

The Economic Determinants of Spectator Turnout: An Investigation into Professional Sports Attendance

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Abstract

500 billion dollars. A substantial number of sporting stadiums are built each year around the world and are partially funded by public contributions. This begs the question: what motivates people to attend sporting events? This paper seeks to unlock the key determinants of attendance at professional sporting events. This is done by carrying out a literature review

The global sporting market has grown rapidly over the past decade and is valued at almost and synthesizing the primary findings in the literature on what drives people to attend sporting events. Additionally, this research includes a case study conducted to examine the strategies used by the Paris 2024 Olympics to encourage people from all over the world to attend in person. Overall, preliminary findings suggest that general atmosphere, analysis of and catering to target demographic, and community building are the three most important determinants for spectator turnout.

Keywords: sporting market dynamics; spectator demand economics; determinants of attendance; strategic event marketing

1 Introduction

1.1 Motivation

The global sporting market is estimated to be valued at just under 500 Billion USD and is expected to grow at a rate of 6.1 percent per year for the next 5 years. Additionally, major cities around the world invest significant amounts of time and money to build sporting venues. These venues can last, in some cases, over a century. This creates a reliable, long-lasting, economic stream for cities around the world. Studying the key determinants of turnout to live sporting events can help us view decision-making in other economic environments.

1.2 Methodological Approach

This research attempts to answer the following question: What are the key determinants for attendance at professional sporting events? There are several challenges to investigating spectator turnout at live events. Many factors motivate people to watch sports. This paper will investigate the specific economic determinants for attendance and draw conclusions from the literature. In addition, a case study of spectator turnout at the 2024 Olympics will be used to study the strategies employed to encourage live attendance.

In order to answer the research question, a literature review will be conducted on the subject. This will entail the synthesis of a multitude of papers from journals such as the SAGE Journal of Sports Economics. This research will focus on research studies that use methods such as regression models, ordinary least square (OLS) models, correlation matrices, time series cross-sectional models, PRISMA scoping reviews, and Likert scales. This paper will not choose to focus on one particular sport or country, as most of the conclusions and insights can be drawn from viewing worldwide data. In addition to the literature review, a case study will be conducted on the 2024 Paris Olympics. Economic and attendance data will be used to conclude what drove attendance to these Olympic Games. These findings will be examined to establish more key determinants of spectator turnout.

1.3 Contributions of the Study

This paper has two main contributions to the existing literature, one regarding the literature review and one regarding the case study of the Paris 2024 Olympics. In the literature review, this paper helps contextualize the importance of different determinants of attendance by comparing and contrasting

different sports from different countries. Additionally, this review covers a broad range of timelines, examining whether or not there is significant change over time in the result. The results are also applicable to many sports and not just contextual to one sport. With regard to the case study, the biggest sporting event was used and specific advertising strategies employed by the Olympics were examined.

1.4 Commonly Employed Advertising Methods

The most prominent and successful methods used to maximize attendance at the 2024 Paris Olympics are celebrity endorsements, social media marketing, and effective merchandising. Celebrity endorsements were utilized heavily at the 2024 Paris Olympics. It was found that there was a significant relationship between celebrity endorsement and buying behavior. When questioned, respondents conveyed that they do purchase those products and services, which are endorsed by celebrities. Results show that celebrity endorsement has a reasonable impact on customers as per their attitude and buying intention. Social media marketing was used more at these Olympics than any others, and the results were highly successful. Social media growth drove 300 million visits to the Olympic app and official website during the games. There were over 1.3 million Olympic-related posts on TikTok, an increase over 18 times the magnitude of the Tokyo 2020 Games. For the first time in Olympic history, programmatic advertising was utilized at the games. This lowered the previously high bar required to advertise at such an event. Merchandising was the final key finding from the case study. The Olympic store in Paris received between 10,000 and 15,000 visitors a day during the Games, with an average spending of €100 (US 109.5) per person.

1.5 Key Findings of the Study

The key findings from the literature suggest that catering pricing to one's target demographic is crucial in

ticket sales. Additionally, every sport must have a different pricing approach in order to maximize revenue. General drivers of attendance include fan surveys, general atmosphere, spectator satisfaction, team loyalty, personal relaxation opportunities, and team effect. Creating, analyzing, and marketing to a target demographic is crucial in driving attendance and increased revenues. Developing a positive general atmosphere in the stadium will drive purchasing from fans. Also, it will drive attendance, as fans who had a pleasant experience will be inclined to let others know. Creating a sense of “team effect” is extremely helpful in driving attendance. When someone is part of a community or team, they are much more likely to have increased purchases and attend more games, especially if there is a big sense of “team effect” at such games.

1.6 Background Information

Now, essential background information regarding sporting events and ticket sales will be discussed.

Online vs. In-person Consumption of Sports. Sports are mainly consumed in two ways, online, and in person at large-scale venues. Online, there are many different avenues one can take to watch sports including watching live, watching recorded games after they have taken place, or watching highlights from various games on social media. In-person, sports are consumed by large groups of people who travel to stadiums and watch the game.

Pay-per-view and Monthly Subscriptions. There are usually two ways to view sports online: pay-per-view and a monthly subscription. In pay-per-view, one pays for each sporting event. This form of online consumption is most popular in sports such as boxing, where big fights are less

frequent and have more marketing leading up to them. The other form of online viewing is a monthly subscription. In a monthly subscription, one pays a fee every month in order to have access to a streaming service that has a multitude of live and recorded games. The monthly subscription model is more popular due to the sheer number of games and events available on these streaming platforms.

The Team Effect. The “team effect” is the concept that when a consumer is surrounded by like-minded others, they will be inclined to purchase more and return to more events. This is because the sense of community in the sporting team increases comfortability for the consumer. Additionally, the consumer will feel more connected to the team, increasing their interest in purchasing items such as merchandise or even attending more games in the future.

Stadiums for Hosting Sports. Stadiums are economic powerhouses and can hold tens of thousands of people at maximum capacity. Venues generate income in many ways other than just selling tickets to a sporting event. Some venues choose to rent out their stadium to others, have merchandise for a specific team, sell food and beverages, and charge for parking. Additionally, some stadiums use a concept called capacity utilization. This is the concept that the stadium will adjust how many seats they sell depending on the event or popularity of the team. Some venues choose to sell fewer seats on purpose in hopes that they can decrease supply, increase demand, and therefore charge more per seat. Sometimes, this ends up increasing overall profits for that stadium. Around the world, many major cities have gigantic sporting venues that were built by either private or (usually) public money.

Watching Sports as a Way to Socialize. People may go with their friends and family to these venues. This concept of attending a game with people close to the attendee is important when viewing

attendance. To add, many people have “watch parties” in their homes, which is a common form of socializing through sporting events with others.

The Business of Sports. Sports is quite a large business and is set to grow in the near future. The global sporting market is estimated to be valued at just under 500 Billion USD and is expected to grow at a rate of 6.1 percent per year for the next 5 years. Furthermore, the United States sporting market alone is valued at over 50 Billion USD and is expected to grow at 5.42 percent per year for the next 5 years. Because the sporting market is so large, some of the findings from the literature review and case study can be applied to broader marketing and economic conditions.

1.7 Outline of the Paper

The remainder of this paper is organized as follows. Section 2 discusses the sample selection criteria for the literature reviews. Section 3 discusses the literature review. Section 4 discusses a case study of the Paris 2024 Olympics. Section 5 discusses the key takeaways from the literature and case study. Finally, section 6 concludes and discusses avenues of future work.

2 Methodology

This section discusses the methodology used to perform a literature review and conduct a case study on the Paris 2024 Summer Olympics.

2.1 Literature Review Research Process

The literature review aims to synthesize the most relevant studies that investigate the key determinants of spectator turnout. I searched for keywords related to this topic on google scholar and top general interest economic journals such as the American Economic Review, Journal of Political Economics,

Quarterly Journal of Economics, and the Review of Economic Studies. In addition to published work, I also considered working papers by searching through the NBER employed by academics in the US, and CESifo which is employed by academics in Europe. The search terms included 'sporting attendance', 'marketing for sporting events', and 'spectator turnout'. Next I selected the most relevant studies to include in the literature review based on the following criteria. I selected the studies by first focusing on the most cited papers and the most detailed data analyses. Then I looked at some in-depth literature reviews that viewed larger scale sporting events. I did not choose to specifically focus on one country, but I mainly viewed papers that analyzed results from North America and Europe, with a small part of my research investigating Asia. Additionally, I was able to narrow down the scope of my selection by viewing the abstracts of all of the papers and cross-checking to see how relevant they were as compared to my research question. I also chose to view papers only as far back as 2000 because I believed the information would be more relevant and provide me with a better answer to the research question at hand. This process resulted in 11 papers that were used in this literature review. The main outcomes that I focused on when examining these studies were attendance, spectator satisfaction, and no show rates. The determinants I studied included pricing, capacity utilization, team loyalty, opponent, personal relaxation opportunities, team effect, and general atmosphere.

2.2 Case Study Research Process

The case study aims to analyze a relevant example of spectator turnout at a large-scale sporting event. I searched for keywords related to this topic on various websites such as the official Olympics website, NBC Sports, Paris 2024 Olympic Press, and the official Paris website. The search terms included 'Paris 2024 Olympic attendance', 'Paris Olympic statistics', and 'Paris 2024 ticket sales'. Next I attempted to only focus on the most relevant articles by ensuring that all sources were credible. I researched papers that were mainly from the official Olympics team and the French government in order to ensure this

credibility. Then, I viewed literature that specifically focused on ticket pricing. I found that ticket pricing was one of the most important variables when considering attendance, as the Olympics could only drive prices so high before spectators chose to stop attending events. In addition, I chose to only view papers from 2008 or sooner as they provided the most relevant information regarding this case study. I decided to compare the Paris Olympics with some of the previous Games including Tokyo 2020, Rio 2016, and Beijing 2008. The main outcomes that I focused on from this research were attendance, merchandise sales, and ticket pricing over time. The determinants I studied included celebrity endorsements, social media marketing, low ticket prices, and effective merchandising.

3 Literature Review

3.1 Focuses

This literature review focuses on two different types of determinants of spectator demand for sports:

(i) ticket prices and (ii) non-price factors. Demand is traditionally a function of price, but for sports, there are many other determinants such as team loyalty and competitiveness.

3.2 Pricing Determinants

First, The pricing determinants for sports (i) will be discussed. The first paper viewed on pricing determinants was ((Quansah, Tommy Kweku, Babatunde Buraimo, and Markus Lang (2024) "Determining the price of football: An analysis of matchday ticket prices in the English Premier League," *European Sport Management Quarterly*, 24 (3), 764–784.)). This paper looked at nearly 2000 matches from the English Premier League (the highest level of English football) across four seasons (2015-2019). This paper used various regression models that accounted for the highest and lowest ticket prices, along with using previous data as predictors. From this research, they found that the key determinants of ticket price are the opponent, labor cost, capacity utilization, and local area earnings. Specifically, derby matches increased prices about 11 percent. This makes this result large in magnitude and significant at the $p < 0.01$ level. Then, ((Solanelas, Francesc, Joshua Muñoz, and Josep Petchamé (2022) "An examination of ticket

pricing in a multidisciplinary sports mega-event,” *Economies*, 10 (12), 322.)), which studied 46,000 price points from the FINA World Swimming Championships in Barcelona (2013) was viewed. Logistic regression techniques were used, and an ordinary least squares model (OLS) model was applied to examine the impact of each factor on ticket pricing. It was discovered that catering pricing to one’s target demographic is crucial in ticket sales. As prices were lowered by about 30 percent, sales increased by 53.1 percent. The result is quite large in magnitude and is also significant at the $p=0.0001$ level. Additionally, every sport must have a different pricing approach.

3.3 Non-Pricing Determinants

Secondly, the non-pricing determinants for sports (ii) will be investigated.

United States Sporting Leagues. ((Coates, Dennis and Brad R. Humphreys (2007) “Ticket prices, concessions and attendance at professional sporting events,” *International Journal of Sport Finance*, 2 (3), 161.)) researched multiple United States major sporting leagues. This paper viewed data points including ticket prices, concessions, and parking from Major League Baseball [MLB], National Football League [NFL], and National Basketball Association [NBA] respectively (1990-2001). This paper used a time series cross-section data set along with a generalized method of moments estimator [GMM] in their research. The paper found that higher prices are associated with lower attendance in the MLB and NBA respectively,

but not the NFL. Additionally, a teams’ winning percentage and past attendance also plays a role in determining future attendance, and teams set prices in the inelastic portion of the demand curves. This research led to a need to examine no-show rates (the percentage of people who do not attend the event after purchasing the ticket). To add, each 10 percent increase in the age of a basketball arena reduces attendance by about 0.5 percent. This result is moderate in magnitude and statistically significance at the $p=0.05$ level.

NCAA Basketball. Covering this aspect, ((Popp, Nels, Stephen Shapiro, Jason Simmons, and Ryan Dastrup

(2024) “Examining reported versus actual attendance in college basketball non-conference games: Do scheduling elements make a difference?” *Journal of Applied Sport Management*, 16 (1), 5.) took 964 data points across three seasons (2017-2020) of National Collegiate Athletic Association [NCAA] Division 1 college basketball. The data was collected from 48 schools, and only home non-conference games were used. Additionally, 14 variables were collected besides the raw ticket scan data. Descriptive statistics and a correlation matrix were used to see the normality of the data and variable relationships. Six fixed-effects Ordinary Least Square [OLS] multiple regression models were developed to examine the 14 factors. The data was observed across three time periods, creating a cross-sectional time series. Multiple regression assumptions and multicollinearity were examined, after which reduced final regression models were created. The main finding was that a 37 percent no show rate was reported. This is likely due to the non-use of tickets by season ticket holders or large groups. Interestingly, the home team winning percentage was related to reported attendance, but not actual attendance. It was found that non-use of tickets by either season ticket holders or perhaps groups who receive a large quantity of tickets caused a no-show rate of 37 percent. This result was fairly large in magnitude, with statistical significance at the $p < 0.01$ level.

Meta-Analysis. Continuing, a compiled paper of the existing data on the subject was observed ((Schreyer, Dominik and Payam Ansari (2022) “Stadium attendance demand research: A scoping review,” *Journal of Sports Economics*, 23 (6), 749–788.)). This study collected 195 manuscripts with a total of 2,918 pages from multiple (mostly United States-based) sporting leagues. A PRISMA-ScR approach was used, which was developed by ((Tricco, Andrea C., Erin Lillie, Wasifa Zarin et al. (2018) “PRISMA extension for scoping reviews (PRISMA-ScR): Checklist and explanation,” *Annals of Internal Medicine*, 169 (7), 467–473.)). Additionally, a meta-analysis was collected across all of the data points. As would be conventionally hypothesized, they found that the most popular sports had much more existing research than regional niche sports.

Direct Fan Surveys. Finally, direct fan surveys were recognized ((Nazarudin, Mohamad Nizam, Mohd Firdaus Abdullah, Zakiah Noordin, Nagoor Meera Abdullah, Nur Shakila Mazalan et al. (2023) “Unveiling the stadium turnout: Predictors influencing local spectator attendance in football leagues,” *Journal of Physical Education and Sport*, 23 (12), 3425–3436.)) was a study that surveyed 370 home fans (56 percent male, 44 percent female) regarding a Malaysian football team. A Likert scale examining spectator satisfaction ((Oliver, Richard L. (1980) “A cognitive model of the antecedents and consequences of satisfaction decisions,” *Journal of Marketing Research*, 17 (4), 460–469.)) and team loyalty ((Tsiotou, Rodoula H. (2013) “Sport team loyalty: Integrating relationship marketing and hierarchy of effects,” *Journal of Services Marketing*, 27 (6), 458–471.)) was used. Additionally, the data was analyzed with SPSS 23.0 package software, which used both descriptive statistics and Structural Equation Modelling. This study found that general atmosphere, spectator satisfaction, team loyalty, personal relaxation opportunities, and team effect are the main drivers of attendance in sporting events.

Literature Review Conclusions

If one can increase the comfortability for all consumers, it will likely lead to increases in sales, as was found in ((Nazarudin, Mohamad Nizam, Mohd Firdaus Abdullah, Zakiah Noordin, Nagoor Meera Abdullah, Nur Shakila Mazalan et al. (2023) “Unveiling the stadium turnout: Predictors influencing local spectator attendance in football leagues,” *Journal of Physical Education and Sport*, 23 (12), 3425–3436.)). To continue, one of the most important drivers of attendance was how well the organization analyzed and catered to its target demographic. This concept ties directly to the common economic assumption that when one is selling virtually any product, one must determine a target demographic and attempt to cater to that subset of people in the best way possible ((Solanelas, Francesc, Joshua Mu noz, and Josep

Petcham'e (2022) "An examination of ticket pricing in a multidisciplinary sports mega-event," *Economies*, 10 (12), 322.)). Not only will this most likely increase sales, but it will also create a sense of team effect ((Nazarudin, Mohamad Nizam, Mohd Firdaus Abdullah, Zakiah Noordin, Nagoor Meera Abdullah, Nur Shakila Mazalan et al. (2023) "Unveiling the stadium turnout: Predictors influencing local spectator attendance in football leagues," *Journal of Physical Education and Sport*, 23 (12), 3425–3436.)). This indicates that when one has a common interest with others toward a particular sporting team, they are much more likely to be intertwined with that community of people.

4 Case Study: The 2024 Paris Olympics

This section documents the level of actual attendance relative to the expected initial interest and discusses the advertising strategies that were employed by the 2024 Paris Olympics in relation to the literature on the key determinants of spectator turnout.

In this section, I discuss historical demand for the Olympics, advertising strategies used, and carry out descriptive comparisons of the different advertising methods. However, I do not conduct my own quantitative regression analysis, but rather discuss varying advertising strategies used in the Olympics in relation to the academic literature.

4.1 Historical Demand for The Olympics

I began by studying the historical demand for the Olympic games from 1988 to 2024 (10 events). I gather publicly available data on viewership, ticket sales, and sponsorships for each Olympic event. Figure 1 illustrate the historical demand for olympic events across three different dimensions.

The figure shows that total sponsorship value has drastically risen over the past decade. Additionally, there are slight upward trends in viewership and ticket sales from 1988 - 2024. The most interesting thing about the data collected is that all three categories measured (viewership, ticket sales,

and sponsorship value) reached their highest recorded levels in 2024. This means that the most recent Paris 2024 olympics broke all historical records across all three metrics of demand.

Summer Olympics 1988 - 2024: Gloabal Viewership, Ticket Sales, and

Total Sponsorship Value

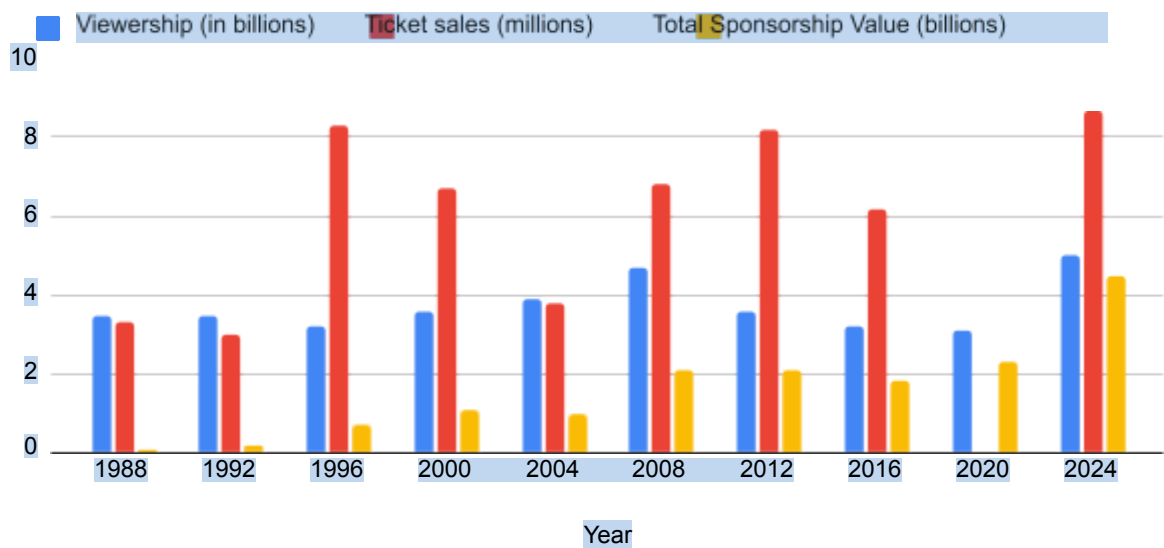


Figure 1: Olympic Viewership, Ticket Sales, and Total Sponsorships Values

This is direct proof that the advertising strategies used in the Paris 2024 Olympics were some of the most effective in history, further solidifying the claims made in this paper. The main limitation of these results is that the population has grown over time, which would naturally lead to increases in all categories measured.

There were a total of 10 million tickets available for purchase for the 2024 Paris Olympics. Out of those 10 million tickets, 9.5 million were purchased. This is the most amount of tickets ever sold at an Olympic games, and it broke the previous record of ticket sales from the Atlanta Olympics in 1996 (8.3 million). Additionally, many individual sporting events broke attendance records in the 2024 Olympics. Most notably, athletics, basketball, rugby 7s, handball, and beach volleyball. The specific popularity of basketball and rugby 7s was due to the French star players in both sports. Additionally, the popularity of

volleyball can be explained by the setting, right next to the Eiffel Tower. It is important to note that the International Olympic Committee (IOC) ranked athletics, aquatics, and gymnastics as the most popular sports respectively. Continuing, the cost of attending the 2024 Paris Olympics was more costly than expected due to factors such as the value of the Euro and the cost of living in Paris. Ticket pricing was very comparable to the 2012 London Olympic Games (when adjusted for inflation). Ticket pricing varied heavily depending on the event. For example, women's gymnastics finals ranged from €125 to €690, while swimming finals had prices as low as €85. Ticket prices also varied depending on whether the sport was men's or women's.

An outstanding example is the men's basketball final tickets compared to the women's basketball final tickets. The men's tickets were sold for €980, while the women's tickets were sold for just €510, a percentage gap of nearly 48 percent. Given the excellent turnout to the 2024 Olympics, advertising strategies employed for this past Olympic season will be examined.

4.2 Marketing Strategies

Secondly, various advertising strategies used at the 2024 Paris Olympics will be discussed.

Celebrity Endorsements. Celebrity features are nothing novel in marketing, but the Olympics chose to heavily utilize this strategy. Most famously, the Olympics included Snoop Dogg, Peyton Manning, Kelly Clarkson, Jimmy Fallon, and Leslie Jones in their campaign. This was the perfect strategy to achieve the objective of drawing a younger audience to the games. Additionally, there was previous research specifically targeting the impact of celebrity endorsements on consumer purchasing. ((Osei-Frimpong, Kofi, Georgina Donkor, and Nana Owusu-Frimpong (2019) "The impact of celebrity endorsement on consumer purchase intention: An emerging market perspective," Journal of Marketing Theory and Practice, 27 (1), 103–121.)) was viewed, which found "attributes such as attractiveness, trustworthiness, and familiarity have a positive influence on consumer's perception of

quality, purchase intentions, and brand loyalty.” Additionally, ((Ahmed, Rizwan, Sumeet Seedani, Manoj Ahuja, and Sagar Paryani (2015) “Impact of celebrity endorsement on consumer buying behavior,” SSRN, Available at SSRN 2666148.)) was viewed, which also concluded that “Physical attractiveness, credibility and congruence of the celebrity with the reference to endorsed advertisement all have an impact on customer perception about the advertised product.” Its additional findings were “There is a significant relationship between celebrity endorsement and buying behavior. Respondents conveyed that they do purchase those products and services, which are endorsed by celebrities. Results show that celebrity endorsement has a reasonable impact on customers as per their attitude and buying intention.”

Social Media. Social media was another vital marketing tool used by Paris in the 2024 Olympics. NBC took 27 creators from various platforms and allowed them to film and tell stories live at the games. This social media growth drove 300 million visits to the Olympic app and official website during the games. The official Olympic social media accounts grew by 32 million followers during the games, which more than tripled the growth seen during Tokyo 2020. TikTok was the busiest platform for the Olympics during the games. There were over 1.3 million Olympic-related posts on the platform, which is a staggering increase of 1,828 percent over the Tokyo 2020 Games.

Additionally, the rules on athletes filming content were adjusted this year, allowing many athletes to grow their personal brands and create natural content at the games. For the first time in Olympic history, programmatic advertising was utilized at the games. This opens opportunities for smaller brands around the world to connect with their target audiences and lowers the previously high bar required to advertise at such an event.

Merchandise. Merchandise was also a key role at the Paris Olympics. The Champs-Élysées megastore in Paris received between 10,000 and 15,000 visitors a day during the Games, with an average spend of €100 (US 109.5) per person. The mascot for the Games, the Phryge, was the most popular purchase in

this megastore, accounting for 30 percent of sales. This is a very intriguing result, as previous Olympic mascots have been disliked.

4.3 Evolution of Marketing Strategies

The previous discussion focused on marketing strategies used in the most recent, and arguable most successful Olympics, the Paris 2024 games. Next, I will discuss the evolution of marketing strategies deployed in the Olympic games over time. First, I will discuss strategies that have been in existence over the past two decades.

Strategies That Persisted. There are a few marketing strategies that have persisted over the past two decades: Television broadcasting, celebrity endorsements, and merchandise sales. Television broadcasting emerged as a critical marketing tactic with the 1936 Berlin Olympics being the first to be televised. This way of broadcasting expanded the Games' reach, highlighted by NBC's 7.75 billion dollar contract extension in 2014 to air the Olympics through 2032. Celebrity athletes and endorsements have become instrumental marketing tools, as evidenced by the 1996 "Dream Team" featuring Michael Jordan and Magic Johnson, which not only dominated basketball but also generated unprecedented global merchandise sales and media attention. Merchandising has

also stayed a substantial revenue stream, with official Olympic merchandise ranging from apparel to collectibles, allowing consumers to further engage with the Olympic brand. These strategies not only generate significant income but also provide a deeper connection between the Olympics and audiences worldwide.

Strategies That Faded. As societies have evolved in their consumption of news and entertainment, certain marketing strategies have naturally faded over time. Historically, one notable example is the Olympics Triplecast during the 1992 Barcelona Games, a pay-per-view service offering extensive live coverage across multiple channels. Despite its ambition, the Triplecast attracted only 200,000 subscribers, falling short of its multi-million subscriber goal, leading to its discontinuation in subsequent Olympics. Additionally, the traditional model of long-term corporate sponsorships has seen changes; prominent Japanese companies like Toyota, Bridgestone, and Panasonic ended their decades-long partnerships with the International Olympic Committee after the Paris 2024 Games, signaling a shift in corporate marketing strategies. Interestingly, another discontinued practice was the use of live-release dove ceremonies, which served as both a symbolic gesture and marketing spectacle from 1920 to 1988, until the tragic incident at the Seoul Olympics where several doves were accidentally killed during the cauldron lighting, leading to the permanent replacement with mechanical or digital alternatives.

New Innovations in Marketing. There are new innovative marketing strategies that have been recently introduced. To begin, social media marketing, first significantly utilized during the 2012 London Olympics with 159 million tweets, has become a cornerstone of Olympic promotion, with the 2020 Tokyo Olympics generating over 280 billion impressions across various platforms. Streaming services have revolutionized content delivery, with NBC's Peacock platform offering unprecedented personalized viewing experiences during the 2020 Games, allowing viewers to choose from multiple simultaneous events and custom camera angles. Virtual reality integration, pioneered at the 2016 Rio Olympics and expanded significantly

for Tokyo 2020, enabled viewers to experience events through immersive 360-degree broadcasts, with over 200 hours of VR content available. Digital sponsorship activations through mobile apps and interactive experiences, non-existent before the 2010s, now generate substantial revenue, as evidenced by the official Tokyo 2020 app reaching over 100 million downloads. The emergence of athlete-driven content marketing through platforms like YouTube and TikTok has created direct-to-fan engagement opportunities, with Olympians like Tom Daley accumulating millions of followers and generating significant sponsorship revenue through personal content creation during the Games. Additionally, real-time data analytics and AI-powered engagement strategies have enabled organizers to tailor marketing efforts dynamically based on audience behavior and preferences.

Implications of These Marketing Strategies: Figure 1 The historical data on Olympic viewership, ticket sales, and sponsorship value reflects a clear evolution in marketing strategies. Traditional television has long been a cornerstone, but recent years have seen a marked shift with the integration of digital platforms and AR, as evidenced by the significant viewership peaks in 2012 and 2024. These peaks correspond with enhanced social media engagement and innovative digital outreach—platforms such as TikTok and Snapchat have broadened global accessibility and fan interaction. Conversely, lower viewership figures in 1996 and 2020 highlight the limitations of earlier marketing approaches and the disruptive impact of the pandemic on live events, respectively. Moreover, the steady increase in sponsorship value over the decades underscores a shift toward dynamic, tech-driven brand partnerships, while fluctuating ticket sales suggest that evolving consumer preferences and the availability of interactive online content continue to reshape how audiences engage with the Games.

4.4 Investment in Olympic Infrastructure

Finally, this study will discuss new additions and stadiums to future Olympic Competitions. Also, the

application of the strategies used in Paris will be applied to future Olympic competitions (Milan 2026 and Los Angeles 2028). Firstly, there will be one new event at the Milan 2026 Games and two new events at the Los Angeles 2028 Games. Ski mountaineering will debut in Milan and flag football and squash will debut in Los Angeles. Secondly, there will be some amazing stadiums in both Olympics. In Milan, the San Siro stadium will host the opening ceremony, with a capacity of 75,000 fans. In Los Angeles, the SoFi Stadium will host swimming events and have a capacity of 70,000. In Milan 2026 and Los Angeles 2028, the goal should be to replicate the massive success seen in Paris 2024. This success can be found by utilizing celebrity endorsements, social media content, and a likable mascot. Additionally, the Games should try and keep ticket prices somewhat low, as was done in Paris when compared to previous Games. This enticed more fans into attending the games and can logically be assumed that this trend will continue at future Games if executed successfully.

5 Discussion of Literature and Case Study

At the consumer level, personal finances, team loyalty, and rivalry with the opposing teams are strong predictors of consumers' interest to attend sporting events. Additionally, many people use sports as a way to socialize with friends and family, and as an opportunity to relax. Whereas on the producers' side, factors such as ticket pricing, cost of labor, and quality of stadium are important factors to attract consumers and provide them with a good quality entertainment experience.

5.1 Predictors of Attendance

From the literature and case study analysis of the 2024 Olympics conducted, three predictors influence attendance the most. General atmosphere, analysis of and catering to target demographic, and team effect. The general atmosphere appeared in many of the works studied, and this is because it has a much wider implication for economics as a whole. A consumer's comfortability about a certain event space,

store, and atmosphere can greatly impact the purchases they make or how long they choose to remain in that venue. If one can increase the comfortability for all consumers, it will likely lead to increases in sales, as was found in ((Nazarudin, Mohamad Nizam, Mohd Firdaus Abdullah, Zakiah Noordin, Nagoor Meera Abdullah, Nur Shakila Mazalan et al. (2023) “Unveiling the stadium turnout: Predictors influencing local spectator attendance in football leagues,” *Journal of Physical Education and Sport*, 23 (12), 3425–3436.)). To continue, one of the most important drivers of attendance was how well the organization analyzed and catered to its target demographic. When one is selling virtually any product, one must determine a target demographic and attempt to cater to that subset of people in the best way possible ((Solanelas, Francesc, Joshua Mu noz, and Josep Petcham´e (2022) “An examination of ticket pricing in a multidisciplinary sports mega-event,” *Economies*, 10 (12), 322.)). Not only will this most likely increase sales, but it will also create a sense of team effect ((Nazarudin, Mohamad Nizam, Mohd Firdaus Abdullah, Zakiah Noordin, Nagoor Meera Abdullah, Nur Shakila Mazalan et al. (2023) “Unveiling the stadium turnout: Predictors influencing local spectator attendance in football leagues,” *Journal of Physical Education and Sport*, 23 (12), 3425–3436.)). This is the concept that when one has a common interest with others toward a particular sporting team, they are much more likely to be intertwined with that community of people. This might cause them to purchase more team merchandise, attend more games, and be more engaged with the team. This concept of creating a community around one’s brand is highly relevant today in the world of economics. Frequently, some brands utilize modern marketing tools such as social media to build communities around their brand. This can also lead to rivalries between brands, which leads to consumers picking a side and further intertwining themselves with the brand and increasing their loyalty.

5.2 Paris 2024 Case Study Findings

From the Paris 2024 Case Study, it was found that the primary drivers of attendance were celebrity endorsements, social media marketing, low ticket prices, and effective merchandising. All of these

strategies have been shown in prior research to be effective in promoting spectator turnout in

other settings. My findings suggest that local sports teams should employ social media marketing, competitive pricing, and effective merchandising to promote live turnout to their events. For larger teams with a big budget, they can also consider celebrity endorsements.

5.3 Contributions of the Case Study

This paper contributes to the overall literature via the literature review the case study of the Paris 2024 Olympics. In the literature review, this paper helps consider how important the various aspects of attendance are by comparing and contrasting different sports from different countries. Additionally, this review spans across many timelines, inspecting whether or not the result changes over time. Because the paper viewed studies across many sports, the results can be interpreted and extrapolated across various sports. In the case study, the largest sporting event was used and specific advertising strategies utilized by the Olympics were examined.

5.4 Limitations of the Case Study

Although the literature is informative about the economic determinants of spectator turnout to live sporting events, there are a few limitations. Firstly, all studies covered employ observational data, and although they try to use a rich set of control variables including demographic and age, there might be unobserved factors that are related to attendance and the key determinants of interest. Many of the papers covered had suggestive correlational evidence rather than definitive causal evidence. As a result, only hypotheses were able to be formed on the key determinants of spectator turnout, and more research is needed to determine whether these aspects are critical. The literature reviewed mostly focused on celebrity endorsements, ticket pricing, and merchandising.

Potential Avenues of Future Research

Regarding future research in this field, more Olympic case studies and independent data analyses should be conducted. The Olympics are arguably the biggest sporting event in the world, and in-depth case studies on past Olympics would contribute at a high level to further advertising conclusions. Additionally, the area of social media marketing was not as heavily studied in the literature. Future research could focus on quantitative analysis investigating the impacts social media marketing on live spectator turnout to sporting events. This would provide a more supported and accurate conclusion, as many negative factors such as suggestive correlational evidence would not be present.

5.5 Correlation vs. Causation

The literature review carried out largely focuses on research papers that are quantitative in nature. Many of them conduct a multiple regression analysis to investigate the key determinants of attendance to sporting events. In the analysis, they control for many other factors that may be correlated to attendance and the key determinant of interest (e.g., ticket price). However, the estimates in the literature must be interpreted with caution. As the key determinants of interest, such as ticket price, are not randomized as part of a randomized control trial, the estimates from the regression analysis can be biased. In my literature review, I cover several research studies using different data that generate similar findings on the key determinants of sport attendance, guarding against the potential of including a false positive in my analysis.

The case study carried out in this paper is entirely descriptive and correlational. Although, it motivates for a quantitative analysis studying the causal effect of particular advertising strategies and their impact on viewership and ticket sales for future work.

6 Conclusion

Consumer and Producer Interests. Consumer interest in attending sporting events is largely driven by personal finances, team loyalty, and rivalries, while social aspects like bonding with friends and relaxation also play a role. On the producers' side, ticket prices, labor costs, and stadium quality are key factors in attracting and retaining spectators by ensuring a high-quality entertainment experience.

Major Predictors of Attendance. The literature and case study analysis of the 2024 Olympics highlight three major predictors of attendance: general atmosphere, effective targeting of demographics, and the team effect. A comfortable and appealing venue can significantly influence consumer behavior and spending. Understanding and catering to a specific audience is crucial for increasing engagement and attendance, while developing a strong sense of community around a team or brand encourages deeper fan investment. This dynamic, often reinforced through modern marketing tools like social media, can enhance consumer loyalty and even create competitive rivalries that drive brand affiliation.

Paris 2024 Case Study. The Paris 2024 case study identified celebrity endorsements, social media marketing, competitive pricing, and merchandising as the primary strategies for boosting attendance. These findings suggest that local sports teams should focus on targeted marketing and pricing strategies, while larger organizations with greater budgets can leverage endorsements to attract a broader audience.

This study contributes to the literature by examining attendance factors across various sports, locations, and timelines, making its findings applicable to a wide range of contexts. The case study approach provided insights into advertising strategies used for one of the largest sporting events, offering valuable takeaways for future advertising efforts.

Limitations and Future Research. However, the research is limited by its reliance on observational data,

which restricts definitive causal conclusions. Many studies provided only correlational evidence, leaving some key attendance factors open to further research. Most of the literature focused on celebrity endorsements, ticket pricing, and merchandising, leaving gaps in other potential determinants.

Future research should expand on Olympic case studies and conduct independent data analyses to refine advertising strategies. Social media marketing, in particular, remains an understudied area, and a more quantitative approach could provide stronger evidence on its impact. Addressing these gaps would lead to more accurate conclusions and improved strategies for maximizing live spectator turnout.

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