The Journal of Accounting and Management

Evaluating the Effect of AI-Powered Chatbot Systems on Sport Fan Satisfaction and Ticket Purchase Intentions in South Africa

Peace Nhlawutelo Mabasa[1]

Abstract: In recent years, Artificial Intelligence (AI) has been transforming sports ticketing by enabling dynamic pricing, enhancing the fan experience through personalisation and advanced consumer services, and improving operational effectiveness and security. The principal objective of this study is to investigate how AI-driven chatbot systems can enhance the satisfaction of sports consumers and increase their intention to purchase tickets, particularly among fans of professional soccer, rugby, and cricket in Gauteng, South Africa. Although AI technologies have developed and transformed business areas globally, their impact on the sports ticketing industry remains a largely under-researched field, particularly in the South African sports consumption context. This study employs the Technology Acceptance Model (TAM), in which fan satisfaction serves as a mediating factor linking AI chatbot acceptance to the intention to purchase tickets for sporting events online. It stresses three key aspects of AI-powered chatbots: dynamic pricing, chatbot intelligence, and AI-driven personalisation. A snowball sampling technique was utilised in this quantitative study to collect data from 278 fans of professional soccer, rugby, and cricket who completed an online self-administered questionnaire. SPSS version 29.0 was used to analyse the collected data, employing correlation and regression analyses to identify relationships among the factors. The findings highlight that dynamic pricing, chatbot intelligence, and AI personalisation have a statistically significant positive influence on fan satisfaction ($\beta = 0.355$, $p = 0.256$; $\beta = 0.251$, $p = 0.251$; with all p-values < 0.01). Together, these variables reported for about 68% of the variability in fan satisfaction ($R^2 = 0.682$). Likewise, fan satisfaction accounted for approximately 45 per cent of the variation ($R^2 = 0.451$) and was a strong predictor of intention to purchase tickets in the context of sport ($\beta = 0.672$, $p < 0.01$). These results suggest that AI-powered chatbots can significantly increase fan satisfaction, thereby improving their chances of purchasing tickets for professional cricket, rugby, and soccer matches in South Africa. This study advocates the use of the TAM in the context of professional sports ticketing in South Africa, showing that fan satisfaction effectively mediates the relationship between technology acceptance and consumer behaviour in sports. Based on the above-mentioned results, sports managers and marketers should prioritise AI chatbot systems with intelligent conversational interfaces, dynamic pricing, and personalised suggestions. These approaches are designed to fairly and transparently improve ticket sales and fan satisfaction, thereby fostering consumer trust and confidence.

Keywords: AI-chatbot; consumer satisfaction; purchase intention; fans; sport

JEL Classification: The Journal of Economic Literature

[1] Lecturer, Vaal University of Technology, South Africa, Address: Private Bag X021 - Andries Potgieter Blvd, Vanderbijlpark 1911, South Africa, Corresponding author: nhlawutelom@vut.ac.za.

1. Introduction

With the advent of AI across fields such as retail, marketing, engineering, and academia, the internet has undergone rapid changes in recent years, as noted by Oosthuizen et al. (2021), Mariani et al. (2022), and Pinzolits (2024). AI is profoundly changing the sports sector by improving athlete performance, streamlining organisational procedures, improving coaching tactics, and more (Mahajan et al., 2023; Xu & Baghaei, 2025). Ticketing systems greatly benefit from the use of AI alongside traditional methods (Taha et al., 2025). Despite AI's presence in sports, no research has examined how AI-based sports bots affect the satisfaction and intentions of sports customers in South Africa. However, socio-economic factors such as mobile internet penetration and cultural preferences for in-person ticket purchases may influence chatbot adoption.

According to research by Karimi et al. (2024) and Pashaie and Nasirpour (2025), researchers, sports teams and marketers must recognise why understanding this integration is essential in South Africa, improving how sports tickets are used and handled, customising how fans buy tickets, and making better use of revenue to drive significant change in the sports industry. Research by Sözer (2019), Soares et al. (2022), Teng et al. (2024), Ayatollahi (2024), and Moodley and Sookhdeo (2025) reveals that new technologies in ticketing are redefining how sports fans buy tickets and experience events. As suggested by Mohammadi et al. (2025), using these new technologies makes customers happier with the process and more likely to make a purchase, as they benefit from convenient tools, fast service, and additional security.

With the aid of AI, tickets can quickly sort through enormous amounts of information to infer consumer interests, adjust price tags accordingly, and present personalised promotions based on each consumer's preferences (Awais, 2024; Narashimman et al., 2024). If fraudulent tickets are noticed and sales of such tickets are halted, the consumer buying experience becomes smoother, and all fans feel protected. Nevertheless, even if these innovations benefit the corporation, they can still cause complications, predominantly linked to how transparent and fair dynamic pricing appears to sports consumers (Medin & Schylström, 2024). Thus, among these problems, sport consumers may feel angry and less trusting, suggesting that a comprehensive approach is required to generate more revenue without compromising trust.

In the sport marketing literature, studies have assessed the impact of AI-powered chatbot systems on consumer/fan satisfaction and purchase intention. For instance, the study of Sipos (2025) investigated "the effects of AI-powered personalisation on online consumers' trust, satisfaction, and purchase intent". The study found "that AI-based personalisation significantly improves trust and satisfaction, with satisfaction acting as a significant mediator for purchase intent". In Vietnam, Le (2023) examined "the role of information value and innovative technology in promoting the use of AI-powered chatbots for customer purchases". When Akdemir and Bulut (2024) examined "the role of customer satisfaction in online purchase intention and intention to reuse chatbots in Turkey". Timothy et al. (2024) investigated "the impact of AI chatbots on youth consumer behaviour in e-commerce: evidence from Southwest, Nigeria". In South Africa, Mufeba (2023) explored "the perceptions of conversational artificial intelligence chatbots on online customer experience amongst Gen X and Y".

Despite AI-driven ticketing systems gaining attention, there have been few studies on how effective this technique is at improving sports fan satisfaction, which could, in turn, increase the likelihood of online ticket purchases in South Africa. It is significant to focus on regional findings, as the particular characteristics of the South African marketplace, sports fan behaviours, and socioeconomic conditions

are markedly distinct from those in other areas (Magida, 2023; Polterauer, 2024). In South Africa, sports events such as soccer, rugby, and cricket contribute significantly to the country's GDP, primarily through ticket and merchandise sales (Mabasa & Masitenyane, 2024; Mokoena et al., 2024). The sports and live events industry in South Africa reportedly generates billions of rand each year, with ticket sales alone accounting for over R2.5 billion of the national GDP (PwC South African Entertainment and Media Outlook, 2023). Building on the above contribution from the sports event industry, there is a need to understand the consumption outcomes of sports fans to strengthen revenue generation for the three sporting codes in this study.

In South Africa, soccer/football, rugby, and cricket are recognised as the most popular sports, with numerous fans (Mabasa, 2023). In this case, it is necessary to understand how an AI-powered chatbot influences fan satisfaction and what fans do after being satisfied with the AI-powered system in online stores for professional soccer, rugby, and cricket. The introduction of AI-based ticketing software can improve the fan experience. The above is motivated by the lack of comprehensive analysis in this field, as provided by Sipos (2025) and Le (2023), particularly in the context of the South African professional sports environment. These can also be addressed by clearly outlining the research's scope, e.g., whether it focuses on specific sports (such as soccer, rugby, and cricket) or on categories of AI chatbots (such as transactional). The outcomes of this study offer suggestions for sports organisations seeking to increase profits, enhance fan engagement, and address fair ticket pricing through AI-powered chatbots. Such examinations are important towards promoting the further development and international competitiveness of South African sports. Lastly, this study is primarily quantitative. It employs online surveys, which are faster and less expensive since fewer resources are spent on printing and postage. Additionally, it enables instant access to information and reduces errors in human data capture. The above have been employed to bridge the gap between theory and practice by investigating the mediating role of fan satisfaction in the intention to purchase sport event tickets, using AI-powered chatbot systems in South African professional sports, focusing on the three selected sport events. These approaches provide empirical, quantifiable outcomes that confirm hypothetical beliefs through real consumer responses in sport.

2. Survey of the Literature

In recent years, chatbots have become valuable technological tools that enable organisations to enhance consumer satisfaction, meet expectations instantly, and provide personalised support (Martínez-Puertas et al., 2024). Chatbots, or conversational agents, are software or applications that create a personalised interaction with the user (Kuwshwah, 2025) by simulating a human conversation (Akdemir & Bulut, 2024). In e-business, Rese et al. (2020) note that chatbots enable users to query about products, services, or events they wish to purchase a ticket for, and to receive quick, automated replies, eliminating the need to wait for a sales representative, which can take a long time. After the COVID-19 pandemic, chatbots have experienced a surge in popularity and have already been extensively adopted by firms and organisations with online shops/stores (Yen & Chiang, 2021). These conversational agents provide a channel that enables businesses to connect with their customers at any time, from anywhere. Furthermore, chatbots enable online shops to enhance consumer satisfaction and meet consumers' expectations through a real-time communication procedure (Yen & Chiang, 2021). On the other hand, the present narrative is limited in its ability to uncover the potential of chatbots to increase sports fans' purchase intention, which is influenced by the satisfaction they derive from these chatbots in the sports business. In support, limited studies have been conducted in this area; the vast

majority of studies focused on travel, tourism, hospitality, retailing, and other related industries (Soares et al., 2022). Kuwshwah (2025) evaluated the effect of AI-based chatbots on customer satisfaction and retention using a case study. The study found that AI-driven chatbots play a significant role in customer retention, particularly in terms of customer satisfaction, in India.

This suggests that the more consumers are satisfied with the usefulness of the AI-powered chatbot experience during online ticket purchases, the more likely they are to continue using these chatbots. Sports organisations in South Africa should focus on the quality of AI chatbot communications to increase overall fan satisfaction and achieve more positive consumer behavioural outcomes. In addition, this study clarifies the effect of AI-powered chatbot techniques on fan satisfaction and purchasing behaviour in the sports industry. In addition, this study enables sports organisations to optimise their consumer service strategies, refine their messaging, and ultimately increase ticket sales and revenue.

2.1. Technology Acceptance Model (TAM)

The Technology Acceptance Model (TAM) has garnered increased attention in the sport marketing literature, with many scholars employing it as a guiding context for examining sport consumer behaviour in relation to new technology (Kim & Chiu, 2019; Byun et al., 2021; Won et al., 2023). This model is remarkably efficient, as both perceived usefulness and perceived ease of use are highlighted, as Davis (1989) suggested. In the case of ticketing, AI-based chatbots are designed to enhance the ticket purchasing experience through process optimisation, instant support, and personalised recommendations. Therefore, these innovations enhance consumers' perceptions of the technology's usefulness and usability, as observed in recent research by Soares et al. (2022) and Teng et al. (2024). Moreover, the adoption of AI in ticketing systems significantly impacts consumer satisfaction and purchasing intentions. Such improvement is achieved through operational efficiency and favourable changes in consumer perceptions of the technology, as noted in studies by Mohammadi et al. (2025). Moreover, Sipos (2025) proposes that AI-powered chatbot systems can substantially improve satisfaction and loyalty among sports consumers, which, in turn, plays a fundamental role in shaping purchase intentions in the context of online sports event ticket shopping.

This research examines the concept of fan satisfaction as a mediating factor between AI-driven chatbots, which are regarded as self-regulating components. It also expands on the Technology Acceptance Model (TAM) by introducing sport ticket purchase intention as a significant influencing factor. This perspective is consistent with recent findings (Le, 2023; Akdemir & Bulut, 2024; Javani & Naeem, 2024; Hu et al., 2024) in sports marketing, which highlight the important role of sport consumer satisfaction in the relationships between technology adoption and consumer behavioural outcomes. An intriguing example of this connection is AI-based dynamic pricing, which enhances cost-effectiveness and overall value for fans and is closely related to the usefulness aspect of the TAM. AI technology enables timely adjustments to ticket and product pricing based on demand, customer preferences, and market conditions. Such a dynamic approach can offer fans better discounts and reduce instances of overpayment (Li & Huang, 2024). Improving the fairness and affordability of ticket access leads to greater fan satisfaction and adds practical value stemming from the adoption and utilisation of new technologies (Syed et al., 2024). The reality that dynamic pricing delivers real savings and improves the purchasing experience highlights its perceived usefulness, a critical element in technology adoption. Since market trends and consumer preferences in South Africa may not

consistently align with global patterns, it is essential to examine the effects of AI-driven chatbots on fan satisfaction and investigate how that satisfaction translates into ticket purchases and match attendance (Mufeba, 2023; Magida, 2023). This framework provides a comprehensive understanding of the inner workings of AI-based ticketing systems within the dynamic South African sports industry, enabling engagement with fans and enhancing ticket sales. The study is founded on the TAM and integrates the mediating factor of fan satisfaction.

2.2. Hypothesis Development

2.2.1. Dynamic Prices

Dynamic pricing is becoming increasingly important in professional sports as a means to boost profits. This method allows ticket prices to change quickly in response to demand and supply, helping maximise revenue from events. Other industries, such as hospitality and aviation, have also achieved success with dynamic pricing. Research by Zao et al. (2021) and Williams (2022) shows that these fields have improved their pricing systems and financial performance through this approach. While dynamic pricing is effective in other sectors, utilising AI for this purpose is relatively new in the events market, particularly in football. AI can adjust ticket prices in real time, depending on market information and trends (Bianchi, 2022). Sports organisations should consider using AI chatbots in their online stores to manage prices effectively. These chatbots can closely monitor demand and other key factors. This can lead to increased revenue, improved attendance, and enhanced fan satisfaction. As this method evolves, dynamic pricing is likely to play a key role in managing sporting events. By combining AI-based dynamic pricing, sports fans will be able to purchase tickets at different prices, which, given the nature of dynamic pricing, should be flexible. Additionally, sports organisations can maximise their financial performance (Karimi et al., 2024; Pashaie & Nasirpour, 2025). The connection between dynamic pricing and consumer satisfaction has been discussed in various papers. For example, research on e-commerce consumers demonstrates that dynamic pricing significantly influences customer satisfaction and subsequent purchasing behaviours (Victor & Bhaskar, 2017; Sarkar et al., 2023; Guo & Zhang, 2025). However, this relationship has not been examined in the sports context thus far. In this regard, this study aims to contribute to existing knowledge by investigating the current relationship within a sports consumption framework, addressing this gap. Consequently, this paper proposes the following:

H_1: *A significant connection between dynamic prices and fan satisfaction*.

2.2.2. Intelligence Chatbot and Fan Satisfaction

AI-powered intelligence chatbots have gained significant popularity in online human-bot dialogues, particularly on mobile platforms (Chakraborty et al., 2023). Sports enthusiasts now have an innovative way to engage with computers through chatbots or conversational interfaces (Yadav et al., 2025). Chatbots enable people to ask questions, much as humans do when communicating with one another (Murtarelli et al., 2021). As noted by Suta et al. (2020) and Poongodi et al. (2020), an enhanced chatbot employs natural language processing, facilitating smoother communication between humans and machines. It can easily adapt to the flow of conversation and generate a diverse range of responses based on the user's input. Numerous studies have explored the connection between AI chatbots and fan satisfaction. For instance, Ashfaq et al. (2020) demonstrated a positive correlation between

customer satisfaction and the implementation of AI-driven chatbots by service personnel. Additionally, AI chatbots can leverage predictive analytics to anticipate customer needs and tailor their responses, thus minimising response times and enhancing customer satisfaction (Rane et al., 2024). These findings are consistent with the research conducted by Ashfaq et al. (2020) and Mouhcine (2021), which also revealed a significant link between AI chatbots and consumer satisfaction, reinforcing the TAM. When intelligent chatbots assist customers during online shopping and interact with them naturally and straightforwardly, accurately grasping their intentions, responding swiftly, and navigating complex inquiries, consumers engaging with these intelligent chatbots perceive the system as more effective and user-friendly (Le et al., 2024). The resulting decrease in communication effort leads to greater satisfaction among fans, which, in turn, fosters long-term interaction and a positive attitude towards the technology. This paper, therefore, hypothesises as follows:

H_2: *A considerable relationship exists between the chatbot's intelligence and fan satisfaction*.

2.2.3. AI-personalisation Chatbot and Fan Satisfaction

Over the past few years, AI-based personalisation has transformed consumer communication by automating previously human-intensive tasks. The technology offers scalable, dynamic solutions tailored to needs, ultimately increasing consumer satisfaction and improving organisational performance (Nwanna et al., 2025). In online ticket purchasing for sports events, especially, AI personalisation has revolutionised the chatbot experience, providing sports fans with an interactive, smooth, and highly personalised experience (Yadav et al., 2025). Such AI-driven chatbots are quick to answer sports fans' questions about dates, prices, and seating for events, as well as provide information on ticket sales and availability. This not only significantly shortens wait times but also dramatically improves consumer satisfaction. Additionally, by analysing consumer preferences and past behaviours, such chatbots can offer recommendations for specific events and matches, helping fans discover those that truly ignite their enthusiasm (Westerbeek, 2025). Viago Go and Ticketmaster are examples of South African services that leverage AI to sell tickets and boost revenue (Ticketmaster, 2025). However, limited research is available on AI-personalisation chatbots, consumer satisfaction, and behavioural shifts, including the intent to buy sports event tickets. Understanding this connection is crucial, as automating repetitive inquiries can enhance the experience for sports attendees while delegating support tasks to the team, allowing event managers to focus on more complex matters, such as ticket purchasing (Convin study, 2024). AI-driven personalised chatbots in sports ticketing provide an enjoyable, interactive, and convenient shopping experience for both sports fans and event organisers. They allow users to customise group bookings, receive timely notifications about their events, and access up-to-date information on seat availability and pricing, all of which play a crucial role in shaping purchasing decisions. As indicated in marketing literature, AI-powered, personalised chatbots significantly impact consumer satisfaction by reducing wait times and offering around-the-clock support and customised interactions based on preferences and history (Taiwo, 2024; Kushwah, 2025). Customising AI chatbots significantly enhances consumer satisfaction, with recommendation systems having an even greater impact, as demonstrated by studies conducted by Bhuiyan (2024), Halim et al. (2025), and Lacap et al. (2025). Thus, this research hypothesises as follows:

H_3: *There is a substantial connection between AI-personalisation and fan satisfaction*.

2.2.4. Fan Satisfaction and Ticket Purchase Intentions

Sport fan satisfaction and purchase intentions are closely related concepts in sport marketing research, with significant implications for sports associations seeking to increase revenue and cultivate an enthusiastic sports consumer base (Mabasa, 2022; Mabasa & Masitenyane, 2024; Mokoena et al., 2024). Yim and Byon (2020); Yun et al. (2021); Lee (2021) found that satisfied sport consumers are more likely to purchase tickets and attend live sport events, including their favourite teams. This positive feedback loop of participation and business activity benefits organisations and their fans (Yim & Byon, 2020; Yun et al., 2021; Lee, 2021). Fan satisfaction is defined as the pleasurable and fulfilling response to the entertainment provided by sports consumption, as well as a broad evaluation of the leisure activities offered by organisations or clubs. Numerous studies have demonstrated that when fans are satisfied, they are more likely to purchase tickets (Law et al., 2022; Girsang et al., 2024). Satisfied fans tend to make more purchases, which can lead to increased future sales and revenue (Chen & Lin, 2022; Mabasa & Chauke, 2025). This means that sports teams should focus on keeping fans happy, as it helps build loyalty and encourages them to buy tickets online again. To increase revenue and improve fan experiences, sports organisations need to understand how fan satisfaction relates to buying intentions (Mabasa, 2024). Research by Köse et al. (2021) also emphasises that the emotional side of fan satisfaction matters. Happy fans are more likely to support the team by buying products or services. The characteristics identified in this study influence a consumer's attitude toward technology use and their behavioural intentions to utilise it, ultimately resulting in actual system use, as proposed by the TAM model. As a result, this research proposes the following:

H_4: *A significant relationship exists between fan satisfaction and ticket purchase intention*.

3. Conceptual Framework

The following conceptual framework was developed. The model depicted in Figure 1.1 pictures the correlation between AI-powered ticketing chatbots and fan satisfaction. AI-powered chatbot systems serve as predictors, with fan satisfaction as the intervening variable and ticket purchase intention as the outcome variable.

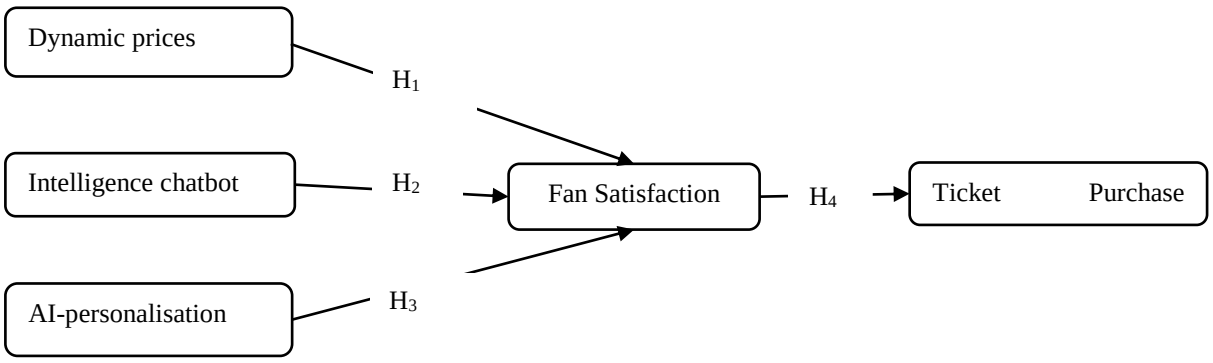

Figure 4: Research Model

4. Methodology

4.1. The Population

The study population consisted of consumers/fans of professional soccer, rugby, and cricket matches in the Gauteng province of South Africa. The sample comprised beings from both genders.

4.2. Sample and Sampling Technique

The research was empirical, with primary data collected through an online questionnaire. The quantitative research approach was assumed. The participants were selected using a snowball sampling technique. The researcher identified fans who purchase sports tickets and then make contact with other sports fans. This sampling technique was considered relevant because purchasing sports event tickets is often a group activity, and it is straightforward to obtain referrals. Because buying tickets for sporting events is often a group activity, this sampling strategy is relevant because it is straightforward to obtain references. This sample is notable because it examines South African fans of professional cricket, rugby, and soccer who purchase tickets online. In the rapidly shifting sports market, it is essential to understand behavioural outcomes to enhance fan interaction tactics, increase revenue, and improve digital consumer engagement.

4.3. Instrumentation and Data Collection

An online, structured, self-administered questionnaire was used to collect primary data from sport fans of professional soccer, rugby, and cricket in Gauteng Province, South Africa. It was disseminated via emails, Facebook, Instagram, and the clubs' X page. Participants received the survey link, and their responses were gathered digitally. Four sections made up the questionnaire. Age, gender, race, the athletic code that fans support, and the frequency of internet ticket purchases were among the sociodemographic questions in Section A. Questions about AI-powered chatbots (dynamic pricing, intelligent chatbots, and AI-personalisation) were addressed in Section B. Sport fan satisfaction questions were included in Section C, and questionss about ticket purchase intention were encompassed in Section D. A 5-point Likert scale was employed to assess each question, with measures that ranged from "strongly disagree" (1) to "strongly agree" (5).

The five-item scale, adopted from Watanabe et al. (2013), was used to determine dynamic price constructs. Five items adopted from the study by Gnewuch et al. (2017) were used to identify the characteristics of an intelligent chatbot. According to Xu et al. (2019), four questions adopted were utilised to assess AI personalisation. Items from Yoshida et al. (2014) were used to measure fan satisfaction, and items from Biscaia et al. (2012) were used to evaluate ticket purchase intention. After processing online surveys, 278 responses were deemed legitimate for further examination, yielding a 100% response rate.

4.4. Data Analysis

SPSS version 29.0 was used to analyse the data. The level of correlation amongst constructs under inquiry was measured using Spearman's rho. The proposed relationships in the study framework were evaluated using multiple regression analysis. The subsequent section displays the study's results.

5. Results

5.1. Reliability and Validity Assessment

Table 1 exhibits the reliability and validity assessments of the research instrument under scrutiny. The Cronbach's alpha amounts for all quantity items ranged from 0.871 to 0.893, which exceeded the adequate level of 0.7 (DePoy, 2024). This study reported significant positive associations, ranging from r = 0.601 to r = 0.560 ($p < 0.01$), indicating convergent validity.

Table 11. Reliability and Validity Assessment

Research construct		Descriptive statistics		Cronbach's test	
		Mean	SD	Item-total	*a* value
Dynamic prices (DP)	DP1	3.87	.69	.778	.893
	DP2			.749	
	DP3			.671	
	DP4			.748	
	DP5			.770	
Intelligent chatbot (IC)	IC1	3.74	.64	.672	.881
	IC2			.723	
	IC3			.651	
	IC4			.726	
	IC5			.751	
AI-personalisation (AIP)	AIP1	3.77	.55	.623	.871
	AIP2			.517	
	AIP3			.608	
	AIP4			.634	
Fan satisfaction (FS)	FS1	3.86	.65	.731	.892
	FS2			.730	
	FS3			.678	
	FS4			.772	
	FS5			.770	
Purchase intention (PINTE)	PINTE1	2.89	.57	.663	.879
	PINTE2			.703	
	PINTE3			.723	
	PINTE4			.711	
	PINTE5			.734	

Table 2 represents the construct correlation matrix. A regression investigation was employed to measure predictive validity. The fan satisfaction was projected by an AI-powered chatbot system (dynamic pricing, intelligent chatbot and AI-personalisation. Purchase intention was predicted by fan satisfaction, as demonstrated in Table 3.

5.2. Sample Composition

An analysis of the demographic profile of respondents reveals that most respondents (69.4%; n = 193) were male, while the remaining 30.6% (n = 85) were female. About age groups which took part, utmost of the participants were amid 30-99 years of age (n=106; 38.1%), followed by those who were under 18-29 years of age (n=86; 30.9%), those between 40-49 years of age (n=63; 22.7%), and respondents who were above 50 years of age (n=23; 8.3%). In terms of race, most participants identified as Black Africans (n = 110, 39.6%), followed by Whites (n = 71, 25.5%), Coloureds (n = 67, 24.1%), and Indians (n = 30, 10.8%). Most participants (n=112, 40.3%) purchase event tickets online

weekly, followed by those who purchase them monthly (n=94, 33.8%) and quarterly (n=72, 25.9%). All the participants purchased tickets for professional sports events between February 2024 and February 2025.

5.3. Correlational Analysis among Constructs

Table 12. Correlations between Constructs

Factors	Dynamic prices	Intelligent chatbot	AI-personalisation	Fan satisfaction	Purchase intention
Dynamic prices	1	.686**	.754**	.601**	.865**
Intelligent chatbot		1	.696**	.647**	.659**
AI-personalisation			1	.731**	.864**
Fan's satisfaction				1	.762**
Purchase intention					1

** Correlations are significant at the 0.01 level (2-tailed)

5.4. Regression Assessment

A regression inquiry was employed to test the predictive link between the independent and dependent variables. Regression analysis was considered an appropriate statistical method given the significant relationships among the variables. Before running the regression investigation, the key statements were confirmed.

Since sample size bias might affect the regression analysis, the sample size was first evaluated. A sample size larger than 50 plus eight times the number of independent variables (where m is the number of independent variables) is considered enough for doing multiple regression analysis, according to Tabachnik and Fidell (2007). When four independent factors are considered, the study's sample of 278 participants exceeds the minimum required of 82 participants.

Secondly, multicollinearity was assessed by examining the intercorrelation matrix for each independent construct, its tolerance value, and its VIF. Multi-collinearity refers to a high degree of intercorrelation between variables (Shen & Gao, 2008). Table 3 shows no evidence of multicollinearity, as all correlations are below 0.80 and above -0.80 (Grewal et al., 2004). Table 4: All reported correlations are below 1 or -1, indicating the absence of perfect multicollinearity within the dataset. The tolerance values should be greater than 0.1, and the VIF values should not exceed 10.0 (Pallant, 2010). In Table 3, both values were acceptable, with the highest tolerance (0.630) and VIF (1.969), indicating that multicollinearity was not a problem in the study.

To find outliers, the scatter plot, Cook's Distance, and the standardised residual plot were used. Scores were concentrated near the centre, close to the zero point, and showed no indications of curvilinearity in the scatter plot. Cook's Distance had the most incredible detailed value of 0.212, indicating that outliers had little effect on the model's output (Tabachnick & Fidell, 2007). According to Tabachnick

and Fidell (2007), no values exceeded 3.3 or fell below -3.3 in the standardised residual plot. The results of the regression analysis are shown in Table 3.

Table 13. Findings of Regression Investigation

Dependent variable: Fan satisfaction	**Beta**	**T**	**Sig**	**Collinearity Statistics**	
				Tolerance	**VIF**
Model 1: Independent variables					
Dynamic prices	.355	4.838	.000*	.632	1.589
Intelligent chatbot	.256	3.526	.001*	.618	1.622
AI-personalisation	.251	3.225	.002*	.510	1.970
$R = 0.788$ $R^2 = 0.682$ Adjusted $R^2 = 0.692$					
Dependent variable: Purchase intention	**Beta**	**T**	**Sig**	**Collinearity Statistics**	
				Tolerance	**VIF**
Model 2: Independent variable					
Fan satisfaction	.672	15.688	.001*	1.000	1.000
$R=0.672$; $R^2=0.451$; $R^2=0.449$ (adjusted) * Significant at $p<0.01$					

With an R2 of 0.682, **Model 1**, which includes dynamic pricing, an intelligent chatbot, and AI-driven personalisation as factors impacting fan satisfaction, suggested that the independent variables may account for almost 68% of fan satisfaction. On the other hand, **Model 2**, which regarded purchase intention as the dependent variable and fan satisfaction as an independent variable, produced an R2 of 0.451, meaning that fan satisfaction could only account for about 45% of the variance in purchase intention.

6. Discussion

According to the first hypothesis (**H1**), there is a positive correlation between dynamic pricing and fan satisfaction of professional soccer, rugby and cricket matches in Gauteng, South Africa. The analysis revealed a direct effect ($\beta = 0.355$, $t(36) = 4.838$, $p < 0.01$), confirming the proposed hypothesis. Additionally, a significant positive correlation was identified ($r = 0.601$, $p < 0.01$), further supporting the study's assumption. The mean score for the dynamic pricing variable was 3.87 out of 5, suggesting that most participants agreed with the concept of AI-powered dynamic pricing. The research by Liu and Wang (2024) found that AI-driven pricing dynamics enhance perceived value and satisfaction among soccer fans in China, thereby supporting this assessment. Moreover, the study by Jones et al. (2023) found that MLB teams achieved high levels of fan satisfaction when dynamic pricing was paired with loyalty incentives. These findings suggest that rugby, soccer, and cricket fans in South Africa are receptive to AI-driven pricing strategies, thereby enhancing their overall satisfaction and perceived value of the sporting experience.

The second hypothesis (**H2**) proposes a significant, positive relationship between sports fans' satisfaction and the use of an intelligent chatbot. This hypothesis was supported by the findings, which showed a significant relationship ($\beta = 0.256$, t-value = 3.526, $p < 0.001$). Additionally, data analysis revealed a strong positive correlation ($r = 0.647$, $p < 0.01$). On average, respondents rated the intelligent chatbot construct 3.74 out of 5, indicating general agreement with chatbots' effectiveness in the context of online ticket purchases. Previous studies support these findings, showing that chatbots

increase overall engagement by providing 24/7 access to information on match schedules, ticketing, merchandise, and player statistics. These findings demonstrate how AI-powered chatbots facilitate more convenient and immediate interactions between fans and teams, ultimately enhancing fan satisfaction (Choudhury & Pattnaik, 2021; Jain & Upadhyay, 2022). In essence, the results suggest that intelligent chatbots can significantly enhance fan satisfaction by improving access to sports-related services, convenience, and engagement, thereby confirming their value in the online ticket-buying process.

The third hypothesis (**H3**) proposed that satisfaction levels among soccer and rugby fans would increase due to the use of an AI-driven personalisation chatbot. This hypothesis was validated (β = 0.251, t-value = 3.225, $p < 0.000$). Furthermore, a strong positive correlation ($r = 0.731$, $p < 0.01$) was identified, reinforcing this finding. Additionally, the AI personalisation construct received an average rating of 3.77 out of 5, indicating considerable consensus among South African sports fans. This finding is relevant because the consistent use of AI in sports purchasing can lead to typical behavioural outcomes. This aligns with the research by Wei et al. (2022), which shows that sports fans experience greater satisfaction and are more likely to make purchases when offered personalised options (such as distinctive matchday experiences or discounts on merchandise for their favourite teams). Therefore, the introduction of AI personalisation in ticket sales may provide an opportunity to sustain revenue and attendance for professional soccer, rugby, and cricket events in South Africa.

The fourth hypothesis (**H4**) posits that fan satisfaction positively influences sport consumers' intentions to purchase tickets. This hypothesis was validated with a coefficient (β) of 0.672, a t-value of 15.688, and a significance level of $p < 0.01$. Additionally, a strong positive correlation was observed ($r = 0.762$, $p < 0.01$). The average score for the fan satisfaction construct was 3.86, indicating that participants generally concurred with the statements regarding their satisfaction. These findings demonstrate that sports fans' willingness to purchase tickets for their preferred events is significantly influenced by their level of satisfaction with those events. This result aligns with Duan's (2021) research, which demonstrated that fan pleasure mediates the relationship between intrinsic motivation and the long-term intention to adopt digital tickets. Therefore, it suggests that fans are more inclined to purchase tickets online when they feel satisfied with the digital ticketing experience.

7. Theoretical Contributions and Managerial Implications

This study provides important scholarly and managerial insights by applying the TAM to AI-powered chatbot systems in the context of ticket sales for professional soccer, rugby, and cricket in South Africa. It identifies fan satisfaction as a mediating factor between the use of AI-powered chatbots and the intention to purchase tickets. Additionally, it enhances our understanding of how dynamic pricing, chatbot intelligence, and technology-driven personalisation affect consumer behaviour in this specific industry. This research addresses a significant gap in the literature by focusing on the South African sports market, where the dynamics and consumer expectations differ from those in other regions. It provides valuable insights that contribute to the global discussion on the application of AI in sports marketing. Furthermore, this study confirms and further develops existing theoretical frameworks by analytically examining the predictive relationships among AI-powered dynamic pricing, chatbot intelligence, personalisation, fan satisfaction, and intentions to purchase tickets. This highlights the crucial role that fan satisfaction plays as a moderator in technology-driven decision-making.

The findings outlined in this research offer valuable insights for managers in soccer, rugby, and cricket, as well as professionals across the sports industry, on leveraging AI-driven chatbots to optimise fan engagement and drive ticket sales. It is recommended that stakeholders integrate sophisticated, personalised chatbots into ticketing systems to enhance the user experience and purchasing intention. This can be achieved through streamlined transactions, real-time support, and targeted promotional activities. Moreover, the prevalence of perceived unfair pricing can adversely affect fan satisfaction and loyalty. Thus, managers must emphasise transparency and equity in dynamic pricing models to maintain consumer trust. Additionally, the application of AI-powered analytics can provide a granular understanding of fan preferences and behaviours, facilitating more effective engagement strategies and revenue optimisation. These insights are particularly pertinent to the South African professional sports landscape, where ticket revenue contributes significantly to the country's GDP. Enhancing the overall fan experience and satisfaction presents substantial financial and reputational benefits for sports organisations.

8. Conclusion

This research ultimately demonstrates that AI-driven chatbot systems play a significant, positive role in enhancing ticket-purchasing intentions and improving sports consumer satisfaction in South Africa. By leveraging dynamic pricing, intelligent conversational interfaces, and personalised recommendations, these AI-based ticketing solutions elevate the fan experience, streamline the purchasing process, and foster greater consumer satisfaction and engagement. The findings underscore the importance of prioritising consumer insights in the digital transformation of sports ticketing, revealing that fan satisfaction acts as a critical mediator between AI adoption and the likelihood of purchasing tickets online. Furthermore, the study suggests that to maintain consumer satisfaction and loyalty, South African sports organisations must strike a balance between technological advancements and transparency and fairness, particularly in pricing strategies. The integration of AI in ticketing enhances interactions with sports consumers. It drives revenue growth, positioning South African sports organisations for long-term success in a competitive and technology-driven landscape.

References

Akdemir, D. M., & Bulut, Z. A. (2024). Business and customer-based chatbot activities: The role of customer satisfaction in online purchase intention and intention to reuse chatbots. *Journal of Theoretical and Applied Electronic Commerce Research*, *19*(4), 2961–2979.

Ashfaq, M., Yun, J., Yu, S., & Loureiro, S. M. C. (2020). I, Chatbot: Modelling the determinants of users' satisfaction and continuance intention of AI-powered service agents. *Telematics and informatics*, *54*, 101473.

Awais, M. (2024). Optimising dynamic pricing through AI-powered real-time analytics: the influence of customer behaviour and market competition. *Qlantic Journal of Social Sciences*, *5*(3), 99–108.

Ayatollahi, A. (2024). The impact of dynamic pricing on consumer purchase decisions: A behavioral and computational study. *International Journal of Industrial Engineering and Construction Management* (*IJIECM*), *2*(1), 11–18.

Bhuiyan, M. S. (2024). The role of AI-Enhanced personalization in customer experiences. *Journal of Computer Science and Technology Studies*, *6*(1), 162–169.

Bianchi, E. (2022). *Dynamic pricing in sport. What are the determining factors and what determines stadium attendance levels? Moreover, why is it not a widespread practice in Switzerland* (Doctoral dissertation, Scuola universitaria professionale della Svizzera italiana).

Bilquise, G., Ibrahim, S., & Shaalan, K. (2022). Emotionally intelligent chatbots: A systematic literature review. *Human Behavior and Emerging Technologies*, *2022*(1), 9601630.

Biscaia, R., Correia, A., Rosado, A., Marôco, J., & Ross, S. D. (2012). The effects of emotions on football spectators' satisfaction and behavioural intentions. *European Sport Management Quarterly, 12*(3), 227–242

Byun, H., Chiu, W., & Bae, J. S. (2021). Exploring the adoption of sports brand apps: An application of the modified technology acceptance model. *Research Anthology on Business Strategies, Health Factors, and Ethical Implications in Sports and eSports* (pp. 75–91). IGI Global Scientific Publishing.

Chakraborty, C., Pal, S., Bhattacharya, M., Dash, S., & Lee, S. S. (2023). Overview of chatbots with special emphasis on artificial intelligence-enabled ChatGPT in medical science. *Frontiers in artificial intelligence*, *6*, 1237704.

Choudhury, S., & Pattnaik, S. (2021). AI-driven chatbots and their impact on fan experience in sports. *International Journal of Human–Computer Interaction*, 37(15), 1428–1440.

Convin. (2024, October 4). *Online ticket booking: The smart way to never miss a concert, movie, or match*. https://convin.ai/blog/online-ticket booking#:~:text=Enhancing%20the%20customer%20experience%20through%20real%2Dtime%20assistance,the%20system%20impacts%20both%20customers%20and%20businesses

DePoy, E. (2024). *Introduction to research-e-book: Understanding and applying multiple strategies*. Elsevier Health Sciences.

Drea, J. T., & Nahlik, A. (2017). Dynamic pricing in major league baseball tickets: Issues and challenges. *Atlantic Marketing Journal*, *5*(3), 4.

Duan, Y., Liu, B., & He, Y. (2020). Study on relationships among sports spectator motivations, satisfaction and behavioural intention: empirical evidence from the Chinese marathon. *International Journal of Sports Marketing and Sponsorship*, *21*(3), 409–425.

Girsang, R. M., Lie, D., Augustinah, F., & Sudirman, A. (2024). Analysis customer satisfaction and its implications for customer loyalty and purchase intention for cinepolis cinemas tickets. *International Journal of Social Science and Business*, *8*(1), 169-181.

Gnewuch, U., Morana, S., & Maedche, A. (2017). Designing chatbots for supporting customer self-service in the digital workplace. *Conference Paper at ECIS 2017*.

Guo, X., & Zhang, L. (2025). Dynamic pricing models in e-commerce: exploring machine learning techniques to balance profitability and customer satisfaction. *IEEE Access*.

Halim, E., Gui, A., Manuaba, I. A. I. S. D., & Condrobimo, A. R. (2025, January). Optimizing Artificial Intelligence (AI) Chatbot Customer Service in Small and Medium Enterprises (SMEs) in E-Marketplace. *2025, the 19th International Conference on Ubiquitous Information Management and Communication (IMCOM)* (pp. 1–6). IEEE.

Hu, J., Ye, X., & Gu, S. (2024). The impact of subjective consumer knowledge on consumer behavioral loyalty through psychological involvement and perceived service quality: sports clubs. *Asia Pacific Journal of Marketing and Logistics*, *36*(8), 1988-2007.

Jain, V., & Upadhyay, A. (2022). Leveraging Artificial Intelligence to Personalise Fan Engagement: The Role of Chatbots in Sports Marketing. *Journal of Strategic Marketing*, 30(7), 605–621.

Javani, V., & Naeem Dawood Hammadi, A. (2024). The influence of emerging technologies on brand loyalty and purchase intentions for sponsored products in sports advertising. *Journal of Advanced Sport Technology*, *8*(2), 59–70.

Jeong, S. H., & Chung, J. Y. (2022). Integrated technology acceptance model (TAM) of sports team smartphone application (STSA) in the stimulus organism response (SOR) framework. *Journal of Physical Education and Sport*, *22*(9), 2152–2161.

Jones, M., Smith, R., & Taylor, D. (2023). Dynamic pricing and fan loyalty: A study in Major League Baseball. *Journal of Sport Economics*, *24*(2), 112–130.

Karimi, J., Pashaie, S., & Golmohammadi, H. (2024). Artificial intelligence (AI) and the future of sports marketing: exploring new challenges and opportunities. *Journal of Advanced Sport Technology*, *8*(4), 65–79.

Kim, T., & Chiu, W. (2019). Consumer acceptance of sports wearable technology: The role of technology readiness. *International Journal of Sports Marketing and Sponsorship*, *20*(1), 109–126.

Köse, H., Argan, M., & Hedlund, D. P. (2021). The influence of perceived fan orientation on satisfaction, loyalty and sport consumption behaviors. *International Journal of Sports Marketing and Sponsorship*, *22*(4), 699–720.

Kushwah, S. (2025). *Evaluating the impact of ai-driven chatbots on customer satisfaction and retention.*

Lacap, J. P. G., Alminar, A., Baltazar, J. K. B., Cabral, R., Catibog, J. A., Cunanan, M., & Moratal, M. (2025). Does chatbot interaction drive satisfaction and loyalty? Exploring technology anxiety, need for human interaction and creepiness—Asia-Pacific *Journal of Business Administration*.

Law, C. C., Zhang, Y., & Gow, J. (2022). Airline service quality, customer satisfaction, and repurchase Intention: Laotian air passengers' perspective. *Case Studies on Transport Policy*, *10*(2), 741–750.

Le, X. C. (2023). Inducing AI-powered chatbot use for customer purchase: the role of information value and innovative technology. *Journal of Systems and Information Technology*, *25*(2), 219–241.

Lee, J. K. (2021). The effects of team identification on consumer purchase intention in sports influencer marketing: The mediation effect of ad content value moderated by sports influencer credibility. *Cogent Business & Management*, *8*(1), 1957073.

Li, A., & Huang, W. (2024). A comprehensive survey of the sports industry's artificial intelligence and cloud computing applications. *Wireless Networks*, *30*(8), 6973–6984.

Liu, H., & Wang, Z. (2024). AI and fan satisfaction: Dynamic pricing in Chinese soccer. *International Journal of Sports Science & Coaching*, *19*(4), 623-637

Mabasa, P. N. (2022). *Selected motivational variables that influence spectator attendance of professional women's soccer matches* (Master's thesis, Vaal University of Technology).

Mabasa, P. N., & Chauke, X. D. (2025). Determinants of spectator attendance at Hollywoodbets women's football super league matches in Gauteng province, South Africa. *African Journal for Physical Activity and Health Sciences (AJPHES)*, *31*(4), 584–604.

Mabasa, P. N., & Masitenyane, L. A. (2024). Sportscape variables and spectator satisfaction towards willingness to return to designated professional women's soccer events. *African Journal of Hospitality, Tourism and Leisure*, *13*(1), 174–182.

Magida, A. (2023). *The nexus between the digital divide and social cohesion and their socio-economic drivers in South Africa* (Doctoral dissertation, University of the Witwatersrand).

Mahajan, K., Pal, A., & Desai, A. (2023). Revolutionizing fan engagement: adopting trends and technologies in the vibrant Indian sports landscape. *International Journal of Management*, *1*(2), 122–141.

Mariani, M. M., Perez-Vega, R., & Wirtz, J. (2022). AI in marketing, consumer research and psychology: A systematic literature review and research agenda. *Psychology & Marketing*, *39*(4), 755–776.

Martínez-Puertas, S., Illescas Manzano, M. D., Segovia López, C., & Ribeiro Cardoso, P. (2024). *Purchase intentions in a chatbot environment: An examination of the effects of customer experience. 15*(1), 145–194.

Medin, L., & Schylström, J. (2024). *More than a price tag: A case study of benefits and challenges in dynamic pricing.*

Mohammadi, S., Pashaie, S., Ghaffarisadr, S. I., & Rayner, M. (2025). Opportunities and challenges of leveraging artificial intelligence (AI) in sport marketing. *Advancing the Marketing Technology (MarTech) Revolution*, 233–272.

Mokoena, K., Mabasa, P.N. & Tesnear, S. (2024). Event quality determinants of spectator attendance at semi-professional basketball games in Gauteng Province, South Africa. *African Journal of Hospitality, Tourism and Leisure*, *13*(4), 843–850.

Moodley, K., & Sookhdeo, L. (2025). The role of artificial intelligence personalisation in e-commerce: Customer purchase decisions in the retail sector. *South African Journal of Information Management*, *27*(1), 16.

Mufeba, K. C. (2023). *Exploring the perceptions of conversational artificial intelligence chatbots on online customer experience amongst Gen X & Y in South Africa*. University of Johannesburg (South Africa).

Murtarelli, G., Gregory, A., & Romenti, S. (2021). A conversation-based perspective for shaping ethical human–machine interactions: The particular challenge of chatbots. *Journal of Business Research*, *129*, 927–935.

Narashimman, G., Balaji, C., Kumar, K. R., Suresh, M., & Sivaranjani, R. (2024). The role of AI in predictive analytics for market trends and consumer demand. *Computer Integrated Manufacturing Systems*, *29*(1), 180–200.

Nwanna, M., Offiong, E., Ogidan, T., Fagbohun, O., Ifaturoti, A., & Fasogbon, O. (2025). AI-driven personalisation: Transforming user experience across mobile applications. *Journal of Artificial Intelligence, Machine Learning and Data Science*, *3*(1), 1930-1937.

Oosthuizen, K., Botha, E., Robertson, J., & Montecchi, M. (2021). Artificial intelligence in retail: The AI-enabled value chain. *Australasian Marketing Journal*, *29*(3), 264–273.

Pashaie, S., & Nasirpour, M. (2025). The Impact of Observability and Compatibility on Consumers' Attitudes Towards AI-Generated Sports Marketing Content and Its Effect on Purchase Intent. *Sports Marketing Studies*, *6*(1), 1–15.

Pinzolits, R. (2024). AI in academia: An overview of selected tools and their areas of application. *MAP Education and Humanities*, *4*, 37–50.

Polterauer, C. (2024). Fast moving consumer goods companies penetrating low-income markets in South Africa.

Poongodi, M., Vijayakumar, V., Ramanathan, L., Gao, X. Z., Bhardwaj, V., & Agarwal, T. (2019). Chat-bot-based natural language interface for blogs and information networks. *International Journal of Web Based Communities*, *15*(2), 178–195.

Rane, N., Choudhary, S., & Rane, J. (2024). Artificial Intelligence (AI), Internet of Things (IoT), and blockchain-powered chatbots for improved customer satisfaction, experience, and loyalty. *Internet of Things (IoT) and blockchain-powered chatbots for improved customer satisfaction, experience, and loyalty*.

Sarkar, M., Ayon, E. H., Mia, M. T., Ray, R. K., Chowdhury, M. S., Ghosh, B. P., & Puja, A. R. (2023). Optimizing e-commerce profits: A comprehensive machine learning framework for dynamic pricing and predicting online purchases. *Journal of Computer Science and Technology Studies*, *5*(4), 186–193.

Sipos, D. (2025). The Effects of AI-Powered Personalization on Consumer Trust, Satisfaction, and Purchase Intent. *European Journal of Applied Science, Engineering and Technology*, *3*(2), 14–24.

Soares, A. M., Camacho, C., & Elmashhara, M. G. (2022, April). Understanding the impact of chatbots on purchase intention. *World conference on information systems and technologies* (pp. 462–472). Springer International Publishing.

Sözer, E. G. (2019). The effect of dynamic pricing on holiday purchase intentions: moderated mediation role of perceived risk. *Advances in Hospitality and Tourism Research (AHTR)*, *7*(1), 57–84.

Suta, P., Lan, X., Wu, B., Mongkolnam, P., & Chan, J. H. (2020). An overview of machine learning in chatbots. *International Journal of Mechanical Engineering and Robotics Research*, *9*(4), 502–510.

Syed, T. A., Aslam, H., Bhatti, Z. A., Mehmood, F., & Pahuja, A. (2024). Dynamic pricing for perishable goods: A data-driven digital transformation approach. *International Journal of Production Economics*, *277*, 109405.

Taha, A., Mabrouk, D., Tamer, A., Tarek, M., Alaa, F., El-Fateh, M., & Romany, F. (2025). AI Web-Based Smart Ticketing System. *Advanced Sciences and Technology Journal*, *2*(1), 1–22.

Taiwo, O. J. (2024). *Assessing the Effectiveness of AI-Personalised Recommendation Systems and Their Impact on Customer Engagement and Satisfaction: A Case Study of Jumia in Lagos, Nigeria* (Doctoral dissertation, University of Central Lancashire).

Teng, Z., Wu, A., & Song, Z. (2024, June). Research on the Influence of the Artificial Intelligence Chatbots' Service Quality on the Consumers' Purchase Intention. *International Conference on Human-Computer Interaction* (pp. 119–130). Springer Nature Switzerland.

Timothy, O. T., Fisayo, A. A., Thiru, R., Raji, M. A., & Olodo, H. B. (2024). *Impact of AI chatbots on youth consumer behaviour in e-commerce: Evidence from Southwest, Nigeria.*

Victor, V., & Bhaskar, M. (2017). Dynamic Pricing and the Economic Paradigm Shift-A Study Based on Consumer Behaviour in the E-commerce Sector. *International Journal of Scientific and Research Publications*, *7*(6), 242–247.

Watanabe, N. M., Soebbing, B. P., & Watanabe, L. E. (2013). Ticket pricing perceptions in major league baseball: Implications for dynamic pricing strategies. *Sport Marketing Quarterly*, *22*(2), 81–93.

Wei, W., Xu, H., & Zhang, L. (2022). *AI-Powered Personalisation and Customer Satisfaction in Live Sports Broadcasting*. *Journal of Retailing and Consumer Services*, 64, 102802.

Westerbeek, H. (2025). Algorithmic fandom: how generative AI is reshaping sports marketing, fan engagement, and the integrity of sport. *Frontiers in Sports and Active Living*, *7*, 1597444.

Williams, K. R. (2022). The welfare effects of dynamic pricing: Evidence from airline markets. *Econometrica*, *90*(2), 831–858.

Won, D., Chiu, W., & Byun, H. (2023). Factors influencing consumer use of a sport-branded app: The technology acceptance model integrating app quality and perceived enjoyment. *Asia Pacific Journal of Marketing and Logistics*, *35*(5), 1112–1133.

Xu, H., Luo, X. (2019). Understanding AI-based Personalization: An Empirical Investigation. *Journal of the Association for Information Systems. 21*(1), 21-32.

Xu, T., & Baghaei, S. (2025). Reshaping the future of sports with artificial intelligence: Challenges and opportunities in performance enhancement, fan engagement, and strategic decision-making. *Engineering Applications of Artificial Intelligence*, *142*, 109912.

Yadav, M., Choudhury, T., & Luu, T. M. N. (2025). Machine Learning for Enhanced Fan Engagement and Experience in Sports. In *AI and Machine Learning Applications in Sports Analytics*. IGI Global Scientific Publishing, 115–128.

Yim, B. H., & Byon, K. K. (2020). Critical factors in the sport consumption decision making process of millennial fans: A revised model of goal-directed behavior. *International Journal of Sports Marketing and Sponsorship*, *21*(3), 427–447.

Yoshida, M., Gordon, B., Nakazawa, M., & Biscaia, R. (2014). Conceptualisation and measurement of fan satisfaction: Towards a cross-national understanding. *Journal of Sport Management*, *28*(4), 452–469

Yun, J. H., Rosenberger III, P. J., & Sweeney, K. (2021). Drivers of soccer fan loyalty: Australian evidence on the influence of team brand image, fan engagement, satisfaction and enduring involvement. *Asia Pacific journal of marketing and logistics*, *33*(3), 755–782.

Zhao, G., Cui, Y., & Cheng, S. (2021). Dynamic pricing of ancillary services based on passenger choice behavior. *Journal of Air Transport Management*, *94*, 102058.