ROL Spor Bilimleri Dergisi / *Journal of ROL Sports Sciences*
Cilt/Volume: Special Issue, Sayı/No: 1, Yıl/Year: 2023, ss. / pp.: 52-67
E-ISSN: 2717-9508
URL: https://roljournal.com/

Investigation of innovation perception in athletes in terms of personality types and some demographic characteristics

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Araştırma Makalesi/*Research Article*		**DOI:** 10.5281/zenodo.8398012
Gönderi Tarihi/*Received:*	Kabul Tarih/*Accepted:*	Online Yayın Tarihi/*Published*:
10.06.2023	15.10.2023	29.10.2023

Abstract

This study aims to examine athletes' perceptions of innovation in terms of personality types and some demographic characteristics. Relational and descriptive analysis models were used for the purpose of the study. "Personal Information Form", "Five-Factor Personality Scale" and "Innovation in Sports Scale" were utilized as "data collection tools". The research group comprises 196 people, 89 women and 107 men, determined by random sampling. G-power 3.1.9.7 was utilized to determine the sample size. As a result of the study, it was determined that although there are significant differences in the innovation perceptions of athletes when evaluated with different demographic characteristics, it has a small effect. Apart from this, it was determined that the explanatory rate of athletes' personalities on their perceptions of innovation was low, but there was a significant positive relationship. As a result, it is understood that athletes' demographic and personality characteristics are limited in understanding their perceptions of innovation.

Keywords: Athlete, innovation, personality

Sporcularda inovasyon algısının kişilik tipleri ve bazı demografik özellikler açısından incelenmesi

Öz

Bu çalışmada sporcuların inovasyon algılarının kişilik tipleri ve bazı demografik özellikler açısından incelenmesi amaçlanmıştır. Araştırmanın amacına yönelik ilişkisel ve betimsel analiz modellerinden yararlanılmıştır. Veri toplama araçları olarak "Kişisel Bilgi Formu" ve "Beş Faktörlü Kişilik Ölçeği" ve "Sporda İnovasyon Ölçeği" kullanılmıştır. Araştırma grubunu rastgele/tesadüfi örneklem yöntemi ile belirlenen 89 kadın, 107 erkek olmak üzere 196 kişiden oluşturmaktadır. Örneklem büyüklüğünün belirlenebilmesi için G-power 3.1.9.7 paket programından faydalanılmıştır. Araştırmanın sonucunda, sporcuların inovasyon algılarının farklı demografik özellikler ile değerlendirildiğinde anlamlı farklılıklar olduğu görülse de bu durumun küçük bir etkiye sahip olduğu söylenebilir. Bunun dışında sporcuların kişiliklerinin inovasyon algıları üzerindeki açıklayıcılık oranın düşük olduğu ancak pozitif yönlü anlamlı ilişkisinin bulunduğu belirlenmiştir. Sonuç olarak, sporcuların sahip oldukları demografik ve kişilik özelliklerinin inovasyon algılarının anlaşılabilmesi açısından sınırlı olduğu anlaşılmıştır.

Anahtar kelimeler: *Sporcu, inovasyon, kişilik*

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Genişletilmiş Türkçe özet, makaleninin sonunda yer almaktadır.

INTRODUCTION

Time as a factor is known to witness the change and development of many things in the world. One of these is innovative initiatives that are constantly evolving and transforming. At this point, mention the concept of innovation, which is now frequently heard. Hauschildt et al. (2016) express innovation with the concepts of new or novelty and explain it as reshaping conditions and processes with the concept of new. Innovation is also noteworthy in showing that societies cannot escape from innovation despite their value on traditional phenomena and their resistance. Economic, technological, technical, organizational, and social innovation is considered necessary in solving inevitable problems (Pleschak & Sabisch, 1996) and is important in showing that innovation is a multifaceted concept. This concept is mostly used in business administration, and there are studies in this direction in the literature. For example, Ögüt et al. (2007), for example, draw attention to innovation in the provision of goods and services, suggesting that it is a new marketing method or the application of new organizational management. Shalley et al. (2000) also conducted a study and defined it with the following statements that draw attention to the marketing aspect: "From a marketing perspective, innovation is based on the marketing of new products and product development processes through the needs and expectations of change in markets. From a management perspective, innovation is the management of all resources, both internal and external, to enable new ideas or developments. From a technological perspective, innovation is the tendency to use technological changes or discoveries to develop new products" (Shalley et al., 2000). The fact that innovation is perceived globally as a concept equivalent to keeping up with technology (Ramus, 2003) and that it is almost impossible to talk about a social field that is not affected by technology creates a diversity of fields when addressing this issue. Among these fields, sport is one of the subjects where the impact of innovations and technological advances is felt the most and has a widespread impact. When the studies on the relationship between sports and innovation are examined, it is seen that the history of the relationship is not very old, especially after the 2010s in Turkiye (Devecioğlu & Altıngül, 2011; Altıngül, 2012; Gündoğdu & Sunay, 2012; Tekin & Karakuş, 2018; Şimşek & Devecioğlu, 2018; Tosun-Tunç & Sevinç, 2019). In practice, the sports industry has started prioritizing innovation to increase their profits and allocate a share of their annual budgets (Müller, 2008).

In behavioral terms, personality can be defined as the reflection of an individual's physical and psychological differences on their behavior and understanding of life (Vallacher & Wegner, 1989). Although there are some similarities, personality is a phenomenon based on differences

between people (Somer, 1998; Rammstedt & John, 2007; Atak, 2013). It is known that environmental factors are effective in developing an individual's personality in addition to inborn genes (Taymur & Türkçapar, 2012).

Sport affects and shapes personality (Piepiora, 2020). Sports are a phenomenon that shapes character, and team sports teach coopperation, indiviidual sports develop personal disciplinee, teach struggle, facilitate the socialization process of the athlete by improving student-teacher relations, increase courage with dangerous training, and improve communication skills (Syer & Connoly, 1998; Kuru, 2000).

In this study, field research was conducted to reveal whether there is a relationship between athletes' perceptions of innovation and their personalities. Although innovation is perceived to be of interest only to corporate structures, athletes' approach to this issue, openness to innovations, and adaptation are considered important in terms of effective results. This and similar studies can be guided in terms of creating a sustainable effect of innovation in sports management and increasing the self-qualifications of sports clubs by examining this in terms of club athletes. In line with the main purpose, the method of the study was determined to examine the relationship between innovation and the personality of athletes by using relational and descriptive analysis models. In order to realize this examination, active athletes in various sports clubs, which stand out in terms of accessibility and openness to such studies, were reached by survey method. A total of 196 participants supported the research. The information obtained from the questionnaires was presented in tables, and the findings were evaluated.

METHOD

Research design

Following the objectives of this research, correlational and descriptive analysis models werre used. The correlationall study design is aimed at determining the variables of a problem and the relationship between the variables (Kurtuluş, 1998). Descriptivve model is an attempt to describe an existing event as it is. The research subject or object should be triied to be defined with its current conditions and should not be changed or transforrmed in anyway. Anything that is intended to be researched or known should be aimed to be obtained (Karasar, 2016). Questionnaire technique was utilized for the information obtained in the research.

Research group

A total of 196 subjects, 89 women and 107 men, participated in the study. It was found that 40.8% of the participants were 18-19 years old, 27.1% were 20-21 years old, and 32.1%

were 22-25 years old. Depending on the sport, 24% were interested in soccer, 24% in basketball, 19.9% in volleyball, 17.3% in handball, and 14.8% in athletics, badminton, bocce, boxing, wrestling, table tennis, archery, and taekwondo, with athletes in these sports classified as Other. It was found that 64.4% of athletes have been exercising for 1-10 years, while 35.7% have been exercising for 11 years or more. When analyzing the league levels of the athletes, it was found that 40.3% of the athletes competed in the amateur league, 17.3% in the third league, 16.8% in the second league, and 25.5% in the first league and higher. Regarding the years they competed in their clubs, it was found that 46.9% had competed for 1-2 years, 29.6% for 3-4 years, and 23.3% for five years or more. Athletes were randomly selected. The minimum sample size was calculated using G-power 3.1.9.7 (Kang, 2021). Accordingly, a priori and F tests were used to calculate power in the study design. With α err prob = 0.05, min. effect size = 0.25, and power (1-β err prob) = 0.80, a real power of 80.5% was obtained in the study with 156 samples for power analysis. Therefore, 196 subjects were found to be sufficient for the sample group of our study.

Data collection tools

Personal information form

A questionnaire form was created to learn demographic information about the participant's age, gender, years of playing sports (sports age), sports branch, the league they play in, and the number of years they have been in their clubs.

Five (5) factor personality scale

In this research, the "Five Factor Personality Scale" was used, which was designed by Rammstedt and John (2007) and which was adapted to Turkish cultural context by Horzum, Ayas, and Padır (2017) and its validity and the reliability study was performed. This instrument assesses the five major traits of personality: "openness to experience (1-6)", "conscientiousness (self-control) (2-7)", "extraversion (3-8)", "agreeableness (4-9)" and "emotional instability (neuroticism) (5-10)". This study is on a five(5) point likert type scale that ranges between "Strongly Disagree" (1) and "Strongly Agree" (5).

Innovation in sport scale

The scale was developed at Kanario (2017) and adopted into the Turkish language by Demir et al. (2020), and a reliability and validity study was performed. The scale consists of 3 sub-dimensions and a total of 30 items, namely “sports innovation in clubs” (1-2-3-4-5-6-7-8-9-10), “challenges of sports innovation in sports clubs” (11-12-13-14-15-16-17-18-19-20) and “strategies to facilitate the acceptance of sports innovation in clubs” (21-22-23-24-25-26-27-

28-29-30). The study is on a five (5) point likert scales between "1-Strongly Disagree" and "5-Strongly Agree".

Data analysis

Skewness and kurtosis (±2) were measured and it was determined that the data were normally distributed (George, 2011). The mean skewness of the Sports Innovativeness Scale (ISCA) was-.010 and kurtosis was 1.276, while the mean skewness of the Personality Scale (PS) 0.344 and kurtosis was 1.924. While t-test was used for pairwise comparisons, Cohen's d formula was used to determine effect sizes. As a common recommendation, according to Cohen, when the d value is less than 0.2, the size of the effects can be considered small; when it is 0.5, it can be considered moderate; and when it is higher than 0.8, it can be considered strong (Cohen, 2013). When using ANOVA test in multiple comparisons, the eta-square (η2) formula was used to determine the effect size (0.01 = smal effect, 0.06 = average effect, 0.14 = big effect) (Hopkins, 2009). Pearson correlation analysis has been used to investigate the relationship of personality and perception of innovativeness in sport, and regression analysis has been used to investigate the effect of personality on innovativeness in sport. Spss 26 software statistical analysis program was used for the analyzing of the results.

RESULTS

In this section, firstly, it is tried to determine the innovation perceptions of athletes through the differences in their demographic characteristics and the impact power of these differences. Then, by determining the relationship between their perceptions of innovation and their personalities, the effect of their personalities on their perceptions of innovation was tried to be revealed.

Table 1. T-test results of innovation in sport scale and sub-dimensions based on sport age variable

Parameters	Groups	$\bar{X}$	S.d.	df	t	p	Cohen's d
SFASIC	1-10 years	3.54	0.81	194	2.834	**0.005***	0.428
	11 and over years	3.20	0.73				
CSISC	1-10 years	3.38	0.80	194	1.622	0.106	0.249
	11 and over years	3.20	0.64				
SIC	1-10 years	3.49	0.82	194	0.701	0.484	0.105
	11 and over years	3.40	0.76				
ISCA	1-10 years	3.47	0.67	194	2.140	**0.034***	0.330
	11 and over years	3.27	0.52				

*=p<0.05; SFASIC: Strategies to Facilitate the Acceptance of Sport Innovation in Clubs; CSISC: Challenges of Sports Innovation in Sports Clubs; SIC: Sports Innovation in Clubs; ISCA: Innovation in Sport Scale Average

Table 1 shows the t-test results of the sport innovation scale with its subdimensions depending on the sport age variable. Table 1 shows that there is a significant difference ($p < 0.05$) between the mean scores of the SFASIC subdimension and the Sport Innovation Scale,

and that those who have been playing sports for 1-10 years are more satisfied with their clubs' perception of innovation than those who have been playing sports for 11 or more years. In addition, it can be said that sport age has a medium effect on the SFASIC sub-dimension and a small effect on the average of the Sport Innovation scale (Cohen, 2013).

Table 2. ANOVA test results of innovation in sport scale and sub-dimensions based on the variable of years spent in the club

Parameters	Groups	$\bar{X}$	S.d.	F	p	η2	Tukey
SFASIC	"1-2 years"	3.50	0.83	3.777	**0.025***	0.038	2<1-3
	"3-4 years"	3.18	0.67				
	"5 and over years"	3.56	0.84				
CSISC	"1-2 years"	3.43	0.74	3.059	**0.049***	0.031	2<3-1
	"3-4 years"	3.12	0.73				
	"5 and over years"	3.35	0.75				
SIC	"1-2 years"	3.51	0.76	0.763	0.468	0.008	-
	"3-4 years"	3.35	0.87				
	"5 and over years"	3.49	0.80				
ISCA	"1-2 years"	3.48	0.63	3.486	**0.033***	0.035	2<3-1
	"3-4 years"	3.22	0.61				
	"5 and over years"	3.47	0.61				

*=p<0.05

Table 2 shows the resultss of the ANOVA test of the athlete innovation scale with its subdimensions according to the years the athletes spent in their clubs. According to Table 2, it is seen that there is a meaningful difference in the mean of SFASIC, CSISC subdimensions and the athlete innovation scale (p<0.05). The Tukey test was performed to exemiine in which groups the group diifferences were between and as a result, it was found that those who spent 3-4 years in their clubs found the innovation approach of their clubs less adequate than the others. In addition, according to the results of eta-square (η2), it was seen that these subdimensions and the scale explained the independent variable with low effect power.

Table 3. ANOVA test results of innovation in sport scale and sub-dimensions based on the variable of sport branch

Parameters	Groups	X̄	S.d.	F	p	η2	Tukey
SFASIC	Soccer	3.27	0.85	3.050	**0.018***	0.060	5<2-4
	Basketball	3.64	0.83				
	Volleyball	3.30	0.69				
	Handball	3.65	0.65				
	Others	3.17	0.84				
CSISC	Soccer	3.48	0.69	1.353	0.252	0.028	-
	Basketball	3.12	0.78				
	Volleyball	3.35	0.56				
	Handball	3.30	0.88				
	Others	3.34	0.82				
SIC	Soccer	3.27	0.84	2.710	**0.031***	0.054	5<2-4
	Basketball	3.60	0.70				
	Volleyball	3.47	0.58				
	Handball	3.72	0.75				
	Others	3.20	1.07				
ISCA	Soccer	3.34	0.69	1.214	0.306	0.025	-
	Basketball	3.46	0.62				
	Volleyball	3.38	0.53				
	Handball	3.56	0.57				
	Others	3.24	0.70				

*=p<0.05

Table 3 shows the mean and subdimensions of the innovativeness scale in sport depending on the sport branch variable. Based on Table 3, it is found that there is a meaningful difference among the groups in SFASIC and SIC subdimensions (p<0.05). As a consequence of the Tukey test performed to determine in which groups the meaningful variance is between, it is revealed that those who are interested in other sports branches find the innovation approaches of their clubs lower than those who are interested in basketball and handball branches. In addition, when the eta-square (η2) value of the two sub-dimensions with meaningful difference is examined, it is determined that it explains the sport branch variable with low effect power.

Table 4. ANOVA test results of the sport innovation scale and its sub-dimensions depending on the league in which the athlete plays

Parameters	Groups	X̄	S.d.	F	p	η2	Tukey
SFASIC	Amateur	3.48	0.83	3.338	**0.020***	0.050	2<4
	Division 3	3.14	0.71				
	Division 2	3.24	0.76				
	1st division and above	3.63	0.78				
CSISC	Amateur	3.39	0.71	1.851	0.139	0.028	-
	Division 3	3.06	0.73				
	Division 2	3.27	0.70				
	1st division and above	3.41	0.83				
SIC	Amateur	3.42	0.81	0.310	0.818	0.005	-
	Division 3	3.44	0.80				
	Division 2	3.58	0.67				
	1st division and above	3.46	0.88				
ISCA	Amateur	3.43	0.66	1.497	0.217	0.023	-
	Division 3	3.21	0.58				
	Division 2	3.36	0.62				
	1st division and above	3.50	0.59				

*=p<0.05

Examination of Table 4 shows that there is a significant difference between groups on the sub-dimension of strategies to facilitate the adoption of sports innovation in clubs in relation to the Sports Innovation Scale and its sub-dimensions, depending on the league level in which the athletes play (p<0.05). As a result of the Tukey test performed to determine in which groups the difference was among, it was determined that there was a meaningful differences between the 3rd league players and those playing in amateur and 1 and higher leagues. In addition, when the eta-square (η2) value of the sub-dimension with a meaningful variance was analyzed, it was determined that it explained the league level played by the athletes with a low effect.

Table 5. Correlation table of sport innovation and personality sub-dimensions

Parameters		Openness to experience	Conscientiousness (self-control)	Extraversion	Agreeableness	Neuroticism	Personality Scale
ISCA	r	0.097	**0.177***	0.040	**0.205****	**0.230****	**0.291****
	p	0.174	0.013	0.581	0.004	0.001	0.000
	n	196	196	196	196	196	196

*=p<0.05

Table 5 suggests the correlation table of the scale of innovation in sport and the personality scale with its subdimensions. According to Table 5, there is a meaningful positive correlation among innovation and conscientiousness sub-dimension (r = .177; p<0.05) and a strong positive correlation between agreeableness (r = .205; p<0.01), neuroticism (r = .230; p<0.01), sub-dimensions and personality scale (r = 291; p<0.01).

Table 6. Regression analysis results for the effect of personality scales subdimensions on the perception of innovation in sport

	Parameters	R^2	ΔR^2	β	t	F
Model 1	Openness to experience	0.101	0.077	0.064	0.923	**4.274***
	Conscientiousness (self-control)			0.057	0.738	
	Extraversion			0.017	0.237	
	Agreeableness			0.182	2.463	
	Neuroticism			0.203	2.809	

*=p<0.05

In Table 6, regression analysis findings regarding the effect of personality scale subdimensions on athletes' perception of innovation in sport are presented. According to Model 1, it is understood that all of the personality scale subdimensions have a positive effect on athletes' perceptions of innovation. In other words, it was also found that personality subdimensions explained athletes' perceptions of innovation at a rate of approximately 8%.

DISCUSSION AND CONCLUSION

Reviewing the relevant literature, one finds that there are a number of studies on innovation. However, studies on innovation in sport are limited and there are very few studies on athletes' perceptions of innovation. In this study on the effects of personalities on innovation perceptions, the differences and effects of athletes' demographic characteristics on their perceptions of innovation were discussed. Then, the relationship between athletes' perceptions of innovation and their personalities and the effect of their personalities on their perceptions of innovation were determined.

When the study findings were examined, it was performed that there was a meaningful difference between the groups according to the year of sport of the athletes. It was understood that those who have been practicing sports for 1-10 years have a higher SFASIC sub-dimension and scale average than those who have been practicing sports for 11 years and more. This situation is likely due to the decrease in the innovative approaches that athletes expect from their clubs as the number of years of sport increases. In addition, this difference was found to have a small effect on athletes' perceptions of innovation. Similar to our study, Aslan and Sü (2018) reported decreased individual innovation expectations with advancing age, and in contrast to our study, Demir (2021), Atılgan and Tükel (2021), and Özkan et al. (2020) concluded that resistance to innovation and change decreases with age. However, this result is thought to be due to age, not sports age. In addition, Yıldırım et al. (2023), in their study on Far East athletes, stated that there was not meaningful difference in their perception of innovation

depending on the variable of the year of doing sports. This situation is thought to be because they were not exposed to innovations in sports in the same period and to the same extent.

It was found that there was a meaningful difference in the SFASIC, CSISC subdimensions, and scale mean depending on the years spent by the athletes in their clubs. It was determined that those who spent 3-4 years in their clubs had higher perceptions of innovation than those who spent five or more years and less than three years. This is likely because the innovative expectation in their clubs is higher in the 3-4 year intervals. Those with less than three years may not expect an innovative approach from their clubs, while those with five years or more may be due to a decrease in expectations due to the lack of realization of the expected innovative approaches from their clubs. In addition, it is understood that the athlete groups with significant differences have a low impact power on the innovation perception of their clubs. Similar to our study, Akbulut and Akıncı (2023), in their study on Isparta 1st Amateur League football players, determined that those who have been competing in their clubs for 4-6 years have higher average scores in the SFASIC sub-dimension compared to those who have been competing for less or more years. Demir (2021), in his study, concluded that there was a meaningful difference in the CSISC sub-dimension according to the duration of playing in the substructure. This study showed that the perception of innovation decreased as the substructure categories of athletes increased, and in this respect, it is similar to our study.

It was determined that there was a meaningful difference between the groups in SFASIC and SIC sub-dimensions depending on the branch variable of the athletes. This difference was found to have a low effect on athletes' perceptions of innovation. When the difference between the groups is examined, it is understood that those who are interested in sports branches such as athletics, badminton, bocce, boxing, wrestling, table tennis, archery, and taekwondo are among those who are interested in soccer, basketball, volleyball, and handball. This situation may be due to the differences in the innovative approaches that athletes interested in individual sports expect from their clubs. Like our study, Yıldırım et al. (2023) concluded a significant difference in the SIC sub-dimension according to the branch differences in far eastern sports.

It was determined that there was a meaningful difference in the SFASIC sub-dimension depending on the league level in which the athletes competed with their clubs. This difference had a low impact on their perceptions of innovation. Those competing in the 3rd League have lower perceptions of innovation in their clubs compared to the others. This situation is likely because clubs adopt innovation approaches more as the League rises, while there is no

expectation of innovation at the amateur level. The literature has no study on the differences between athletes' league level and their perceptions of innovation. However, considering that the income level of athletes increases as the league level increases, Karataş and Akıncı (2022) concluded that there was a meaningful difference in the perception of innovation in the SFASIC subdimension of athletes with high income level. In contrary to this study, Yıldırım et al. (2023) and Akbulut and Akıncı (2023) found that there was not a meaningful difference among the groups in their studies.

When the relationship between athletes' perceptions of innovativeness and their personalities was examined, it was observed that there was a significantly positive relationship among perceptions of innovativeness and self-control, softness, neuroticism sub-dimensions and scale mean. This relationship was found to be strong in all but the self-control sub-dimension. In addition, it was found that the athletes' personalities had approximately 8% explanatory power on their perceptions of innovation.

Since there is no study in the literature looking at the relationship and effect between innovation and personality types, the effect dimension could not be discussed, but in terms of performance, Karataş and Akıncı (2022) concluded in their study that athletes are undecided about how the perception of innovation will have an impact on performance. In addition, Demir (2021) revealed that there is a positive relationship between athletes' perception of innovation and their performance.

As a result of the study, it can be said that the demographic characteristics of the athletes have a low impact on their perceptions of innovation, and considering that their personality traits explain about 8% of their perceptions of innovation, it can be said that this effect is low. In this context, it is understood that athletes' personality traits are limited in understanding their perceptions of innovation.

Recommendations

It is recommended to study with different sample groups on innovation perceptions in sports sciences and to evaluate the effect of different parameters on innovation perception. New studies can be considered to accelerate and develop innovative approaches in sport.

GENİŞLETİLMİŞ ÖZET

GİRİŞ

Hauschildt ve arkadaşları (2016) inovasyonu, yeni veya yenilik kavramlarıyla ifade etmekte aynı zamanda şartların ve süreçlerin yeni kavramıyla tekrar şekillenmeleri olarak açıklamaktadır.

Toplumların geleneksel olgulara verdikleri değer ile yeniliğe direnmelerine rağmen bundan kaçamadıklarını göstermesi açısından da inovasyon dikkat çekmektedir. Karşılaşılması kaçınılmaz olan sorunların çözümünde ekonomik, teknolojik, teknik, örgütsel ve sosyal açıdan yeniliğin gerekli görülmesi (Pleschak & Sabisch, 1996) inovasyonun çok yönlü bir kavram olduğunu göstermesi açısından önemlidir.

İnovasyonun küresel anlamda teknolojiye ayak uydurma ile eş değer bir kavram gibi algılanması (Ramus, 2003) ve teknolojinin etkilemediği bir toplumsal alandan bahsetmenin neredeyse mümkün olmaması bu konuyu ele alırken alan çeşitliliği oluşturmaktadır. Bu alanlar içerisinde spor, yenilikler ve teknolojik ilerlemelerin etkisinin en çok hissedildiği ve yaygın etki oluşturduğu konuların başında geldiğini söylemek mümkündür. Spor ve inovasyon ilişkisi üzerine yapılan çalışmalar incelendiğinde tarihinin çok eskilere dayanmadığı, özellikle Türkiye'de 2010'lardan sonra bu ilişki üzerine çalışmaların yapıldığı görülmüştür (Devecioğlu & Altıngül, 2011; Altıngül, 2012; Gündoğdu & Sunay, 2012; Tekin & Karakuş, 2018; Şimşek & Devecioğlu, 2018; Tosun-Tunç & Sevinç, 2019).

Bu çalışmada sporcuların inovasyon algıları ile kişilikleri arasında bir ilişkinin olup olmadığını ortaya koymak üzere bir alan araştırması yapılmıştır. Temel amaç doğrultusunda çalışmanın yöntemi, ilişkisel ve betimsel analiz modelleri kullanılarak sporcuların inovasyon ve kişilik ilişkilerinin incelenmesi şeklinde belirlenmiştir.

YÖNTEM

Bu araştırmanın amaçları doğrultusunda ilişkisel ve betimsel analiz modelleri kullanılmıştır. Çalışmaya bir kulüpte aktif olarak sporcu olan ve rastgele/tesadüfi örnekleme yöntemi ile belirlenen 89 kadın ve 107 erkek olmak üzere toplam 196 kişi katılmıştır. Minimum örneklem büyüklüğü G-power 3.1.9.7 kullanılarak hesaplanmıştır (Kang, 2021). Verilerin toplanmasında kullanılan araçlar olarak "Kişisel Bilgi Formu" yanı sıra "Beş Faktörlü Kişilik Ölçeği" ve "Sporda İnovasyon Ölçeği" kullanılmıştır. Çalışmanın çarpıklık ve basıklık değerleri ölçülmüş (±2) ve verilerin normal dağıldığı anlaşılmıştır (George, 2011). Çalışmada ikili karşılaştırmalar için t-testi kullanılırken, etki büyüklüğünü belirlemek için Cohen'in d formülü kullanılmıştır. Genel bir yaklaşım olarak Cohen, d değerinin 0,2'den ufak olmasının etki büyüklüğünün zayıf, 0,5 olarak hesaplanması durumunda orta ve 0,8'den yüksek olmasının ise güçlü olarak tanımlanması gerektiği belirtilmektedir (Cohen, 2013). Çoklu karşılaştırmalarda ANOVA testi kullanılırken etki büyüklüğünü belirlemek için eta-kare (η2) formülü kullanılmıştır (0,01 = küçük etki 0,06 = orta etki 0,14 = büyük etki) (Hopkins, 2009). Sporda yenilikçilik algısı ile kişilik arasındaki ilişkinin belirlenebilmesi amacıyla Pearson korelasyon analizinden, kişiliğin sporda inovasyon üzerine açıklayılıcılığının belirlenebilmesi için ise regresyon analizinden yararlanılmıştır. Verilerin analizinin yapılması amacıyla SPSS 26 programından faydalanılmıştır.

BULGULAR

Katılımcıların spor yapma yılları ve kulüplerinde geçirdikleri zaman değişkenine bağlı inovasyon ölçeğinin ortalaması ve bazı alt boyutlarında anlamlı farklılık bulunurken, branş ve kulüpleri ile mücadele ettikleri lig seviyesine değişkenine bağlı bazı alt boyutlarda anlamlı farklılıkların olduğu belirlenmiştir. Ayrıca katılımcıların inovasyon algıları ile kişilikleri arasında, özdenetim, yumuşak başlılık, nörotizm alt boyutlarında ve ölçek ortalaması arasında pozitif yönlü anlamlı ilişki olduğu anlaşılmıştır. Sporcuların kişiliklerinin inovasyon algıları üzerinde yaklaşık olarak %8 oranında açıklayıcılığa sahip olduğu görülmüştür.

TARTIŞMA VE SONUÇ

Katılımcıların spor yaptıkları yıl değişkenine göre gruplar arasında anlamlı farklılığın olduğu belirlenmiştir. 1-10 yıl arasında spor yapanların 11 yıl ve üzeri yıldır spor yapanlara oranla, SFASIC alt boyutu ve ölçek ortalamasında daha yüksek olduğu anlaşılmıştır. Aslan ve Sü (2018) yaptığı çalışmanın sonuçları çalışmamız ile benzerlik gösterirken, Demir (2021), Atılgan ve Tükel (2021), Özkan ve arkadaşları (2020) ve Yıldırım ve arkadaşları (2023)'nın yaptıkları çalışmalar çalışmamızın aksine sonuçlar ortaya koymuştur.

Sporcuların kulüplerinde geçirdikleri yıl değişkenine bağlı olarak SFASIC, CSISC alt boyutları ve ölçek ortalamasında anlamlı farklılık olduğu anlaşılmıştır. Kulüplerinde 3-4 yıl geçirenlerin 5 ve daha fazla yıl ve 3 yıldan daha az geçirenlere oranla inovasyon algılarının daha yüksek olduğu belirlenmiştir. Akbulut ve Akıncı (2023)'nın yaptığı çalışmanın bulguları çalışmamız ile benzerlik göstermektedir.

Sporcuların branş değişkenine bağlı olarak SFASIC ve SIC alt boyutlarında gruplar arasında anlamlı farklılığın olduğu belirlenmiştir. Bu farklılığın ise sporcuların inovasyon algıları üzerinde düşük etkiye sahip olduğu görülmüştür. Yıldırım ve arkadaşları (2023)'nın yaptığı çalışma, çalışmamız ile benzerlik göstermektedir.

Sporcuların kulüpleri ile mücadele ettikleri lig seviyesi değişkenine bağlı olarak SFASIC alt boyutunda anlamlı farklılık olduğu ve bu farklılığın inovasyon algıları üzerinde düşük etki gücüne sahip olduğu belirlenmiştir. Literatürde sporcuların lig seviyesi ile inovasyon algıları arasındaki farklılıklara yönelik çalışma bulunamamıştır. Ancak sporcuların lig seviyesi yükseldikçe gelir seviyelerinin de yükseldiği düşünüldüğünde, çalışmamız Karataş ve Akıncı (2022)'nın yaptığı çalışma ile benzerlik gösterirken, Akbulut ve Akıncı (2023)'nın yaptığı çalışmanın aksinedir.

Sporcuların inovasyon algıları ile kişilikleri arasındaki ilişki incelendiğinde, inovasyon algıları ile özdenetim, yumuşak başlılık, nörotizm alt boyutlarında ve ölçek ortalaması arasında pozitif yönlü anlamlı ilişki olduğu anlaşılmıştır. Bu ilişki özdenetim alt boyutu hariç diğerlerinde güçlü olduğu belirlenmiştir. Ayrıca sporcuların kişiliklerinin inovasyon algıları üzerinde yaklaşık olarak %8 oranında açıklayıcılığa sahip olduğu anlaşılmıştır.

Çalışmanın sonucunda, sporcuların demografik özelliklerinin, inovasyon algıları üzerinde düşük bir etki gücüne sahip olduğu ayrıca kişilik özelliklerinin de yaklaşık %8 oranında açıkladığı düşünüldüğünde bu etkininde düşük olduğu söylenebilir. Bu bağlamda sporcuların sahip oldukları kişilik özelliklerinin inovasyon algılarının anlaşılabilmesi açısından sınırlı olduğu anlaşılmıştır.

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KATKI ORANI ***CONTRIBUTION RATE***	**AÇIKLAMA** ***EXPLANATION***	**KATKIDA BULUNANLAR** ***CONTRIBUTORS***
Fikir ve Kavramsal Örgü *Idea or Notion*	Araştırma hipotezini veya fikrini oluşturmak *Form the research hypothesis or idea*	Serkan Necati METİN
Tasarım *Design*	Yöntem ve araştırma desenini tasarlamak *To design the method and research design.*	Serkan Necati METİN Tuncay ÖCAL
Literatür Tarama *Literature Review*	Çalışma için gerekli literatürü taramak *Review the literature required for the study*	Serkan Necati METİN Tuncay ÖCAL
Veri Toplama ve İşleme *Data Collecting and Processing*	Verileri toplamak, düzenlemek ve raporlaştırmak *Collecting, organizing and reporting data*	Serkan Necati METİN Tuncay ÖCAL
Tartışma ve Yorum *Discussion and Commentary*	Elde edilen bulguların değerlendirilmesi *Evaluation of the obtained finding*	Serkan Necati METİN

Destek ve Teşekkür Beyanı/ *Statement of Support and Acknowledgment*

Bu çalışmanın yazım sürecinde katkı ve/veya destek alınmamıştır.
No contribution and/or support was received during the writing process of this study.

Çatışma Beyanı/ *Statement of Conflict*

Araştırmacıların araştırma ile ilgili diğer kişi ve kurumlarla herhangi bir kişisel ve finansal çıkar çatışması yoktur.
Researchers do not have any personal or financial conflicts of interest with other people and institutions related to the research.

Etik Kurul Beyanı/ *Statement of Ethics Committee*

Bu araştırma, Bandırma Onyedi Eylül Üniversitesi, Sosyal ve Beşeri Bilimler Etik Kurulunun 2023-2 10/03/2023 sayılı kararı ile yürütülmüştür.
This research was conducted with the decision of Bandırma Onyedi Eylül University Social and Human Sciences Ethics Committee numbered 2023-2 10/03/2023