Play-In Turnuvası ve Yeni Draft Kuralı Sonrası NBA'de Rekabetçi Denge

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Öz

Spor ligleri, talebi ve gelirleri etkilediği için rekabetçi dengenin korunmasına büyük önem vermektedir. NBA, ligi daha rekabetçi hale getirmek, talebi artırmak ve ekonomik konumunu güçlendirmek için player draft (sıralı oyuncu seçimi) politikasının bir yan etkisi olan bilerek maç kaybetme (tanking) sorununu çözmeye çalışmaktadır. Bu amaçla; NBA, draft kurası (draft lottery) kuralında değişiklikler yapmış ve play-in tunuvasını (play-in tournament) başlatmıştır. Bu araştırma, NBA sonuçlarını inceleyerek ve bağımsız örneklemler t-testi kullanarak bu iki yeni politikanın etkisini değerlendirmeyi amaçlamaktadır. Sonuçlar, zayıf takımların düzenlemelerin uygulanmasından bu yana ortalama olarak daha fazla galibiyet elde ettiğini göstermektedir. Ancak, bununla birlikte, sonuçların çoğu istatistiksel anlamlılığa ulaşmamıştır, bu da yeni düzenlemelerin etkili olduğunun henüz kanıtlanmadığını göstermektedir. Düzenlemelerin görece yeni olduğunu, ekonomide yeni politikalara uyumun zaman alabileceğini ve etkisinin zamanla daha belirgin hale gelebileceğini not etmek önemlidir. Bu nedenle çalışma, daha güvenilir sonuçlar elde etmek için sonraki sezonlarda tekrar araştırma yapılmasının değerli olacağını düşündürmektedir.

Anahtar Kelimeler: Spor Ekonomisi, Spor Yönetimi, Rekabetçi Denge, Play-In, Playoffs

Competitive Balance in NBA After Play-In Tournament and New Draft Rule

Abstract

Sports leagues place significant importance on maintaining competitive balance as it impacts demand and revenues. In the case of the NBA, efforts have been made to address tanking, a consequence of the reverse order player draft, in order to foster more competitive league, increase demand, and strengthen its economic position. The NBA implemented changes to the draft lottery rule and introduced the play-in tournament with the goal of improving the win rates of underperforming teams. This research aims to assess the impact of these modifications by examining NBA results through a quantitative study and utilising independent samples t-test. The findings indicate that weaker teams have achieved a higher number of wins since the implementation of the regulations. However, most of the results did not reach statistical significance, suggesting that the new regulations have not yet proven to be effective. It is important to note that the impact of these regulations may become more evident over time. Therefore, the study suggests that conducting further research in subsequent seasons would be valuable in order to obtain more reliable results. By doing so, a deeper understanding of the effectiveness of the regulations and their potential long-term implications can be gained.

Keywords: Sports Economics**,** Sports Management, Competitive Balance, Play-In**,** Playoffs

1. Introduction

Sports economics offers a distinctive perspective on competition. While monopolisation boosts business profitability in other industries, it may have the reverse effect in the sports sector. Sport is an activity that can only be established by the presence of rivals; consequently, any sport team requires competitors. It is widely acknowledged that less inequality, or in other words, more competitiveness among teams attracts more attention. According to the "Uncertainty of Outcome Hypothesis", the more unclear the results of matches or tournaments are, the greater the interest and demand, and consequently, the revenues for all participating teams.

The US and European models of sports employ significantly different approaches to ensure competitiveness in general. While the European leagues do not regulate the market, the major US leagues have various policies in place to reduce inequality. The National Basketball Association (NBA) applies the reverse order player draft policy. It is one of the most effective competitive balance regulations, under which the previous year's most unsuccessful teams are given priority in recruiting the best new players to enter the league. The goal here is to keep the same teams from dominating the league in order to maintain demand fan enthusiasm.

The reverse order draft system does, however, have a side effect: because the NBA is a closed league, teams that place last in the standings are not relegated to a lower league. As a result, lower-ranked teams, with little chance of winning the championship or making the playoffs, may deliberately lose games in order to finish the season in last place and choose the best player. This is referred to as "tanking". The NBA has revised the draft rule multiple times in an attempt to discover the optimum regulation to prohibit this behaviour in lower-ranked teams. The most recent alteration was implemented in 2019 with a view to decrease the likelihood of the last-placed team selecting the best player in the draft lottery.

Leagues also alter the league structure as a further strategy for reducing tanking and boosting competition. The NBA established a new tournament format, the play-in tournament, a year after the last draft lottery modification to better motivate the mid-bottom teams. Before 2020, when the regular season ended, eight of 15 teams in each conference could advance to the playoff stage, while the season would end for the remaining seven teams. As a result, the ninth and tenth-place teams in each conference were granted an additional chance to qualify for the playoffs.

The aim of this study is to determine whether the changes applied to the two aforementioned policies increased the success of the lower-ranked teams. In other words, it is to consider their impact on the competitive balance. The economic significance of this review is based on the assumption that increasing competition can potentially enhance demand and revenues.

2. Theoretical Framework

The content of the study can be categorised within the framework of the competitive balance theory. Competitive balance is one of the key concerns in sports economics since it examines and measures inequality among teams. There are two types of empirical literature on competitive balance: one based on the analysis of competitive balance (ACB), the other on uncertainty of outcome hypothesis (Fort and Maxcy, 2003). The former is concerned with how inequality evolves over time or how new regulations affect it. The latter examines the impact of competitive balance on fans and demand.

There is also further taxonomy under the ACB literature: concentration (or win dispersion) and dominance (or performance persistence) (Gerrard and Kringstad, 2022). Level of concentration reveals the difference in wins between teams over the course of a season, whereas level of dominance reveals whether champions vary over decades (Ramchandani, Plumley, Boyes and Wilson, 2018).

In theory, the draft policy effects competitive balance; including concentration and dominance levels. When there is stronger incentive to finish the league with fewer wins, the disparity in win percentages within the league may increase and weaken the competitiveness factor (Soebbing and Mason, 2009). The policy may, on the other hand, prevent the same teams from winning the league.

The NBA has been trying to develop the optimum draft rule to reduce the tanking behaviour, altering the proposed directive multiple times as a result. While it did not assess the competitive balance after these changes, studies have been conducted to investigate the relationship between the policy and tanking. Taylor and Trogdon (2002) examined the results of NBA games under three different draft rules (Taylor and Trogdon, 2002). They concluded that when the league adopted a weighted-lottery policy, eliminated teams exhibited the tanking behaviour, whereas under an equal chance draft lottery format, there was no significant difference in performance of playoff and non-playoff teams. Price et al. (2010) expanded the analysis by Taylor and Trogdon (2002) to include a fourth entry draft, and they found that NBA teams were more likely to intentionally lose games in the last weeks of the regular season when the draft rules currently in force offered the largest incentives (i.e. highest probability of choosing best players in the following season) for the losing teams (Price, Soebbing, Berri and Humphreys, 2010).

Since these studies were undertaken, new policies have been introduced. First, the proposed rule had a minor revision in 2019; previously in the draft lottery, the three worst teams had 25%, 16%, and 16% chance, respectively; now, they are each at 14% (NBA, 2023). Second, the play-in tournament launched in 2020, improving the odds of teams finishing in the bottom ranks of qualifying for the playoffs. While the top six teams in conferences advance by default (as opposed to the previous system's eight), the next four compete for the remaining two qualifying spots. In theory, it may therefore have an effect on competitive balance within season and tanking behaviours because it enhances the incentive for teams to finish ninth or tenth, rather than forcing them to strive to lose in order to select the best players the following season.

Thus, the purpose of this study is to contribute to the existing literature on the subject by analysing relevant data and determining whether these upgrades have boosted the number of wins among the lower-ranked NBA teams.

3 Data Analysis

The NBA, like any other North American league, uses the player draft rule to maintain competitive balance. The player draft is a mechanism for allocating the best new players to the previous season's weakest teams. The NBA has revised the rule multiple times. In some years, the first pick was given to the weakest team outright. This right is currently conferred by a lottery known as the draft lottery. The system is designed in such a way that the team with the lowest record has the highest probability of earning the right to first pick.

The 2019 draft saw the most recent alteration. Prior to that, the weakest team had a 25% probability of winning the right to first pick. The lottery determined the top three picks, out of which two other teams had 16% chance each. The rest of the picking order was determined by the inverse order of the remaining teams' win-loss record. The team with the worst record would therefore select no later than fourth.

Under the current system, the bottom three teams each have a 14% probability of securing the first pick. The lottery now chooses the top four picks instead of the previous three; therefore, the team with the worst record selects no lower than fifth.

The NBA has featured 30 teams since the 2004–2005 year. The league is organised into two conferences, each with 15 teams: the Eastern Conference and the Western Conference. Each team plays 82 games, and at the end of the season, the eight most successful teams in each conference progress to the next stage, the playoffs.

The rules for participating in the playoffs in the 2019-2020 season have changed. Under the current structure, six teams automatically qualify for the playoff tournament. The seventh, eighth, ninth, and tenth-place teams compete in a "play-in" tournament to determine the final two teams to qualify for the playoffs.

Below, we attempt to determine whether these changes have had an impact on the success of the lower-ranked teams. To assess the effect of the play-in, the win-loss records of both conferences' 11th and 12th teams were evaluated. To measure the impact of the new draft lottery, the league's three weakest teams, the 28th, 29th, and 30th, were examined.

The first table displays the change in the number of wins for the teams that finished 11th and 12th in both conferences. The data for the previous 15 seasons (2004/2005 - 2018/2019) prior to the introduction of the play-in tournament is referred to as "pre play-in". The four seasons (2019/2020 - 2022/2023) that have been played since the introduction of the play-in are referred to as the "post play-in". Descriptive data reveal that the number of wins for all four teams increased in the post-play-in period, particularly for the teams that placed 12th.

Independent sample t-test findings for the Eastern Conference's 11th-place team ($t(17)=-1.253$; $p=0.227$), the 12th-place team ($t(17)=-1.091$; $p=0.291$), and the Western Conference's 11th-place team ($t(17)=-0.663$; $p=0.516$) did not achieve statistical significance. It was, however, statistically significant for the Western Conference's 12th-place team ($t(17)=-1.802$; $p=0.089$).

Table 1. Change of the Number of Wins of the Mid-bottom Ranked Teams

	Number of Wins (Pre Play-In)	Number of Wins (Post Play-In)	Variance (Pre Play-In)	Variance (Post Play-In)	p-value	t-value
East Standing 11	31,77	33,76	6,09	17,02	0,2274	-1,2525
East Standing 12	29,62	31,71	10,15	18,10	0,2907	-1,0906
West Standing 11	34,58	35,83	12,53	4,76	0,5162	-0,6630
West Standing 12	30,75	34,42	13,84	9,30	0,0889	-1,8046

Kaynak: Yazarlar tarafından oluşturulmuştur.

The second table displays the change in wins for the whole league's 28th, 29th, and 30th-place teams. The data for the 14 seasons (between 2004/2005 and 2017/2018) prior to the introduction of the the new draft lottery rule is referred to as "pre new draft". Since then, there have been five seasons (between 2018/2019 and 2022/2023), and this time frame is named as "post new draft". The number of wins for positions 29 and 30 grew in that period, while the number for positions 28 decreased, according to descriptive data.

However, none of them had statistically significant independent sample t-test results: the 28th-place team (t(17)=0,243;p=0,811), the 29th-place team (t(17)=-1.091; p=0.291), and the 30th-place team in the league (t(17)=-1,114;p=0,281).

Table 2. Change of the Number of Wins of the Lowest Ranked Teams

	Number of wins (Pre New Draft)	Number of wins (Post New Draft)	Variance (Pre New Draft)	Variance (Post New Draft)	p-value	t-value
NBA Standing 28	22,86	22,46	11,8613	4,56607	0,8110	0,2428
NBA Standing 29	20,20	21,95	9,14655	3,34981	0,2464	-1,2004
NBA Standing 30	16,26	18,46	18,1102	1,9157	0,2807	-1,1142

Kaynak: Yazarlar tarafından oluşturulmuştur.

4. Conclusion

By conducting this study, we aimed to assess the impact of the policy updates on competitive balance in the NBA league by examining whether underperforming teams were incentivised to improve their win rates. Our analysis indicates that, since the policies were implemented most of the mid-bottom and bottom teams have had better win-loss records, however, most of these findings, except for the 12th club in the Eastern Conference, lack statistical significance at this time. This suggests that, as of now, no verifiable impact has been achieved.

It is important to note that the new regulations have only been in place for a relatively short period of 4-5 years, and no specific timeframe was established for their effectiveness. It may require additional time for teams to adapt to these measures, particularly if they had pre-existing long-term strategies. Another factor to consider is that in some years since the updates, the availability of elite players to weaker teams through draft picks may have inadvertently supported tanking as a more appealing game plan.

To obtain more reliable results, further research over an extended period is necessary. This future analysis can comprehensively explore the economic implications of the regulations by evaluating potential changes in demand, revenues, and other relevant factors. By doing so, a deeper understanding of the long-term effects and overall effectiveness of the regulations can be gained.

References

Fort, R. and Maxcy, J. (2015). Competitive Balance in Sports Leagues: an Introduction. Journal of Sports Economics, 4(2), 154-160. doi.org/10.1177/1527002503004002005.

Gerrard, B. and Kringstad, M. (2022). Multi-Dimensionality of Competitive Balance: Evidence from European Football. *Sport Business and Management An International Journal*, 12(4), 382-402. doi.org/10.1108/SBM-04-2021-0054.

NBA, (2023). NBA Draft Lottery: Odds, History and How it Works (accessed 18 May 2023).

Price, J., Soebbing, B., Berri, D. and Humphreys, B. (2010). Tournament Incentives, League Policy, and NBA Team Performance Revisited. *Journal of Sports Economics*, 11(2), 117-135. doi.org/10.1177/1527002510363103

Ramchandani, G., Plumley, D., Boyes, S. and Wilson, R. (2018). A Longitidunal and Comparative Analysis of Competitive Balance in Five European Football Leagues. *Team Performance Management*, 24(5/6), 265-282. doi.org/10.1108/TPM-09-2017-0055.

Soebbing, B. P. and Mason, D. S., (2009). Managing Legitimacy and Uncertainty in Professional Team sport: the NBA's Draft Lottery. *Team Performance Management Journal*, 15(3/4), 141-157. doi.org/10.1108/13527590910964928.