THE WINNING STRATEGY IN T20 CRICKET

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1.0 ABBREVIATION

Avg	Average
BPB	Balls Per Boundary
Death-Overs	Overs 16-20 of an innings
Econ	Economy
Inns	Innings
Middle-Overs	Overs 7-15 of an innings
Powerplay	First 6 overs of an innings
Wkts	Wickets

2.0 Introduction

Twenty20 (T20) cricket is a format that was started in England in 2003 as an inter-county championship. Over the past seventeen years this format has grown leaps and bounds and is very keenly watched by all stakeholders involved with the game. The popularity and the growth of T20 has led to cricket boards taking this format with uttermost seriousness and every major cricket playing nation has its own international team and domestic league. Over the past seventeen years the strategies involved in succeeding in this format have also evolved and teams at the international, franchise and domestic level are trying to evolve their playbook to gain a comparative advantage.

Seventeen years since T20 cricket started, preparation for matches globally have changed from casual chats in team meetings. For coaches and captains, dossiers of 25 pages are common; these dissect the opponent's strengths and weaknesses, suggest set-plays, which are the optimum ways that a bowler can set up a batsman, and explain the best parts of the ground to target and which end might suit each bowler best

This research paper will delve into a potential winning strategy for a T20 side. It will look at each discipline separately and look at skillsets that should do well in that discipline.

This document will have five more sections. The third section will investigate batting strategies and how to optimize the batting order. The fourth section will look at bowling options and the composition of an attack. The fifth section will will look at the importance of fielding and sixth the importance of captains. The final chapter will summarize the findings and provide a few strategic considerations.

The data set which has been referred to in this document pertains to T20 cricket. T20 cricket is a cumulative record of all international, franchise and domestic T20 cricket a player plays. The median has been used measure of central tendency (mean, median, mode) and has been preferred to the mean. This is because the median is not impacted by extreme values and outliers. Moreover, the mean as a measure has the tendency to shift by a greater degree with a small change in the sample set as compared to the median. For all the strategies discussed in the sections that follow teams should typically look to pick players above the median.

3.0 Batting Strategies

Batting strategies are a pivotal aspect to a successful T20 team. For teams to score more than a par score it is important that they optimize all three phases of an inning. Powerplay (1-6), Middle-Overs (7-15), Death Overs (16-20). This chapter will investigate the types of players who will be ideally suited to these player roles and the metrics to judge them by.

3.1 Powerplay

3.1.1 SR + Avg

T20 teams need to have players who can bat at a high strike rate in the first six overs. During the field restrictions it is important to possess batsmen, who can not only hit boundaries but also maintain a good tempo. The other quality that one also needs to look at is whether the batsman can bat through this phase and does not get out after a few big hits. So, the metric that one should look at is a sum of the average and strike rate. In T20s across the world if we look at batsmen who have played in at least 75 innings in the powerplay, the median of (SR+Avg) in this phase is 156. Exhibit 1 shows the top 10 batsmen among them.

Exhibit 1: Batsmen with high SR + Avg in Powerplay (T20)

Player	Inns	Runs	Avg	SR	Avg +SR
Luke Ronchi	104	1975	30.38	165	195
Jos Buttler	78	1294	43.13	149.4	193
KL Rahul	95	1687	52.72	136.5	189
Alex Hales	212	3763	37.26	145.6	183
David Warner	242	4513	40.66	140.4	181
Colin Munro	159	2547	33.51	147.1	181
Quinton de Kock	171	3303	42.9	137.3	180
Paul Stirling	184	3377	31.56	148.4	180
Kevin Pietersen	140	1678	49.35	130.2	180
Hamish Rutherford	78	1388	28.33	151	179

3.1.2 High Boundary%

The other skillset that is really crucial for batsmen to be successful in the power play is the ability to cross and clear the ropes on a regular basis. So the boundary % is a key metric to assess players in this phase of the innings. In T20's if we look at batsmen who have batted in at least 75 innings in the power play, the median boundary hitting % is 69 and Balls Per Boundary (BPB) is 5. Exhibit 2 shows the top 10 batsmen with the best boundary % among them.

Exhibit 2: Batsmen with the Best Boundary % in Powerplay (T20)

Player	Inns	Runs	4s	6s	BPB	Bdry%
Sunil Narine	90	1281	156	73	4	83%
Chris Gayle	387	6789	704	411	5	80%
Chris Lynn	129	2152	273	102	4	79%
Mohammad Shahzad	101	1998	272	81	4	79%
Luke Ronchi	104	1975	231	101	4	79%
Paul Stirling	184	3377	465	120	4	77%
Evin Lewis	139	2406	244	144	5	76%
Jos Buttler	78	1294	164	55	4	76%
Kamran Akmal	152	2420	337	80	5	76%
Adam Gilchrist	97	1645	174	38	6	76%

3.2 Middle-Overs (7-15)

3.2.1 Ability to Play Spin

Middle-Order batsmen, who will typically be batting in this phase of the innings need to be good players of spin. This is because in all T20s that have been played spinners have bowled more than 56% of the overs in this phase. To assess which batsmen are good players of spin we will again look at the combination of strike rate and average in this phase against spin. Strike Rate is an unbiased estimate of dominance, while as average a reliable measure of consistency. The median (SR+Avg) among all batsmen who have batted in at least 75 innings in the middle-overs, against spin, is 152. Exhibit 3 shows the top 10 batsmen in T20 who have the best (SR+Avg) among them.

Exhibit 3: Batsmen with high SR +Avg against Spin in Middle Overs (T20)

Player	Inns	Runs	Avg	SR	SR+Avg
Chris Gayle	173	2845	53.68	169.3	223.0
AB de Villiers	207	2633	41.79	131	172.8
Shoaib Malik	223	2338	44.96	115.1	160.1
Virat Kohli	174	2326	68.41	128.7	197.1
Suresh Raina	196	2278	36.16	128.3	164.5
Kieron Pollard	264	2236	43.84	129.6	173.4
Glenn Maxwell	168	2008	29.97	146.5	176.5
Kumar Sangakkara	172	1972	29.43	115.2	144.6
Shane Watson	167	1954	29.16	142.1	171.3

3.2.2 Low Dot Ball %

As the field spreads during the middle-overs there is a tendency for some batsmen to get stuck and as a result waste a lot of balls and build pressure on the remaining batsmen. One of the metrics that teams should look at is the ability of batsmen in the middle-overs to rotate strike and have a low dot ball %. Among batsmen who have battled in at least 75 innings in the middle-overs the median dot ball % is 33. Exhibit 4 shows the top 10 batsmen among them.

Exhibit 4: Batsmen with the lowest Dot Ball % in Middle-Overs (T20)

Player	Inns	Runs	Bdry%	Dot%
Babar Azam	90	2105	40%	24%
Luke Wright	109	2172	54%	26%
KL Rahul	77	1710	51%	26%
Adam Voges	99	1562	36%	26%
Callum Ferguson	87	1492	37%	26%
Hashim Amla	79	1429	38%	26%
Wayne Madsen	82	1770	50%	27%
Ajinkya Rahane	91	1795	39%	27%
AB de Villiers	227	4717	51%	27%

3.3 Death Overs (16-20)

3.3.1 High Strike Rate

One of the key skillset that a lower middle-order batsmen, who typically bats in the death overs, need to have is the ability to score at a very brisk pace. The more boundaries a batsmen can hit the more effective he is in this phase of the innings. Among batsmen who have played at least 75 innings in the death overs the median strike rate is 162. Exhibit 5 shows the top 10 batsmen among them.

Exhibit 5: Batsmen with the highest SR in the Death Overs(T20)

Player	Inns	SR	4s	6s	Bdry%
AB de Villiers	118	208.3	141	163	71%
Andre Russell	185	192.8	180	241	76%
Glenn Maxwell	86	191.8	109	82	72%
Virat Kohli	101	190.6	131	104	66%
Colin Ingram	76	188.2	74	75	70%
Eoin Morgan	98	184.8	88	103	67%
Mohammad Nabi	116	184.3	117	115	69%
Kieron Pollard	293	184.2	336	353	69%
Rohit Sharma	108	183.2	137	98	69%

3.3.2 Balls Per Boundary (BPB)

The other parameter on which batsmen who frequently bat in the death overs should be assessed on is their ability to hit boundaries. The frequency of boundaries are a premium in this phase and is the difference between a competitive score and a match winning one. The median BPB among all batsmen who have batted in at least 75 innings in this phase is five. Exhibit 6 shows the top 10 leading batsmen with the lowest BPB in this phase.

Exhibit 6: Batsmen with the lowest BPB in the Death Overs (T20)

Player	Inns	Runs	BPB	Bdry%	Dot%
Andre Russell	185	2842	3.5	76%	32%
Glenn Maxwell	86	1295	3.5	72%	29%
AB de Villiers	118	2296	3.6	71%	23%
Colin Ingram	76	1065	3.8	70%	26%
Mohammad Nabi	116	1696	4	69%	28%
Kieron Pollard	293	5087	4	69%	29%
Yuvraj Singh	84	1343	4	75%	34%
Virat Kohli	101	1847	4.1	66%	23%
Eoin Morgan	98	1447	4.1	67%	27%
Carlos Brathwaite	86	1055	4.1	72%	34%

4.0 Bowling Strategies

There is a big belief in the international cricket community, that batsmen win games and bowlers win tournaments. In T20 cricket this hypothesis has been proven accurate in almost all occasions. Almost all franchise T20 tournaments and World T20s have been won by teams who have had a very strong bowling attack. For teams to restrict the opposition to sub-par totals and defend par scores they should have penetrative power in all the phases of the innings.

4.1   Powerplay

4.1.1   High Bowling Strike Rate

Teams should look at bowlers who can make inroads early in the innings. This could be a fast bowler who can swing the ball or a spinner who has good control in this phase. As making inroads with the new ball is of primary importance so bowling strike rate in this phase a good measure of powerplay penetration. The median strike rate among bowlers who have bowled in at least 75 matches in this phase is 24.2. Exhibit 7 shows the top 10 bowlers among them

Exhibit 7: Bowlers with the best SR in Powerplay (T20)

Bowler	Inns	Overs	Wkts	Econ	SR
Imran Tahir	76	89	30	7.2	17.8
Clint McKay	94	149	49	7.3	18.2
Shakib Al Hasan	201	315	99	6.9	19.1
David Willey	134	267	83	7.3	19.3
Ben Hilfenhaus	82	161	50	7.2	19.3
Sheldon Cottrell	83	172	53	6.9	19.5
Jerome Taylor	110	205	63	7.7	19.5
Rubel Hossain	80	118	36	7.5	19.7
John Hastings	83	133	40	7.2	20
Yasir Arafat	112	189.1	56	7.4	20.3

4.1.2 Low Economy

Another way to build pressure in this phase is to starve batsmen of runs. Tight bowling, especially during the powerplay, is a good way to build pressure and induce a false short from the batsman. Economy rate is a good measure of tight bowling as it shows how successful a bowler has been in keeping the batsmen quiet. The median economy among bowlers who have at least bowled in 75 matches in this phase is 7.2. Exhibit 8 shows the bowlers who have been the thriftiest in this phase.

Exhibit 8: Bowlers with the best Economy in Powerplay (T20)

Bowler	Inns	Wkts	Econ	SR
Sunil Narine	267	68	5.8	28.4
Mohammad Amir	147	74	5.9	24.5
Mohammad Hafeez	89	34	5.9	25.9
Bhuvneshwar Kumar	160	67	6	29.4
Mohammad Sami	119	45	6.1	28.8
Nuwan Kulasekara	86	49	6.2	22.6
Samuel Badree	164	99	6.2	22.8
Saeed Ajmal	80	22	6.2	22.8
Lasith Malinga	260	95	6.2	25.8
Mohammad Irfan	113	68	6.3	22

4.2 Middle-Overs

4.2.1 The Controlling Spinner

One of the most important clogs in a T20 team is the middle-overs spinner. The best kind is one who can spin it both ways - Adam Zampa, Imran Tahir, Adil Rashid, Sunil Narine, Kuldeep Yadav, Rangana Herath. Such bowlers will be miserly and take wickets, but most importantly, will let a team dictate terms through the middle. A spinner who only spins in one direction is usually easier to line up and manoeuvre. This research paper looks at the control factor from two points of view. Strike Rate and Dot Ball%

4.2.1.1 Strike Rate

As discussed in the section above, the strike rate is a good way to asses a spinner, especially the ones who bowl a majority of their overs in the middle. Data suggests that teams that are able to take wickets in the middle-overs tend to win more matches. As discussed in the section above the strike rate is a robust measure of wicket-taking ability. The median strike rate among spinners who have bowled in at least 75 inns in the middle-overs is 23. Exhibit 9 shows the top 10 spinners among them who have had the most penetrative ability.

Exhibit 9: Spinners with the best SR in the Middle-Overs (T20)

Bowler	Inns	Wkts	Avg	Econ	SR
Rashid Khan	204	171	17.3	5.8	18
Imran Tahir	237	214	21.1	6.9	18.4
Ajantha Mendis	87	59	21.2	6.7	18.8
Will Beer	79	73	23.2	7.3	19
Tabraiz Shamsi	117	109	22.6	7.1	19.2
Ish Sodhi	121	112	24.3	7.5	19.3
Jeetan Patel	139	111	20.8	6.4	19.5
Danny Briggs	121	96	24.2	7.4	19.7
Yuzvendra Chahal	132	107	24.5	7.4	19.8
Pragyan Ojha	111	86	22.5	6.7	20

4.2.1.2 Dot Ball %

During the middle-overs, data shows that batsmen are looking to maneuverer the bowling with the field spread out. If a spinner in this phase can bowl a high percentage of dot-balls, then he pushes the batsman to take a risk that he may not be willing to take and hence, increasing the chance of a break-through. The median Dot Ball % among all spinners who have bowled more than 75 overs in this phase is 35%. Exhibit 10 shows the spinners who bowl a high frequency of dot balls among them

Exhibit 9: Spinners with the highest Dot Ball % in the Middle-Overs (T20)

Bowler	Inns	Wkts	BPB	Dot%	Bdry%
Sunil Narine	312	154	12.5	44	39
Rashid Khan	204	171	12.1	42	40
Muttiah Muralitharan	125	83	12.6	41	40
Saeed Ajmal	144	79	10.1	41	44
Samuel Badree	150	63	12	40	39
Shahid Afridi	273	217	9	40	47
Mujeeb Ur Rahman	92	37	12.4	39	36
Shadab Khan	113	107	9.1	39	48
Imad Wasim	119	72	13.6	38	36
Daniel Vettori	106	61	13.4	38	39

4.3 Death Overs

4.3.1 Balls Per Boundary (BPB)

One of the most important metrics that teams should look at while assessing death bowlers is balls per boundary. Though wickets are important at any stage of an innings, but data shows that wickets at the death are only worth a fraction of wickets in the power play. So teams should prioritize bowlers who get hit for boundaries less frequently. Among bowlers who have bowled in the death in at least 75 inns the median BPB is 6. Exhibit 10 shows the 10 best bowlers among them.

Exhibit 10: Bowlers with the highest BPB in the Death Overs (T20)

Bowler	Inns	Wkts	Econ	BPB	Bdry%
Sunil Narine	261	148	6.9	9.0	48.2
Saeed Ajmal	116	99	7.2	8.5	48.1
Johan Botha	80	36	7.8	8.4	46
Imran Tahir	149	86	7.9	7.7	49.1
Roelof van der Merwe	118	69	8.2	7.7	50.2
Ravichandran Ashwin	98	47	8	7.6	50.9
Tymal Mills	82	57	7.4	7.5	50.3
Junaid Khan	94	71	7.9	7.3	47.8
Lasith Malinga	244	206	8.1	7.2	47.9
Rashid Khan	151	95	7.4	7.2	55.2

4.3.2 Economy Rate (ER)

Another good measure for the assessment of death bowlers in economy rate. Bowlers who have a low economy in this phase are worth gold as they stop the opposition from having an exponential growth in the run-rate. The median ER among bowlers who have bowled in at least 75 innings in this phase is 9.0. Exhibit 11 shows the 10 bowlers among them with the lowest ER

Exhibit 11: Bowlers with the lowest ER in the Death Overs (T20)

Bowler	Inns	Wkts	Econ	BPB	Bdry%
Sunil Narine	261	148	6.9	9.0	48.2
Saeed Ajmal	116	99	7.2	8.5	48.1
Tymal Mills	82	57	7.4	7.5	50.3
Rashid Khan	151	95	7.4	7.2	55.2
Wahab Riaz	163	122	7.6	7.0	50.6
Johan Botha	80	36	7.8	8.4	46
Imran Tahir	149	86	7.9	7.7	49.1
Junaid Khan	94	71	7.9	7.3	47.8
Mustafizur Rahman	101	79	7.9	6.9	53.2
Dale Steyn	167	107	7.9	6.8	51.9

5.0 Fielding Strategies

Catching and ground fielding are an important part of any T20 side. Data shows teams that win T20 tournaments on a regular basis will be good fielding sides. Fielding is such an important facet that teams tend to pick the better fielder between players with similar skillsets. Franchise and international teams have also realized that no score in T20 is big enough and no bowling attack good enough, with a sub-par fielding side.

5.1 Catching Efficiency

One of the most robust metric for measuring the quality of any fielder (including the wicketkeeper) is catching efficiency. This is because this parameter, in addition to looking at the catching competence of a fielder also rationalizes the number of catches that come to any fielder. Typically, a wicketkeeper gets more catches than a fielder, so this parameter provides a level playing field to make a comparison. Out of all the players who have taken at least 50 catches in T20 cricket, the median catching efficiency is 82%. Exhibit 12, shows the top 10 fielders among them.

Exhibit 12: Fielders with the Best Catching Efficiency (T20)

Fielder	Total Catches	Catches Taken	Dropped	Catching Efficiency
Sean Abbott	53	50	3	94%
Suryakumar Yadav	68	63	5	93%
AB de Villiers	197	179	18	91%
Steven Smith	109	99	10	91%
Shaun Marsh	58	52	6	90%
Alex Carey	58	52	6	90%
Heino Kuhn	64	57	7	89%
Ajinkya Rahane	82	73	9	89%
Manish Pandey	114	101	13	89%
David Hussey	96	85	11	89%

5.2 Run Out Efficiency

Another key indicator of fielding prowess is run out efficiency. Fielders who have the ability to affect a run out at key juncture in matches are worth their weight in gold.Data shows that there have been numerous T20 games which have been turned around at a crucial juncture because off an optimally timed run out. Among fielders who have at least had 25 instances to inflict a run out the median run out efficiency is 25%. Exhibit 13 enlist the 10 best fielders among them.

Exhibit 13: Fielders with the Best Run Out Efficiency (T20)

Fielder	Attempts	Run Outs effected	Run Outs missed	Efficiency
Denesh Ramdin	39	20	19	51%
Kevon Cooper	34	16	18	47%
Parthiv Patel	27	12	15	44%
Jason Holder	25	11	14	44%
Chris Jordan	30	13	17	43%
Anamul Haque	31	13	18	42%
Mohammad Hafeez	32	13	19	41%
Mahendra Singh Dhoni	85	34	51	40%
Mohammad Nabi	48	19	29	40%

6.0 Captaincy Picks

Captains play a key role in cricket and their role is invaluable in this format. T20 teams which wins championships in franchise and international tournaments, have always been led by inspirational and tactical captains. Win% is a robust metric to judge captains by. Captains with high win % are able to get the best out of their players. Among all captains who have captained in at least 50 games the median win % is 53. Exhibit 14 shows the 10 best captains among them.

Exhibit 14: Highest Win % for Captains (T20)

Player	Mat	Wins	Losses	Tie/NR	Win%
Asghar Afghan	73	50	23	0/0	68%
Sarfaraz Ahmed	113	75	37	0/1	67%
Mohammad Hafeez	74	49	25	0/0	66%
Shoaib Malik	132	85	45	0/2	65%
Steven Smith	50	32	17	0/1	65%
Mohammad Nabi	53	34	19	0/0	64%
Rohit Sharma	128	81	47	0/0	63%
Misbah-Ul-Haq	98	62	36	0/0	63%
Adam Voges	62	38	23	0/1	62%
JJ Smuts	58	34	21	0/3	62%

7.0 CONCLUSION

This research paper has looked at a way that a management that is assimilating a T20 team can look at batting and bowling at different phases in a T20 game, and some overarching fielding and catching tactics. Coaches and Scouts who are looking to have a team with a high win % should try to have players who are above the median in most if not all categories. As mentioned in an earlier section, the modern T20 game has evolved both tactically and strategically over the past 17 years and management should look at T20 squad of 16 in terms of a collection of specialists and not strictly in terms of six batsmen, two all-rounders, two wicketkeepers and six bowlers.