

The Study of Impact of the Development of the “Small-Ball Era” in the NBA on Traditional Center Position

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Abstract: In around 2015, players like Stephen Curry and Damian Lillard really do change the league and change the way everybody treat the game. Their extraordinary three-point abilities push the league to gradually become smaller and to some extent change the role of the modern center compared to the traditional one. Overall, this essay is mean to help team and individual players to get advantage from the Small-Ball Era, and this study is going to go through the data from the previous years before the 2015 and also data from recent years from the official NBA Stat website and compare the difference happened between traditional center and modern center, then give suggestions to help players improve their ability within this context and make them more competitive logically. Overall, it was easy to find that the three-point attempts and field goal percentage were both increased with slight decrease in their overall defensive data, but their perimeter defense abilities have dramatically improved compared to traditional centers. Some centers also develop the ability to pass the ball, which provide good spacing on the court. Centers need time to improve their three points abilities and court viewing to create score opportunities, and teams need to base on their current situation to draft players.

Keywords: Small-Ball Era, Three-point attempts, Usage Rate per 100, Net Rating, Opponents Three-point Percentage.

1. Introduction

The “Small-Ball Era” had a significant impact on basketball which completely changed the way players and teams consider the game: teams emphasize versatility, speed, and skill over traditional height and strength. By replacing the conventional center, teams create more floor spacing and more scoring opportunities. With the smaller size of the players, the switchable defense becomes one of the advantages that help the teams to keep their defense ability at a high level. Versatility playstyle challenged the defense advantage of traditional centers which they will more often face smaller players who have shooting ability and can break through their defense. In this case, the most position affected by the “Small-Ball Era” is centers [1]. This study is meant to analyze the detailed impact of the “Small-Ball Era” on traditional centers and compare traditional centers with modern centers, and the conclusion drawn from this study can help individual players and teams to better follow the trends of playing smaller. The study will use case studies to analyze some specific players for traditional centers and modern centers. Specifically, the study will first provide detailed information and the general impact on basketball of the “Small-Ball Era,” and then give a detailed analysis and

comparison between traditional centers and modern ones. In the end, the study will provide suggestions to individual players and teams to adopt the “Small-Ball Era.”

2. The Definition and Impact of “Small-Ball Era”

2.1. Introduction of “Small-Ball Era”

The Small ball strategy means that teams would play without traditional centers and play at a faster pace, which indicates that the size of the players is becoming smaller. Centers will normally be replaced by another power forward or small forward, which means that teams abandon the height and some defense and use speed and ball processing to get an advantage in the offense. This strategy first appeared in Phoenix Sun in the mid to late 2000s and was developed by coaches like Don Nelson who led the Golden State Warriors (GSW) to beat the Dallas Mavericks and reached the climax in GSW, which was led by Steve Kerr, in 2017 [2].

2.2. The Impact of “Small-Ball Era” on Basketball

The instantaneous change in basketball play style does strike the coaches and players who stick to traditional basketball. In this case, some coaches respond to the small ball trend they replace the big man in line up with smaller and faster players to acquire more space and speed. The average defense level has dramatically decreased under this context and teams win by their offense instead of defense [3]. Also, guards became more popular when drafting; in contrast, the spots for centers are gradually decreased. Moreover, three-point ability becomes a crucial factor when assessing a player’s ability, and three-point attempts have significantly increased recently [4]. In addition, the playstyle gradually switches from isolation to team basketball, which requires more ball passing and fielding ability. Accordingly, the team system leader becomes smaller, compared to the traditional center isolation system.

3. The Change and Development of Centers in the “Small-Ball Era”

3.1. Detailed Analysis of Centers

The center position is the tallest and strongest position on the basketball court, and its main responsibilities are scoring in the paint, rebounding, blocking shots, and setting screens [5]. Back to the end of the 20th century, the centers dominated the league. The team with the greatest center was thought to be the most competitive that year. But the center-dominated situation was challenged by the small ball strategy that centers were slowly weeded out in the lineup. On the offense side, due to their lack of mobility and squeeze for space, the existence of centers in the lineup will dramatically slow down the offense pace of a team. For example, Brook Lopez, who was a 7-foot center drafted in 2008 and used 12.77s on the lane agility test in draft combine, may need to take much longer time to transition between offense and defense compared to guards, and under the small ball era context, this disadvantage will be significantly magnified. Opponents can take advantage of a number of attackers when switching from defense to offense. On the defense side, centers do have advantages in protecting the rim, but once the opponents use the screen to put the centers to the perimeter to defend the small, it will become difficult for centers to stop them from scoring because they can break through by their speed or shoot based on their three-points ability. For example, the 2015-2016 data showed that Kevon Looney, a typically traditional center, had 64.7 on OPP 3P% (Opponent Three Point Percentage), which directly reflect that the opponents’ guards can easily score on the big man. Whatever, centers became less useful under the small ball trend, but it does not mean that team do

not need centers. Most of the team will still leave a place for centers only for some specific situations, like getting offensive rebounds and creating second opportunities for other players.

3.2. The Comparison Between Traditional Centers and Modern Centers

Table 1: comparison between traditional centers and modern centers.

	David Robinson	Lauri Markkanen	Difference
NetRtg	12	3.8	-8.2
USG%	23.9	25.9	2
%FGA 3PT	0.2	44.6	44.4
%PTS PTP	47.5	40	-7.5
ISO Freq%	-	4.5	4.5

Date back to the 1980s to the 1990s, a huge development happened on the center position. Each team had extremely addressed the offensive and defensive importance [6]. For example, David Robinson, an All-Star traditional center who played in San Antonio Spurs in 1998-1999 season, achieved a net rating of twelve (Table 1). This data represents that he could get over 12 points more than his opponents in every 100 possessions, which means that he play an important role in both the offensive and defensive side. He also had 23.9 on usage rate, which was the 13th place highest center that year. Interestingly, for the offensive side, 99.8% of field goal attempts was two-point and only 0.2% was three-point, which were missed, and 47.5% of points were scored in the paint. For the defensive side, he could get 20.7% of defensive rebounds per game and 50% of block for the team when he was on court. Moreover, he could restrict the opponents points in the paint to only 21.2 points per game. These defensive data were even better than Tim Duncan, who is an eight-time all-defensive first team player and known to be the greatest defender in the league. But after the small ball trend affected the league, modern centers have already adapted to the “Small-Ball Era.” They have developed shooting, mobility, and switching defense abilities which make them look like a power forward even small forward compared to traditional ones. Moreover, their play styles have already changed. Lauri Markkanen, for example, a one-time All-Star player who has an average usage percentage of over 20 throughout his career and thought to be a competitive shooting modern center, had a 3.8 net rating in 2022-2023, which also shown some problems in his defensive side. Dramatically, he had 7.7 three-point attempts that season and a three-point field goal percentage of about 40, which was even higher than some of the guards in the league. Moreover, his three-point frequency was about 44.6%. Compared to the traditional centers’ three-point frequency, it is obvious that modern centers prefer to take more three-point shoot and do get improvements on the shooting skills. This trend can also be seen from the points in the paint that only 40% of his points were scored in the paint. Even this data does not drop dramatically, but the three-point attempts frequency do show that modern centers are more wiliness to take three-point. From the defense perspective, Markkanen only occupy 16.7% of the team’s block, but he does play key role in perimeter defense. When he doesn’t defense opponents, the opponents’ three-point percentage is 36.1; while he defenses, the opponents can only have a percentage of 34.7, which directly reflect that he is about the average perimeter defense ability. In addition, Markkanen only have 4.5% of time play isolation in the game, which means that he plays within the team system. He may need to set screens or cut in the game, which also shows that he adapts the small ball strategy, and he has solid position in the league nowadays.

4. Suggestions for Players and Teams

4.1. Adjustments and Training Suggestions for Players

There is a perfect example for centers to change their playstyle and adapt the small ball strategy. It is considered that Brook Lopez, who is mentioned in the middle part of the study, has not weed out of the league as the study mentioned; instead, he successfully transformed his playstyle and became an important part member of the Milwaukee Bucks, which was the Champions in 2021. In fact, he is known to have a soft feeling of shooting that allows him to score instead of drive into the paint, which gives him an advantage to quickly improve his shooting ability. But his three-point field goal percentage sharply increased in around 2015. Before this time, he never made a three-point shoot, and after 2015, he can have an average of 35% of the three-point field goal. In addition, his points in the paint have dramatically decreased these years, from an average of eleven points to around 6 points. An obvious opposite relationship between three-point attempts and time and two-point attempts and time can be seen from the data. Change in the playstyle also affects some of his defensive data, like rebounds, which dropped from around 8 in his rocky years to an average of 5 these years. In this case, these data can draw the conclusion that centers need to develop the ability to shoot and improve their ability to switch between various positions. They need to change their traditional standing positions and accept the truth that they may not always be the finishers in the team. To be specific, to stay in the NBA, he began to take three-point shots in Brooklyn. With the increase in three-point percentage, his outline threats had dramatically improved in Bucks, and this advantage gave him a high level of tactics position. For example, when Giannis, the finisher and team leader of the Bucks, drives into the paint, defenders may leave Lopez on the outside and stop Giannis from easily scoring and create perfect space for Lopez to shoot. In this case, he could easily score on the three-point line with a high field goal percentage. On the other hand, when he is handling the ball, the defenders may pay more attention to him and leave a space for Giannis or Jrue Holiday, the strongest defensive elite in the team, to cut into the paint and score [7]. Both cases show the opportunity that a spacing center can provide, which creates an easy scoring chance to help the team win more games without intensive physical output. Overall, centers need to improve their shooting ability, defensive agility, and ball-passing ability. The shooting practice is like an accumulated process over a long period. Players need to shoot as much as possible and feel the feeling when making shots; also, trainers can record videos when players practice and provide advice to help them change their shooting positions and to help them shoot properly [8]. When players build a solid foundation of shooting, trainers can apply some stress when they shoot, like putting defenders on them, to help them improve their shooting decisions. Finally, trainers can simulate in-game situations to help them find better positions or create better space for the team finishers, and practice shooting under fatigued situations. For the improvement of defensive agility, players can use diversified speed training programs to improve the ability to react, and there are some other training programs that could be used like Zig-Zag Drill and Defensive Slides to improve defensive agility [9]. Finally, for the ball-passing ability, players need to catch the timing of passing, and then practice the accuracy of passing balls. Passing balls may cause opportunities for turnover, so besides easily hitting the target, the players need to practice under real-game situation to accumulate the experience when passing the ball. As a center, they do not need fancy passing but only master the chest pass and overhead pass. Next, to better pass the ball to the right position at the right time, players need great court vision. They can improve this ability by analyzing in-game situations, by making crucial decisions within different specific situations.

4.2. Drafting Strategy for Teams

After the league entered the “Small-Ball Era,” young athletes have already developed under the small-ball strategy. Coaches in many universities addressed the importance of shooting, they also prefer players with high ball-handling ability and defensive agility. Players with great three-point accuracy and perimeter defense, so-called “3D players”, are always welcome to all the coaches. For example, Paul George was drafted as the 10th overall pick by the Indiana Pacers in 2010. He could make 41.1% of the three-point in the 2020-2021 season and 11.3 for the net rating which clearly shows that he is capable of being a “3D player”. These kinds of players are important to every team is because they do improve the teams’ overall defensive levels that they abandoned by replacing the traditional centers while keeping the overall pace and shooting performance. It is also important for coaches to understand what kind of players they need to improve their overall performance. If a team only consists of superstars in the league, which can be seen in international games like the Olympics, it is difficult for coaches to regulate every player because all superstars need to switch their roles within the new team. For example, Tyrese Haliburton, the leader of the Indiana Pacers, could only be abandoned by coach Steve Kerr in the Olympics. So, it is crucial that coaches need to know what they need to improve the team, instead of drafting the best player every year. For instance, Draymond Green, picked in the second round by GSW, became one of the most important players that helped GSW become the champions. His defensive strength and court vision directly benefit the “splash brother” which they can give the ball to Draymond and do off-ball moving to get rid of the defenders and create wide open space to catch and shoot.

5. Conclusion

Overall, this study has discussed the definition and development of the “Small-Ball Era” and gives a detailed explanation of its impacts on basketball. After that, the study specifically considered the impact of small ball strategy on traditional centers and used case studies to analyze the transformation by data. Finally, to help individual players and teams to better adapt to the small ball strategy, suggestions were made with detailed explanations to improve the overall performance of players and teams. Of course, there are a lot of limitations to this study. First, there wasn’t sufficient data for traditional centers which will lead to a lack of persuasion of the conclusion. Also, there was not a raw data that could be used to determine some aspect of the player's performance and there was no objective statistical data to provide information about the player's performance over average performance, which will lead to some subjective descriptions of the players’ performance. If more time is given to this study, it is possible to use computer programs to compare the players' performance in a more accurate way. It is also possible to provide detailed training programs to some specific players to help them improve or give professional analysis to the team to draft players for the following season.

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