



11 Player Selection Model



Category / Subcategory of Player

- Pressure

Normal matches: 1

Quarter Finals: 3

Semi Finals: 4

Finals: 5

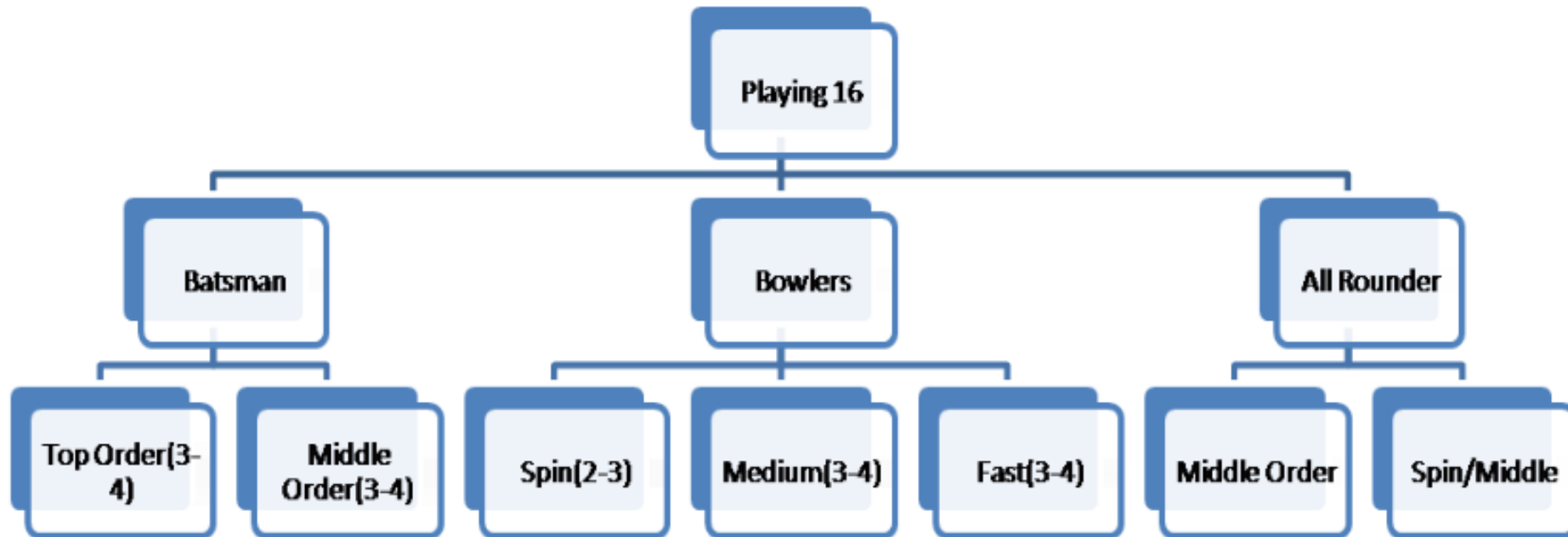
>Injury:

- normal – 1

- strain – 2

- a little serious – 5

- serious – out from game



Factor's To Include in this Statistical Model



OVERALL STATS



YEAR WISE STATS



LAST 5 OR 3
MATCH
PERFORMANCE



OPPOSITION
STATS



LOCATION WISE
STATS



INJURY



PRESSURE



PITCH

Weightage
for every
Factor's(acc.
to paper)



5% - Opposition stats



5 % - Location wise stats



15% - year wise stats



25% - overall stats



50% - Last 5 or 3 match stats

Ground(or pitch) affect on Player Selection

Batting + Pace

Batting + Spin

Top Order 2

Middle Order 2

Wicket Keeper 1

All Rounder 3

Fast / Medium 2

Medium 1

Top Order 2

Middle Order 2

Wicket Keeper 1

All Rounder 3

Fast / Medium 2

Spin 1

statistic for calculation of bating score

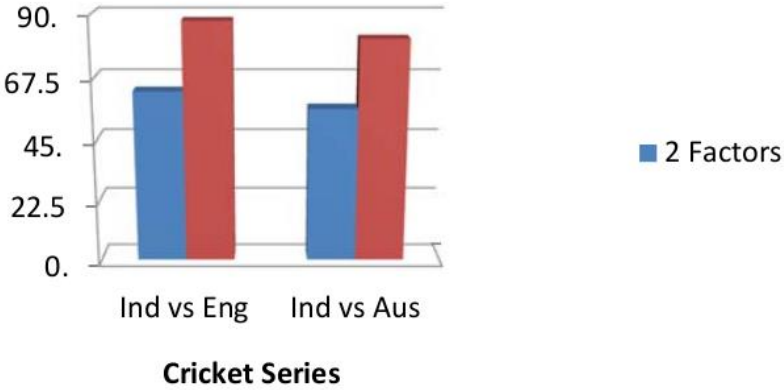
- $A = \text{Innings_batted} / \text{Total_Matches}$
- $B = \text{Bat_Avg} / \text{Max_Avg}$
- $C = (20 * \text{Num_Centuries} + 5 * \text{Num_Fities})$
- Innings_batted
- $D = C / \text{Max}(C)$
- $E = 0.4 * D + 0.6 * B$
- $E \rightarrow \text{Batting_Score}(\text{Overall_stats})$
- $P \rightarrow \text{Batting_Score}(\text{Year_Wise})$
- $Q \rightarrow \text{Batting_Score}(\text{Oppostion_Wise})$
- $R \rightarrow \text{Batting_Score}(\text{Location_Wise})$
- $L = \text{Mean of Last 5} / \text{Max (Mean)}$
- $\text{Batting_Score} = A * ((0.25 * E) + (0.15 * P) + (0.1 * (Q + R)) + (0.5 * L))$

statistic for calculation of bowlingscore

- $V = \text{Innings_bowled} / \text{Total_Matches}$
- $F = ((20 * \text{Num_5W}) + (5 * \text{Num_3W})) / \text{Innings_bowled}$
- $G = F / \text{Max}(F)$
- $H = \text{Bowl_Avg} / \text{Max_avg}$
- $I = 0.4 * G + 0.6 * H$
- $I \rightarrow \text{Bowling_Score}(\text{Overall_stats})$
- $S \rightarrow \text{Bowling_Score}(\text{Year_Wise})$
- $T \rightarrow \text{Bowling_Score}(\text{Opposition_Wise})$
- $U \rightarrow \text{Bowling_Score}(\text{Location_Wise})$
- $L1 = \text{Mean of Last 5} / \text{Max (Mean)}$
- $\text{Bowling_Score} = V * ((0.25 * I) + (0.15 * S) + (0.1 * (T + U)) + (0.5 * L1))$

India vs Australia(Test Match)	Prediction accuracy(%)
Match-1	91
Match-2	82
Match-3	73
Match-4	82

Figure 1: The prediction accuracy of Indian players in India England



India vs England(Odi Match)	Prediction accuracy(%) of Team
Match-1	91
Match-2	91
Match-3	82
Match-4	73
Match-5	82

Result or conclusion

- algorithm, 14 out of 16 team members were predicted correctly(i.e 88% accuracy) for India vs England and 13
- out of 16 team members were predicted correctly(i.e 81% accuracy) for Australia vs India. These results show
- that prediction accuracy of our approach is considerable for prediction team of 16 players. Wrong prediction of
- the remaining 2-3 players are because of the assumptions that were made earlier i.e. all players are fit for
- remaining 1-2 players wrongly predicted is because of the situation based decisions made by the team.