How Can Current and Future NBA Athletes Improve Their Performances and Have Great Careers?

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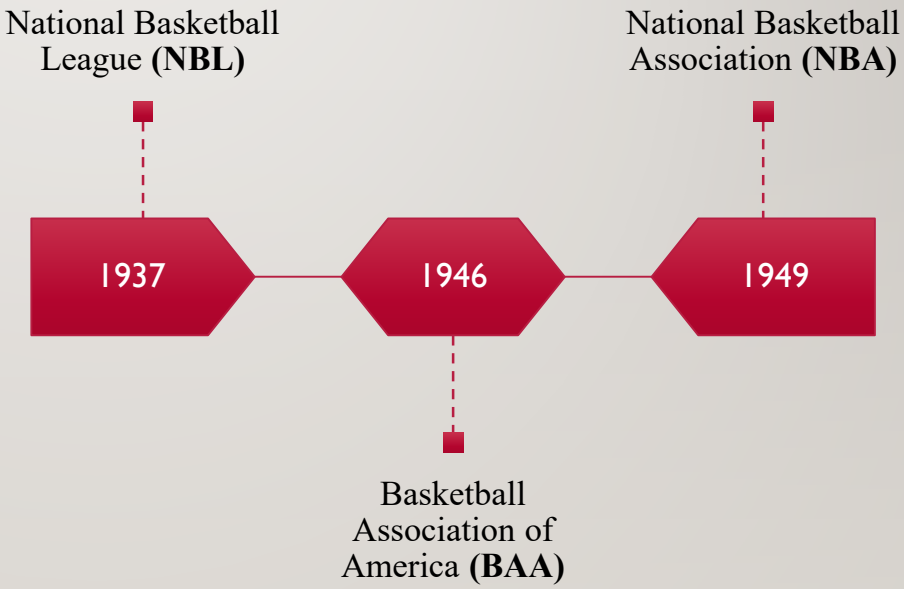
2021 Research Colloquium

INTRODUCTION

- NBL and BAA merged



DIFFERENT TYPES OF CAREERS

- Great career path
  - Michael Jordan
    - Incredible scoring
    - All time best (Bleacher Report)
- Unnoticed players

THE IMPORTANCE OF SCORING IN THE NBA

- A basic rule in sports
- Chinmay Vaidya's article (2019)
- Individual's scoring in the NBA
    - PPG (Point per game)

DETERMINANT OF PERFORMANCE (DEPENDENT VARIABLE)

- PPG (Point per game)

PURPOSE AND CONTRIBUTION OF THE STUDY

- Purpose
  - To help current and future athletes to be successful in the NBA.
- Contribution
  - Focuses on the points per game of NBA players.

LITERATURE REVIEW

- *Chinmay Vaidya's article (2019)*
  - *The Importance of Offensive statistics for NBA teams*
- *Evans Brent A (2018)*
  - Older players perform better
- *Kalén Anton et al (2020)*
  - Younger players perform better

DATA

Terms	Meaning
PPG	Point per game (Scoring the ball)
A	Age
Ast	Assist per game (Pass to others that leads to scoring)
BLK	Block per game (Deflecting a scoring attempt)
Drb	Defensive rebound (Ball obtained by the defensive side after a missed attempt)
Fg	Field goal percentage (Shot taken below 22-23 feet away)
Mp	Minute played
Pf	Personal fouls (Any illegal personal contact or conduct)
FT	Free throw percentage (Unopposed scoring attempt after a foul by the opponents)
Tov	Turnover rate per game (Losing the ball)

30 players from 2009 to 2019

OLS Panel Data analysis (EViews)

The official NBA database (Data Source)

DATA TESTING

Significance of the explanatory variables

- F-statistic = 123.2298
  - Probability value lower than 5% (0.0000)

Goodness of fit

- R squared 0.84
- **Durbin Watson test**
  - DW = 1.474463
  - Field (2009)
    - values under 1 or more than 3 are a definite cause of concern

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-24.44000	2.488725	-9.820290	0.0000
AGE	0.194997	0.037433	5.209166	0.0000
AST	-0.727967	0.122042	-5.964892	0.0000
BLK	-1.073632	0.358635	-2.993662	0.0030
DRB	0.387463	0.110712	3.499730	0.0005
FG_	14.53954	3.430669	4.238106	0.0000
FT_	14.77455	1.756974	8.409086	0.0000
MP	0.400525	0.032068	12.48981	0.0000
PF	-1.293062	0.320421	-4.035505	0.0001
TOV	4.493269	0.327404	13.72391	0.0000

FINDINGS

Ball Possession variables: TOV (+), AST (-)
Offensive variables: FG (+), FT (+)
Defensive variables: BLK (-) , DRB (+)
Other variables: MP (+) , PF (-) , AGE (+)

SIMILARITIES WITH PREVIOUS STUDIES

- Age
  - *Evans Brent A (2018)*

CONCLUSIONS

- The more experience the players get, the better the PPG will be
- Monopolizing the ball increases the PPG (less assist & more turnovers)
- Defensive rebounds and blocks do not have significant effects on PPG
- Improving the field goal percentage and free throw percentage will increase the PPG
- Playing more minutes will improve the PPG
- Fouling less will improve the PPG

KEY NOTICE IN THE CURRENT NBA

AGE

- Lebron James at the age of 36 (one of the oldest) is averaging 25.8 PPG in the 2020-2021 season and is in the MVP conversation

Monopolizing the ball increases PPG (less assist & more turnovers)

- Russell Westbrook (5.44 TOV/ game) in 2017 but averaged 31.6 PPG in addition to the MVP award

Neglecting defensive rebound and block does not have a significant effect on PPG

- Miles Turner currently average 3.4 Block/game (current best) and is averaging only 13.1 PPG
- Rudi Gobert average 10.5 defensive rebound/ game (current best) and is averaging only 14.4 PPG

Improving field goal and free throw percentages increases a player's performance

- Richaun Holmes is averaging 65.1% and is averaging 13.7 PPG
- Jordan Clarkson is averaging 95.5% from Free throw and is averaging 17.7 PPG

Playing more minutes improves PPG

- James Harden is averaging 38.2 mpg with 25.5 PPG

Fouling less improves PPG

- Patrick Beverley is averaging 3.1 personal fouls with 8.3 PPG

QUESTIONS