

The Relationship Between Sports Management Students' Use of ChatGPT and Their Perceptions of Career Future in the Era of Artificial Intelligence

Yapay Zeka Çağında Spor Yöneticiliği Öğrencilerinin Chatgpt Kullanımı ile Kariyer Geleceği Algıları Arasındaki İlişki

Gamze Durmuş¹, Pınar Karacan Doğan²

*Correspondence:

Gamze Durmuş
g.durmus@alparslan.edu.tr

¹Muş Alparslan Üniversitesi Spor Bilimleri Fakültesi Engellilerde Egzersiz ve Spor Bilimleri Bölümü, Muş/Türkiye, g.durmus@alparslan.edu.tr, ORCID: 0000-0002-4879-8280

²Gazi Üniversitesi Spor Bilimleri Fakültesi Spor Yöneticiliği Bölümü, Ankara/Türkiye, karacan@gazi.edu.tr, ORCID: 0000-0002-2654-2751



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Abstract

The purpose of this study is to examine the relationship between sports management students' use of ChatGPT and their perceptions of their future careers. The study was designed within the framework of a correlational survey model. The sample consists of 237 sports management students (118 female, 119 male) enrolled in Sports Sciences Faculties in Turkey during the 2025–2026 academic year, selected using convenience sampling. The Personal Information Form, the ChatGPT Usage Scale, and the Career Future Scale were used as data collection tools. For pairwise comparisons of scores obtained from the scales, the t-test for independent samples was used; for comparisons among multiple groups, one-way analysis of variance (ANOVA) was used; and the Tukey HSD test was used to determine the source of the differences. Pearson Correlation Analysis was applied to examine the relationships between the scales. The findings indicate that students' perceptions of opportunities regarding ChatGPT use are high, while their perceptions of challenges are moderate; their perceptions of career prospects are generally high. Additionally, a statistically significant positive correlation of moderate strength was found between the level of ChatGPT usage and perceptions of career prospects ($p < 0.05$). It was determined that students who received artificial intelligence training had higher levels of career fit and overall perceptions of career prospects. In conclusion, it has been determined that ChatGPT can serve as a supportive digital resource for sports management students during their career preparation processes, but it is not the sole determining factor in shaping their perception of their career future.

Keywords: Artificial intelligence, ChatGPT, career future, sports management.

Özet

Bu araştırmanın amacı, spor yöneticiliği bölümü öğrencilerinin ChatGPT kullanımı ile kariyer geleceğine ilişkin algıları arasındaki ilişkinin incelenmesidir. Çalışma, ilişkisel tarama modeli çerçevesinde desenlenmiştir. Araştırmanın örneklemini, 2025–2026 eğitim-öğretim yılında Türkiye'de Spor Bilimleri Fakültelerinde öğrenim gören ve kolayda örnekleme yöntemiyle belirlenen 237 spor yöneticiliği öğrencisi (118 kadın, 119 erkek) oluşturmaktadır. Veri toplama aracı olarak Kişisel Bilgi Formu, ChatGPT Kullanım Ölçeği ve Kariyer Geleceği Ölçeği kullanılmıştır. Ölçeklerden elde edilen puanların ikili karşılaştırmalarında Bağımsız Örneklem t-testi, çoklu grup karşılaştırmalarında Tek Yönlü Varyans Analizi (ANOVA) ve farklılığın kaynağını belirlemek amacıyla Tukey HSD testi kullanılmıştır. Ölçekler arasındaki ilişkilerin incelenmesinde ise Pearson Korelasyon Analizi uygulanmıştır. Bulgular, öğrencilerin ChatGPT kullanımına ilişkin fırsat algılarının yüksek, zorluk algılarının ise orta düzeyde olduğunu; kariyer geleceği algılarının genel olarak yüksek düzeyde bulunduğunu göstermektedir. Ayrıca ChatGPT kullanım düzeyi ile kariyer geleceği algısı arasında pozitif yönde orta düzeye yakın anlamlı bir ilişki tespit edilmiştir ($p < 0,05$). Yapay zekâ eğitimi alan öğrencilerin kariyer uyumluluğu ve genel kariyer geleceği algılarının daha yüksek olduğu belirlenmiştir. Sonuç olarak, ChatGPT'nin spor yöneticiliği öğrencileri için kariyer hazırlık süreçlerinde destekleyici bir dijital kaynak olarak işlev görebileceği, ancak kariyer geleceği algısının oluşumunda tek başına belirleyici olmadığı değerlendirilmiştir.

Anahtar kelimeler: Yapay zekâ, ChatGPT, kariyer geleceği, spor yöneticiliği.

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INTRODUCTION

The changes brought about by digital transformation in the sports industry necessitate a re-evaluation of the professional preparation processes for sports management students. Today, aspiring sports managers are evaluated not only on their organizational or management knowledge but also on their ability to make data-driven decisions, produce digital content, think analytically, and solve problems with the help of technology. The rapid proliferation of generative artificial intelligence applications, in particular, has increasingly intertwined students' learning processes with their career planning practices. This development raises the question of whether tools such as ChatGPT are merely academic support tools or a new professional resource that shapes perceptions of career future. Therefore, examining the relationship between how sports management students use ChatGPT and their perceptions of their career futures is important in terms of both updating educational programs and redefining professional competencies.

In recent years, artificial intelligence-based systems have created a wave of technology that has transformed not only technical work processes but also information production, learning, and professional decision-making. Chat-based systems, particularly those supported by generative artificial intelligence and large language models, have rapidly changed the ways in which individuals access information, generate text, summarize, and receive feedback (Bozkurt, 2023; Murtezaoglu & Birol, 2025). Studies on the use of ChatGPT in higher education show that these tools are becoming widespread in areas such as academic writing support, idea generation, and facilitating learning; however, concerns persist regarding accuracy issues, overconfidence, academic integrity, and ethical uncertainties (Baig & Yadegaridehkordi, 2024; Murtezaoglu & Birol, 2025). UNESCO's guide also emphasizes that artificial intelligence applications in education should be approached in a human-centered manner and in accordance with ethical principles (Holmes & Miao, 2023).

This transformation is even more visible in the sports industry. Artificial intelligence applications are becoming increasingly widespread in areas such as data analytics, fan engagement, digital content production, and performance management (Deloitte, 2024; Yüksel & Öntürk, 2025; Çakır vd., 2023). This situation requires sports management departments to integrate competencies such as data literacy, digital tool usage, and artificial intelligence literacy into their educational processes to prepare graduates for changing job descriptions (Yüksel & Öntürk, 2025). Studies conducted in Türkiye also show that students view artificial intelligence as a supportive tool but have concerns about ethics and adequacy (Destici et al., 2025; Uluca vd., 2024; Çakır & Çatıkkaş, 2025).

Career future perception is a multidimensional construct that includes an individual's optimism about their career, their capacity to adapt to change, and their level of knowledge about the job market (Rottinghaus et al., 2005). Career compatibility, career optimism, and perceived knowledge about the labor market reflect an individual's career planning skills in an uncertain environment (Kalafat, 2012). In this context, technology acceptance models [Technology Acceptance Model (TAM) and the Unified Theory of Acceptance and Use of Technology 2 (UTAUT2)] provide an important theoretical foundation for explaining the adoption of tools such as ChatGPT (Davis,

1989; Venkatesh et al., 2012). However, there are limited studies in the literature that examine the use of ChatGPT among sports management students and their perception of career future together.

This study aims to examine the relationship between sports management students' perceptions of their career future and their use of ChatGPT, taking this gap into account. In this regard, the following questions were addressed:

Is there a significant relationship between sports management students' use of ChatGPT and their perceptions of their career futures?

Does the perception of ChatGPT usage and career future differ based on variables such as gender, class level, cumulative GPA, whether the individual has received AI training, frequency of use, and purpose of use?

MATERIALS and METHODS

Research Design

This research was designed within the framework of the correlational survey model, one of the survey models, as it aims to reveal the current condition. Survey models are research approaches that aim to describe a situation as it existed in the past or as it currently exists, without manipulating variables. In this model, the individual or object under study is examined within its natural environment and is attempted to be defined without any intervention or guidance. The correlational survey model, which is one of the subtypes of the survey model, is a research design aiming to determine the co-variation between two or more variables and the degree of this variation (Karasar, 2009).

Research Group

The population of the study consists of students enrolled in the Department of Sports Management within the Faculties of Sport Sciences at universities in Türkiye during the 2025–2026 academic year. The sample for the study consisted of a total of 237 participants (118 women, 119 men) selected from among students in the sports management department using a convenience sampling method (Table 1). Various practical rules found in the literature regarding the determination of sample size were taken into consideration in the study. In this study, the criterion that the sample size should be a minimum of 5 and a maximum of 20 participants for each scale item was adopted (Tavşancıl, 2014). Accordingly, since the ChatGPT Usage Scale used in this study consists of 12 items and the Career Future Scale consists of 25 items, yielding a total of 37 items, and considering the requirement that the sample size should be at least five times the number of scale items, the minimum required sample size for the study was determined to be 185 participants. In order to minimize potential data loss and problems that may arise during the application process, as well as to increase the reliability of the research, a total of 237 participants were reached in this study.

Table 1. Descriptive Characteristics of Participants (n=237)

<i>Variables</i>	<i>f</i>	<i>%</i>
Gender		
Female	118	49.8
Male	119	50.2
Grade		
1. Grade	72	30.4
2. Grade	35	14.8
3. Grade	62	26.2
CGPA		
2.00 and below	17	7.2
2.01-2.50	45	19.0
2.51-3.00	89	37.6
3.01 and above	86	36.3
Previous experience with artificial intelligence training		
Yes	20	8.4
No	217	91.6
Frequency of ChatGPT usage		
None	8	3.4
Rarely	46	19.4
A few times a month	42	17.7
A few times a week	91	38.4
Every day	50	21.1
Purpose of ChatGPT usage		
Lesson/assignment preparation	95	40.1
Academic research	46	19.4
Career planning	12	5.1
Personal development	84	35.4

Procedures

The data acquisition tool used in the study is a scale form created by the researcher and consisting of four main sections. The first section of the scale contains the research objective, scope, and volunteer participation information form. The second section includes a “Personal Information Form” to determine participants' personal characteristics, the third section includes a “ChatGPT Usage Scale” to determine participants' levels of ChatGPT usage, and the fourth section includes a “Career Future Scale” to determine participants' perceptions of their career future.

The prepared scale form was transferred to the Google Forms application, and the survey link was sent to participants online. Participants voluntarily consented to participate by reading the information form provided to them prior to the application. The scale was kept accessible between February 14, 2026, and February 21, 2026; no time restrictions were imposed on participants regarding responses. Each participant has been included in the study in such a way that they will provide data only once.

After reaching the necessary and sufficient sample size for the research, the survey link was closed, and the data obtained was prepared for statistical analysis. Throughout the research, confidentiality and ethical principles were adhered to; data obtained from participants was used solely for scientific purposes.

Personal Information Form: A personal information form developed by the researcher was used to determine the demographic and academic characteristics of the participants in the study. The form included questions regarding participants' gender, year of study, cumulative grade point average (CGPA), whether they had received training related to artificial intelligence, their frequency of ChatGPT use, and their purposes for using ChatGPT.

ChatGPT Usage Scale: The scale developed by Taktak and Bafra (2025) consists of a total of 12 items aimed at identifying the opportunities and challenges individuals perceive in relation to their use of ChatGPT. The scale has two sub-dimensions: the Opportunities sub-dimension (7 items) measures aspects that could contribute to ChatGPT's learning process (individual learning, quick feedback, academic writing support, ease of planning, etc.); the Challenges sub-dimension (5 items) evaluates potential limitations such as ethical risks, reduced teacher-student interaction, technology dependency, and legal oversight issues. The scale is rated on a 5-point Likert scale. The total score that can be obtained on the scale ranges from 12 to 60, with high scores indicating that participants perceive both the opportunities and challenges associated with ChatGPT use at a high level. As a result of the exploratory and confirmatory factor analyses conducted during the scale development process, a two-factor structure was confirmed; the Cronbach's alpha (α) coefficient calculated for the scale's internal consistency was reported as .74 for the opportunities sub-dimension, .79 for the challenges sub-dimension, and .71 for the entire scale. In our current study, the repeated Cronbach's alpha (α) coefficient was found to be .86 for the opportunities sub-dimension, .71 for the challenges sub-dimension, and .74 for the entire scale.

Career Future Scale: The Career Futures Scale, originally developed by Michael J. Rottinghaus et al. (2005) and adapted into Turkish by Tülay Kalafat (2012), was used to assess participants' perceptions of their career future. It consists of three sub-dimensions: career compatibility, career optimism, and perceived knowledge of labor markets, comprising a total of 25 items. Items 10, 11, 14, 15, 16, 19, 20, and 24 on the scale are reverse-coded. "A high score on each sub-dimension of the scale indicates that the individual possesses the trait assessed by that sub-dimension." The scale also provides a total Career Future Perception score. When scoring the scale, the average of the sub-dimensions and the total score is taken. All items are scored on a scale of 1 to 5, except for reverse-coded items, where scores are reversed. For career compatibility and career optimism, the highest possible score from the sub-dimensions is 55, and the lowest is 11, while for the labor-related perceived information sub-dimension, the highest possible score is 15 and the lowest is 3.

Data Analysis

Following the examination of skewness and kurtosis values to assess normality, the data were found to exhibit a normal distribution, and no outliers that would pose a threat to the analyses were detected. Table 2 shows that the skewness and kurtosis values examined to test the normality assumption vary between -1 and +1. For scores obtained from scales, the independent samples t-test was used for pairwise comparisons, while one-way analysis of variance and Tukey's HSD test were used for multiple comparisons.

Pearson correlation analysis was applied to determine the relationship between CUS and CFS. Research findings are presented as percentages (%), arithmetic means, and standard deviations; a significance level of $p < 0.05$ was accepted in all statistical analyses. Data analysis was performed using the SPSS 24.0 statistical package program.

Table 2. Descriptive statistics related to scales

	<i>Sub-dimensions</i>	<i>X</i>	<i>Sd</i>	<i>Min.</i>	<i>Max.</i>	<i>Skewness</i>	<i>Kurtosis</i>	<i>C.Alpha</i>
<i>CUS</i>	<i>Opportunities</i>	27.63 (3.94)	4.22	15.00	35.00	-.194	0.100	0.842
	<i>Challenges</i>	16.16 (3.23)	3.52	5.00	25.00	-.039	0.460	0.693
	<i>CUS Total</i>	43.80 (3.65)	5.49	29.00	60.00	0.316	0.576	0.710
	<i>Career Compatibility</i>	42.99 (3.90)	6.39	23.00	55.00	-.180	-.018	0.857
<i>CFS</i>	<i>Career Optimism</i>	40.13 (3.64)	6.47	26.00	55.00	0.342	-.517	0.814
	<i>Perceived Knowledge of Labor Markets</i>	10.09 (3.36)	2.18	3.00	15.00	-.172	0.987	0.510
	<i>CFS Total</i>	93.22 (3.72)	12.89	61.00	125.00	0.294	-.280	0.897

Intervals (5-1)/5=0.80 Criteria: 1.00-1.79= Very Low; 1.80-2.59=Low; 2.60-3.39=Medium; 3.40-4.19=High; 4.20-5.00= Very High

Table 2 presents descriptive statistics and reliability coefficients for the scales and sub-dimensions used in the study. According to the descriptive statistics obtained, the overall mean score for CUS ($\bar{x} = 3.65$) and the opportunities sub-dimension ($\bar{x} = 3.94$) were found to be high, while the challenges sub-dimension ($\bar{x} = 3.23$) was found to be moderate. The overall mean of CFS ($\bar{x} = 3.72$) and its sub-dimensions, career compatibility ($\bar{x} = 3.90$) and career optimism ($\bar{x} = 3.64$), were found to be high; the sub-dimension of perceived knowledge about job markets ($\bar{x} = 3.36$) was found to be moderate.

It has been determined that the skewness and kurtosis values for all scales and sub-dimensions fall within the range of ± 1 . This situation indicates that the normality assumption is satisfied. Indeed, it is stated that skewness and kurtosis coefficients falling within the range of -1 to +1 are acceptable (Morgan et al., 2004). However, considering that the data meet the assumptions of normality and homogeneity, are measured on an interval scale, and show a continuous distribution, it can be seen that the assumptions of parametric tests are satisfied (Köklü et al., 2007). Since the sample size was over 200, skewness and kurtosis coefficients within the ± 1 range were considered sufficient in the normality assessment. It is stated that parametric tests are robust against normality violations in large samples (Tabachnick et al., 2007). The reliability of the scales was assessed using Cronbach's alpha coefficients. The analysis yielded reliability coefficients of $\alpha = 0.710$ for CUS and $\alpha = 0.897$ for CFS. The Cronbach alpha coefficient ($\alpha = 0.510$) for the sub-dimension "perceived knowledge about labor markets" of the Career Future Scale was found to be low. Therefore, findings related to this sub-dimension were interpreted with caution, and the analysis results were evaluated within the scope of limitations.

FINDINGS

Table 3. Comparisons by Participants' Gender Variable

	<i>Sub-dimensions</i>	<i>Gender</i>	<i>n</i>	<i>X̄</i>	<i>Sd</i>	<i>t</i>	<i>p</i>
CUS	Opportunities	Female	118	27.02	4.21	-2.221	0.027*
		Male	119	28.23	4.17		
	Challenges	Female	118	16.34	3.59	0.776	0.439
		Male	119	15.99	3.46		
CFS	CUS Total	Female	118	43.37	5.26	-1.198	0.232
		Male	119	44.22	5.70		
	Career Compatibility	Female	118	42.48	6.29	-1.231	0.220
		Male	119	43.50	6.47		
	Career Optimism	Female	118	40.60	6.77	1.116	0.266
		Male	119	39.66	6.14		
	Perceived Knowledge of Labor Markets	Female	118	9.96	2.32	-.918	0.359
		Male	119	10.22	2.04		
	CFS Total	Female	118	93.05	13.40	-.205	0.838
		Male	119	93.39	12.41		

$p < 0.05^*$

According to Table 3, a significant difference was found in the CUS' opportunities sub-dimension based on gender ($t = -2.221$; $p < 0.05$). Male participants' perceptions of opportunity are higher than those of women. Apart from this, no significant difference was found in the other subscales of the CUS and CFS or in their total scores based on gender ($p > 0.05$).

Table 4. Comparison of participants' previous experience with artificial intelligence training variable

	<i>Sub-dimensions</i>	<i>AI Training</i>	<i>n</i>	<i>X̄</i>	<i>Sd</i>	<i>t</i>	<i>p</i>
CUS	Opportunities	Yes	20	27.95	4.99	0.350	0.727
		No	217	27.60	4.16		
	Challenges	Yes	20	17.20	2.72	1.368	0.173
		No	217	16.07	3.58		
CFS	CUS Total	Yes	20	45.15	5.28	1.148	0.252
		No	217	43.67	5.50		
	Career Compatibility	Yes	20	47.45	5.42	3.326	0.001*
		No	217	42.58	6.32		
	Career Optimism	Yes	20	42.30	5.93	1.571	0.117
		No	217	39.93	6.49		
	Perceived Knowledge of Labor Markets	Yes	20	10.75	2.76	1.399	0.103
		No	217	10.03	2.12		
	CFS Total	Yes	20	100.50	11.94	2.829	0.008*
		No	217	92.55	12.79		

$p < 0.05^*$

According to Table 4, there was no significant difference in the CUS sub-dimensions and total scores based on whether participants received artificial intelligence training ($p > 0.05$). However, a significant difference was found in the career compatibility subscale ($t = 3.326$; $p < 0.05$) and total score ($t = 2.829$; $p < 0.05$) of the CFS. Participants who receive artificial intelligence training are found to have higher levels of career compatibility and overall career development.

Table 5. Comparisons Based on Participants' Grade Variable

	<i>Sub-dimensions</i>	<i>Class</i>	<i>n</i>	<i>X̄</i>	<i>Sd</i>	<i>F</i>	<i>p</i>
CUS	Opportunities	1. Grade	72	28.43	4.14	5.910	0.001*
		2. Grade	35	25.91	4.44		
		3. Grade	62	26.53	3.88		
		4. Grade	68	28.67	4.06		
	Challenges	1. Grade	72	15.45	3.59	2.982	0.032*
		2. Grade	35	17.57	4.06		
		3. Grade	62	16.35	2.88		
		4. Grade	68	16.02	3.54		
	CUS Total	1. Grade	72	43.88	5.33	1.235	0.298
		2. Grade	35	43.48	6.93		
		3. Grade	62	42.88	4.77		
		4. Grade	68	44.70	5.41		
CFS	Career Compatibility	1. Grade	72	42.61	6.96	2.505	0.060
		2. Grade	35	44.25	7.07		
		3. Grade	62	41.46	5.97		
		4. Grade	68	44.14	5.48		
	Career Optimism	1. Grade	72	40.38	7.08	0.195	0.900
		2. Grade	35	40.34	7.18		
		3. Grade	62	39.59	6.31		
		4. Grade	68	40.23	5.61		
	Perceived Knowledge of Labor Markets	1. Grade	72	10.06	1.96	2.495	0.061
		2. Grade	35	10.42	2.23		
		3. Grade	62	9.51	2.23		
		4. Grade	68	10.48	2.26		
	CFS Total	1. Grade	72	93.06	14.09	1.864	0.136
		2. Grade	35	95.02	14.50		
		3. Grade	62	90.58	12.63		
		4. Grade	68	94.86	10.57		

$p < 0.05^*$

According to Table 5, there are significant differences in the subdimensions of opportunities ($F = 5.910$; $p < 0.05$) and challenges ($F = 2.982$; $p < 0.05$) of CUS according to grade level. When examining the average scores, it is seen that 4th grade students have higher averages in the opportunities sub-dimension, while 2nd grade students have higher averages in the challenges sub-dimension. No significant difference was found in the total CUS score and the subdimensions and total score of CFS according to the grade variable ($p > 0.05$).

Table 6. Comparisons by Participants' CGPA Variable

	<i>Sub-dimensions</i>	CGPA	<i>n</i>	<i>X̄</i>	<i>Sd</i>	<i>F</i>	<i>p</i>
CUS	Opportunities	2.00 and below	17	24.64	3.49	6.576	0.000*
		2.01-2.50	45	26.22	3.67		
		2.51-3.00	89	28.01	4.39		
		3.01 and above	86	28.56	4.06		
	Challenges	2.00 and below	17	15.76	3.23	0.083	0.969
		2.01-2.50	45	16.15	2.49		
		2.51-3.00	89	16.22	3.97		
		3.01 and above	86	16.19	3.60		
	CUS Total	2.00 and below	17	40.41	5.84	4.421	0.005*
		2.01-2.50	45	42.37	4.27		
		2.51-3.00	89	44.23	6.00		
		3.01 and above	86	44.76	5.10		
CFS	Career Compatibility	2.00 and below	17	38.11	6.35	6.922	0.000*
		2.01-2.50	45	41.97	6.23		
		2.51-3.00	89	42.57	6.14		
		3.01 and above	86	44.93	6.11		
	Career Optimism	2.00 and below	17	35.05	4.52	6.694	0.000*
		2.01-2.50	45	39.48	6.78		
		2.51-3.00	89	39.60	6.39		
		3.01 and above	86	42.01	6.09		
	Perceived Knowledge of Labor Markets	2.00 and below	17	9.70	1.68	0.526	0.665
		2.01-2.50	45	9.93	2.38		
		2.51-3.00	89	10.05	2.11		
		3.01 and above	86	10.30	2.24		
	CFS Total	2.00 and below	17	82.88	10.42	7.478	0.000*
		2.01-2.50	45	91.40	12.97		
		2.51-3.00	89	92.23	12.84		
		3.01 and above	86	97.24	11.94		

p<0.05*

According to Table 6, CUS' opportunities sub-dimension ($F = 6.576$; $p < 0.05$) and total score ($F = 4.421$; $p < 0.05$) and CFS' career compatibility ($F = 6.922$; $p < 0.05$), career

optimism ($F = 6.694$; $p < 0.05$), and total score ($F = 7.478$; $p < 0.05$) of the CFS were found to be significantly different according to CGPA level. When examining the average scores, it is seen that these differences are particularly in favor of participants with a CGPA of 3.01 and above. No significant difference was found between the CUS' difficulty sub-dimension and the CFS' perceived knowledge sub-dimension regarding labor markets based on the CGPA variable ($p > 0.05$).

Table 7. Comparisons of participants by their frequency of ChatGPT usage

	<i>Sub-dimensions</i>	<i>Frequency of usage</i>	<i>n</i>	<i>X</i>	<i>Sd</i>	<i>F</i>	<i>p</i>
CUS	Opportunities	None	8	24.87	5.74	10.919	0.000*
		Rarely	46	25.47	3.66		
		A few times a month	42	26.71	3.76		
		A few times a week	91	27.93	4.29		
		Every day	50	30.28	3.11		
	Challenges	None	8	20.12	2.99	4.516	0.002*
		Rarely	46	16.39	3.38		
		A few times a month	42	16.21	2.71		
		A few times a week	91	16.38	3.21		
		Every day	50	14.90	4.32		
	CUS Total	None	8	45.00	7.36	2.859	0.024*
		Rarely	46	41.86	5.04		
		A few times a month	42	42.92	5.14		
		A few times a week	91	44.31	5.97		
		Every day	50	45.18	4.45		
CFS	Career Compatibility	None	8	41.62	10.92	2.077	0.085
		Rarely	46	42.65	5.89		
		A few times a month	42	41.64	6.06		
		A few times a week	91	42.73	6.30		
		Every day	50	45.14	6.09		
	Career Optimism	None	8	41.62	9.10	2.155	0.075
		Rarely	46	39.67	5.86		
		A few times a month	42	39.07	5.76		
		A few times a week	91	39.50	6.38		
		Every day	50	42.34	6.95		
	Perceived Knowledge of Labor Markets	None	8	11.50	2.44	1.106	0.354
		Rarely	46	10.19	2.13		
		A few times a month	42	9.76	2.16		
		A few times a week	91	10.10	1.90		
		Every day	50	10.04	2.64		
	CFS Total	None	8	94.75	20.77	2.068	0.086
		Rarely	46	92.52	12.19		
		A few times a month	42	90.47	12.33		
		A few times a week	91	92.35	12.04		
		Every day	50	97.52	13.45		

$p < 0.05^*$

According to Table 7, there are significant differences in CUS' opportunities ($F = 10.919$; $p < 0.05$), challenges ($F = 4.516$; $p < 0.05$), sub-dimensions, and total score ($F = 2.859$; $p < 0.05$) based on ChatGPT usage frequency. When the mean scores were examined, it was observed that perceptions of opportunities were highest among

participants who used it every day, whereas perceptions of difficulties were highest among participants who never used it. No significant difference was found in the subscales and total score of the CFS based on ChatGPT usage frequency ($p > 0.05$).

Table 8. Comparisons of participants by their purpose of ChatGPT usage

	<i>Sub-dimensions</i>	<i>Purpose of usage</i>	<i>n</i>	<i>X</i>	<i>Sd</i>	<i>F</i>	<i>p</i>
CUS	Opportunities	Lesson/assignment preparation	95	27.14	4.22	2.313	0.077
		Academic research	46	26.84	4.54		
		Career planning	12	28.25	4.22		
		Personal development	84	28.52	3.94		
	Challenges	Lesson/assignment preparation	95	16.35	3.37	3.092	0.028*
		Academic research	46	16.04	3.10		
		Career planning	12	18.83	3.80		
		Personal development	84	15.64	3.74		
	CUS Total	Lesson/assignment preparation	95	43.50	5.07	2.093	0.102
		Academic research	46	42.89	5.82		
		Career planning	12	47.08	7.48		
		Personal development	84	44.16	5.34		
CFS	Career Compatibility	Lesson/assignment preparation	95	43.17	6.58	1.647	0.179
		Academic research	46	41.26	6.70		
		Career planning	12	42.50	7.65		
		Personal development	84	43.80	5.69		
	Career Optimism	Lesson/assignment preparation	95	40.31	6.67	1.682	0.172
		Academic research	46	38.62	6.45		
		Career planning	12	37.75	6.57		
		Personal development	84	40.97	6.15		
	Perceived Knowledge of Labor Markets	Lesson/assignment preparation	95	10.21	2.28	2.012	0.113
		Academic research	46	9.43	2.34		
		Career planning	12	9.83	1.46		
		Personal development	84	10.36	2.01		
	CFS Total	Lesson/assignment preparation	95	93.70	13.30	2.207	0.088
		Academic research	46	89.52	12.81		
		Career planning	12	90.08	14.59		
		Personal development	84	95.15	11.90		

$p < 0.05^*$

According to Table 8, there is a significant difference in the difficulty sub-dimension of CUS based on the purpose of ChatGPT usage ($F = 3.092$; $p < 0.05$). When average

scores are examined, it is seen that the perception of difficulty is highest among participants who use it for career planning purposes. No significant difference was found between the opportunity sub-dimension and total score of the CUS and the sub-dimension and total score of the CFS based on the purpose of usage ($p > 0.05$).

Table 9. Correlation analysis between CUS and CFS

ChatGPT Usage Scale	<i>Career Future Scale</i>	
	r	p
	.330**	0.000

* $p < 0.05$ Categories: 0-0.30 = Low correlation; 0.40-0.60 = Moderate correlation; 0.70-1.00 = High correlation

According to Table 9, a positive, moderately significant relationship was found between CUS and CFS ($r = 0.330$; $p < 0.05$). This result indicates that the increase in ChatGPT usage is associated with an increase in perceptions of career future.

DISCUSSION

The results of this study indicate that sports management students' perceptions of ChatGPT usage are shaped by a high opportunity and moderate difficulty axis; in parallel, their perceptions of their career future are also high. This situation is consistent with studies showing that, despite the positioning of generative artificial intelligence tools as a functional resource supporting learning in higher education, ongoing uncertainties persist in areas such as ethics, accuracy, and academic integrity (Munaye et al., 2025; García-López et al., 2025; Lo et al., 2024).

When evaluated from the Technology Acceptance Model (TAM) perspective, these results show that students adopted ChatGPT based on its high perceived benefit; however, perceived risks and limitations have not been completely eliminated. Indeed, the literature emphasizes that ChatGPT offers significant opportunities in areas such as writing support, rapid feedback, and learning efficiency; however, it must be approached as a “double-edged” technology due to risks such as misinformation, biased content, and data security (Holmes & Miao, 2023; Fajt & Schiller, 2025; UNESCO, 2023). The fact that the perception of difficulty was not entirely low in this study suggests that while students viewed technology as an instrumental resource, they also developed critical awareness.

The low-level positive relationship identified between ChatGPT usage level and career future perception gains meaning within the framework of Career Construction Theory (Savickas, 2013) and the career compatibility approach. Career compatibility is defined as a psychosocial resource that enables individuals to manage their career tasks under conditions of uncertainty and is associated with numerous adjustment outcomes (Rudolph et al., 2017). In this context, it can be said that ChatGPT can indirectly support students' perceptions of self-efficacy regarding career preparation through processes such as access to information, planning, and communication production (Xiao & Zheng, 2025; Thomson et al., 2024). However, the low level of the relationship indicates that perceptions of career prospects are not solely dependent on technology use; they are shaped by multiple determinants such as academic achievement, individual resources, and environmental conditions (Rudolph et al., 2017).

When considered together with results indicating that artificial intelligence anxiety can weaken career expectations (Öztürk et al., 2025), this study presents an important point of divergence. Perceiving artificial intelligence as a controllable resource rather than a threat can support perceptions of career future, albeit to a limited extent. This situation is also consistent with work-based approaches that emphasize how attitudes toward technology are shaped in interaction with perceptions of self-competence (Liu et al., 2025). From an AI literacy perspective, students who receive artificial intelligence training demonstrate higher career compatibility, which can be explained by their strengthened sense of control and competence in the face of technology (Long & Magerko, 2020; Chiu et al., 2024). This result is consistent with previous research showing that prior learning experiences can differentiate AI self-competence and attitudes (Kong et al., 2021; Hornberger et al., 2025).

The fact that academically high-achieving students have both higher perceptions of ChatGPT opportunities and higher career future levels is consistent with meta-analytic findings showing that strategically integrating ChatGPT into learning processes can generate cognitive and motivational gains (Deng et al., 2025; Wang & Fan, 2025).

Results regarding frequency of use are also consistent with the technology adoption literature. Students who regularly use ChatGPT have a higher perception of opportunity, indicating that perceived benefits increase with experience (Thomson et al., 2024; Al-Abdullatif & Alsubaie, 2024). However, the fact that frequency of use does not create a significant difference in the perception of career future suggests that career future is a more sophisticated and multidimensional construct (Rottinghaus et al., 2005; Kalafat, 2012).

Finally, considering that AI-based applications are becoming increasingly widespread in areas such as data analytics, fan engagement, and digital platform management in the sports industry (Deloitte, 2023; Christodimitropoulou et al., 2025), the use of ChatGPT to support sports management students' sense of career readiness appears theoretically meaningful. Overall, these results suggest that ChatGPT can be positioned as a digital resource that supports career compatibility for sports management students; however, it is not the sole determinant in shaping perceptions of career future (Al-Abdullatif & Alsubaie, 2024; Hornberger et al., 2025; Rudolph et al., 2017).

Limitation

Since this study was conducted using a cross-sectional and correlational survey design, the results do not indicate causality but only reveal the relationship between variables. The representativeness of the sample may be limited due to convenience sampling and online data collection. Since the data is self-reported, there is a possibility of social desirability and biased reporting. Also, the low number of participants receiving artificial intelligence training ($n=20$) may have reduced the power of the relevant comparisons. The low reliability ($\alpha=0.510$) in the CFS' "Perceived Knowledge of Labor Markets" sub-dimension requires caution when interpreting findings related to this sub-dimension. The low number of participants who have never used ChatGPT ($n = 8$) may

limit the generalizability of comparisons regarding frequency of use. Future studies should test these findings using more representative samples, longitudinal designs, and additional variables.

CONCLUSION

This study shows that sports management students' perceptions of ChatGPT usage are shaped by a high opportunity and moderate difficulty axis, while their perceptions of their career future are generally high. The results reveal that students have embraced ChatGPT as a functional tool that supports learning and academic production; however, they continue to maintain their caution regarding risk areas such as accuracy (misrepresentation), ethics, and academic integrity.

Theoretically, the results support that ChatGPT is adopted based on perceived benefits within the Technology Acceptance Model, but perceived risks have not been completely eliminated. The positive but low-level relationship between ChatGPT usage level and career future perception indicates that generative artificial intelligence can be a supportive digital resource in preparing for career tasks (information search, planning, and text production). However, due to the multidimensional nature of career futures, this effect appears to be limited.

In terms of application, the results indicate that AI literacy, ethical use, verification/source control, and critical evaluation skills should be systematically developed in sports management programs. Furthermore, the fact that students who receive artificial intelligence training have higher career compatibility and overall career future scores suggests that quality education can strengthen the perception of “control and competence.”

For future studies, it is recommended to test causal relationships using longitudinal/experimental designs, to measure the content and intensity of artificial intelligence training in detail, and to expand the models with additional variables that capture the labor market knowledge dimension more strongly (industry exposure, internships, career counseling, and digital literacy).

Practical Implications

The results of this study reveal that ChatGPT usage is associated with sports management students' perceptions of their career future, offering important implications for educational and program development processes. First, it is observed that as students actively use artificial intelligence tools, their career compatibility and career future perceptions are strengthened. This situation indicates that artificial intelligence literacy should be addressed in sports management education programs not only as a technical skill but also as a competency area that supports career development.

In this context, it may be advisable to integrate practical content covering the ethical and conscious use of generative artificial intelligence tools such as ChatGPT into the undergraduate sports management curriculum. Also, the use of these tools can be encouraged in career counseling and professional development courses to support students' ability to adapt to the changing labor market.

On the other hand, while frequent use of ChatGPT increases the perception of opportunity, infrequent use increases the perception of difficulty, demonstrating that students' access to and experience with technological tools shapes their career perspectives. Therefore, it is important to create supportive learning environments in universities that increase students' access to digital tools.

In future research, examining the impact of artificial intelligence use on career development through longitudinal studies and conducting comparative analyses with students from different disciplines could further increase the practical value of the current results.

Kısaltmalar / Abbreviations

CUS	: ChatGPT Usage Scale (ChatGPT Kullanım Ölçeği)
CFS	: Career Future Scale (Kariyer Geleceği Ölçeği)
ASÖ	: Perceived Stress Scale (Algılanan Stres Ölçeği)
PIO	: Psychological Well-Being Scale (Psikolojik İyi Oluş Ölçeği)
KMO	: Kaiser-Meyer-Olkin Measure of Sampling Adequacy (Örneklem Yeterlilik Ölçütü)
SPSS	: Statistical Package for the Social Sciences (Sosyal Bilimler İçin İstatistik Paket Programı)
IBM	: International Business Machines (Uluslararası İş Makineleri Şirketi)
TAM	: Technology Acceptance Model (Teknoloji Kabul Modeli)
UTAUT2	: Unified Theory of Acceptance and Use of Technology 2 (Teknoloji Kabul ve Kullanım Birleştirilmiş Teorisi 2)
AI	: Artificial Intelligence (Yapay Zeka)
CGPA	: Cumulative Grade Point Average (Kümülatif Not Ortalaması)
α (Cronbach's Alpha)	: Internal Consistency Coefficient (İç Tutarlılık Katsayısı)
n	: Sample Size (Örneklem Sayısı)
f	: Frequency (Frekans)
%	: Percentage (Yüzde)
$\bar{X}$	: Arithmetic Mean (Aritmetik Ortalama)
Ss / SD	: Standard Deviation (Standart Sapma)
Min.	: Minimum Value (Minimum Değer)
Mak./Maks.	: Maximum Value (Maksimum Değer)
R	: Pearson Correlation Coefficient (Pearson Korelasyon Katsayısı)
T	: t-Test Statistic (t-Testi İstatistik Değeri)
P	: Significance Value (Anlamlılık Düzeyi)
Skewness	: Distribution Skewness (Çarpıklık)

Beyanlar / Declarations

Etik Onay ve Katılım Onayı / Ethics approval and consent to participate

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During the preparation and writing of this study, scientific, ethical, and citation rules were followed in accordance with the "Higher Education Institutions Scientific Research and Publication Ethics Guidelines". No alterations were made to the collected data, and this study has not been submitted to any other academic publication venue for evaluation. Ethics Committee approval was obtained from the Scientific Research and Publication Ethics Committee of Muş Alparslan University with the decision dated February 11, 2026, and numbered 234699. The study was conducted in accordance with the principles of the Declaration of Helsinki. The authors are solely responsible for any ethical or legal issues that may arise regarding this article.

Veri Ve Materyal Erişilebilirliği / Availability of data and material

Bu çalışmanın bulgularını destekleyen veriler, makul talepler üzerine sorumlu yazardan temin edilebilir. Veri seti yalnızca akademik amaçlar için erişilebilir olacak ve verilerin herhangi bir kullanımı, orijinal çalışmayı referans gösterecek ve katılımcıların gizliliğini koruyacaktır.

The data that support the findings of this study are available from the corresponding author upon reasonable request. The dataset will be accessible only for academic purposes, and any use of the data will recognize the original study and maintain the confidentiality of the participants.

Çıkar Çatışması / Competing interests

Yazarlar, bu makalede sunulan çalışmayı etkileyebilecek herhangi bir çıkar çatışması veya kişisel ilişkiye sahip olmadıklarını beyan etmektedirler.

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

Yazar Katkıları / Authors' Contribution Statement

Yazarlar çalışmaya eşit oranda katkı sağlamış, makalenin son halini okuyup onaylamış ve yayımlanmasından doğacak sorumluluğu paylaşmıştır.

The authors contributed equally to the study, reviewed and approved the final version of the manuscript, and agreed to be accountable for all aspects of the work.

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