

Research on Pricing and Business Models of Sports Event Broadcasting

*Shengbo Zhao**

Beijing Bayi School, 100080, Beijing, China

Abstract. The evolution of broadcasting rights in the era of streaming media has ushered in a transformative phase, characterized by an exponential surge in their pricing. This paper delves into the historical progression of these rights, examining the multifaceted factors that have contributed to this significant escalation. It scrutinizes the business models of sports event organizers, who have traditionally relied on broadcasting rights, ticket sales, and commercial and brand partnerships as primary revenue streams. The trajectory of broadcasting rights' value has seen a gradual ascent, culminating in a sharp increase in recent times. Key determinants of this price inflation include the intrinsic brand value of the events, the dynamics of audience demand, the intensity of competition among media outlets, and the inherent excitement and appeal of the sports events themselves. These elements collectively shape the economic landscape of broadcasting rights, reflecting the interplay of market forces and the growing commercialization of sports entertainment.

1 Introduction

Sports leagues have a high portion of all shows. When competition such as the Olympics is coming, it can create tremendous revenue. All revenue includes broadcast revenue, advertisement, and tickets. Lots of leagues have a long and fascinating history. If the boss of the league wants to keep the league alive. They create a scientific framework and have a good deal about broadcast which creates main revenue.

Tsiotsou analyzed policy and law to point out the regulatory policies of the European Union had a major impact on the sports broadcasting market. The EU as well as national regulatory policies have changed the original trend of sports broadcasting and created a new trend. But currently, there is uncertainty that the EU as well as national regulation has no national impact on the broadcasting market [1]. Michelle proposed that Today's rapid growth of social media usage is a risk for the alliance's licensing network. By applying national laws to the alliance's policies on social media, copyright law can effectively organize the upload of games because uploads are within the copyright law restrictions. Responsibilities were analyzed by DMCA [2]. Bush et al. used a quantitative methodological design Research employing MSM theory to two of the most popular sports activities in Australia Cumulative television ratings do not accurately describe the value generated by the broadcasting

*Corresponding author: zhaoshengbo@ldy.edu.rs

companies. The AFL proved to be structurally superior live streaming, able to broadcast longer in the overall content of the game, account for a larger proportion of the overall ads, and have more time to arrange advertising blocks. Although the advances in this structure, it also has limitations. The framework calculates value in terms of AD exposure and, therefore, allows only relative comparisons between advertisement periods and sporting events [3].

Gustavo took an axiomatic approach formalizing axioms and a game-theoretical approach. The study proposes a model to calculate the income distribution of the broadcasting rights. Both of these rules have the advantage of being different. The first rule distributes broadcasting rights according to the number of fans at the club, and the second one distributes broadcast rights equally. The first rule reflects the club's fan base, and the second prevents the separation of the teams [4]. Chiba used the method that is data statistics to propose foreign players in the NBA gradually increase. The foreign player from the NBA is younger. More foreign players did not have an interview that played with players from American colleges. They currently participate in the choice of NBA. The result of the situation is that the broadcast fees and ticket fees of the NBA are increased. NBA is more international [5]. Chiba adopts the world system as a theoretical framework. Acquire the opinion of three professional leagues by qualitative interview. Chiba points out that basketball changes more internationally because of the internal broadcast of the NBA. Then, the Japanese have their own method to spread culture. European league is focused on cooperation. League in Australia is like NCAA basketball style [6].

Gaustad pointed out that Norwegian Football shows are more popular follow time. Its value also increases quickly. Other sports from Norwegian also had the same tendency. It is because broadcaster increases their level of competition and ability to deliver. Research had a framework to analyze the price which increases [7]. Hammervold and Solberg analyzed the effect of the quality of competition and team to football broadcast. The author pointed out that the number of teams does not relate to the place that fans come from. It relates to grades with teams. Although football competition is popular, it can not ensure that content before content is as popular as competition. The solution is that broadcast companies change the content before the competition. Advertisement is replaced by shows that people are interested in [8]. Kariyawasam and Tsai point out that without reform, the legal uncertainty between live sports rights and unauthorized broadcast rights will remain unresolved for many years to come. The current copyright law regulation prevents the development of new media. The court decided whether live broadcasting infringement did not consider the development of the industry and the progress of The Times. If Australia wants to continue to develop digital media, it needs to amend the copyright law [9].

The research objectives of this paper, following on from the previous study, are to present the impact of streaming technology on the broadcast rights market, as well as the development of photographic technology to enhance the capture of athletes, and for the inclusion of streaming platforms, the copyright law should include streaming platforms as well as the protection of copyright, as well as analyzing some of the models for the broadcasting of sporting events such as verifying the insertion of advertisements. As well as models for calculating the distribution of event revenues to clubs. This research is going to study the law of broadcasting rights prices and the factors affecting them.

2 The evolution of match broadcasting

2.1 Free broadcasting to paid broadcasting

Human beings invented television in the 1920s, established television stations in the 1930s, and in 1936 it was the first time that television broadcasting technology was applied to the

Berlin Olympics based on political purposes. In the beginning stage of television broadcasting, there was no sale of television broadcasting rights, and all television media broadcast sports events as a public resource for free until 1941 when the American Football League first sold the broadcasting rights of its championship finals, creating the world's earliest record of selling television broadcasting rights of sports events. In 1941, the American Football League for the first time sold its championship and runner-up finals broadcasting rights, creating the world's earliest sale of sports events television broadcasting rights record later, in the Olympic Games and the World Cup and other international tournaments to promote, television broadcasting into the paid normative era. 1948 London Olympic Games, the International Olympic Organizing Committee for the first time stipulates that the Olympic Games television broadcasting rights for a fee, marking the Olympic Games sale of television broadcasting rights. officially began. However, due to the IOC's adherence to the non-commercial Olympic ideal at the time, it remained hesitant to market the event's television broadcasting rights. In 1958, the embattled IOC amended the Olympic Charter, particularly in Article 49, which made the following emphasis: the television broadcasting rights shall be sold by the organizing committee of the Olympic Games under the approval of the IOC, and the revenues shall be distributed in accordance with the document. 1954 Fifth Swiss In 1954, the fifth World Cup soccer tournament in Switzerland, FIFA for the first time used television to broadcast the game, which played a role in promoting the development of television broadcasting rights and at this time, one of the world's most popular events in the NBA basketball game for the first time on television, in the 1958-1959 season of the broadcasting fees sold to 39 million dollars, which is a great promotion of the development of the Olympic Games event broadcasting rights. In 1960, at the 8th Squaw Valley Winter Olympics, CBS to 39.4 million dollars to obtain broadcasting rights, which is the Olympic broadcasting history of the first real sense of the sale of television broadcasting rights. Television-paid broadcasting of sports events finally embarked on a formalized track of development (Table 1).

Table 1. Financial performance

£ million (except earnings/(loss) per share)	Twelve months ended 30 June			Three months ended 30 June		
	2019	Restated (1)2018	change	2019	Restated(1) 2018	Change
Commercial revenue	275.1	275.8	-0.30%	66.7	63.4	5.20%
Broadcasting revenue	241.2	204.2	18.10%	40.9	38.8	5.40%
Matchday revenue	110.8	109.8	0.90%	23.8	19.4	22.70%
Total revenue	627.1	589.8	6.30%	131.4	121.6	8.10%
Adjusted EBITDA(2)	185.8	176.8	5.10%	10.9	10.6	2.80%
Operating profit(loss)	50	43.9	13.90%	-22.1	-23.5	6.00%
Profit(loss) for the period (i.e. net income/(loss)) (3)	18.9	-37.6		-22.2	-34.4	-35.5
Basic earnings/(loss) per share	11.48	-22.92		-13.49	-20.95	-35.6
Adjusted profit(loss) for the	39.6	17.2	130.20%	-21.5	-19.5	10.30%

period (i.e. adjusted net income/(loss))(2)						
Adjusted basic earnings/ (loss) per share (pence)(2)	24.06	10.47	129.80%	-13.06	-11.9	9.70%
Net debt(2)(4)	203.6	253.7	-19.70%	203.6	253.7	-19.70%

2.2 Progress in broadcasting technology and increases in broadcasting costs

The paid transfer of television broadcasting rights has entered a new phase. Countries enthusiastically develop paid broadcasting. 1964 Tokyo Olympic Games, the first time through satellite to the world for live broadcast. 1968 Mexico Olympic Games, the first live color television and slow motion film technology. 1976 Montreal Olympic Games, television broadcasting fees soared, as high as 32 million U.S. dollars 1984 Los Angeles Olympic Games, in the bold reforms the Uberrose The 1984 Los Angeles Olympics, under the bold reform of Ueberroth, to take the strategy of increasing the amount of television broadcasts, increase competition, the results of the ABC Broadcasting Corporation with a high price of \$225 million to win the right to television broadcasts, and the Olympic organizing committee to obtain a total of \$287 million in broadcasting fees. The Los Angeles Olympics also became a milestone in the history of the Olympic Games. In the early 1970s, the professional league organized by the National Basketball Association (NBA) in the United States was still a debt-ridden, nearly defunct sports organization. In the nick of time, the NBA Board of Directors elected David Stein, a prominent attorney, as president. Under the vigorous promotion of NBA President Stein, the NBA finally entered into an extremely new era: by the 1980s, the NBA teams the television broadcasting rights fees accounted for 30%-50% of their total revenue

2.3 The price of rebroadcasting fees has soared to its peak

The Olympic Games, the World Cup the NBA basketball tournament to promote, television broadcasting rights have been maximized development, broadcasting fees have risen exponentially. 1988 Seoul Olympic Games, the Organizing Committee of the Olympic Games only television rights fees exceeded four hundred million U.S. dollars, which is the 1980 Moscow Olympic Games, four times. In the Olympic organizing committee's income, television broadcasting fees have become the main economic pillar. Broadcast rights for other international tournaments have also been boosted like crazy.

In short, after more than 70 years of development, the development of television broadcasting rights for major sports events in the international arena has gradually evolved from budding to prosperous, naive to mature, and the television broadcasting rights market system has gradually been standardized and perfected.

3 Current pricing and business model analysis

3.1 Manchester United's source of revenue

The Premier League is a private company wholly owned by its 20 member clubs for matches, central broadcast rights and other commercial rights. The Premier League actively works with its member clubs and other domestic and foreign football authorities, including the CFA,

UEFA and FIFA. Each member club is an independent shareholder of the Premier League and operates within the football rules developed by the various governing bodies. For example Manchester United

Manchester United operates and manages the business of Manchester United as a single reporting division - the operation of professional sports teams. However, Manchester United reviews Manchester United's revenues through three main divisions-Commercial, Broadcasting and Matchday. Commercial: In the commercial revenue area, Manchester United monetizes its global brand through two revenue streams: sponsorship and retail, merchandising, and apparel and product licensing. The main source of revenue in this area comes from sponsorship, which enables highly diversified global companies to engage with Manchester United, both regionally and internationally, to realize the benefits of sponsorship and to associate themselves with the Manchester United brand. Sponsorship: Manchester United monetizes the value of its own global brand and community of followers through marketing and sponsorship relationships with leading international and regional companies around the world. In order to better capitalize on the brand's strengths, Manchester United has developed a segmented sponsorship strategy. Manchester United's sponsorship deals are negotiated directly by its commercial team. Manchester United's sponsors are granted a variety of rights, including: Manchester United's brand and logo, along with other intellectual property, are assets that are licensed for use by sponsors. The club maintains ownership of these assets. In terms of retail and merchandising, Manchester United is involved in the global marketing and distribution of a variety of clothing and products under its brand. This includes sportswear, training gear, casual attire, and other apparel, as well as other licensed items. These are made available worldwide through Manchester United's branded retail outlets, online platforms, and the wholesale networks of its partners. The club has complete authority over how its intellectual property is utilized and monetized in retail, merchandising, and licensing.

Beyond the offerings from Adidas, Manchester United collaborates with several high-end brands to produce co-branded merchandise. As for media rights, the Premier League and UEFA handle their contracts separately from the clubs. The Premier League's media rights are typically negotiated for a three-year term, with some longer agreements in place for certain international markets. These are centrally managed and agreed upon by the Premier League for all member clubs, in conjunction with media distributors.

Regarding matchday operations, Manchester United's home ground, Old Trafford, is a renowned stadium with one of the highest attendance rates in England. Since the 1997/98 season, the club has consistently seen an average attendance rate of over 99% for Premier League matches. A large portion of the tickets is acquired by regular attendees and premium pass holders, who frequently opt to buy their passes covering the entire season prior to the start. Further income on game days is derived from services like food and drink, parking charges, sale of event programs, and a part of the ticketing revenue from club memberships and contests held at other locations. The club's financial gains are also supplemented by the earnings from the affiliated museum and from the participation in domestic cup competitions that take place outside of the home stadium .Old Trafford is also a venue for a variety of other events, such as sports competitions, concerts, and entertainment events, which contribute to the matchday revenue.

3.2 There are several reasons for the price of broadcasting

3.2.1 Demand characteristics of the audience

Therefore, sports organizations and television organizations need to segment the audience to select target markets and make targeted pricing. For example, football, the world, does not

have a good market in the United States. FIFA held both the 1994 Men's World Cup and the 1996 Women's World Cup and sold the broadcast rights, but the results were not satisfactory. In contrast, NBA events cost much more to broadcast.

3.2.2 The wonderful degree of the competition

The wonderful degree of the event itself (competitive level), the number of star athletes, the cultural tradition of the event, etc. The greater the attention of the event itself, the stronger the willingness of the media to spread it, and the greater the bargaining power of the sports event and the media in the transaction process of the Marketing strategies of sports event organizers.

3.2.3 Marketing strategies for sports

Price is also one of the marketing means of modern enterprises. Therefore, the pricing of TV broadcasting rights for sports events is also influenced by the marketing strategies of sports organizations and organizers. Some events that are not held for a long time or plan to enter new markets, in order to quickly gain a foothold in the market, can take the "market penetration" of the low-price strategy. At present, China's economy is developing rapidly, and the potential of the sports communication market is huge. Therefore, the NBA, European Football League and other countries have sold the broadcast rights to CCTV at a lower price. The F1 Grand Prix even gave away the free TV rights to the central bank for eight years.

3.2.4 The brand value of sports

Based on the huge "attention" value of sports events (especially large iconic sports events), the competition among various media in the sales market of broadcast rights of ever and can enable consumers to form a positive consensus and goodwill memory on products or services, and eventually form a solid impression in the minds of consumers. Good brand effect can promote the audience's purchase desire and reduce the purchase risk, and can get the experience of emotional value from the brand attributes. The brand value of sports events can be evaluated from three aspects: credibility, popularity and reputation is becoming increasingly fierce. This is the rise in TV rights transfers for the Olympic Games and other games communication.

4 Expectation

4.1 On the economic side

On the economic side, with the development of the Vr Technology. New platforms will emerge in the future. People can watch sports events like the Olympics and the NBA not only on TV but also on their VR glasses. This means that companies that manage sports events can not only sell the rights to major TV stations but also sell the rights to companies that produce new VR glasses. This will increase the revenue from broadcasting rights. It will also make the company more conscious of copyright protection. It will also promote the secondary distribution of broadcast rights. Because of the increased number of competitors, the price of broadcasting rights will also rise. And with the increase in the company of VR, it will also increase the popularity of having some sports events. This will lead to an increase in revenue for each event, which can be better for the operation of the event. This will lead to an increase in the salaries of the athletes.

4.2 Technology

In terms of technology, with the continuous advancement of photography, the camera will capture clearer images of the athletes' game such as shots and shooting movements. It will enhance the overall sensory experience of the game. It will increase the number of people watching the event live.

4.3 Law

On the legal front, with the rise in the number of live-streaming mediums, the theft of live-streaming rights will increase. The legal department will improve the law on the protection of retransmission rights. Live streaming software will be included in the scope of legal protection of copyright. This will maximize the protection and stability of the broadcasting rights market.

4.4 In terms of user experience

The video of the live broadcast can be played in VR glasses, which enhances the experience of the audience watching the sports event, so that the audience's senses receive greater stimulation, the audience has an immersive feeling so that the audience can better appreciate the athletes shooting and shooting action. Maintains the same convenience as live mobile phone broadcasting [10].

5 Conclusion

This paper as well examines the history of live streaming of sporting events from the early to mid to late stages and examines the business model of sporting events concerning revenue streams as well as the elements that influence pricing. It is found that the broadcasting right has changed from the invention of television and the invention of broadcasting stations at the early stage, the unpaid broadcasting has become paid broadcasting, the technology of broadcasting has been improved in the middle stage, and the price of broadcasting right has been increasing to the price of broadcasting right has been increasing in the late stage, and with the development of science and technology, the streaming media has become a new platform for the broadcasting of sports events. Business Model: Taking Manchester United as an example, it analyses the three sources of income of the Manchester United team: commercial, broadcasting rights and match day. It also analyses the factors that determine the pricing are the demand characteristics of the audience, the good brand value of the sports event, the marketing strategy of the sports organization, the level of competition in the media and the excitement of the sports event itself. Based on this result, it can be studied in the future with the development of VR glasses such as Apple's Air Vision Pro, the emergence of new platforms for live broadcasting of tournaments, the emergence of platforms will have an impact on the price of broadcasting fees

Reference

1. R. Tsiotsou, The Effect of European Union Regulations on Marketing Practices: The Case of European Football Broadcasting Rights. *Journal of Euromarketing*, 15(1), 75–93 (2006) https://doi.org/10.1300/J037v15n01_05

2. R. H. Michelle, Sports Leagues' New Social Media Policies: Enforcement under Copyright Law and State Law, *Columbia Journal of Law and the Arts*, 34.3: 457-490 (2011)
3. H. Fajak, S. Frawley, S. Bush, Quantifying the value of sport broadcast rights. *Media International Australia*, 164(1), 104-116 (2017)
<https://doi.org/10.1177/1329878X17698051>
4. B. Gustavo, D.M. Juan, Sharing the Revenues from Broadcasting Sport Events, *Management Science*, 66.6: 2417-2431 (2020)
5. C. Naoki, Globalisation and management of the National Basketball Association since the 1980s, *International Journal of Sport Management and Marketing*, 11.3/4: 143-157 (2012)
6. N. Chiba, The glocalization and management of professional basketball leagues: the Euroleague, National Basketball League of Australia and bj-league of Japan. *Asia Pacific Journal of Sport and Social Science*, 4(2), 134-143 (2015)
<https://doi.org/10.1080/21640599.2015.1077576>
7. G. Terje, The Economics of Sports Programming, *Nordicom Review*, 21.2: 101-113 (2000)
8. S. H. Arne, H. Randi, Sport Broadcasting: How to Maximize the Rating Figures, *Trends in Communication*, 12.2: 83-100 (2019)
9. K. Kanchana, T. Matthew, Copyright and live streaming of sports broadcasting, *International Review of Law, Computers & Technology*, 31.3: 265-288 (2017)
10. W. Ethan, O. Joshua, M. Mouayad, Z. Nasif, S. Prithul, G.L. Andrew, et al. The future of ophthalmology and vision science with the apple vision pro. *Eye* (2023)