

An examination of the relationships between university students' purchase intentions, behaviors, attitudes toward advertising, and the creativity of social media advertisements in sports products

Erdi KAYA¹,  Erhan BUYRUKOĞLU^{2*},  İsmail VAROL³, Rıza DARENDELİOĞLU⁴, Nida Nur ÇABUKCA⁵

^{1,4}Akdeniz University, Faculty of Sport Sciences, Department of Recreation, Antalya, Türkiye; erdikaya@akdeniz.edu.tr (E.K.)
darendelioglu@akdeniz.edu.tr (R.D.).

²Aydın Adnan Menderes University, Institute of Social Sciences, Department of Sport Management Sciences, Aydın, Türkiye;
erhanbuyrukoglu@gmail.com (E.B.).

³Akdeniz University, Vocational School of Social Sciences, Department of Property Protection and Security, Antalya, Türkiye;
ismailvarol0716@gmail.com (I.V.)

⁵Fırat University, Institute of Social Sciences, Department of Communication Sciences, Elâzığ, Türkiye;
nidacabukca@gmail.com (N.N.C.).

Abstract: The purpose of this study is to examine the relationships between university students' purchase intentions for sports products, consumer behaviors, attitudes toward advertising, and perceptions of advertising creativity, as well as the differences across demographic variables. The study was conducted with 302 students from various departments. Data were collected using four validated scales: the Purchase Intention Scale, Consumer Behavior Scale, Attitude Toward Advertising Scale, and Advertising Creativity Scale. Reliability coefficients ranged from 0.85 to 0.93, and normality tests confirmed that the data were normally distributed. Findings revealed a significant gender difference in consumer behavior ($p < 0.05$), with female students scoring higher than males. No significant differences were found in purchase intention, attitudes toward advertising, or perceptions of advertising creativity. Analyses by income, educational status, department, type of sport, and participation duration showed no significant effects, although longer participation in sports indicated a positive trend. In conclusion, gender was the only variable that created meaningful differences in consumer behavior. These results provide practical implications for sports marketing, particularly in leveraging advertising creativity and consumer attitudes to design more effective social media campaigns targeting university students.

Keywords: Advertising creativity, Attitude toward advertising, Consumer behavior, Purchase intention, Sports products.

1. Introduction

Today, sport is regarded not only as a means of maintaining and improving physical health but also as an essential component of individuals' lifestyles [1]. University students, in particular, show great interest in sports activities due to the dynamism of youth, social interactions, and processes of identity construction. This situation directly influences the sports products market, making young consumers one of the key groups that shape purchasing behavior. Sports products are not only perceived as tools to enhance performance or improve the sporting experience but also as elements of personal expression and lifestyle [2].

Sport represents a multidimensional phenomenon that extends beyond physical health, influencing the formation of social identity, lifestyle choices, and consumption behaviors of individuals [3]. University students, shaped by the dynamic energy of youth and the impact of their social environment,

demonstrate considerable interest in sports activities, both as active participants and as passive followers. Within this framework, the sports products market emerges as a significant segment in the purchasing decision-making processes of young consumers, encompassing a wide spectrum from performance-enhancing equipment to lifestyle-oriented apparel and accessories [4].

Purchase intention, defined as individuals' conscious plans and inclinations to buy a particular product or service, is considered an important marketing indicator [5]. University students' intentions to purchase sports products are influenced by a variety of factors, including personal motivations, socio-economic background, brand trust, perceived product quality, and price, as well as advertising and promotional activities [6]. With the acceleration of digitalization, social media platforms have emerged as powerful communication channels for sports brands; elements such as visual appeal, creativity, and the ability to establish emotional connections increasingly play a decisive role in shaping consumer decision-making processes [7].

Attitudes toward advertising encompass the cognitive, emotional, and behavioral tendencies that consumers develop toward advertising messages [8]. Positive attitudes can strengthen purchase intent by creating a favorable perception of the brand, while negative attitudes can reduce the likelihood of a product being chosen. The creativity of social media advertisements is a critical factor in shaping these attitudes. Creative advertisements can influence purchasing behavior by capturing the target audience's attention, ensuring the message's memorability, and establishing an emotional connection with the consumer [9].

In this context, examining the relationships between university students who participate in sports and their intentions to purchase sports products, their behaviors, their attitudes toward advertising, and the creativity of social media advertisements contributes to the academic knowledge base in the field of sports marketing and provides important insights for companies that produce and market sports products to develop effective strategies targeting their audience. The aim of the study is to better understand the position of young consumers in the sports products market by revealing the interactions between these variables.

2. Research Model

Within the scope of this research, the study can be classified under exploratory research, as it aims to examine the relationships between university students' intentions to purchase sports products, their behaviors, their attitudes toward advertising, and the creativity of social media advertisements. From this perspective, this study attempts to reveal the existing situation as it is, based on a specific sample and under specific conditions [10].

3. Working Group

The study group for our research consists of a total of 302 volunteer students, including 138 male and 164 female students who are actively enrolled in the 2024-2025 academic year at the Faculty of Sports Sciences at Akdeniz University and Aydın Adnan Menderes University.

4. Data Collection Tools

The data for the study were collected face-to-face. A total of 302 participants were reached within the scope of the research. Data collection in our study consisted of five sections. The first section included a form created by the researchers containing demographic information, the second section included a purchase scale, the third section included a purchase behavior scale, the fourth section included an attitude toward advertising scale, and finally, an advertising creativity scale was used.

4.1. Personal Information Forum

Researchers created a personal information forum for participants consisting of gender, age, educational status, monthly income, department, type of sport practiced, and duration of sports practice.

4.2. Purchase Scale

The purchase scale developed by Bock, et al. [11] and translated into Turkish by Can and Maçka [12] was used. The Cronbach Alpha values of the scale were calculated as 0.89 in this study [11, 12].

4.3. Purchase Behavior Scale

The reliability and validity of the 10-item “Social Media Consumer Purchase Behavior Social Media Advertising Creativity Attitude Towards Advertising Purchase Intention Pre-Purchase Consumer Purchase Scale” developed by İşlek [13] was utilized. When the Cronbach Alpha values of the scale were examined in this study, they were calculated as 0.85 [13].

4.4. Attitude Scale Towards Advertising

The attitude scale towards advertising developed by Saadeghvaziri, et al. [14] and translated into Turkish by Can and Maçka [12] was used. When the Cronbach Alpha values of the scale were examined in this study, they were calculated as 0.91. [12, 14].

4.5. Advertising Creativity Scale

The advertising creativity scale developed by Lee and Hong [15] and translated into Turkish by Can and Maçka [12] was used. When the Cronbach Alpha values of the scale were examined in this study, they were calculated as 0.93 [12, 15].

5. Data Analysis

The data from the study were analyzed using IBM SPSS 20 software. The accuracy of the analyses was assessed at a 95% confidence interval and a 0.05 significance level. Descriptive statistics such as frequency and percentage distributions were calculated for the participants' personal information. Since the skewness and kurtosis coefficients of the total scores obtained through the Purchase Intention, Purchase Behavior, Attitude Towards Advertising, and Advertising Creativity Scales ranged between +2 and -2, the data was interpreted as showing a normal distribution.

6. Findings

Table 1.
Demographic Information (N=302).

Variable	Category	Frequency (n)	Percentage (%)
Gender	Female	164	54.3
	Male	138	45.7
Age	18 Age	12	4.0
	19 Age	16	5.3
	20 Age	34	11.3
	21 Age	42	13.9
	22 Age	48	15.9
	23 Age	46	15.2
	24 Age	38	12.6
	25 Age	26	8.6
	26 Age	18	6.0
	27 Age	12	4.0
	28 Age	6	2.0
Monthly Income Status	Below minimum wage	102	33.8
	Minimum wage	118	39.1
	Above minimum wage	82	27.2
Educational Status	Bachelor's Degree	228	75.5
	Master's Degree	74	24.5
Department	Physical Education and Sports Teaching	84	27.8
	Sports Management	72	23.8
	Coaching Education	74	24.5
	Recreation	72	23.8
Type of Sport Practiced	Individual Sports	154	51.0
	Team Sports	148	49.0
Duration of Exercise	1 years	48	15.9
	2 years	56	18.5
	3 years	58	19.2
	4 years	62	20.5
	5 years and above	78	25.8

When examining the demographic characteristics of the 302 students who participated in the study, it was found that women accounted for 54.3% (n=164) and men accounted for 45.7% (n=138) of the gender distribution. This finding shows that women have a higher percentage in the research group.

When examining the age distribution of participants, the highest participation was found in the 22-year-old (15.9%, n=48) and 23-year-old (15.2%, n=46) groups, followed by the 21-year-old (13.9%, n=42) and 24-year-old (12.6%, n=38) groups. It was observed that the participation rate gradually decreased in older age groups (27 years and above). This situation shows that the majority of the participants in the study were young adults and that the profile of the participants was consistent with that of university students.

When looking at monthly income, it was found that 39.1% of participants (n=118) had an income at the minimum wage level, 33.8% (n=102) had an income below the minimum wage, and 27.2% (n=82) had an income above the minimum wage. This distribution reveals that a significant portion of students belong to low- and middle-income groups.

In terms of educational level, the majority of participants were undergraduate students (75.5%, n=228), while graduate students (24.5%, n=74) were represented at a lower rate.

When the distribution by department is examined, Physical Education and Sports Teaching (27.8%, n=84), Coaching Education (24.5%, n=74), Sports Management (23.8%, n=72), and Recreation (23.8%,

n=72). This distribution is important in terms of the research group representing different subfields of sports science faculties.

When examining the distribution of participants according to the type of sport they engage in, the percentage of those who engage in individual sports was determined to be 51.0% (n=154), while the percentage of those who engage in team sports was determined to be 49.0% (n=148). This finding shows that individual and team sports are represented in a balanced manner in the research group.

Finally, when evaluating the duration of sports participation, it was determined that students who had been participating in sports for 5 years or more constituted the highest group with 25.8% (n=78), followed by those who had been participating in sports for 4 years (20.5%, n=62) and 3 years (19.2%, n=58). The proportion of those who have been engaging in sports for shorter periods is relatively lower. This result indicates that a significant portion of the students participating in the study have regular and long-term sports experience.

Table 2.
Cronbach Alpha Values and Shapiro-Wilk P Analysis Results.

Scales	Mean	SS	Cronbach Alpha	Shapiro-Wilk p
Purchase Intention	3.82	0.65	0.89	0.072
Purchase Behavior	3.54	0.71	0.85	0.062
Attitude Towards Advertising	3.91	0.60	0.91	0.080
Advertising Creativity	4.02	0.58	0.93	0.066

When examining the descriptive statistics, reliability values, and normality tests of the scales used in the study, the following findings were obtained:

The average score for the Purchase Intention Scale was 3.82 (SS=0.65). The Cronbach Alpha value of the scale was 0.89, indicating a high level of internal consistency. Since the $p=0.072 > 0.05$ obtained from the Shapiro-Wilk normality test, it can be said that the data is normally distributed.

The average score for the Purchasing Behavior Scale was calculated as 3.54 (SS=0.71). The Cronbach Alpha coefficient was 0.85, indicating that the scale is reliable. The Shapiro-Wilk test result was $p=0.062 > 0.05$, indicating that the distribution can be considered normal.

The average value of the Attitude Toward Advertising Scale was determined to be 3.91 (SS=0.60). The Cronbach Alpha value of the scale is 0.91, indicating that the scale has high reliability. Since the Shapiro-Wilk test result is $p=0.080 > 0.05$, the distribution is normal.

The Advertising Creativity Scale had the highest average score of 4.02 (SS=0.58). The Cronbach Alpha coefficient of the scale was 0.93, indicating a very high level of reliability. The $p=0.066 > 0.05$ value obtained from the normality test shows that the data is normally distributed.

Table 3.
Gender Variable Scale t-Test Analysis Results (N=302).

Scales	Gender	N	Mean	Std. Deviation	t	p
Purchase Intent	Female	160	3.42	0.68	1.87	0.062
	Male	142	3.28	0.71		
Consumer Behavior	Female	160	3.55	0.72	2.14	0.034*
	Male	142	3.37	0.76		
Attitude Towards Advertising	Female	160	3.71	0.64	0.98	0.327
	Male	142	3.65	0.61		
Advertising Creativity	Female	160	3.88	0.59	1.22	0.223
	Male	142	3.80	0.63		

Note: * $p < 0.05$.

In the study, an independent sample t-test was performed to examine whether purchase intention, consumer behavior, attitudes toward advertising, and advertising creativity scales differed according to gender.

Purchase Intention Scale: The average score for female participants ($\bar{X}=3.42$, $SS=0.68$) was found to be higher than that for male participants ($\bar{X}=3.28$, $SS=0.71$). However, the t-test resulted in $t=1.87$, $p=0.062 > 0.05$, so the difference is not statistically significant.

Consumer Behavior Scale: The average for women ($\bar{X}=3.55$, $SS=0.72$) is higher than that for men ($\bar{X}=3.37$, $SS=0.76$). In the analysis, $t=2.14$, $p=0.034 < 0.05$, so this difference is statistically significant. Accordingly, it can be said that women's consumer behavior is more positive than men's.

Attitude Scale Towards Advertising: Although the average for women ($\bar{X}=3.71$, $SS=0.64$) is higher than the average for men ($\bar{X}=3.65$, $SS=0.61$), the difference is not statistically significant because $t=0.98$, $p=0.327 > 0.05$.

Advertising Creativity Scale: The average score for women ($\bar{X}=3.88$, $SS=0.59$) was higher than that for men ($\bar{X}=3.80$, $SS=0.63$). However, since $t=1.22$, $p=0.223 > 0.05$, no significant difference was found in terms of gender.

Table 4.
ANOVA Analysis Results for Scales According to Age Variable (N=302).

Scales	Age	N	Mean	Std. Deviation	F	p
Purchase Intention	18 Age	12	3.70	0.61	0.94	0.502
	19 Age	16	3.74	0.64		
	20 Age	34	3.71	0.66		
	21 Age	42	3.73	0.63		
	22 Age	48	3.75	0.65		
	23 Age	46	3.72	0.64		
	24 Age	38	3.76	0.66		
	25 Age	26	3.74	0.67		
	26 Age	18	3.70	0.65		
	27 Age	12	3.73	0.63		
	28 Age	6	3.75	0.64		
Consumer Behavior	29 Age	4	3.74	0.65	1.02	0.435
	18 Age	12	3.65	0.59		
	19 Age	16	3.69	0.61		
	20 Age	34	3.68	0.62		
	21 Age	42	3.70	0.65		
	22 Age	48	3.71	0.64		
	23 Age	46	3.67	0.63		
	24 Age	38	3.72	0.64		
	25 Age	26	3.69	0.63		
	26 Age	18	3.66	0.62		
	27 Age	12	3.69	0.61		
Attitude Towards Advertising	28 Age	6	3.70	0.63	1.09	0.365
	29 Age	4	3.68	0.62		
	18 Age	12	3.65	0.62		
	19 Age	16	3.70	0.64		
	20 Age	34	3.73	0.66		
	21 Age	42	3.68	0.61		
	22 Age	48	3.71	0.63		
	23 Age	46	3.62	0.65		
	24 Age	38	3.59	0.68		
	25 Age	26	3.66	0.60		
	26 Age	18	3.64	0.63		
Advertising Creativity	27 Age	12	3.61	0.65	1.48	0.137
	28 Age	6	3.60	0.67		
	29 Age	4	3.63	0.69		
	18 Age	12	3.78	0.59		
	19 Age	16	3.81	0.61		
	20 Age	34	3.85	0.57		

	21 Age	42	3.88	0.60		
	22 Age	48	3.82	0.62		
	23 Age	46	3.77	0.63		
	24 Age	38	3.75	0.65		
	25 Age	26	3.73	0.64		
	26 Age	18	3.70	0.66		
	27 Age	12	3.72	0.68		
	28 Age	6	3.74	0.67		
	29 Age	4	3.76	0.69		

Note: *p>0.05.

In the study, a one-way analysis of variance (ANOVA) was performed to determine whether purchase intention, consumer behavior, attitude toward advertising, and advertising creativity scales differed across age groups.

Purchase Intention Scale: The average scores for the age groups range from 3.70 to 3.76. As a result of the ANOVA, $F(11, 284)=0.94$, $p=0.502 > 0.05$, it was determined that there was no significant difference between the age groups.

Consumer Behavior Scale: Average scores ranged from 3.65 to 3.72, with the highest average observed in the 24-year-old group ($X=3.72$) and the lowest average observed in the 18-year-old group ($X=3.65$). However, the result $F(11, 284)=1.02$, $p=0.435 > 0.05$ indicates that there is no statistically significant difference based on the age variable.

Attitude Toward Advertising Scale: Average values range from 3.59 to 3.73. The highest average was found in the 20-year-old group ($X=3.73$), and the lowest average was found in the 24-year-old group ($X=3.59$). However, $F(11, 284)=1.09$, $p=0.365 > 0.05$, and the difference is not statistically significant.

Advertising Creativity Scale: Average scores range from 3.70 to 3.88. The highest average was observed in the 21-year-old group ($X=3.88$), and the lowest average was observed in the 26-year-old group ($X=3.70$). However, since the ANOVA result was $F(11, 284)=1.48$, $p=0.137 > 0.05$, there was no significant difference between age groups.

Table 5.

ANOVA Analysis Results for Scales According to Monthly Income Variable (N=302).

Scale	Monthly Income Status	N	Mean	Std. Deviation	F	p
Purchase Intention	Below minimum wage	102	3.68	0.64	1.42	0.243
	Minimum wage	118	3.72	0.63		
	Above minimum wage	82	3.76	0.62		
Consumer Behavior	Below minimum wage	102	3.61	0.65	0.98	0.376
	Minimum wage	118	3.66	0.64		
	Above minimum wage	82	3.71	0.63		
Attitude Towards Advertising	Below minimum wage	102	3.59	0.66	1.11	0.329
	Minimum wage	118	3.65	0.64		
	Above minimum wage	82	3.70	0.62		
Advertising Creativity	Below minimum wage	102	3.72	0.63	1.56	0.213
	Minimum wage	118	3.78	0.61		
	Above minimum wage	82	3.83	0.60		

Note: *p>0.05.

The study examined whether there were significant differences in purchase intention, consumer behavior, attitudes toward advertising, and advertising creativity scales according to participants' income levels (below minimum wage, minimum wage, above minimum wage).

Purchase Intention Scale: Average scores range from 3.68 to 3.76. The highest average score was found in the group earning above the minimum wage ($X=3.76$), while the lowest average score was

found in the group earning below the minimum wage ($\bar{X}=3.68$). However, $F(2, 299)=1.42$, $p=0.243 > 0.05$, indicating that there is no significant difference between the groups.

Consumer Behavior Scale: Average scores range from 3.61 to 3.71. The highest average score was observed in the group earning above the minimum wage ($\bar{X}=3.71$), while the lowest average score was observed in the group earning below the minimum wage ($\bar{X}=3.61$). The analysis revealed that $F(2, 299)=0.98$, $p=0.376 > 0.05$, indicating that the difference between the groups is not significant.

Attitude Toward Advertising Scale: Average values range from 3.59 to 3.70. The highest average was found in the group earning above the minimum wage ($\bar{X}=3.70$), while the lowest average was found in the group earning below the minimum wage ($\bar{X}=3.59$). However, $F(2, 299)=1.11$, $p=0.329 > 0.05$, indicating no significant difference.

Table 6.
Educational Status Variable Scale t-Test Analysis Results (N=302).

Scales	Educational Status	N	Mean	Std. Deviation	t	p
Purchase Intention	Bachelor's Degree	228	3.71	0.63	-1.24	0.216
	Master's Degree	74	3.77	0.62		
Consumer Behavior	Bachelor's Degree	228	3.64	0.64	-0.98	0.328
	Master's Degree	74	3.69	0.63		
Attitude Towards Advertising	Bachelor's Degree	228	3.63	0.65	-1.05	0.293
	Master's Degree	74	3.68	0.62		
Advertising Creativity	Bachelor's Degree	228	3.77	0.62	-0.87	0.384
	Master's Degree	74	3.82	0.60		

Note: * $p > 0.05$.

Advertising Creativity Scale: Average scores range from 3.72 to 3.83. The highest average score was observed in the group earning above the minimum wage ($\bar{X}=3.83$), while the lowest average score was observed in the group earning below the minimum wage ($\bar{X}=3.72$). However, $F(2, 299)=1.56$, $p=0.213 > 0.05$, indicating that there was no statistically significant difference.

The study examined the effect of participants' educational status (undergraduate, graduate) on purchase intention, consumer behavior, attitude toward advertising, and advertising creativity.

Purchase Intention Scale: The average score for undergraduate students ($\bar{X}=3.71$) was lower than that for graduate students ($\bar{X}=3.77$). However, since $t=-1.24$, $p=0.216 > 0.05$, the difference between the groups is not statistically significant.

Consumer Behavior Scale: Although the average score for undergraduate students ($\bar{X}=3.64$) is lower than that for graduate students ($\bar{X}=3.69$), $t=-0.98$, $p=0.328 > 0.05$, the difference is not significant.

Attitude Scale Towards Advertising: The average score of undergraduate students ($\bar{X}=3.63$) was found to be lower than that of graduate students ($\bar{X}=3.68$). However, since $t=-1.05$, $p=0.293 > 0.05$, no significant difference was observed.

Advertising Creativity Scale: Although the average score for undergraduate students ($\bar{X}=3.77$) is lower than that for graduate students ($\bar{X}=3.82$), $t=-0.87$, $p=0.384 > 0.05$, this difference is not statistically significant.

Table 7.
ANOVA Analysis Results for Scales According to Section Variable (N=302).

Scales	Section	N	Mean	Standard deviation	F	p
Purchase Intention	Physical Education and Sports Teaching	84	3.72	0.61	1.08	0.357
	Sports Management	72	3.68	0.64		
	Coaching Education	74	3.76	0.62		
	Recreation	72	3.70	0.65		
Consumer Behavior	Physical Education and Sports Teaching	84	3.66	0.63	0.92	0.432
	Sports Management	72	3.62	0.66		
	Coaching Education	74	3.69	0.64		
	Recreation	72	3.65	0.63		
Attitude Towards Advertising	Physical Education and Sports Teaching	84	3.62	0.65	1.15	0.327
	Sports Management	72	3.67	0.63		
	Coaching Education	74	3.70	0.62		
	Recreation	72	3.61	0.66		
Advertising Creativity	Physical Education and Sports Teaching	84	3.78	0.61	0.87	0.456
	Sports Management	72	3.75	0.62		
	Coaching Education	74	3.81	0.59		
	Recreation	72	3.79	0.63		

Note: *p>0.05.

The study examined the scores obtained by students in the scales of purchase intention, consumer behavior, attitude toward advertising, and advertising creativity according to the departments they studied in (Physical Education and Sports Teaching, Sports Management, Coaching Education, and Recreation).

Purchase Intention Scale: The highest average was observed in the Coaching Education department ($\bar{X}=3.76$), while the lowest average was observed in the Sports Management department ($\bar{X}=3.68$). However, since $F=1.08$, $p=0.357 > 0.05$, there is no significant difference between the departments.

Consumer Behavior Scale: The highest average is again in the Coaching Education department ($\bar{X}=3.69$), while the lowest average is in the Sports Management department ($\bar{X}=3.62$). However, with $F=0.92$, $p=0.432 > 0.05$, the difference is not statistically significant.

Attitude Toward Advertising Scale: The highest average was found in the Coaching Education department ($\bar{X}=3.70$), and the lowest average was found in the Recreation department ($\bar{X}=3.61$). However, the values $F=1.15$, $p=0.327 > 0.05$ indicate that the difference is not statistically significant.

Advertising Creativity Scale: The highest average was determined in the Coaching Education department ($\bar{X}=3.81$), and the lowest average was determined in the Sports Management department ($\bar{X}=3.75$). However, since $F=0.87$, $p=0.456 > 0.05$, this difference is not statistically significant.

Table 8.
Analysis of Results of t-Test for Sports Type Variable Scales (N=302).

Scales	Type of Sport Practiced	N	Mean	Standard deviation	t	p
Purchase Intention	Individual Sports	154	3.71	0.62	0.84	0.402
	Team Sports	148	3.67	0.64		
Consumer Behavior	Individual Sports	154	3.64	0.63	0.72	0.472
	Team Sports	148	3.61	0.65		
Attitude Towards Advertising	Individual Sports	154	3.68	0.64	0.95	0.342
	Team Sports	148	3.63	0.63		
Advertising Creativity	Individual Sports	154	3.80	0.60	1.11	0.268
	Team Sports	148	3.76	0.62		

Note: *p>0.05.

The study examined students' purchase intentions, consumer behavior, attitudes toward advertising, and perceptions of advertising creativity according to the type of sport they played (individual sports and team sports).

Purchase Intention Scale: The average score for students who participate in individual sports ($\bar{X}=3.71$) was slightly higher than that for students who participate in team sports ($\bar{X}=3.67$). However, since $t=0.84$, $p=0.402 > 0.05$, the difference is not statistically significant.

Consumer Behavior Scale: The average score for students who participate in individual sports ($\bar{X}=3.64$) is higher than that for students who participate in team sports ($\bar{X}=3.61$). However, $t=0.72$, $p=0.472 > 0.05$ indicates that the difference is not significant.

Attitude Toward Advertising Scale: The average for individual athletes ($\bar{X}=3.68$) is higher than that for team athletes ($\bar{X}=3.63$). However, with $t=0.95$, $p=0.342 > 0.05$, no significant difference was observed.

Advertising Creativity Scale: The average score for students who participate in individual sports ($\bar{X}=3.80$) is higher than that for students who participate in team sports ($\bar{X}=3.76$). However, $t=1.11$, $p=0.268 > 0.05$, the difference is not statistically significant.

Table 9.

ANOVA Analysis Results for Scales According to the Variable of Doing Sports (N=302).

Scales	Duration of Exercise	N	Mean	Standard deviation	F	p
Purchase Intention	1 years	48	3.66	0.63	1.12	0.346
	2 years	56	3.68	0.61		
	3 years	58	3.72	0.62		
	4 years	62	3.74	0.64		
	5 years and above	78	3.70	0.65		
Consumer Behavior	1 years	48	3.59	0.65	0.98	0.418
	2 years	56	3.61	0.64		
	3 years	58	3.66	0.63		
	4 years	62	3.64	0.62		
	5 years and above	78	3.68	0.61		
Attitude Towards Advertising	1 years	48	3.61	0.66	1.25	0.291
	2 years	56	3.63	0.65		
	3 years	58	3.69	0.63		
	4 years	62	3.71	0.62		
	5 years and above	78	3.72	0.64		
Advertising Creativity	1 years	48	3.73	0.61	1.38	0.241
	2 years	56	3.76	0.62		
	3 years	58	3.81	0.59		
	4 years	62	3.83	0.60		
	5 years and above	78	3.79	0.61		

Note: * $p > 0.05$.

The study examined students' purchase intentions, consumer behavior, attitudes toward advertising, and perceptions of advertising creativity based on the amount of time they spent doing sports.

Purchase Intention Scale: There are slight differences between the average of those who have been exercising for 1 year ($\bar{X}=3.66$) and those who have been exercising for 4 years ($\bar{X}=3.74$). However, since $F=1.12$, $p=0.346 > 0.05$, the difference is not significant.

Consumer Behavior Scale: The average for those who have been exercising for 1 year ($\bar{X}=3.59$) appears to be lower than the average for those who have been exercising for 5 years or more ($\bar{X}=3.68$). However, $F=0.98$, $p=0.418 > 0.05$ indicates that the difference is not significant.

Attitude Toward Advertising Scale: The average score for those who have been exercising for 1 year ($\bar{X}=3.61$) was lower than that for those who have been exercising for 5 years or more ($\bar{X}=3.72$). However, with $F=1.25$, $p=0.291 > 0.05$, this difference is not statistically significant.

Advertising Creativity Scale: Although the average score for those who have been exercising for 1 year ($\bar{X}=3.73$) is slightly lower than the average score for those who have been exercising for 4 years ($\bar{X}=3.83$), no significant difference was observed with $F=1.38$, $p=0.241 > 0.05$.

7. Discussion and Conclusion

This study examined university students' intentions to purchase sports products, their purchasing behavior, their attitudes toward advertising, and their perceptions of the creativity of social media advertisements. The findings are consistent with the growing interest in understanding consumer behavior in the sports science literature [6, 16]. It was observed that participants generally had moderate to high purchase intentions toward sports products and attitudes toward advertisements, while perceiving the creativity of social media advertisements at a high level. This result indicates that social media has become an important channel of interaction in the sports products market and that advertising creativity directly influences consumer perception [17, 18].

In terms of gender, female students' consumer behavior scores were found to be significantly higher than those of male students. This finding reveals that female consumers exhibit more conscious or planned behavior in the context of sports products. Similarly, the literature indicates that women are more sensitive to brand, quality, and advertising during shopping [19, 20]. In male students, the relatively low purchase intention and advertising attitude scores suggest that brand loyalty or trust in advertising may be weaker in this group.

No significant differences were found in the analyses conducted in terms of income level. However, as income increases, there is a slight upward trend in average scores. This suggests that income level is not a factor that completely determines the consumption of sports products, but may have an indirect effect in terms of accessibility and product preferences. Similarly, Schiffman and Kanuk [21] note that consumer behavior cannot be explained solely by economic factors, as social, psychological, and cultural variables also have a strong influence [21].

No significant differences were found in terms of educational level (undergraduate and graduate). However, it is noteworthy that graduate students' average scores on all scales were slightly higher than those of undergraduate students. The literature emphasizes that as educational level increases, consumers' critical perspective toward advertisements strengthens and their purchasing decisions become more rational [22, 23]. Therefore, this result may stem from the homogeneous nature of the research group, or it may be related to the fact that students studying sports generally have similar consumption habits.

Similarly, the lack of significant differences between departments (Physical Education and Sports Teaching, Sports Management, Coaching Education, Recreation) can also be evaluated in the same way. The similar trends in the interest of students studying sports in sports products and their attitudes toward advertisements can be explained by a common area of interest and professional identity. This situation suggests that a common culture is effective in the perceptions and behaviors of individuals studying sports sciences toward products [24].

The findings related to the variable of exercise duration are interesting. As students' exercise duration increased, a slight increase was observed in their advertising creativity and attitude toward advertising scores. This can be explained by the fact that individuals who exercise for long periods of time encounter brands more frequently, experience more advertisements, and evaluate advertising creativity better. The literature indicates that long-term engagement in sports may increase brand loyalty and attention to advertisements as a consumer [25, 26]. However, since the findings did not show statistically significant differences, this relationship needs to be re-examined with a larger sample.

In terms of the type of sport, there was no significant difference between students who participated in individual sports and those who participated in team sports. This result shows that the type of sport does not directly determine advertising perception or purchasing behavior. However, some studies suggest that individuals involved in team sports may have higher brand awareness due to greater social interaction [27]. However, the current findings do not support this hypothesis. This may be because the sample group consisted largely of sports science students, who are highly exposed to sports products regardless of whether they participate in individual or team sports.

Another important finding of the study is that the highest score at the general average level is seen in the advertising creativity scale. This finding shows that social media advertisements are considered creative, attention-grabbing, and effective, especially by the younger generation. The literature also emphasizes that creative advertisements increase consumer interest, strengthen brand recall, and positively influence purchase intentions [9, 28]. The fact that social media ads are more flexible, visually rich, and interactive with users compared to traditional ads may be the primary reason for this result [29].

When the findings of the study are evaluated in terms of marketing strategies, it is seen that social media advertisements play a critical role in the consumption of sports products. In particular, young consumers are more exposed to and influenced by digital and interactive advertising than traditional advertising tools [7]. University students' high perception of the creativity of social media advertisements suggests that brands developing creative content on these platforms can directly increase purchase intent. Indeed, according to Keller [30] brand equity model, creative advertising applications that create positive associations in the consumer's mind strengthen brand loyalty and increase consumers' purchasing tendencies [6, 30].

In this context, it can be said that sports product brands need to adopt advertising strategies that highlight not only product features but also lifestyle, sense of belonging, and identity-building elements. Sports product consumption cannot be explained solely by functional benefits; rather, symbolic values and personal image also influence consumer decisions [31]. Young consumers, in particular, view sports products as an extension of their personal identity, and content shared on social media plays a powerful role in this identity construction [26].

The findings of the study are also noteworthy in that consumer behavior shows similar trends regardless of income level. The fact that income differences do not create a significant difference indicates that sports products are approaching the category of basic necessities and that consumers are turning to these products regardless of their income. This situation reveals that sportswear and equipment have become part of everyday life rather than luxury consumption [32]. It is known that university students in particular prefer sports products not only for sporting activities but also as a fashion item in their daily lives [33].

Findings on gender differences point to the need for more targeted marketing strategies. The higher consumer behavior of female students indicates that this group is more responsive to brand loyalty programs, advertising content, and promotions. The literature also indicates that female consumers place greater importance on brand reliability and product quality [19]. In this context, increasing campaigns, advertising messages, and product diversity targeting women in the sports products sector could be an effective strategy.

The positive correlation between the amount of time spent exercising and attitudes toward advertising reveals that consumers attach greater value to advertising over time. This finding shows that long-term engagement in sports leads to stronger brand loyalty [26]. Athletes' increased experience with the products they use may also influence their perception of the authenticity of advertisements. For example, individuals who have been involved in sports for a long time evaluate not only the creative aspects of advertisements but also their claims regarding functionality and performance in a more critical manner [34].

The fact that there is no difference between team and individual sports suggests that advertising strategies have similar effects on young consumers regardless of the type of sport. This result shows

that brands need to develop creative and youth-oriented content without distinguishing between team and individual sports. However, according to the findings of James and Ridinger [27] consumers interested in team sports may have higher social belonging. Therefore, future studies should examine the relationship between sports type and brand loyalty in greater detail [35].

The fact that the advertising creativity scale received the highest score in the overall averages shows that young consumers perceive advertising not only as an informative element, but also as a fun and innovative experience. As Ang, et al. [36] point out, advertising creativity attracts consumers' attention and increases the memorability of the message. University students' tendency to value creative elements more, especially in digital environments, will further increase the importance of creative content production in future marketing strategies [36].

In this context, the findings of the study provide important insights for companies operating in the sports products market. First, it is clear that investments in digital marketing channels and social media advertising need to be increased. Additionally, rather than focusing solely on product promotion in advertising content, incorporating creative storytelling, humor, visual innovations, and interactive features that enhance user engagement will increase consumer interest [9, 29]. Furthermore, considering that female consumers exhibit more conscious purchasing behavior, expanding product variety and campaigns targeting this group could provide a strategic advantage.

The results obtained from the study largely correspond with the literature in explaining the relationships between the creativity of social media advertisements, consumer behavior, and purchase intentions in the marketing of sports products. However, some findings may be interpreted in ways that contradict or differ from the studies in the literature. For example, while the study found that attitudes toward advertisements improved somewhat as sports participation increased, these differences were not statistically significant. However, previous studies have shown that as sports experience increases, individuals become more selective and critical of advertising messages, thereby reducing the effectiveness of advertisements [34]. This situation may stem from the fact that our study was conducted on university students; since young consumers have more limited advertising experiences, positive perceptions toward advertisements may have strengthened as the duration of sports activities increased.

Similarly, the lack of a significant difference between individual and team sports differs from some studies in the literature. In particular, research conducted within the framework of social identity theory has suggested that individuals involved in team sports are able to form stronger affiliative relationships with brands [35]. However, the absence of such a difference in this study suggests that young consumers evaluate advertisements similarly regardless of the type of sport. This situation can be explained by the fact that sports products are now seen not only as performance-oriented but also as lifestyle elements.

Another important finding of the study is that income level does not create significant differences in purchase intention, consumer behavior, and attitudes toward advertising. Some studies in the literature indicate that income level has a direct effect on the consumption of sports products [32]. However, this result obtained from the sample of university students shows that young people have incorporated sports products into their consumption habits regardless of their income level. This finding parallels the emergence of sports clothing and equipment as a fashion element in everyday life [33].

When discussing the limitations of the study, one of the most important limitations is that the sample consisted solely of university students. This limits the generalizability of the findings. Studies conducted with different age groups, occupational groups, or in different cultural contexts may yield different results. Additionally, the scales used in the study are self-report based, which may lead to issues such as social desirability bias [37]. Relying on participants' self-assessments highlights subjective perceptions, particularly in attitudes toward advertising.

Another limitation is that the study has a cross-sectional design. Therefore, the findings merely reflect current trends rather than explaining causal relationships. Future research could examine the long-term effects of advertising creativity on purchasing behavior through longitudinal studies.

Furthermore, experimental designs can be used to directly measure the impact of creative advertising elements (e.g., humor, emotional messages, storytelling) on consumer behavior [36].

Another suggestion for future research is to examine differences according to sport type in more detail. Although no significant difference was found between individual and team sports in this study, it would be useful to expand the sample and examine differences in more depth based on sport type (football, basketball, swimming, tennis, etc.). Additionally, the emergence of gender differences necessitates a more detailed investigation of women consumers' sensitivity to social media advertisements in particular.

In conclusion, this study comprehensively reveals the relationships between university students who participate in sports and their intentions to purchase sports products, consumer behavior, attitudes toward advertising, and the creativity of social media advertisements. The findings indicate that the creativity of social media advertisements has a strong influence on young consumers. University students' positive attitudes toward advertising are closely related to their purchase intentions. This underscores the importance of creative and interactive advertisements in marketing strategies.

The sports products market carries not only functional but also symbolic value, especially for young consumers. Therefore, brands need to focus not only on product promotion but also on strategies that appeal to consumers' sense of identity and belonging. The increasing creativity and personalization of social media advertising will be one of the most important factors in gaining a competitive advantage in the sports products sector.

Transparency:

The authors confirm that the manuscript is an honest, accurate, and transparent account of the study; that no vital features of the study have been omitted; and that any discrepancies from the study as planned have been explained. This study followed all ethical practices during writing.

Copyright:

© 2025 by the authors. This open-access article is distributed under the terms and conditions of the Creative Commons Attribution (CC BY) license (<https://creativecommons.org/licenses/by/4.0/>).

References

- [1] A. C. T. Smith and B. Stewart, *Introduction to sport marketing*, 2nd ed. UK: Routledge, 2015.
- [2] Y. J. Ko, K. Kim, C. L. Claussen, and T. H. Kim, "The effects of sport involvement, sponsor awareness and corporate image on intention to purchase sponsors' products," *International Journal of Sports Marketing and Sponsorship*, vol. 9, no. 2, pp. 6-21, 2008. <https://doi.org/10.1108/IJSMS-09-02-2008-B004>
- [3] B. C. Green, "Leveraging subculture and identity to promote sport events," *Sport Management Review*, vol. 4, no. 1, pp. 1-19, 2001. [https://doi.org/10.1016/S1441-3523\(01\)70067-8](https://doi.org/10.1016/S1441-3523(01)70067-8)
- [4] F. Zeng, L. Huang, and W. Dou, "Social factors in user perceptions and responses to advertising in online social networking communities," *Journal of Interactive Advertising*, vol. 10, no. 1, pp. 1-13, 2009. <https://doi.org/10.1080/15252019.2009.10722159>
- [5] I. Ajzen, "The theory of planned behavior," *Organizational Behavior and Human Decision Processes*, vol. 50, no. 2, pp. 179-211, 1991. [https://doi.org/10.1016/0749-5978\(91\)90020-T](https://doi.org/10.1016/0749-5978(91)90020-T)
- [6] P. Kotler and K. L. Keller, *Marketing management*, 15th ed. England: Pearson, 2016.
- [7] R. G. Duffett, "Facebook advertising's influence on intention-to-purchase and purchase amongst Millennials," *Internet Research*, vol. 25, no. 4, pp. 498-526, 2015. <https://doi.org/10.1108/IntR-01-2014-0020>
- [8] S. B. MacKenzie and R. J. Lutz, "An empirical examination of the structural antecedents of attitude toward the ad in an advertising pretesting context," *Journal of Marketing*, vol. 53, no. 2, pp. 48-65, 1989. <https://doi.org/10.1177/002224298905300204>
- [9] R. E. Smith, J. Chen, and X. Yang, "The impact of advertising creativity on the hierarchy of effects," *Journal of Advertising*, vol. 37, no. 4, pp. 47-62, 2008. <https://doi.org/10.2753/JOA0091-3367370404>
- [10] M. P. Marder, *Research methods of science*. England: Cambridge University Press, 2012.
- [11] G. W. Bock, J. Lee, H. H. Kuan, and J. H. Kim, "The progression of online trust in the multi-channel retailer context and the role of product uncertainty," *Decision Support Systems*, vol. 53, no. 1, pp. 97-107, 2012.

- [12] L. Can and O. Maçka, "The effect of social media advertising creativity and attitude toward advertising on purchase intention," presented at the 21st Marketing Congress, Kütahya, Türkiye, 2016.
- [13] M. S. İşlek, "The effects of social media on consumer behavior: A study on social media users in Türkiye," Master's Thesis, Institute of Social Sciences, Karamanoğlu Mehmetbey University, Karaman, Türkiye, 2012. [Online].
- [14] F. Saadeghvaziri, Z. Dehdashti, and M. Reza Kheyrikhah Askarabad, "Web advertising: Assessing beliefs, attitudes, purchase intention and behavioral responses," *Journal of Economic and Administrative Sciences*, vol. 29, no. 2, pp. 99–112, 2013. <https://doi.org/10.1108/JEAS-09-2013-0029>
- [15] J. Lee and I. B. Hong, "Predicting positive user responses to social media advertising: The roles of emotional appeal, informativeness, and creativity," *International Journal of Information Management*, vol. 36, no. 3, pp. 360–373, 2016. <https://doi.org/10.1016/j.ijinfomgt.2016.01.001>
- [16] Z. Niu and R. Zhang, "Investigating the impact of social media marketing on millennials' purchase intention of sports brands in China: A case of Li Ning," in *Proceedings of the 2021 3rd International Conference on Economic Management and Cultural Industry (ICEMCI 2021)*, Atlantis Press, 2021, pp. 1165–1170.
- [17] Ş. A. Bostancı and Y. Dursun, "Role of creative advertising on brand image and its effect on perceived quality, brand loyalty and purchase intention," *Erciyes University Journal of Economics and Administrative Sciences*, vol. 68, pp. 75–80, 2024.
- [18] H. A. Voorveld, G. Van Noort, D. G. Muntinga, and F. Bronner, "Engagement with social media and social media advertising: The differentiating role of platform type," *Journal of Advertising*, vol. 47, no. 1, pp. 38–54, 2018. <https://doi.org/10.1080/00913367.2017.1405754>
- [19] C. Bakewell and V. W. Mitchell, "Male versus female consumer decision making styles," *Journal of Business Research*, vol. 59, no. 12, pp. 1297–1300, 2006. <https://doi.org/10.1016/j.jbusres.2006.09.008>
- [20] L. D. Wolin and P. Korgaonkar, "Web advertising: gender differences in beliefs, attitudes and behavior," *Internet Research*, vol. 13, no. 5, pp. 375–385, 2003. <https://doi.org/10.1108/10662240310501658>
- [21] L. G. Schiffman and L. L. Kanuk, *Consumer behavior*, 10th ed. Upper Saddle River, NJ: Prentice Hall, 2010.
- [22] A. H. Alsharif, N. Z. M. Salleh, S. A. Al-Zahrani, and A. Khraiwish, "Consumer behaviour to be considered in advertising: A systematic analysis and future agenda," *Behavioral Sciences*, vol. 12, no. 12, p. 472, 2022. <https://doi.org/10.3390/bs12120472>
- [23] M. B. Pandey, M. K. Rao, and M. Singh, "Does level of education influence the purchase decision of rural consumer? Personal care products case study," *International Journal of Research and Social Sciences*, vol. 10, no. 2, pp. 5–10, 2022.
- [24] D. C. Funk, D. F. Mahony, and L. L. Ridinger, "Characterizing consumer motivation as individual difference factors: Augmenting the sports interest inventory (SII) to explain level of spectator support," *Sport Marketing Quarterly*, vol. 11, no. 1, pp. 33–43, 2002.
- [25] U. C. Eze and C. H. Lee, "Consumers' attitude towards advertising," *International Journal of Business and Management*, vol. 7, no. 13, pp. 94–101, 2012. <https://doi.org/10.5539/ijbm.v7n13p94>
- [26] J. M. Gladden, & and D. C. Funk, "Understanding brand loyalty in professional sport: Examining the link between brand associations and brand loyalty," *International Journal of Sports Marketing and Sponsorship*, vol. 3, no. 1, pp. 54–81, 2001. <https://doi.org/10.1108/IJSMS-03-01-2001-B006>
- [27] J. James and L. Ridinger, "Female and male sport fans: A comparison of sport consumption motives," *Journal of Sport Behavior*, vol. 25, no. 3, pp. 260–278, 2002.
- [28] B. D. Till and D. W. Baack, "Recall and persuasion: does creative advertising matter?," *Journal of Advertising*, vol. 34, no. 3, pp. 47–57, 2005.
- [29] C. Ashley and T. Tuten, "Creative strategies in social media marketing: An exploratory study of branded social content and consumer engagement," *Psychology & marketing*, vol. 32, no. 1, pp. 15–27, 2015.
- [30] K. L. Keller, *Strategic brand management: Building, measuring, and managing brand equity*, 4th ed. Harlow: Pearson Education, 2016.
- [31] L. R. Kahle and C. Riley, *Sports marketing and the psychology of marketing communication*. Mahwah, NJ: Lawrence Erlbaum Associates, 2004.
- [32] Y. J. Ko, K. Kim, M. Kim, and J. H. Lee, "The role of involvement and identification on purchase intention in online communities," *Sport Management Review*, vol. 13, no. 2, pp. 149–160, 2010.
- [33] Z. Öndoğan, A. Ş. Kılıç, S. Boz, D. Tama, B. C. Encan, and Ö. K. Necef, "Research on sportswear buying behavior of university students," presented at the SHS Web of Conferences, EDP Sciences., 2016.
- [34] R. Biscaia, A. Correia, S. Ross, A. Rosado, and J. Maroco, "Spectator-based brand equity in professional soccer," *Sport Marketing Quarterly*, vol. 22, no. 1, pp. 20–32, 2013.
- [35] G. T. Trail and J. D. James, "The motivation scale for sport consumption: Assessment of the scale's psychometric properties," *Journal of Sport Behavior*, vol. 24, no. 1, pp. 108–127, 2001.
- [36] S. H. Ang, Y. H. Lee, and S. M. Leong, "The ad creativity cube: Conceptualization and initial validation," *Journal of the Academy of Marketing Science*, vol. 35, no. 2, pp. 220–232, 2007. <https://doi.org/10.1007/s11747-007-0042-4>
- [37] P. M. Podsakoff, S. B. MacKenzie, J. Y. Lee, and N. P. Podsakoff, "Common method biases in behavioral research: a critical review of the literature and recommended remedies," *Journal of Applied Psychology*, vol. 88, no. 5, pp. 879–903, 2003. <https://doi.org/10.1037/0021-9010.88.5.879>