28	3,277		
Social Skills Sub-dimension	Male	123	18,59	2,632	-,914	,362
	Female	80	18,93	2,601		
Social Awareness Sub-dimension	Male	123	17,57	4,455	,271	,786
	Female	80	17,40	4,683		
Decision Making Scale	Male	123	9,72	2,089	,512	,609
	Female	80	9,57	1,907		

There was no statistically significant difference between social intelligence scale levels and scale sub-dimensions and gender variable ( $p > 0.05$ ) in Table 3. There was no statistically significant difference between the decision-making scale levels and the gender variable of the participants in the study ( $p > 0.05$ ).

Table 4

Anova Test Results by Sports Branch Type Variable of The Participants in the Study

Scales	Branch Type	N	X	Ss	t	p
Social Intelligence Scale	Team Sports	93	65,91	8,099	-,191	,849
	Individual Sports	110	66,10	5,756		
Social Knowledge Process Sub-dimension	Team Sports	93	29,47	4,164	-1,098	,273
	Individual Sports	110	30,03	3,129		
Social Skills Sub-dimension	Team Sports	93	18,78	2,896	,279	,781
	Individual Sports	110	18,68	2,373		
Social Awareness Sub-dimension	Team Sports	93	17,65	4,746	,428	,669
	Individual Sports	110	17,38	4,368		
Decision Making Scale	Team Sports	93	9,69	1,982	,220	,826
	Individual Sports	110	9,63	2,053		

There was no statistically significant difference between the social intelligence scale levels and scale sub-dimensions and the branch type variable ( $p>0.05$ ) in Table 4. There was no statistically significant difference between the decision-making scale levels and the branch type variable of the participants in the study ( $p>0.05$ ).

Table 5  
 Pearson Correlation Analysis Results by Social Intelligence Scale and Decision-Making Scale Scores of Participants

<b>Scales</b>		<b>A</b>	<b>B</b>
Social Intelligence Scale <sup>A</sup>	r	1	,169*
	p		,016
Decision Making Scale <sup>B</sup>	r	,169*	1
	p	,016	
<b>N=812 p&lt;0,05</b>			

It is seen that there is a positive and meaningful relationship between the level of social intelligence and the level of decision-making ( $r=,169$ ;  $p<0.05$ ) when table 5 is examined. Accordingly, it can be said that as the level of social intelligence increases, the level of decision-making will also increase.

Table 6  
 Linear Regression Analysis Results by Social Intelligence Scale and Decision Making Scale Scores of Participants

	<b>Dependent variable: Decision Making</b>				
	<b>B</b>	<b>Std. Error</b>	<b><math>\beta</math></b>	<b>t</b>	<b>p</b>
<i>Social Intelligence Scale</i>	12,928	1,346		9,605	,000
	,049	,020	,169	2,438	,016
<b>R=,169; R<sup>2</sup>=,029</b>					
<b>F=5,942; p&lt;0,05</b>					

It was determined that there was a significant relationship between the level of social intelligence and the level of decision-making ( $R=,169$ ,  $R^2=,029$ ) when table 6 was examined. It is seen that the level of social intelligence positively affects the decision-making levels of athletes ( $\beta=,169$ ,  $p<0.05$ ).

### Discussion and Conclusion, Suggestions

Statistically significant difference was found between the social intelligence levels of the participants and the age variable between those aged 20-21 and those aged 22 years and older ( $p<0.05$ ). Statistically, a significant difference was found between the sub-dimension levels of the social intelligence scale and the age variable between those aged 22 years and older and those aged

18-19 and 20-21 years ( $p < 0.05$ ). There was no statistically significant difference between the social intelligence scale, social skills and social awareness sub-dimensions and age variable of the participants in the study ( $p > 0.05$ ). There was no statistically significant difference between the decision-making scale levels and the age variable of the participants in the study ( $p > 0.05$ ). Durukan et al. (2020) mentioned that there is no statistical difference between the age variable and the social intelligence scale and its sub-dimensions in their study on formation students studying in the field of sports. In our study, it can be said that the application of the social intelligence scale to the athletes at different education levels, and in the results found by Durukan et al., different results were obtained due to the study on the same education level. Keskin et al. (2016) said that there was a statistically significant difference in the scale of instability in their studies on the decision-making strategies of university students. They did not detect statistically significant differences in other sub-dimensions. This situation parallels with our study. The outcome of our study could be attributed to the very narrow age range.

There was no statistically significant difference between social intelligence scale levels and scale sub-dimensions and gender variables ( $p > 0.05$ ). There was no statistically significant difference between the decision-making scale levels and the gender variable of the participants in the study ( $p > 0.05$ ). According to the findings of our study, it is seen that female athletes have higher social intelligence levels than male athletes. However, this situation does not differ significantly from a statistical point of view. It is seen that male athletes have higher decision-making levels than female athletes when the decision-making scale is examined. Dogan and Cetin (2009) mentioned that male students have a higher level of social intelligence than female students. Turhal et al. (2020) also concluded that male have high social intelligence levels. Avşaroglu (2007) and Baglikol (2010) mentioned that they could not find a statistically significant relationship with gender variability in their studies on decision-making. In our study, the absence of significant differences can be attributed to the absence of gender discrimination in the sports environment.

There was no statistically significant difference between the social intelligence scale levels and scale sub-dimensions according to the branch type variable ( $p > 0.05$ ). There was no statistically significant difference between the decision-making scale levels and the branch type variable of the participants in the study ( $p > 0.05$ ). Turhal et al. (2020) found that sports manager candidates with individual sports were statistically higher in terms of social intelligence than managers candidates who played team sports. The reason for the lack of differences in our study could be attributed to their engagement with sports beyond just the specific sport branch.

According to the Pearson correlation test, it was determined that there was a positive and significant relationship between the level of social intelligence and the level of decision making.



Accordingly, it can be said that the higher the level of social intelligence, the higher the level of decision-making. It was determined that the level of social intelligence positively affected the decision-making levels of the athletes according to the linear regression test. Yilmaz (2019) examined the level of relationship between social intelligence and career success in his master's study. Accordingly, he concluded that there is a full mediation effect in the relationship between social intelligence and career success.

Licensed athletes in Elazig province; No statistically significant differences were detected between gender and branch type variables and social intelligence levels and decision-making levels. According to the age variable, statistically significant differences were found between the total scores of the social intelligence scale and the sub-dimension levels of the social knowledge process. In line with the study findings, the total score of the social intelligence scale is 66.01 and the decision-making scale total score is higher than the average with 9.66. In conclusion, according to the linear regression analysis, a positive and significant relationship between social intelligence level and decision-making has been identified.

### **Ethics Committee Permission Information**

Ethics review board: Munzur University Non-Interventional Research Ethics Committee

Date of ethics assessment document: 03/03/2022

Issue number of the ethics evaluation document: E.45819

### **Statement of Researchers' Contribution Rates**

The entire study was conducted by the sole author of the study.

### **Conflict Statement**

The authors have no declarations of conflict regarding the research.

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