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## Artificial Intelligence (AI) and the Future of Sports Marketing: Exploring New Challenges and Opportunities

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**ABSTRACT**

**Background:** Artificial intelligence (AI) is rapidly becoming a crucial tool in the sports industry, particularly in digital sports marketing. By leveraging data analysis and machine learning, AI empowers companies and sports organizations to enhance performance, optimize processes, and improve customer experiences. This technology is reshaping the sports marketing landscape, creating new opportunities for fan engagement and operational efficiency..

**Methods:** This study addresses a significant research gap regarding the practical applications of AI in sports marketing by employing a qualitative research approach.

**Results:** Through thematic analysis of interviews with industry experts, the study identifies how AI enhances marketing strategies, including the personalization of fan experiences, optimization of advertising campaigns, and utilization of data-driven decision-making. Experts emphasized AI's transformative capability in creating tailored interactions and fostering deeper fan loyalty, while also discussing challenges such as ethical considerations and data privacy.

**Conclusions:** In Iran, the use of AI in sports marketing is still in its early stages, necessitating further investment, improved infrastructure, and enhanced training for personnel to fully realize the potential of this technology. These insights highlight the need for sports organizations to adopt a proactive and ethical approach in integrating AI to achieve a strategic advantage. The findings of this study contribute to a conceptual framework, offering a nuanced understanding of AI's role in redefining sports marketing practices and suggesting directions for future exploration.

**KEYWORDS**

AI, Digital Marketing, Sports Marketing, Customer Engagement, Predictive Analytics

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## Introduction

The integration of innovative technologies is transforming marketing strategies across industries [1], and sports marketing is no exception [2]. Among these technologies, artificial intelligence (AI) has emerged as a critical tool [3] for understanding consumer behavior, optimizing customer acquisition and retention, and improving the overall customer experience [4]. However, while AI is recognized for its potential to transform marketing, the specific impact it has on the sports industry requires further exploration [5]. This study addresses this gap by investigating how AI can enhance fan engagement [6], optimize customer experiences [7, 8], and drive revenue growth within sports marketing [9].

AI's growing role in marketing is fueled by advancements in computing power, increased accessibility to big data, and the refinement of machine learning algorithms [10, 11]. These developments empower marketing managers to streamline tasks such as lead generation, market research, and personalized user experiences, which are essential for adapting to the dynamic nature of digital marketing [12, 13]. In sports marketing, where fan loyalty and real-time engagement are crucial [14], AI presents new opportunities for businesses to better understand and interact with their audiences [15].

Digital transformation, particularly the shift from offline to online platforms, has significantly altered the dynamics of sports marketing [16]. The use of AI in analyzing fan data, predicting preferences [17], and personalizing interactions can lead to a more engaging and interactive experience for consumers [18, 19]. For example, successful sports clubs have been able to use artificial intelligence to provide customized offers to their fans, leading to increased participation and revenue from ticket and merchandise sales [20]. AI-driven tools such as chatbots, sentiment analysis, and predictive analytics enable organizations to tailor marketing strategies to individual fan preferences [21], resulting in higher retention rates and increased revenue [8, 22].

The current body of research in the marketing domain is abundant with studies that assess the impacts and uses of various technologies on marketing effectiveness [23]. Evidence suggests that research in the field of marketing has created new developments [1, 24]. In the meantime, AI has shown its superiority in various fields in a wide range of recreational games and has increased its use in the sports industry [25]. For example, evidence indicates that visibility and compatibility significantly influence consumers' attitudes toward AI-generated sports marketing content and its impact on their purchase intentions [26]. Kopalle, Gangwar (27) and Mikalef, Conboy and Krogstie (28) have shown in their research that AI can help companies better understand customer needs, identify market opportunities faster, and set smart marketing goals. Based on the results of the research of Abolghasemi Atany, Rahimizadeh and Monazami (29), AI indicators, challenges of electronic marketing based on AI, antecedents of electronic marketing based on AI in the Iranian sports industry, and the consequences of using AI in electronic marketing were identified. Haleem, Javaid (30) also conducted a literature-based study titled "Applications of AI for Marketing" that explores the various ways in which AI can create a more personalized brand experience and improve user engagement and loyalty. In the study that Kazemi Saraskanrood and Safari (31) conducted under the title of designing a marketing process model based on AI, they found that the use of mechanical, intellectual, and emotional AI can improve the stages of the marketing process. These stages include marketing research, marketing strategy, marketing planning, marketing actions, and marketing performance, which can be considered as the consequences of using AI in marketing. Also, the

findings indicate that the use of intelligent marketing tools (e.g., ChatGPT) in marketing studies has not only helped to form a better understanding of consumer behavior but also has been effective in enhancing interaction levels and responsiveness to their needs [1].

Notably, there is a lack of comprehensive research examining how AI can effectively enhance fan engagement, streamline advertising efforts, and drive revenue growth in sports marketing contexts [5]. Although existing literature has examined AI's applications in broader marketing fields, few studies delve into its nuanced role in sports, where real-time engagement, fan loyalty, and highly personalized experiences are pivotal [26]. This oversight represents a significant scientific research gap, particularly as sports organizations increasingly rely on digital transformation and advanced analytics to remain competitive [32]. Furthermore, challenges associated with the adoption of AI—such as ethical dilemmas, data privacy concerns, and potential implications for employment [33] are rarely discussed within the specific framework of sports marketing.

This study addresses these gaps by investigating how AI can redefine sports marketing strategies, leveraging qualitative insights from industry experts. By focusing on the unique dynamics of the sports sector, this research aims to provide a conceptual framework that identifies key antecedents, processes, and implications of AI integration in sports marketing. The findings contribute to academic discourse while offering actionable insights for practitioners navigating the evolving landscape of sports marketing.

## **Material and Methods**

This study uses a qualitative research design with a focus on thematic analysis to investigate the role of AI in sports marketing. Thematic analysis was chosen to gain deep insights from industry experts and understand the nuanced ways AI can enhance marketing strategies. This method is ideal for identifying and categorizing recurring model in the data, which is crucial for comprehending AI's multifaceted impact in this dynamic field.

Thematic analysis was selected for its ability to organize complex data into meaningful themes that align with the research objectives. Given that the study aims to create a sports marketing framework incorporating AI, it was essential to use a method that highlights key trends and uncovers deeper connections between AI-driven marketing processes and their outcomes. Thematic analysis supports this by systematically exploring qualitative data, capturing both explicit statements and underlying meanings. This approach is particularly useful for synthesizing expert opinions into actionable insights.

Participants were chosen based on specific criteria. The selection criteria for participants in this study required individuals to hold a doctoral degree in fields related to sports management or marketing, ensuring they had a strong theoretical and practical understanding of these areas. This practical experience could include involvement in implementing marketing strategies, managing teams, overseeing sponsorships, and understanding the dynamics of fan engagement, which are critical when exploring how AI can be integrated into these processes. Additionally, participants were selected based on their professional experience as university professors, researchers, or authors, all of whom were well-versed in emerging technologies and industry trends. Familiarity with AI tools and concepts was also a key criterion, as participants needed to provide informed insights on AI's

potential applications in sports marketing, including enhancing fan engagement and optimizing marketing strategies.

Data collection involved semi-structured exploratory interviews with 13 participants, selected through purposeful sampling. This method ensured that participants were well-qualified to provide detailed answers to the research questions. Purposeful sampling allowed for the collection of high-quality data on AI's role in sports marketing, avoiding the limitations of a broader, less informed population. This focused approach also facilitated theoretical saturation, meaning that no new themes or insights emerged after a certain point in the data collection process.

Interviews were conducted either online or in person, based on participant availability and preference, and continued until theoretical saturation was achieved. The semi-structured format provided flexibility, allowing participants to freely share their views while ensuring coverage of key topics related to AI and sports marketing.

The interview data were analyzed using a three-stage coding process: Primary Themes/ Basic Themes, Organizational Themes, and Overarching Themes/ Global Themes. Primary Themes include the codes and key points of the text. Through a thorough study of the text, the smallest codes should be identified and selected as a primary theme. Organizational Themes consist of themes resulting from the combination and summarization of primary themes. The basic codes should be reviewed, and similar concepts should be grouped together. The researcher, based on their ability to discern and their expertise, should choose an appropriate name for each category of codes. Finally, Overarching Themes encompass the higher-level themes that govern the text as a whole.

To ensure reliability and validity, interviews were carefully coded using the intra-subject agreement method. Feedback loops with interviewees were established to confirm the accuracy of their responses and interpretations. This iterative process of data collection and analysis refined the themes and ensured that the findings were credible and reflective of participants' expertise.

Systematic analysis was performed using MAXQDA statistical software (version 12) for data analysis and classification. The handling of citations and references was also done using EndNote<sup>20</sup> software.

## Findings& Results

The study population consisted of 13 experts familiar with the area under study, and possessing the necessary experience in sports marketing. Table 1 refers to the demographic characteristics of the research participants.

**Table 1.** Demographic characteristics of the research participants

Row	Gender	Education	Organizational Position	Expertise
1	Male	Ph.D.	Researcher and University Professor	Sports Management / Sports Economics
2	Female	Ph.D.	Researcher and author	Sports Management / Technology and Media
3	Male	Ph.D.	Researcher and author	Sports Management / Sports Marketing
4	Male	Ph.D.	Researcher and University Professor	Sports Management / Sports Marketing
5	Male	Ph.D.	University Faculty Member	Sports Management / Sports Marketing
6	Male	Ph.D.	University Faculty Member	Sports Management / Technology and Media

7	Male	Ph.D.	Researcher and University Professor	Sports Management / Technology and Media
8	Male	Ph.D.	University Faculty Member	Sports Management / Sports Marketing
9	Female	Ph.D.	University Faculty Member	Sports Management / Sports Marketing
10	Male	Ph.D.	Researcher and University Professor	Sports Management / Sports Economics
11	Male	Ph.D.	University Faculty Member	Sports Management / Sports Marketing
12	Male	Ph.D.	University Faculty Member	Sports Management / Sports Marketing
13	Male	Ph.D.	Researcher and author	Sports Management / Sports Marketing

The objective of this study is to design a sports marketing model with an emphasis on artificial intelligence. The statistical community of this research includes individuals with doctoral degrees in sports management who have sufficient expertise in sports marketing and related technologies. Their specialization and knowledge in these areas enable them to thoroughly analyze and investigate topics related to artificial intelligence and sports marketing. With diverse roles in organizations and universities, the members of this community can offer diverse perspectives and integrate different viewpoints on the impact of artificial intelligence in the realm of sports marketing.

In addition, the experience of these individuals in conducting research and writing in the fields of sports management, sports marketing, and emerging technologies increases their credibility and transforms their expertise into valuable and reliable scientific resources. By leveraging their collective knowledge and skills, this statistical community is well-prepared to delve into the complexities of how artificial intelligence is shaping the landscape of sports marketing, paving the way for insightful discussions and innovative approaches in this evolving field. This lived and specialized experience equips them to provide practical and theoretical solutions in the field of sports marketing, which can contribute to improving marketing strategies and increasing efficiency in this industry.

The research findings extracted from the interviews with the participants were organized into a conceptual framework and model after three-stage coding. These findings can be observed in Tables 2, 3, and 4.

**Table 2.** Antecedents of sports marketing with emphasis on AI

Primary Themes/ Basic Themes	Organizational Themes	Overarching Themes/ Global Themes
Demographic information (age, gender, location, etc.)	Fan data	<i>Sports marketing data</i>
Interests (favorite sports, favorite players, etc.)		
Behaviors (buying tickets, buying goods, interacting with the team or league, etc.)		
Interactions with the team or league (visiting the website, following on social media, etc.)		
Statistics of players and teams (points, records, etc.)	Sports performance data	
Tournament results (winner, loser, etc.)		
Training programs (exercises, recovery, etc.)		
Industry trends (growth, innovation, etc.)	Market data	
Competitors (strategies, strengths and weaknesses, etc.)		
Economic conditions (inflation, unemployment rate, etc.)		
Comments (positive, negative, neutral)	Social media data	
Emotions (happiness, sadness, anger, etc.)		
Interactions (sharing, comments, likes, etc.)		
Machine learning (prediction, categorization, etc.)	AI tools	<i>Technology</i>
Natural language processing (text extraction, sentiment analysis, etc.)		
Computer vision (face recognition, object recognition, etc.)		

Website (content, e-commerce, etc.)	Sports marketing platforms	<i>Human resources</i>
Mobile applications (notification, interaction, etc.)		
Social media (advertisements, content marketing, etc.)		
Augmented reality (interactive experiences, etc.)	AI experiences	
Virtual reality (immersive experiences, etc.)		
Blockchain (data security, product tracking, etc.)		
Data scientists (data analysis, modeling, etc.)	AI experts	
Machine learning engineers (design and implementation of algorithms, etc.)		
Experts in natural language processing (information extraction, machine translation, etc.)		
Sports marketing experts (strategy, branding, etc.)	Marketing experts	
Social media experts (content, advertising, etc.)		
Advertising experts (media, creativity, etc.)		
Designers (user interface, user experience, etc.)	Other experts	
Developers (software, web, etc.)		
Project managers (planning, implementation, etc.)		

Table 2 outlines the antecedents of sports marketing with a focus on AI, detailing the foundational elements that support AI-driven marketing strategies. It categorizes these antecedents into three main areas: sports marketing data, technology, and human resources. Sports marketing data includes fan data (demographics, interests, behaviors), sports performance data (player statistics, tournament results), market data (industry trends, economic conditions), and social media data (comments, emotions). Technology encompasses AI tools (machine learning, natural language processing, computer vision), sports marketing platforms (websites, mobile apps, social media), and AI experiences (augmented reality, virtual reality, blockchain). Human resources include AI experts (data scientists, machine learning engineers), marketing experts (sports and social media marketing), and other specialists (designers, developers, project managers). This table highlights the diverse and essential components necessary for implementing AI in sports marketing effectively.

**Table 3.** Sports marketing processes with emphasis on AI

Primary Themes	Organizational Themes	Overarching Themes
Analysis of customer purchase history	Understanding their needs and desires.	<i>Precise targeting</i>
Evaluation of customer preferences		
Determining customer activities in social networks		
Send personalized messages	Customization of individual data	
Providing offers tailored to the interests of customers		
Send special notifications to active customers		
Provide special content	More detailed content and product recommendations	<i>Improve customer experience</i>
Offer related products		
Customizing the customer experience in applications		
Improving the online shopping process	Improving the purchase process and customer experience	
Offer related products during shopping		
Provide guidance to customers in the purchase process		
Determine the best time for advertising	Optimizing the timing and content of sports advertisements.	<i>Advertising optimization</i>



Adjusting the content of ads based on restrictions		
Determine effective messages		
Choosing the right media for advertising		
Identifying effective channels based on past results	Choosing effective marketing channels	
Proposing all kinds of advertising channels		
Analyzing the success of competitors		
Identification of new market opportunities	Competitors and sports market analysis.	<i>Competitors and market analysis</i>
Predicting competitors' behavior		
Prediction of team performance	Prediction of future sports results	
Analysis of the players' situation		
Identifying the path of competition		
View customer activity history	Analysis of behavior in sports websites and applications.	
Analyzing the entry and exit of customers		
Identifying purchase patterns		<i>Analysis of customer behavior</i>
Predicting customer behavior		
Evaluation of previous performance of customers	Predicting customer performance	
Conducting analysis based on forecasts		

Table 3 presents the sports marketing processes with an emphasis on AI, outlining how AI enhances various aspects of marketing operations. The table categorizes these processes into primary themes such as customer experience enhancement, competitor and market analysis, advertising optimization, and customer behavior analysis. It details how AI improves customer experience through precise targeting, personalized offers, and customized content. Competitor and market analysis is refined with AI's ability to predict market opportunities and competitor behavior. Advertising optimization involves AI in determining effective messaging and timing, while customer behavior analysis leverages AI to understand purchasing model and forecast future behavior. Overall, the table underscores how AI streamlines and elevates these marketing processes to drive better performance and efficiency in sports marketing.

**Table 4.** Implications of sports marketing with an emphasis on AI

Primary Themes	Organizational Themes	Overarching Themes
Anticipating fans' interests and preferences	Personalized content	<i>Increase fan engagement</i>
Providing content tailored to each person's interests		
Increasing the likelihood of viewing and interacting with content		
Using interactive games, competitions and campaigns	Creating interactive experiences	
Increase fan engagement and entertainment		
Create a sense of belonging to the team or league		
Creating spaces for fans to interact with each other	Creating online communities	
Exchange of opinions and information among fans		
Strengthening the sense of loyalty to the team or league		
Answering questions and solving problems of fans online	Provide customer service in real time	
Increase satisfaction and positive fan experience		
Making fans feel valued		
Demand forecasting and dynamic pricing	Increase in sales	<i>Increase income</i>



Providing personalized offers and discounts		
Increased willingness to buy from fans		
Providing detailed information and analysis to sponsors	Recruiting new sponsors and partners	
Creating targeted advertising opportunities		
Increasing attractiveness for sponsors		
Identifying the strengths and weaknesses of players and teams		
Predicting the probability of injury	Data analysis	
Optimizing training and recovery programs		
Discovering players with high potential at a young age		
Predicting the success of players in the future	Talent identification	<i>Improve sports performance</i>
Reducing player recruitment costs		
Assisting coaches in making strategic decisions		
Increase the chances of winning the competition	Prediction of match results	
Increasing excitement and attractiveness of competitions		
Freeing up time and resources for creative activities		
Reduce marketing costs	Marketing task automation	
Increasing accuracy and speed of tasks		<i>Increase efficiency</i>
Making marketing campaigns more targeted		
Increase conversion rate and return on investment	Optimizing campaigns	
Achieve better results with less resources		

### Validity and Reliability of Data

The research team, which included experts in the fields of AI, coded these selected interviews. The results of calculating the reliability and agreement of the extracted concepts are shown in Table 5. The test-retest reliability of the interviews conducted in this study is 79%, surpassing the 60% threshold, confirming the reliability of the coding. Therefore, the reliability of the concepts extracted from the research interviews was confirmed.

**Table 5.** Test-retest reliability results

Row	Interview	Total number of codes	Number of agreements	Intra-subject reliability
1	First	40	30	75%
2	Sixth	25	16	64%
3	Thirteenth	15	10	66%
	<b>Total</b>	<b>80</b>	<b>56</b>	<b>79%</b>

According to the issues presented in Tables 2, 3 and 4, it can be concluded that the use of AI in sports marketing can bring positive consequences for the industry. These tools use sports marketing data, technology and human resources to help improve processes and productivity. With the use of AI, it is possible to increase fan engagement with teams and leagues. This improvement in engagement can lead to increased revenue through sales of tickets and team-related products. Also, with accurate data analysis, new talent can be identified and more optimized marketing strategies can be provided. On the other hand, the use of AI can lead to improved customer experience, which can help increase fan loyalty and satisfaction. In the following, the sports marketing model with an emphasis on AI, which is designed based on the findings of the research, is displayed in the form of Figure 1.



**Fig 1.** Sports marketing model with emphasis on AI

## Discussion

The integration of artificial intelligence (AI) within sports marketing represents a transformative leap forward, offering profound enhancements across multiple dimensions of the field. This study highlights AI's transformative impact through improved data analysis, refined advertising processes, enhanced customer experiences, and optimized sports performance, building on prior research that identifies AI as a critical driver of innovation in marketing.

The antecedents identified in this research—spanning sports marketing data, technological infrastructure, and human resources—reveal the foundational elements necessary for effective AI integration [33, 34]. Research by Dwivedi et al; Figueiredo et al [35, 36] highlights the importance of diverse data sources and advanced technological tools for successful AI integration, reinforcing the study's conclusions about the necessity of comprehensive data inputs and robust technological infrastructure [32]. The diverse data types, including fan demographics, sports performance metrics, market conditions, and social media interactions, are critical inputs for AI systems. These data sources enable precise analytics and predictive modeling, which are fundamental for tailoring marketing strategies and enhancing decision-making processes. Technological components such as machine learning, natural language processing, and computer vision are essential for deriving actionable insights and automating complex tasks. Human resources, encompassing AI experts and marketing

professionals, are equally crucial, as they facilitate the deployment and management of AI tools, ensuring that technological advancements are effectively harnessed. This section provides significant and timely insights into artificial intelligence technology and its impact on the future of the industry and society at large, while recognizing the social and industrial influences on the speed and direction of AI development [33, 36].

This study corroborates existing findings that AI enhances marketing efficiency by leveraging advanced data analytics [34, 37]. For example, studies by Gao and Liu (38), [39, 40] demonstrate AI's effectiveness in personalizing marketing strategies and optimizing customer interactions, findings that are mirrored in this study's results. Enhanced customer experience is achieved through precise targeting and personalization, which significantly increases engagement and satisfaction [41]. AI's role in competitor and market analysis provides sports organizations with the ability to anticipate market trends and competitive dynamics, thereby informing strategic decisions and identifying new opportunities. Advertising optimization, facilitated by AI, ensures that marketing messages are delivered at optimal times and through the most effective channels, maximizing impact and return on investment. Moreover, AI's capability to analyze customer behavior and predict future trends empowers sports marketers to design more effective campaigns and enhance overall marketing performance.

The implications of these findings are far-reaching. The integration of AI not only enhances fan interaction [6, 26, 34] and revenue generation [42] but also contributes to improved sports performance and operational efficiency [43-45]. AI's ability to analyze vast amounts of data, forecast trends, and automate processes leads to more informed decision-making and streamlined marketing operations. For sports organizations, this means a competitive edge in engaging with fans, optimizing revenue streams, and achieving better on-field results.

While this study aligns with prior research on AI's benefits [34], it also highlights challenges not always fully addressed in earlier work. The ethical concerns [46, 47], data privacy issues [48-50], and potential employment impacts associated with AI [51, 52] adoption are areas where this study offers new insights [32]. Existing literature, such as that by Hoffman, Mueller (53), often underestimates the complexities of these challenges. Sports organizations must navigate these challenges by implementing robust data protection measures, ensuring transparency in AI usage, and fostering a culture of continuous learning and adaptation among employees. This study's focus on ethical considerations and data protection measures reflects a growing awareness of the need for responsible AI deployment.

Future research should expand on these findings by incorporating a broader range of perspectives and examining the impact of AI across different sports and geographic regions. Longitudinal studies assessing the long-term effectiveness of AI-driven marketing strategies will provide deeper insights into their sustainability and impact.

In overall, the integration of AI into sports marketing represents a paradigm shift that offers unparalleled opportunities for enhancing marketing strategies, improving customer experiences, and driving organizational success. By leveraging AI technologies and addressing the associated challenges, sports organizations can achieve significant advancements in performance and competitiveness, positioning themselves at the forefront of the evolving sports marketing landscape.

## **Conclusion**

The conceptual model presented in this research provides a comprehensive view of AI's role in personalizing fan experiences, optimizing advertising campaigns, and increasing the revenue of sports organizations. The findings indicate that AI, through big data analysis and machine learning, has the capability to personalize fan experiences, predict consumer behavior, and optimize advertising strategies. This not only leads to increased fan loyalty and higher revenue generation but also enables data-driven decision-making for sports managers. The results of this study confirm that AI can serve as a competitive advantage for sports organizations. The implementation of this technology improves digital interactions, enhances targeting accuracy in advertising, and accelerates marketing processes. Additionally, this research helps to better understand the barriers and strategies for developing AI in the sports sector by identifying the opportunities and challenges associated with its implementation.

Despite providing valuable insights, this study has certain limitations. First, the data were collected through qualitative interviews with 13 experts in sports marketing, which may limit the generalizability of the findings. Second, the focus on the Iranian market may restrict the applicability of the results to other countries and international markets. Third, due to the rapidly evolving nature of AI technology, the findings may be influenced by future developments in this field. Future research could utilize quantitative methods and advanced modeling to more accurately assess the impact of AI on consumer behavior in sports. Furthermore, comparative studies across different countries could provide a better understanding of the cultural and economic factors influencing the adoption of this technology. Additionally, examining the ethical implications and privacy concerns associated with the use of AI in sports marketing represents an important area for future research.

The findings of this study can assist sports managers and marketers in optimizing their marketing strategies with a data-driven approach. The adoption of AI can enhance fan experiences, increase digital engagement, and improve advertising performance across various platforms. Sports organizations that effectively implement this technology can secure a stronger position in a competitive market.

Overall, this research indicates that the use of AI in sports marketing in Iran is still in its early stages and requires further investment, improved infrastructure, and advanced training for personnel to fully leverage the potential of this technology. Therefore, AI is a powerful tool for transforming sports marketing that can not only enhance fan engagement but also provide innovative solutions for increasing revenue and operational efficiency. However, successful implementation of this technology necessitates the development of digital infrastructure, the establishment of appropriate ethical policies, and the enhancement of specialized skills among sports managers. If sports organizations can manage these challenges, AI could become a sustainable competitive advantage in the realm of sports marketing.

### **Ethical Considerations:**

#### **Compliance with ethical guidelines**

All research activities were conducted in compliance with ethical guidelines to ensure the integrity and welfare of participants.

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#### **Conflict of Interest**

The authors declare no potential conflicts of interest concerning the research, authorship, or publication of this article.

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## Declaration of generative AI and AI-assisted technologies in the writing process

During the preparation of this work the authors used ChatGPT in order to improve language and readability of certain parts of the article. After using this tool/service, the authors reviewed and edited the content as needed and takes full responsibility for the content of the publication.

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## هوش مصنوعی (AI) و آینده بازاریابی ورزشی: بررسی چالش‌ها و فرصت‌های جدید

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### چکیده

**هدف:** هوش مصنوعی (AI) به سرعت به ابزاری حیاتی در صنعت ورزش تبدیل می‌شود، به‌ویژه در بازاریابی دیجیتال ورزش. با بهره‌گیری از تحلیل داده‌ها و یادگیری ماشین، هوش مصنوعی به شرکت‌ها و سازمان‌های ورزشی این امکان را می‌دهد که عملکرد خود را بهبود بخشند، فرآیندها را بهینه‌سازی کنند و تجربه مشتریان را ارتقا دهند. این فناوری در حال تغییر چهره بازاریابی ورزشی است و فرصت‌های جدیدی برای تعامل با طرفداران و افزایش کارایی عملیاتی ایجاد می‌کند.

**روش شناسی:** این مطالعه به یک شکاف تحقیقاتی مهم در زمینه کاربردهای عملی هوش مصنوعی در بازاریابی ورزشی می‌پردازد و از رویکرد تحقیق کیفی و مصاحبه با خبرگان استفاده می‌کند.

**نتایج:** از طریق تحلیل موضوعی مصاحبه‌ها با کارشناسان صنعت، این مطالعه شناسایی می‌کند که چگونه هوش مصنوعی استراتژی‌های بازاریابی را بهبود می‌بخشد، از جمله شخصی‌سازی تجربیات طرفداران، بهینه‌سازی کمپین‌های تبلیغاتی و استفاده از تصمیم‌گیری مبتنی بر داده. کارشناسان بر قابلیت تحول‌آفرین هوش مصنوعی در ایجاد تعاملات سفارشی و تقویت وفاداری عمیق‌تر طرفداران تأکید کردند و در عین حال به چالش‌هایی مانند ملاحظات اخلاقی و حریم خصوصی داده‌ها نیز اشاره کردند.

**نتیجه‌گیری:** در ایران، استفاده از هوش مصنوعی در بازاریابی ورزشی هنوز در مراحل ابتدایی خود قرار دارد و نیازمند سرمایه‌گذاری بیشتر، بهبود زیرساخت‌ها و ارتقاء آموزش برای پرسنل است تا بتوان از پتانسیل کامل این فناوری بهره‌برداری کرد. این یافته‌ها نیاز به اتخاذ رویکردی پیشگیرانه و اخلاقی در ادغام هوش مصنوعی توسط سازمان‌های ورزشی را برای دستیابی به مزیت استراتژیک برجسته می‌کند. نتایج این مطالعه به یک چارچوب مفهومی کمک می‌کند و درک دقیقی از نقش هوش مصنوعی در بازتعریف شیوه‌های بازاریابی ورزشی ارائه می‌دهد و جهت‌گیری‌هایی برای کاوش‌های آینده پیشنهاد می‌کند.

واژه‌های کلیدی

هوش مصنوعی، بازاریابی دیجیتال، بازاریابی ورزشی، تعامل با مشتری، تجزیه و تحلیل پیش‌بینی‌کننده.

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