

# **The Indian Premier League:**

## **Pay versus Performance**

by

**Krittivas Dalmia**

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Professor Marti G. Subrahmanyam

Professor Raghu Sundaram

Faculty Adviser

Thesis Advisor

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## **Abstract**

In my thesis, I examine the initial auction process for the Indian Premier League, a recent and immensely successful cricket league in India. The league is based on a new format of the game, one that requires a very different set of skills compared to earlier and traditional forms. I look to find the link between pay and performance for the top 89 players in the league. Since the league is based on a new format of the game, adequate historical data on the performance of players in this format is lacking. So I try to explain the bids for players using two methods. Firstly, I see whether the auction-based pay was justified by performance in subsequent seasons. To do this, I create a performance index based on important cricket metrics to assign a value to a player's performance. I use the index to compare performance rankings to pay. The second method looks to explain the auction bids through past performance in other formats of the game. The investigation also includes other factors such as age and the ability to lead the team (captaincy), which could be important variables in picking a player for a team.

The results are mixed; they show that pay cannot be adequately explained by past performance alone, nor are pay levels justified by future performance. The bids for players in the initial auction appear to have been based on intangibles that are hard to quantify. This is not, perhaps, entirely unexpected given the very new format of the game. However, the last three years have revealed a substantial amount about the relevant skills for this format and the players who possess them, and I expect that the pending renegotiations of the original contracts will be tied closer to performance.

## 1. Introduction

Cricket is a bat and ball sport that originated in England and spread through the British Empire to much of the world. It is now the world's second most popular sport after soccer.<sup>1</sup> Historically, cricket was organized at two levels. On the one hand were the international competitions played between teams representing countries (or, in the case of the West Indies, groups of countries). On the other hand were the intra-country competitions.

Cricket's principal governing body is the International Cricket Council (ICC) which sets the international cricket calendar. The ICC has three levels of members: full, associate and affiliate members. The full members or the leading countries in the game are Australia, Bangladesh, England, India, New Zealand, Pakistan, South Africa, Sri Lanka, West Indies, and Zimbabwe. In addition there are 35 associate members and 59 affiliate members for a total of 104 members.

The format of international cricket has evolved considerably over time. In its early days, international competitions took on the form exclusively of bilateral "Test match" series between countries. Test matches were multi-day affairs, sometimes even of indefinite length with the match lasting until a result was reached. Post-World War II, Test matches were limited to five days in length, a format that continues to hold even today. In the 1970s, a second international format made its appearance: the one-day international or ODI. ODI matches were given a structure that made a result in every game almost a certainty (unlike Test matches that could end in a draw even after five days). Since the matches lasted only one day (by design), multi-country competitions were facilitated. The first "World Cup" in this format was held in 1975, and has been held roughly every four years since, with Australia the current reigning world champions.

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<sup>1</sup> [http://www.sportingo.com/all-sports/a11587\\_worlds-top-most-popular-team-sports](http://www.sportingo.com/all-sports/a11587_worlds-top-most-popular-team-sports)

In the 2000s, a third and even shorter format was introduced called Twenty20 cricket, and abbreviated T20. Games in the T20 format last only 3 hours, and internationally this format saw its first “World Cup” only in 2007. The huge success of the T20 World Cup, particularly in the game’s dominant market of India, led to the launching of contemporary cricket’s first professional league, the Indian Premier League, the subject of this thesis.

### *The Main Questions*

The main question I am addressing in my thesis is that given the auction process used for the IPL, were the players who were paid the most successful? In addition, since the format of the game is relatively young and there is not enough historic performance data available, what were the bids for the players based on? Each format of the game requires a very different set of skills. These differences are so significant that nations have different teams for each format of the game. It is also important to note that each format of the game has come to demand a specific skill set from players and has allowed for the development of specialists. The auction took place only five years after the first Twenty20 game was ever played. However, given this background and the limited availability of data for this format, did the team owners base their bids on player performances in other formats of the game? Furthermore, some of the players picked for the IPL have never played an international match in their life, thus what were these picks based on?

### *The Structure of this Thesis*

In my thesis, I will start with a more detailed history of the game followed by an in depth analysis of the Indian Premier League itself. I will further cover the rules for the auction process to acquire players and compare the top paid players of the league to the players in the National Basketball Association (NBA) and the English Premier League (EPL). I will proceed to calculate

a performance index to measure the pay to performance and will publish the research and results thereof.

## **2. Cricket and the IPL: A Background**

The new format of the game, 20-20 cricket is responsible for the growth of club cricket. Before this, club cricket was not as popular as it is today. Though the game is played primarily at the international level, each country has intra country competitions in various forms of the game. These clubs are divided on the basis of geographical states such as in Australia and India, counties as in England or island nations as in the West Indies. Though this competition was in all formats of the game, each format had some changes, for instance Test matches ranged from 3 – 5 days instead of the traditional 5 days. This internal competition is more of an effort to find players for the national teams. There were no professional leagues and the concept of club cricket was nothing close to what the Indian Premier League has made it out to be.

In the 1970's, Kerry Packer, a rich and influential Australian tried to create a league for his television network in order to secure exclusive broadcasting rights to Australian cricket. Even though his bid was refused by the Australian Cricket Board, he setup individual agreements with players from leading countries and started the league. However in light of court cases and new developments, the league was short lived and ended after 2 years. Thus the first attempt to create a professional league in cricket was not successful.

In 2007, the inaugural World Cup for the 20-20 format of the game was played in South Africa. Twenty20 was still in its infancy since the World Cup was played just 4 years after the first 20-20 game was played. As the reigning ODI champions, Australia were the favorites to win the World Cup. This is because ODIs are the closest form of cricket to Twenty20. However, India

ended up winning the World Cup setting up the backdrop for the Indian Premier League (IPL). Moreover, India had played only one T20 game in its history and won the final against its arch rival, Pakistan. The World Cup and the win popularized the format of the game in cricket's largest market; the Indian subcontinent. This sowed the seeds for the possibility of a successful league and the Indian Premier League was born within a year.

### *The Indian Premier League*

The Indian Premier League is a cricketing league in India based on the latest format of the game (T20 Cricket). This form is the shortest version of the game and is completed within 3-4 hours making it extremely interesting, exciting and enthralling to watch. Chaired by Mr. Lalit Modi in collaboration with the Board of Cricket Control in India, the Indian Premier League was created to emulate the professional sporting leagues in America specifically the National Football League, the National Basketball Association and Major League Soccer. Still in the initial stages of its life, the league comprises of 8 teams, each of them structured as a franchise and owned by leading industrialists such as Mukesh Ambani and Vijay Mallya, corporate owners such as India Cement and Deccan Chronicle and figures in the entertainment industry such as Shahrukh Khan and Preity Zinta or a consortium of these. The teams are Chennai Super Kings, Deccan Chargers, Delhi Daredevils, Kings XI Punjab, Kolkata Knight Riders, Mumbai Indians, Rajasthan Royals and Royal Challengers Bangalore, each named after a big metropolitan city in India. For the 4<sup>th</sup> season of the league, which will be held in 2011, two new teams have been added to increase the number of teams to 10. These have been given to the cities of Kochi and Pune.

Each of the 8 teams was put up for a base auction price of \$ 50 million leading to a total of \$ 400 million. However, the auction ended up yielding \$723.59 million with bids ranging from \$67

million for the Rajasthan Royals to a \$ 112 million for the Mumbai Indians. The auction price for each of the teams can be found below.<sup>2</sup>

**Table 1 – Team Owners**

This table summarizes the owners of each franchise and the amount they paid for the franchise.

<b>Franchise</b>	<b>Owners</b>	<b>Price (USD million)</b>
Mumbai Indians	Mukesh Ambani's Reliance Industries Limited	111.9
Royal Challengers Bangalore	Vijay Mallya's UB Group	111.6
Deccan Chargers	Deccan Chronicle	107
Chennai Super Kings	India Cements	91.9
Delhi Daredevils	GMR Group	84
Kings XI Punjab	Bombay Dyeing (Ness Wadia), Priety Zinta, Dabur (Mohit Burman), Apeejay Surendera Group (Karan Paul)	76
Kolkata Knight Riders	Red Chillies Entertainment (Shahrukh Khan, Gauri Khan, Juhi Chawla, Jai Mehta)	75.1
Rajasthan Royals	Emerging Media, Ultra Tech Cements, Shilpa Shetty, Raj Kundra	67

The new franchises, Kochi and Pune were sold recently for \$333.33 million to Rendezvous Sports World (a consortium of 5 companies) and \$370 million to Sahara Group respectively.<sup>3</sup>

The base price for each of these franchises was \$225 million. This shows that the value of each team has risen by 4 times in just 3 years.

<sup>2</sup> <http://www.cricinfo.com/ipl/content/current/story/333193.html>

<sup>3</sup> <http://www.cricinfo.com/ipl2010/content/current/story/452856.html>

## *Television and Viewership*

A consortium of India's Sony Entertainment Television and World Sport Group paid \$1.026 billion to secure the global broadcasting rights of the IPL for ten years. However, due to a court case, there was a revised deal, where Sony Entertainment Television paid about \$ 2 billion. In addition to this deal, many other companies paid undisclosed amounts for regional broadcasting rights. In addition to the media rights, DLF paid \$50 million to sponsor the league, Hero Honda paid \$22.5 million to become a co-sponsor and PepsiCo paid \$12.5 million to become the beverage partner. Kingfisher Airlines became the umpire sponsor by signing a five year deal for \$26.5 million.<sup>4</sup> The above figures testify to the IPL's success in attracting money and raising sponsorships.

This kind of money for sponsorship and media rights should give us an insight into the size of the audience for this league. The Indian Premier League audience size is immense to say the least. Just the populations of the 8 cities, to which the franchises have been awarded, have a combined population of about 50 million according to the 2010 census conducted by World Gazetteer.<sup>5</sup> The city-by-city breakdown of the population can be seen in the Appendix 1. Apart from these cities, there is a wide fan following from the other cities in India and from the other countries that have participating players. It is estimated that about 26.3 million people watched the first three matches of the inaugural season. This number grew to 29.4 million people for the year 2009, when the IPL was held in South Africa and has further increased to 37.1 million people in the current (latest) season of the IPL. The viewership has surged a total of 41% since the inaugural season pointing to a rampant growth in the popularity of the league. This growth

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<sup>4</sup> <http://www.cricinfo.com/ipl/content/story/343372.html>

<sup>5</sup> <http://www.world-gazetteer.com/wg.php?x=&men=gcis&lng=en&dat=32&geo=-104&srt=npan&col=aohdq&pt=c&va=&srt=pan>

can be seen in the average number of viewers per day as well, which has risen by 18% from 7 million in the second season to 8.34 million in the third season.

The structure of the league is such that each of the teams plays one home game and one away game for a total of 14 games, at the end of which the top 4 teams play the semi-finals. The winners of the semi-finals play the final to determine the winner of the league. In the group stage of the tournament, each team gets 2 points for winning a game and 1 point for a no result or a tie. The points at the end of the group stage determine the standing of the teams. This structure has some similarities to two other popular leagues namely the EPL and the NBA, the details of which are described in Appendix 2 and 3.

#### *The Rules – Player Acquisition*

As far as the players are concerned, there are five ways that a franchise can acquire a player. In the annual auction, buying domestic players, signing uncapped players, through trading and buying replacements. For the purpose of this paper, I will only be examining the initial auction. The auction process is based on a draft like system where the lowest ranked teams get a chance to pick players first. There are several rules to the auction:

- Each franchise needs a squad of players, with 11 playing at any one time.
- Only 4 players at any time are allowed to be non-Indian on the field. However, a team can have up to 10 foreign players.
- The franchises bid on the basis of the salary they are prepared to offer the player.
- There is an overall salary cap of \$5m, which has been raised to \$7 million, and a salary floor of \$3.3m.

- Salaries are pro-rated if a player is unavailable for part of the season, with the exception that if a player is unavailable for less than 25% of the season, the franchise is still liable for 25% of the salary and 25% of the salary is also counted towards the salary cap.
- The salary offer is valid for three years, although there is the possibility of player transfers in future years.
- Each team must also have four under-22 players.
- Each player bid starts with the base fee fixed by the IPL for that player, and there is no upper limit.
- Players were grouped into different bands within the auction based on the expectations of the organizers. Players in the same band were of similar experience and ability.
- Franchises were allowed to nominate one “icon” player who would have to play for their team – with the promise that they would earn 15% more than the next highest paid player on that team.

In addition, the auction rules also stipulate that each squad should have a minimum of four catchment-area players — the under-22 players and the Indian national team players if so qualified can be counted for purpose of this rule.<sup>6</sup>

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<sup>6</sup> [http://www.thaindian.com/newsportal/sports/each-ipl-squad-must-have-16-cricketers\\_10019190.html#ixzz0hSU5eit7](http://www.thaindian.com/newsportal/sports/each-ipl-squad-must-have-16-cricketers_10019190.html#ixzz0hSU5eit7)

The catchments areas are defined by reference to a player's registration with his local cricket association. They are:

- \* Mumbai (catchments areas Mumbai, Maharashtra and Vidarbha)
- \* Bangalore (Karnataka, Goa and Services)
- \* Chennai (Tamil Nadu, Kerala and Railways)
- \* Kolkata (Bengal, Jharkhand, Assam, Tripura and associate member Sikkim)
- \* Hyderabad (Hyderabad, Andhra and Orissa)
- \* Delhi (Delhi, Uttar Pradesh and Madhya Pradesh)
- \* Mohali (Haryana, Punjab, Himachal and Jammu and Kashmir)
- \* Jaipur (Rajasthan, Gujarat, Baroda and Saurashtra)

The minimum salary for under-22 players is \$20,000 per year. For other Ranji Trophy and non-auction players, it is \$50,000 per year.

The players are what make the league so popular and successful. To get them on board, Mr. Lalit Modi, the founder of the league divided the top 100 players into 4 categories and promised them minimum salaries of \$100,000, \$200,000, \$300,000 and \$400,000 respectively. Over and above this, the players were auctioned in an open auction allowing the franchise owners to pay market prices for these players. This ensured most of the players to double their annual salaries by playing a mere 14 – 16 games over less than two months. It is important to note that this was just the salary component of the compensation not accounting for endorsements or any other sources of income. This would translate to a base range of salaries of \$7,143 - \$28,571 per game based on 14 games, which is the minimum number of games a team plays in any season. This base range obviously increased with the auction and the Indian Premier League has become the 2<sup>nd</sup>

highest paying league in the world after the NBA<sup>7</sup>. Below is a comparison of the pays for the top 10 players of the IPL, NBA and the EPL.

*The Results of the Auction*

**Table 2 – Top 10 Paid Players of the Indian Premier League**

This table shows the top 10 players sold in the first auction of the Indian Premier League. It also calculates the salary/game to make this statistic more comparable.

<b>Rank</b>	<b>Name</b>	<b>Country</b>	<b>Team</b>	<b>Salary</b>	<b>Salary /Game</b>
1	M.S Dhoni	India	Chennai	\$ 1,500,000.00	\$ 107,142.86
2	Andrew Symonds	Australia	Hyderabad	\$ 1,350,000.00	\$ 96,428.57
3	Sanath Jayasuriya	Sri Lanka	Mumbai	\$ 975,000.00	\$ 69,642.86
4	Ishant Sharma	India	Kolkata	\$ 950,000.00	\$ 67,857.14
5	Irfan Pathan	India	Mohali	\$ 925,000.00	\$ 66,071.43
6	Brett Lee	Australia	Mohali	\$ 900,000.00	\$ 64,285.71
6	Jacques Kallis	South Africa	Bangalore	\$ 900,000.00	\$ 64,285.71
8	RP Singh	India	Hyderabad	\$ 875,000.00	\$ 62,500.00
9	Harbhajan Singh	India	Mumbai	\$ 850,000.00	\$ 60,714.29
10	Chris Gayle	West Indies	Kolkata	\$ 800,000.00	\$ 57,142.86
10	Robin Uthappa	India	Mumbai	\$ 800,000.00	\$ 57,142.86

*Icon Players*

Some of the players from the Indian National team are deeply connected to some cities with franchises since these cities are their home cities. For example, Sachin Tendulkar is associated with Mumbai, Rahul Dravid with Bangalore, Virendar Sehwag with Delhi, Yuvraj Singh with Mohali, VVS Laxman with Hyderabad and Saurav Ganguly with Kolkata. These players were given icon status implying that they stand to earn 15% higher than the highest paid player in the

<sup>7</sup> <http://timesofindia.indiatimes.com/iplarticleshow/5736736.cms>

team. VVS Laxman decided to surrender his icon status to enable his team to have more money to buy more players. However, the other 5 players retained their status. Thus, though these players are some of the top paid players in the league, I have not included them in the above table because they were not directly bid on.

**Table 3 – Salaries for the Icon Players**

This table shows the salaries for the icon players. These are calculated on a per game basis as well to be able to compare them better.

<b>Name</b>	<b>Country</b>	<b>Team</b>	<b>Salary</b>	<b>Salary/Game</b>
Sachin Tendulkar	India	Mumbai	\$ 1,121,250.00	\$ 80,089.29
Rahul Dravid	India	Bangalore	\$ 1,035,000.00	\$ 73,928.57
Virender Sehwag	India	Delhi	\$ 833,750.00	\$ 59,553.57
Yuvraj Singh	India	Mohali	\$ 1,063,750.00	\$ 75,982.14
Saurav Ganguly	India	Kolkata	\$ 1,092,500.00	\$ 78,035.71

*2009 and 2010 Auctions – A Comment*

In the 2009 and 2010 auction, players have been bought for higher prices than stated in the above table. In the second auction, Kevin Peterson and Andrew Flintoff were bought for \$1.55 million each. In addition, JP Duminy was sold for \$950,000. In the third auction, Kieron Pollard and Shane Bond were sold for \$750,000 however there was a tie. In a silent auction, these players were sold for \$ 2.3 and \$ 1.35 million in a bidding war making them the highest bid players of the league.<sup>8</sup> However, the players only ended up getting \$750,000 each, while the excess bid over that was paid to the IPL. This was because this auction was based on special tie-breaker rules. However, I have not included these players in the top 10 players because I have only taken

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<sup>8</sup> <http://reliance-news.blogspot.com/2010/01/nita-ambani-wins-tie-breaker-bags.html>

into account the initial auction. This is because there is a learning curve with auctions, which could have affected the prices, teams paid for these players.

*The Top Paid Players in the EPL and NBA*

**Table 4 – Salaries of the Top 10 EPL Players**

This table shows the top 10 paid players in the EPL according to the Portuguese agency, Futebol Finance are: (all figures are converted to US Dollars using the exchange rate of 1.5 USD/ Pound.)<sup>9</sup> It also calculates per game salaries to be able to compare the salaries to those of the Indian Premier League.

Rank	Name	Country	Team	Salary	Salary /Game
1	Emmanuel Adebayor	Togo	Manchester City	\$ 11,100,000.00	\$ 292,105.26
2	Carlos Tevez	Argentina	Manchester City	\$ 10,500,000.00	\$ 276,315.79
3	John Terry	England	Chelsea	\$ 9,750,000.00	\$ 256,578.95
3	Frank Lampard	England	Chelsea	\$ 9,750,000.00	\$ 256,578.95
3	Steven Gerrard	England	Liverpool	\$ 9,750,000.00	\$ 256,578.95
6	Michael Ballack	Germany	Chelsea	\$ 8,400,000.00	\$ 221,052.63
6	Rio Ferdinand	England	Manchester United	\$ 8,400,000.00	\$ 221,052.63
6	Kolo Toure	Ivory Coast	Manchester City	\$ 8,400,000.00	\$ 221,052.63
9	Wayne Rooney	England	Manchester United	\$ 7,800,000.00	\$ 205,263.16
9	Robinho	Brazil	Manchester City	\$ 7,800,000.00	\$ 205,263.16

It is important to keep in mind that these are the top 10 players for the league not based on initial contracts but on renegotiated deals and transfers. The salary per game has been calculated on 38 games, which is the number of games each team plays in a season.

The comparable salaries for the NBA for the top 10 paid players are in Table 5.

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<sup>9</sup> <http://www.soccertools.com/50-top-paid-players-in-world-soccer-for-the-2009-2010-season.html>

**Table 5 – Salaries of the Top 10 Players in the NBA**

This table shows the top paid players of the NBA on an annual and per game basis.<sup>10</sup> The salary per game has been calculated on the 82 games that each team plays in a season.

<b>Rank</b>	<b>Name</b>	<b>Country</b>	<b>Team</b>	<b>Salary</b>	<b>Salary /Game</b>
1	Tracy McGrady	USA	New York	\$23,239,561	\$ 283,409.28
2	Kobe Bryant	USA	LA Lakers	\$23,034,375	\$ 280,907.01
3	Jermaine O'Neal	USA	Miami	\$22,995,000	\$ 280,426.83
4	Tim Duncan	USA	San Antonio	\$22,183,218	\$ 270,527.05
5	Shaquille O'Neal	USA	Cleveland	\$20,000,000	\$ 243,902.44
6	Dirk Nowitzki	Germany	Dallas	\$19,795,714	\$ 241,411.15
7	Paul Pierce	USA	Boston	\$19,795,712	\$ 241,411.12
8	Ray Allen	USA	Boston	\$19,766,860	\$ 241,059.27
9	Rashard Lewis	USA	Orlando	\$18,876,000	\$ 230,195.12
10	Michael Redd	USA	Milwaukee	\$17,040,000	\$ 207,804.88

Thus, looking at Table 3, 4 and 5 and comparing just the salaries, we see that the Indian Premier League players are paid huge amounts of money for a six week period. The amount is almost comparable to the NBA and the EPL, when you take into account that the IPL is only in its 3<sup>rd</sup> year since inception and no players' contracts have been renegotiated. Taking into account, the second and third auction, the salary per game for the IPL is even higher with the highest per week salary jumping to about \$170,000. In addition, while looking at these salaries, it is important to keep in mind that the highest paid cricket players in the world are Australians, where the highest paid players get \$1.5 million a year.<sup>11</sup> The Indian Premier League pays this same amount to a player for a period of 6 weeks.

<sup>10</sup> <http://sportige.com/2009-2010-biggest-contracts/>

<sup>11</sup> <http://cricket.com.au/news-display/Contracted-Player-list-announced/20846>

### **3. Data and Methodology**

#### Indian Premier League

- Performance Statistics for batting and bowling
- Pay based on initial auctions

#### Performance Statistics

- Test performance for both batting and bowling
- One Day Internationals performance for both batting and bowling
- List A performances for both batting and bowling

I will use this data to run regressions to try and find the correlation between pay and performance both before the auction and after the auction to see if either of the performances justifies the amount of money that was paid to the players.

#### *Terms*

There are three main aspects to cricket; batting, bowling and fielding. Batting is how the team scores runs in the game and there are a number of statistics pertaining to batting that speak to how well a player is performing.

Runs – A run is a basic unit of batting. The basic objective of batting is to score as many runs as possible.

Batting Average – It is the number of runs scored per innings played and is a first measure of the potency of a batsman.

Strike Rate – This is a measure of the number of runs scored per ball faced. It gives an idea as to how fast the batsman is scoring his runs. Since each team plays only a limited number of balls, scoring runs fast is important.

Not Outs – It is a measure of the number of times a batsman has played an innings and not gotten out or lost his wicket by the time the innings wrapped up. There are various ways in which a batsman can get out. Along with scoring runs, another objective for batsmen is to protect their wicket or remain not out.

Highest Score – It is the highest number of runs a batsman has scored in an innings in his career.

100's – The hundred run mark is considered a milestone in cricket and is called a "century." Like runs, the number of centuries is a measure of a batsmen's performance.

50's – The fifty run mark is also considered a milestone and is referred to as "a half-century." Like the other performance measures, the higher the number, the better the batsman.

0's – A "0" or a "duck" is when the batsman gets out without making any runs. This is contrary to the objective of batting and a higher number indicates poor performance.

Bowling is the other major aspect of cricket. Bowling is how the team takes the wickets or gets the other team out. If the bowling team takes 10 wickets in an innings, the other team's innings is over and the two teams switch roles.

Overs – An over is a set of six valid balls delivered by a single bowler. A valid ball is a ball whose delivery meets certain specified requirements.

Maidens – A maiden is an over in which the bowler gave no runs. The objective of bowling is to give the least runs possible and thus maidens are a good performance metric.

Runs – Runs in bowling statistics refers to the number of runs scored off the bowler's bowling. A lower number of runs indicate a better performance for bowlers.

Wickets – A “wicket” is getting the batsmen out and can be done in various ways. The objective of bowling is to get the batsmen out or to “take their wicket.” Thus, a higher number of wickets indicate a good bowling performance.

4W – This refers to “Four Wickets” and is a record of how many times a bowler has taken 4 or more wickets in a particular match indicating excellent performance.

Average – The average in bowling refers to the number of runs given by the bowler per wicket taken and is a measure of the consistency of the bowler.

Economy Rate – The economy rate is the number of runs given per over. Since one of the objectives of bowling is to not give runs, this metric gives us an idea of the performance of the bowler.

Best – This refers to the best bowling performance by a bowler in his career. It is based on the number of wickets and a higher number indicates a better performance.

The last aspect of cricket is fielding. Fielding is what the players of the bowling team do when they are not batting. Their objective is to prevent the batting team from scoring runs.

Catches – A catch is one way for a batsman to get out and is a good performance metric for the fielders. It is a performance metric to judge the efficiency of the players in preventing batsmen from scoring runs.

Stumpings – A stumping is when the fielder standing behind the batsman, known as the wicketkeeper (analogous to the “catcher” in baseball), gets a batsman out when the batsman is outside the area he is supposed to be standing in.

#### **4. Analysis**

I begin my analysis with the first of the two questions: To what extent can the auction-based player salaries be justified by the player performances in the first two seasons of the IPL?

##### *Results I – Regression Analysis*

I started by running a simple regression with price paid for each player versus all the match statistics for the players. I divided the players into batsmen and bowlers and ran separate regressions using the statistics most pertaining to the player. For the batting regression, I included variables such as runs, average, strike rate, innings, catches, stumpings etc. For the bowling index, I included variables such as overs, wickets, economy rate, innings, matches etc. The complete data can be seen in Appendix 4 and 5. As Tables 6 and 7 show, the results from these regressions were insignificant with very low “R squares”. With the lowest p-value at 10%, these regressions yielded insignificant results. This showed that the performance in the subsequent seasons of the IPL was not matched to the amounts they were paid. It was a little surprising to see that not one variable was significant considering I used most of the common performance metrics.

**Table 6 – Batting – Regression Analysis: Salary on all Variables**

This table summarizes the regression of all batting and fielding performance variables on price.

<b>Variable</b>	<b>Coefficient</b>	<b>T Statistic</b>	<b>P Value</b>
Constant	338493	0.53	0.601
Matches	11392	0.45	0.657
Innings	-47227	-0.99	0.327
Not Outs	53171	1.32	0.192
Highest Score	622	0.14	0.887
Runs	460	0.22	0.828
Average	-24304	-1.64	0.107
100	235184	0.79	0.435
50	-16178	-0.26	0.799
0	-31051	-0.61	0.546
Balls	2542	0.98	0.331
Strike Rate	2608	0.46	0.65
Catches	-12205	-0.82	0.417
Stumpings	4221	0.11	0.914

The R square for the regression was 22.4%.

**Table 7 – Bowling – Regression Analysis: Salary on all Variables**

This table summarizes the regression of all bowling performance variables on price.

<b>Variable</b>	<b>Coefficient</b>	<b>T Statistic</b>	<b>P Value</b>
Constant	-137754	-0.29	0.772
Matches	-907	-0.1	0.919
Overs	11206	0.87	0.391
Maidens	-131499	-1.53	0.133
Runs	-1892	-1.11	0.27
Wickets	16197	0.93	0.358
4W	-13262	-0.11	0.914
Average	5409	0.42	0.678
Strike Rate	-3007	-0.19	0.846
Economy Rate	59733	1.07	0.288

The R square for the regression was 8.9%.

### *Creating the Index*

Since the regressions yielded no significant results or variables, I decided to use key batting and bowling variables to construct my own indices for batting and bowling performances for the players. I also create a combined batting-and-bowling index by adding the two separate indices; this is, among other things, to capture the performance of players who are not at the very top in either batting or bowling, but make useful contributions with *both*, the bat and ball. I also created a bang-per-buck index at the level of the team to see how efficient teams were in spending their money.

The batting index consisted of three variables:

$$\text{Batting Index} = \text{Runs as a percentage of team runs} * \text{Batting average} * \text{Strike Rate}$$

Where:

Runs as a percentage of team runs: I came up with this variable to be able to judge the performance of players based on the number of runs they have scored. Since the main aim of the batsmen is to score runs, runs were an important variable to include in the index. However, to adjust for other players performances and to put each of the players on a level playing field, I took the runs scored as a percentage of team runs.

Batting Average: The second variable I used is batting average. This is to give a better rating to consistent performers as opposed to one time performers.

Strike Rate: The third variable I used was strike rate to factor in how fast the runs are being scored. Since this is the shorter format of the game, not only the runs but also the balls taken to score the runs become important.

Before constructing the index, I filtered the batsmen using the number of innings as a filter. I only included players who had played at least 10 innings. This was to weed out the players who had only played in a couple of matches and were not regular batsmen. This insured that all the players in the sample had played at least one season completely or two half seasons. This filter also ensured that there were enough statistics for the player to calculate a significant index.

**Table 8 - The Top Players According to the Batting Index**

This table shows the top 15 performers in the IPL based on this index and the amount they were paid.

Name	Team	Batting Index	Price
Marsh, SE	KXIP	100.00	\$ 32,000.00
Hayden, ML	CSK	93.93	\$ 375,000.00
Gilchrist, AC	DC	69.58	\$ 700,000.00
Raina, SK	CSK	64.97	\$ 650,000.00
Dhoni, MS	CSK	63.39	\$ 1,500,000.00
Jayasuriya, ST	MI	61.93	\$ 975,000.00
Watson, SR	RR	58.78	\$ 125,000.00
Gambhir, G	DD	56.61	\$ 725,000.00
Sharma, RG	DC	51.22	\$ 750,000.00
Sehwag, V	DD	49.06	\$ 833,750.00
Pathan, YK	RR	48.92	\$ 475,000.00
De Villiers, AB	DD	48.56	\$ 300,000.00
Symonds, A	DC	45.11	\$ 1,350,000.00
Sangakkara, KC	KXIP	45.08	\$ 700,000.00
McCullum, BB	KKR	42.96	\$ 700,000.00

The rank correlation is 0.26, which is a very low number; however, it shows, at least, that there is some relation between pay and subsequent performance. For example as can be seen in Table 8, the best performer of the IPL, Shaun Marsh was one of the lowest paid players of the entire league. Most of the other highly paid players don't even feature in the top 15 players. However, a lot of the top performers are in the higher spectrum of the paying scale. The complete index can be seen in Appendix 6.

The bowling index consisted of three variables as well:

$$\text{Bowling Index} = \frac{1}{(1/\text{Wickets as a percentage of team wickets}) * \text{Economy Rate} * \text{Average}}$$

Where:

Wickets as a percentage of team wickets: Wickets is the most important statistic for a bowler. I constructed this variable to judge the bowlers relatively to the team and other bowlers. Since the main aim of the bowlers is to get the other team out in the least amount of runs, it was an obvious variable to include.

Economy Rate: This variable captures the number of runs the bowler gave in an over. Since the aim of the bowler is to give the least number of runs, the lower the economy rate, the better the statistic for the bowler. This was also an important variable to include because of the format of the game. It is a very standard statistic used in the game.

Average: This statistic is calculated to see the number of runs given away per wicket taken. The lower the bowling average, the better the statistic is for the bowler. This helps determine bowlers, who have taken more wickets and have give away less runs. It helps

differentiate the bowlers who have taken a lot of wickets and given less runs as opposed to those who have taken a lot of wickets and given a lot of runs.

Before the construction of the index, I filtered all the players with bowling figures to those who had played in at least 10 matches. This eliminated the players who had not played enough matches and ensured sufficient data points to create a significant index. The top players according to the created batting index can be seen in Table 9.

**Table 9 - The Top Players According to the Bowling Index**

This table shows the top 15 performers in the IPL based on this index and the amount they were paid.

<b>Name</b>	<b>Team</b>	<b>Bowling Index</b>	<b>Price</b>
Sohail Tanvir	RR	100.00	\$ 100,000.00
Singh, RP	DC	84.93	\$ 875,000.00
Kumble, A	RCB	81.04	\$ 500,000.00
Pathan, IK	KXIP	78.47	\$ 975,000.00
Ojha, PP	DC	74.57	\$ 30,000.00
Mishra, A	DD	71.13	\$ 50,000.00
Warne, SK	RR	66.68	\$ 450,000.00
Patel, MM	RR	65.68	\$ 275,000.00
Nehra, A	DD+	65.54	\$ 30,000.00
Malinga, SL	MI	64.85	\$ 350,000.00
Chawla, PP	KXIP	64.28	\$ 400,000.00
Maharroof, MF	DD	57.67	\$ 225,000.00
Muralitharan, M	CSK	57.09	\$ 600,000.00
Morkel, JA	CSK	56.09	\$ 675,000.00
Harbhajan Singh	MI	53.73	\$ 850,000.00

The rank correlation is .05, which shows that the rank of players according to price and performance are very different. This could be because a lot of the best performers were paid next to nothing and some of the best paid were the worst performers. In further analyzing this index,

we see a larger disconnect between the price paid to players and their performance statistics. As can be seen in Table 9, the highest performer according to this bowling index is Sohail Tanvir, who was paid only \$100,000. Similarly, some of the other top bowlers such as Pragyan Ojha and Amit Mishra were some of the lowest paid players in the league. Overall after looking at both the batting and the bowling index, we see that batting was a better performance indicator than bowling in terms of justifying pay. The complete bowling index can be seen in Appendix 7.

I added the batting and the bowling indices to come up with a combined index for the players. In this format of the game, players are expected to be good at both bowling and batting, which is why this combined index makes more sense than the batting or bowling index by itself.

**Table 10 - The Top Players According to the Combined Index**

This table shows the top 15 overall performers in the Indian Premier League

<b>Name</b>	<b>Team</b>	<b>Index</b>	<b>Price</b>
Sohail Tanvir	RR	100.00	\$ 100,000.00
Marsh, SE	KXIP	100.00	\$ 32,000.00
Watson, SR	RR	96.67	\$ 125,000.00
Sharma, RG	DC	95.17	\$ 750,000.00
Hayden, ML	CSK	93.93	\$ 375,000.00
Pathan, IK	KXIP	92.01	\$ 975,000.00
Singh, RP	DC	85.14	\$ 875,000.00
Raina, SK	CSK	84.69	\$ 650,000.00
Kumble, A	RCB	81.44	\$ 500,000.00
Jayasuriya, ST	MI	80.29	\$ 975,000.00
Morkel, JA	CSK	79.74	\$ 675,000.00
Ojha, PP	DC	74.57	\$ 30,000.00
Bravo, DJ	MI	73.27	\$ 150,000.00
Pathan, YK	RR	71.47	\$ 475,000.00
Mishra, A	DD	71.13	\$ 50,000.00
Warne, SK	RR	70.99	\$ 450,000.00

The rank correlation is .29, which shows that some of the higher paid players have performed better. However, there is no significant correlation. As can be seen in Table 10, the top 3 performers of the league have been paid some of the lowest amounts. On the whole though, the performance for some of the players does seem to justify pay on a relative basis. The complete index can be seen in Appendix 9.

I also created a bang per buck index to see what players are worth the most based on their performance. I further calculated a bang per buck index per team to see which team has spent their money most efficiently. To calculate this, I added the individual performance index for all the players in the teams and the total amount spent by the owners of the team. I divided these numbers to calculate the bang per buck index. The teams in order of efficiency in spending their money can be seen in Table 11.

**Table 11 – Teams Bang per Buck**

This table shows the amount teams spent in total and the performance value of the players.

<b>Team</b>	<b>Total Money Spent</b>	<b>Total Performance Index</b>	<b>Team Bang per Buck</b>
Rajasthan	\$ 2,470,000.00	534.67	\$ 21.65
Delhi	\$ 3,578,750.00	494.97	\$ 13.83
Mohali	\$ 5,000,750.00	501.47	\$ 10.03
Chennai	\$ 5,435,000.00	483.33	\$ 8.89
Mumbai	\$ 5,486,250.00	484.31	\$ 8.83
Deccan	\$ 5,635,000.00	488.31	\$ 8.67
Bangalore	\$ 4,200,000.00	340.10	\$ 8.10
Kolkata	\$ 4,262,500.00	285.03	\$ 6.69

As can be seen in Table 11 Rajasthan has been the most successful in buying players who have performed most effectively according to their price. Kolkata on the other has been least

successful in picking players and has paid a lot more for players who have not lived up to the amounts they were bid for.

### *Results II – Explaining Pay with Past Performance*

Since the performance after the auction is not very indicative of pay, I decided to gather information on their performance prior to the auction to see if there was any correlation. Since the format of the game followed in the league was in its initiation stages, there is not enough data to warrant the price paid for these players. This means that the price paid for these players could have been based on the players' performances in other forms of the game. I will examine the performance of players in 3 different forms of the game and look at the same performance metrics in each form of the game.

*Tests:* I will look at the players Test cricket performance, which is the longest format of the game and is played over a number of days.

*One Day Internationals:* I will look at the players ODI record. This is a longer version of the 20-20 format of the game.

*A-List:* This refers to one day matches played at a national or state and not the international level. Some of the players who got to play in the IPL were new finds and had not gotten an opportunity to play in the international version of the sport. These statistics help account for such players. For the batting statistics, I used the batting average and the strike rate from each forms of the game. For the bowling statistics, I used the bowling average, the economy rate and the number of wickets. The complete data can be found in Appendix 10 and 11.

**Table 12 – Bowling: Salary on Past Performance Metrics**

This table summarizes the regression of salary on past performance metrics in bowling.

<b>Variable</b>	<b>Coefficient</b>	<b>T Statistic</b>	<b>P Value</b>
Constant	-1524066	-1.94	0.063
Test Wickets	-182	-0.42	0.678
Test Average	-6106	-1.56	0.131
Test Economy Rate	1450	0.02	0.983
ODI Wickets	-92	-0.09	0.931
ODI Average	-13074	-1.82	0.079
ODI Economy Rate	158558	2.56	0.016
A- List Wickets	1409.2	1.86	0.073
A-List Average	46873	2.79	0.009
A-List Economy Rate	40915	0.22	0.828

The R square for the regression was 46.8%. As can be seen in Table 12, the only significant variables in this regression were ODI Economy rate and A- List Average, which had p values of less than 5%.

**Table 13 – Batting: Salary on Past Performance Metrics**

This table summarizes the regression of salary on past performance metrics in batting.

<b>Variable</b>	<b>Coefficient</b>	<b>T Statistic</b>	<b>P Value</b>
Constant	1574978	2.34	0.039
Test Average	10708	0.65	0.532
Test Strike Rate	-10213	-0.97	0.353
ODI Average	2595	0.17	0.87
ODI Strike Rate	-3904	-0.95	0.36
A-List Average	5256	0.37	0.721
A-List Strike Rate	-10162	-1.48	0.167

The R square for the regression was 28.8%. As can be seen in Table 13, the R square of this regression and the variables were insignificant. The results of this regression have to be evaluated keeping in mind that there are only 18 data points in the regression. The A- List data

was limited to only 18 players, thus I did another regression with only the Test and One Day International match statistics.

**Table 14 – Batting: Salary on Past Performance (excluding A-List)**

This table summarizes the regression of salary on past performance metrics in batting.

<b>Variable</b>	<b>Coefficient</b>	<b>T Statistic</b>	<b>P Value</b>
Constant	529262	3.58	0.001
Test Average	-1743	-0.36	0.722
Test Strike Rate	180	0.07	0.945
ODI Average	9227	1.43	0.159
ODI Strike Rate	-2625	-1.06	0.295

The R square for this regression was 6.5%. As can be seen in Table 14, there was no significant variable in this regression and the R square was extremely low as well.

Since these regressions were not able to explain the salary, I added another variable age. As stated before, since this format of the game is extremely fast and dynamic, maybe the performance was offset by the age of the players, which accounted for the variance of pay versus performance.

**Table 15 – Bowling: Salary on Past Performance and Age**

This table summarizes the regression of salary on past performance metrics and age in bowling.

<b>Variable</b>	<b>Coefficient</b>	<b>T Statistic</b>	<b>P Value</b>
Constant	-1057589	-1.16	0.254
Test Wickets	-69.5	-0.16	0.877
Test Average	-5463	-1.38	0.18
Test Economy Rate	-2382	-0.03	0.973
ODI Wickets	-364	-0.34	0.738
ODI Average	-11594	-1.59	0.124
ODI Economy Rate	131656	1.96	0.061
A- List Wickets	1837.9	2.13	0.042
A-List Average	49380	2.91	0.007
A-List Economy Rate	17273	0.09	0.927
Age	-15626	-1.03	0.313

The R square for this regression was 48.8%. As can be seen in Table 15, this regression yielded a new significant variable, A-List Wickets and strengthened the significance of the A-List Average. The R square remained the same though.

**Table 16 – Batting: Salary on Past Performance and Age**

This table summarizes the regression of salary on past performance metrics and age in batting.

<b>Variable</b>	<b>Coefficient</b>	<b>T Statistic</b>	<b>P Value</b>
Constant	2536091	3.17	0.01
Test Average	11199	0.75	0.473
Test Strike Rate	-10813	-1.14	0.283
ODI Average	5135	0.37	0.723
ODI Strike Rate	-4293	-1.16	0.274
A-List Average	361	0.03	0.979
A-List Strike Rate	-11525	-1.84	0.096
Age	-30605	-1.85	0.093

The R square for this regression was 47%. As can be seen in Table 16, adding age to the regression greatly increased the R square of the regression however the regression did not yield any significant variables.

**Table 17 – Batting: Salary on Past Performance and Age (excluding A-List)**

This table summarizes the regression of salary on past performance metrics and age in batting.

<b>Variable</b>	<b>Coefficient</b>	<b>T Statistic</b>	<b>P Value</b>
Constant	629230	2.2	0.033
Test Average	-1324	-0.26	0.793
Test Strike Rate	302	0.12	0.909
ODI Average	9072	1.39	0.171
ODI Strike Rate	-2672	-1.07	0.291
Age	-3877	-0.41	0.684

The R square for this regression was 6.8%. As can be seen in Table 17, the R square for this regression remained the same and there were no significant variables.

Since these regressions failed to show age as a significant explanatory variable, I changed age from a linear to a quadratic variable. I also did this based on the assumption that teams in this format of the game would value athleticism and experience more thus would pay more for the younger and older players as compared to the middle aged players. Thus, I ran the same regressions with age and age<sup>2</sup> to test for age as a better explanatory variable.

**Table 18 – Bowling: Salary on Past Performance, Age and Age<sup>2</sup>**

This table summarizes the regression of salary on past performance metrics in bowling and age as a quadratic variable.

<b>Variable</b>	<b>Coefficient</b>	<b>T Statistic</b>	<b>P Value</b>
Constant	1458464	0.7	0.491
Test Wickets	-595.6	-1.01	0.323
Test Average	-6377	-1.61	0.12
Test Economy Rate	-16	0	1
ODI Wickets	584	0.46	0.651
ODI Average	-8425	-1.11	0.277
ODI Economy Rate	109758	1.61	0.12
A- List Wickets	1385.9	1.51	0.142
A-List Average	46251	2.74	0.011
A-List Economy Rate	6728	0.04	0.971
Age	-184870	-1.45	0.16
Age <sup>2</sup>	3028	1.33	0.194

The R square for this regression is 52.1%. As can be seen in Table 18, adding age as a quadratic variable increased the R square of the regression yet yielded only one significant variable, the A-List Average.

**Table 19 – Batting: Salary on Past Performance, Age and Age<sup>2</sup>**

This table summarizes the regression of salary on past performance metrics in batting and age as a quadratic variable.

<b>Variable</b>	<b>Coefficient</b>	<b>T Statistic</b>	<b>P Value</b>
Constant	2375499	0.95	0.367
Test Average	11660	0.68	0.515
Test Strike Rate	-11187	-0.98	0.354
ODI Average	4509	0.26	0.802
ODI Strike Rate	-4195	-1.01	0.34
A-List Average	492	0.03	0.973
A-List Strike Rate	-11851	-1.45	0.18
Age	-16018	-0.07	0.942
Age <sup>2</sup>	-266	-0.07	0.947

The R square for this regression is 47%. As can be seen in Table 19, though this increased the R square for the regression greatly, it did not yield any significant variables.

**Table 20 – Batting: Salary on Past Performance, Age and Age<sup>2</sup> (excluding A-List)**

This table summarizes the regression of salary on past performance metrics in batting and age as a quadratic variable.

<b>Variable</b>	<b>Coefficient</b>	<b>T Statistic</b>	<b>P Value</b>
Constant	1077577	0.73	0.472
Test Average	-1300	-0.26	0.799
Test Strike Rate	398	0.15	0.882
ODI Average	9312	1.4	0.167
ODI Strike Rate	-2722	-1.07	0.288
Age	-36378	-0.34	0.733
Age <sup>2</sup>	564	0.31	0.76

The R square for the regression is 7%. As can be seen in Table 20, age as a quadratic variable did not help this regression at all. The R square barely changed and there were no significant variables.

Since the regressions continue to show that age was a fairly insignificant variable, I tested for one last variable, captaincy. Some teams picked players for their team as leaders or as the captain of the team. Thus I added a new variable captaincy in addition to age and past performance measures to determine if pay is determined better. To do this, I assigned past captains a “1” and gave past players who had no captaincy experience a “0”. In addition, since making age a quadratic variable did not help, I kept it as a linear variable in the remaining regressions.

**Table 21 – Bowling: Salary on Past Performance, Age and Captaincy**

This table summarizes the regression of salary on past performance metrics in bowling, age and captaincy.

<b>Variable</b>	<b>Coefficient</b>	<b>T Statistic</b>	<b>P Value</b>
Constant	-1055545	-1.06	0.3
Test Wickets	-70.6	-0.14	0.889
Test Average	-5469	-1.3	0.204
Test Economy Rate	-2311	-0.03	0.974
ODI Wickets	-362	-0.32	0.751
ODI Average	-11598	-1.55	0.134
ODI Economy Rate	131660	1.92	0.066
A- List Wickets	1836.7	2.03	0.052
A-List Average	49372	2.84	0.009
A-List Economy Rate	17004	0.09	0.932
Age	-15637	-1	0.326
Captaincy	779	0.01	0.996

The R square for the regression is 48.8%. As can be seen in Table 21, this regression continued to yield A-List Average as a significant variable.

**Batting – Regression Analysis: Salary on Past Performance, Age and Captaincy**

In running this regression, the players who have all the available statistics for the A-List games have not been past captains in any format of the game, thus the regression is the same as the one with only age.

**Table 22 – Batting: Salary on Past Performance, Age and Captaincy (excluding A-List)**

This table summarizes the regression of salary on past performance metrics in batting, age and captaincy.

<b>Variable</b>	<b>Coefficient</b>	<b>T Statistic</b>	<b>P Value</b>
Constant	677129	2.29	0.026
Test Average	-2147	-0.41	0.68
Test Strike Rate	445	0.17	0.867
ODI Average	9149	1.4	0.169
ODI Strike Rate	-2767	-1.1	0.278
Age	-5619	-0.57	0.57
Captaincy	82051	0.71	0.48

The R square for the regression is 7.8%. As can be seen in Table 22, this regression continued to yield no significant variables.

## **5. Conclusion**

This research has investigated possible justifications (in terms of past performance) for the amounts bid in the player-auctions in the Indian Premier League, and whether the amounts paid were justified by subsequent performance in the league games themselves. What made the auction process unusual was that the format of the league games (the so-called Twenty20 or T20 format) is a relatively new one in cricket and very little data on performance metrics in this form of the game were available at the time of the auction.

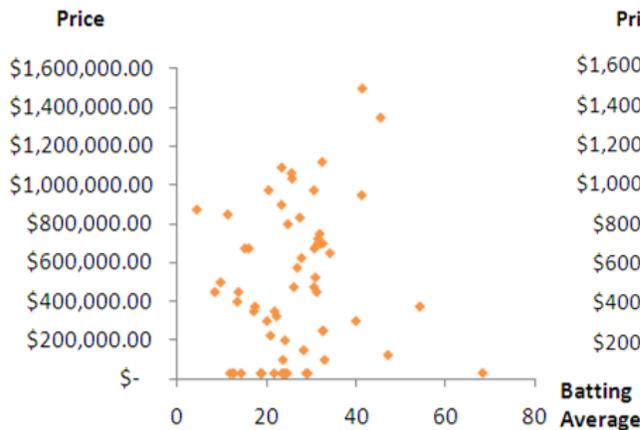
The results are generally negative. I find that the highest-paid players were not necessarily the highest-performing; indeed, some of the best performing players were among the lowest-paid in the league. Secondly, player performances in other formats of the game do not fully explain the amounts bid at the auctions.

To check the pay-versus-subsequent performance relationship, I created indices of performance.

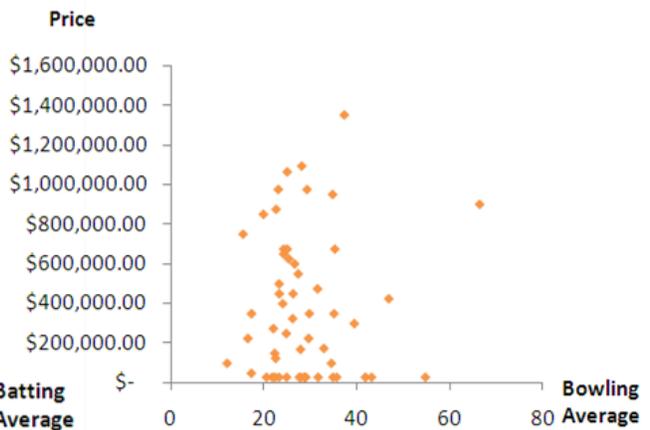
These indices are robust and take into account key factors, which are considered to be indicative

of performance; however they show little relationship to pay. Regression analysis confirms this result: The results of the regressions have little statistical significance with the price paid for players. Generally, one would expect the better paid players to perform better and the past performers to be paid better however, putting in specific factors, this was not the case. For example, Ricky Ponting, an Australian cricketer and a legend in the other forms of the game was paid a mere \$400,000. This becomes more shocking when you take into account that he is highest paid contracted cricketer in Australia (and the world since the Australians are the highest paid cricketers in the world). On the whole however, higher paid batsmen performed better and justified the amount they were paid. The bowling index on the other hand was poor in justifying the pay. For example, you can look at the following diagrams (Figure 1 and Figure 2). They clearly fail the eye-ball test.

**Figure 1 – Price vs. Batting Average**



**Figure 2 – Price vs. Bowling Average**



The figures are scatter plots of price vs. averages.

As far as past performance in concerned, the regressions for past bowling metrics still yielded A-List Average as a significant variable in all the regressions suggesting that there was a

correlation between this number and the price paid for players. For the pre-auction batting metrics however, the data failed to suggest significant variables. This is not too shocking because it affirms the importance of different skill sets in the different formats of the game. On the whole, the bowlers were better explained through the performance metrics in the other formats of the game.

As suspected, this proves that the pay was not based on any significant statistical data but on more intangible factors that are hard to quantify. While some players have clearly been paid less than the amount they should have, others have failed to justify the amount paid for them. There is a certain disconnect between the salaries of players and the performance both past and subsequent. It points to the infancy of the IPL as compared to more established leagues such as the NBA and the EPL, where player salaries are more matched with performance. However, having said that, if the same study was to be done 10 years down the line with data on 10 more seasons of the Indian Premier League, the results may be completely different. This is because of the learning curve involved in the auction process, which is probably why the EPL and the NBA have turned out as successful auctions and have lasted so long.

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[104&srt=npan&col=aohdq&pt=c&va=&srt=pnan](http://www.world-gazetteer.com/wg.php?x=&men=gcis&lng=en&dat=32&geo=-104&srt=npan&col=aohdq&pt=c&va=&srt=pnan)>.

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## Appendix 1 – City-Wise Population

City	Population
Mumbai	13,830,884
Delhi	12,565,901
Bangalore	5,438,065
Kolkatta	5,138,208
Chennai	4,616,639
Hyderabad	4,068,611
Jaipur	3,210,570
Mohali	1,064,711

## Appendix 2 – Barclays English Premier League (EPL) Auction Process

The Barclays Premier League is regarded as the elite club competition for football in the world. Founded in 1992 in England, there are a total of 20 teams that participate in the league and are shareholders of the league. The three poorest performing teams are relegated at the end of the season to the league below and the three best performing teams from the league below are promoted to the Barclays Premier League. This structure keeps the league dynamic and fosters a competitive environment encouraging teams to perform their best in order to keep themselves from getting relegated. The teams in the current Barclays Premier League are Manchester United, Chelsea, Liverpool, Arsenal, Aston Villa, Tottenham Hotspurs, Manchester City, Everton, Birmingham City, Stoke City, Fulham, Blackburn Rovers, Sunderland, Wolves, Bolton Wanderers, Wigan Athletic, West Ham United, Hull City, Burnley, and Portsmouth. The league is structured in a way such that each team plays a home game and an away game with every other team leading to a total of 38 games per team per season. The team with the most points at

the end of the league is declared the winner of the league. Each team gets 3 points for winning a game and one point for a draw.

As the most watched sport in the world and attracting some of the best players in the world, the league is the highest paying football league in the world. It has a total wage pay of \$2.3 billion and an average salary for each player of about \$20,000 per week. After baseball, football and the NBA in America, it is the highest revenue generating league in the world. Its combined revenues with club revenues were \$3.15 billion last season making it the most lucrative league. In terms of individual club revenues, Manchester United was the most successful club raising around \$420 million in club revenues followed by Arsenal at \$340 million followed by Chelsea and Liverpool. The owners of the clubs are multi-millionaires ranging from bankers, diamond merchants, corporations to royal families. Also the owners of the clubs are from all over the world including America, England, Russia, UAE and Nepal.

Being the most lucrative league in the world, the league attracts immense viewership and following. The premier league is widely broadcasted all across the world with Sky Sports and Setanta as the main broadcasting provider. There have been many contracts for television rights and have shifted hands a number of times as well. The league has earned over \$4 billion in television contracts for 2007-2010. It has deals with overseas broadcasters in 81 separate blocs covering 208 countries. The value of the overseas rights more than doubled in this contract pointing to its growing popularity abroad. The total viewership is estimated to be at 600 million over these 208 countries and is steadily growing.

As far as the auction process is concerned, there is no limit to the number of players or the amount of money a team can spend on a player. They have complete freedom in signing

international players and are free to employ players of any age as long as the employment laws are kept in mind.

The window opens after the third Saturday in May and lasts until 1<sup>st</sup> July, when teams are allowed to approach players and players are allowed to approach teams. In case the club is signing on a minor (under the age of 18), the parent/guardian of the player is required to be there but there are no other restrictions in terms of player signings.

### **Appendix 3 – National Basketball Association (NBA) Auction Process**

The National Basketball Association was founded in 1946 and is the professional men's basketball league comprising of 30 teams. Originally the league started off with 11 teams but has grown to 30 teams after many expansions, reductions and relocations. It merged with the American Basketball Association with a purpose to form a more established league. Some of the teams from the American Basketball League were absorbed into the NBA while some of the teams ceased to exist. In the NBA, there are a total of 6 divisions (Atlantic, Central, South East, Northwest, Pacific, Southwest) with 5 teams each. In addition to this the teams are divided into two conferences (east and west) comprising of 3 divisions each respectively. During the regular season, each team plays 82 games half of which are at home and the other half away. Each team plays the other teams in its division 4 times a year, each team in its conference 3-4 times a year and each team in the other conference 2 times a year. The top 8 teams from each conference qualify for the playoffs which follows a tournament like format. In this round, each team is paired with another team based on its seeding and plays a series of 7 matches to determine the winner. By a process of elimination there is only one team left from each conference, which is the team with the highest points at the end of the season from that conference. The two winners

from each of the conferences play in the NBA finals to decide the winner of the playoffs. Some of the popular teams in the NBA are the LA Lakers, NY Knicks, Boston Celtics, San Antonio Spurs, Chicago Bulls and the Cleveland Cavaliers.

The players of the NBA are the highest paid basketball players in the world. Being the most popular basketball league in the world, the NBA attracts the best talent in the sport from all over the world including China, Brazil, Russia, Germany, Australia and many other countries across Europe. The current season opened with 83 international players on the team rosters, which is a record. The highest team payroll is for the LA Lakers about \$91 million followed closely by the Dallas Mavericks at \$ 90 million. The lowest payroll is for the Portland Trail Blazers at about \$56 million.

Basketball is a really popular sport in the US and attracts a wide audience. With the sport played all across the country and with the national team being the best in the world, the sport enjoys national popularity. NBA just entered into an 8 year deal with ESPN for a total of \$7.44 billion, which works out to an average of \$930 million a year up from \$756 million a year or a total of \$4.6 billion, which was signed 6 years ago with ESPN/ABC. For ESPN, the NBA content will be a part of more than 17 outlets.

The initial auction for the NBA is a draft process where each team has a salary cap. The salary cap has increased over the years from \$3.6 million in 1984 to about \$60 million in 2010. The salary cap is based on the previous year revenues for the NBA. Teams that go over the salary cap are required to pay a luxury tax. This is to level the playing field and to prevent the richer teams from hiring the best talent. These tax revenues are distributed evenly amongst the non-tax paying teams. The luxury tax level for the 2009-2010 season has been set at \$69.92 million. The average

salary over the same period has increased from \$330,000 to \$5.2 million. The draft is the process where teams can get new players into the NBA. Another way for the teams to get new players is through free agents, where the teams sign players on a contractual basis. These are usually held at the end of June in New York City. The eligibility for players to enter the draft has changed over the years but the players are usually college players and other international players hoping to enter the NBA. Earlier, high school graduates were allowed to enter the draft however that has changed and players are required to attend at least one year of college before they can enter the draft. The draft lottery is another annual event where the teams who were not able to make it to the playoffs (a total of 14 teams) are entered into a lottery giving the team with the worst record a chance to make the first pick. Only the first 3 picks are decided through the lottery after which it is based on the performance of the teams in the last season.

#### Appendix 4 – League Bowling Statistics

Player	Team	Matches	Overs	Maidens	Runs	Wkts	Best	4W	Avg	SR	Econ
Balaji, L	CSK	22	70.2	0	602	24	5-24	2	25.08	17.58	8.56
Gony, MS	CSK	23	77	3	615	22	3-34	0	27.95	21	7.99
Morkel, JA	CSK	25	88	1	727	30	4-32	1	24.23	17.6	8.26
Muralitharan, M	CSK	28	108	1	665	25	3-11	0	26.6	25.92	6.16
Oram, JDP	CSK	15	31.3	0	282	8	3-32	0	35.25	23.63	8.95
Raina, SK	CSK	30	31	0	194	8	2-17	0	24.25	23.25	6.26
Sharma, J	CSK	12	31.4	0	296	10	2-27	0	29.6	19	9.35
Ojha, PP	DC	28	90.3	0	632	29	3-21	0	21.79	18.72	6.98
Ravi Teja, DB	DC	16	2	0	19	1	1-19	0	19	12	9.5
Shahid Afridi	DC	10	30	0	225	9	3-28	0	25	20	7.5
Sharma, RG	DC	29	27	0	186	12	4-6	1	15.5	13.5	6.89
Singh, RP	DC	30	111	2	859	38	4-22	1	22.61	17.53	7.74
Styris, SB	DC	10	35	0	263	8	3-32	0	32.88	26.25	7.51
Suman, TL	DC	12	15	0	108	5	2-14	0	21.6	18	7.2
Symonds, A	DC	12	30.5	0	261	7	2-18	0	37.29	26.43	8.46
Venugopal Rao, Y	DC	27	29	0	259	6	2-23	0	43.17	29	8.93
Smith, DR	DC	12	25	0	207	6	3-26	0	34.5	25	8.28
Bhatia, R	DD	17	43.4	0	329	16	4-15	1	20.56	16.38	7.53
Dilshan, TM	DD	21	17	0	101	1	1-3	0	101	102	5.94
Maharroof, MF	DD	13	46	0	314	19	3-34	0	16.53	14.53	6.83
Mahesh, VY	DD	12	44.1	0	395	17	4-36	1	23.24	15.59	8.94
McGrath, GD	DD	14	54	2	357	12	4-29	1	29.75	27	6.61
Mishra, A	DD	17	62	1	432	25	5-17	1	17.28	14.88	6.97

## Appendix 4 Continued

Player	Team	Matches	Overs	Maidens	Runs	Wkts	Best	4W	Avg	SR	Econ
Nannes, DP	DD	13	49.3	0	372	15	3-27	0	24.8	19.8	7.52
Sangwan, P	DD	20	70.4	1	575	20	3-18	0	28.75	21.2	8.14
Sehwag, V	DD	25	12	0	158	3	1-2	0	52.67	24	13.17
Tiwary, MK	DD	11	1	0	11	0	0-11	0	-	-	11
Nehra, A	DD	27	95.5	1	694	31	3-13	0	22.39	18.55	7.24
Agarkar, AB	KKR	20	57	0	491	14	3-25	0	35.07	24.43	8.61
Dinda, AB	KKR	22	63	0	453	13	3-33	0	34.85	29.08	7.19
Ganguly, SC	KKR	26	32	0	225	8	2-21	0	28.13	24	7.03
Hodge, BJ	KKR	15	20	0	161	7	3-29	0	23	17.14	8.05
Hussey, DJ	KKR	17	17	0	164	2	1-23	0	82	51	9.65
Kartik, M	KKR	16	48.4	0	328	7	3-17	0	46.86	41.71	6.74
Sharma, I	KKR	24	85.1	1	626	18	2-15	0	34.78	28.39	7.35
Shukla, LR	KKR	22	26	0	224	9	3-6	0	24.89	17.33	8.62
Bangar, SB	KKR	12	25	0	219	4	2-34	0	54.75	37.5	8.76
Chawla, PP	KXIP	29	91.4	1	697	29	3-25	0	24.03	18.97	7.6
Goel, K	KXIP	16	10	0	86	0	0-11	0	-	-	8.6
Hopes, JR	KXIP	11	28	0	276	7	2-2	0	39.43	24	9.86
Mota, WA	KXIP	12	12	0	97	4	1-6	0	24.25	18	8.08
Pathan, IK	KXIP	28	103.2	3	739	32	3-35	0	23.09	19.38	7.15
Powar, RR	KXIP	14	33	0	223	8	2-11	0	27.88	24.75	6.76
Singh, VR	KXIP	18	57	0	502	12	3-29	0	41.83	28.5	8.81
Sreesanth, S	KXIP	22	74.1	0	634	25	3-29	0	25.36	17.8	8.55
Yuvraj Singh	KXIP	29	29	0	225	9	3-13	0	25	19.33	7.76

## Appendix 4 Continued

Player	Team	Matches	Overs	Maidens	Runs	Wkts	Best	4W	Avg	SR	Econ
Bravo, DJ	MI	20	61.3	1	491	22	3-24	0	22.32	16.77	7.98
Duminy, J-P	MI	13	17.3	0	93	4	2-15	0	23.25	26.25	5.31
Harbhajan Singh	MI	16	54	0	338	17	4-17	1	19.88	19.06	6.26
Jayasuriya, ST	MI	26	40	1	322	11	3-14	0	29.27	21.82	8.05
Kulkarni, DS	MI	18	55.3	0	442	16	3-33	0	27.63	20.81	7.96
Malinga, SL	MI	13	49.3	2	312	18	3-11	0	17.33	16.5	6.3
Nayar, AM	MI	27	19	0	152	5	3-13	0	30.4	22.8	8
Pollock, SM	MI	13	46	1	301	11	3-12	0	27.36	25.09	6.54
Rahane, AM	MI	10	1	0	5	1	1-5	0	5	6	5
Raje, RR	MI	10	23.1	0	209	6	2-16	0	34.83	23.17	9.02
Tendulkar, SR	MI	20	6	0	58	0	0-7	0	-	-	9.67
Zaheer Khan	MI	17	63	0	499	19	3-31	0	26.26	19.89	7.92
Akhil, B	RCB	13	28.2	0	214	6	2-17	0	35.67	28.33	7.55
Kallis, JH	RCB	26	80.2	1	664	10	2-18	0	66.4	48.2	8.27
Kohli, V	RCB	29	13.4	0	107	2	2-25	0	53.5	41	7.83
Kumar, P	RCB	26	94.2	2	760	24	3-23	0	31.67	23.58	8.06
Kumble, A	RCB	26	97.3	1	651	28	5-5	2	23.25	20.89	6.68
Steyn, DW	RCB	13	47	0	314	12	3-27	0	26.17	23.5	6.68
Taylor, LRPL	RCB	15	1	0	13	0	0-13	0	-	-	13
van der Merwe, RE	RCB	10	34	0	248	9	2-22	0	27.56	22.67	7.29
Vinay Kumar, R	RCB	19	55.2	0	453	14	3-27	0	32.36	23.71	8.19
Jadeja, RA	RR	27	25.3	0	172	6	3-15	0	28.67	25.5	6.75
Patel, MM	RR	26	89.5	2	661	30	3-17	0	22.03	17.97	7.36

## Appendix 4 Continued

Player	Team	Matches	Overs	Maidens	Runs	Wkts	Best	4W	Avg	SR	Econ
Pathan, YK	RR	29	63.1	0	473	15	3-22	0	31.53	25.27	7.49
Sohail Tanvir	RR	11	41.1	0	266	22	6-14	2	12.09	11.23	6.46
Trivedi, SK	RR	22	68	0	551	19	2-19	0	29	21.47	8.1
Warne, SK	RR	28	102	1	769	33	3-19	0	23.3	18.55	7.54
Watson, SR	RR	15	54.1	0	383	17	3-10	0	22.53	19.12	7.07

## Appendix 5 – League Batting Statistics

Player	Teams	Matches	Innings	Not Outs	Runs	Highest Score	Average	100	50	0	Balls	SR	Ct	St
Badrinath, S	C SK	30	22	7	369	64	24.6	0	3	3	294	125.51	10	0
Dhoni, MS	C SK	30	27	9	746	65	41.44	0	4	0	571	130.65	10	4
Fleming, SP	C SK	10	10	1	196	45	21.78	0	0	1	165	118.79	2	0
Hayden, ML	C SK	16	16	2	761	89	54.36	0	7	0	526	144.68	5	0
Morkel, JA	C SK	25	20	9	338	71	30.73	0	1	0	233	145.06	4	0
Oram, JDP	C SK	15	11	4	106	41	15.14	0	0	0	105	100.95	8	0
Patel, PA	C SK	22	22	2	444	54	22.2	0	2	4	423	104.96	9	0
Raina, SK	C SK	30	28	3	855	98	34.2	0	5	0	604	141.56	17	0
Gibbs, HH	DC	23	23	3	538	69	26.9	0	4	4	482	111.62	16	0
Gilchrist, AC	DC	30	30	1	931	109	32.1	1	6	2	643	144.79	16	9
Laxman, VVS	DC	11	11	1	174	52	17.4	0	1	3	165	105.45	2	0
Ravi Teja, DB	DC	16	12	3	174	40	19.33	0	0	0	152	114.47	6	0
Sharma, RG	DC	29	28	4	766	76	31.92	0	5	1	588	130.27	13	0
Singh, RP	DC	30	15	7	35	10	4.38	0	0	2	41	85.37	12	0
Suman, TL	DC	12	12	2	237	41	23.7	0	0	1	190	124.74	2	0
Symonds, A	DC	12	11	2	410	117	45.56	1	1	0	273	150.18	4	0
Venugopal Rao, Y	DC	27	23	4	412	71	21.68	0	2	2	324	127.16	7	0
Smith, DR	DC	12	11	0	260	49	23.64	0	0	0	172	151.16	8	0
de Villiers, AB	DD	21	19	5	560	105	40	1	3	2	453	123.62	16	0
Dilshan, TM	DD	21	20	4	522	67	32.63	0	4	1	420	124.29	9	0
Gambhir, G	DD	29	29	3	820	86	31.54	0	6	2	657	124.81	4	0
Karthik, KD	DD	28	21	7	433	56	30.93	0	2	0	324	133.64	18	7
Maharroof, MF	DD	13	10	3	146	39	20.86	0	0	1	100	146	3	0

## Appendix 5 Continued

Player	Teams	Matches	Innings	Not Outs	Runs	Highest Score	Average	100	50	0	Balls	SR	Ct	St
Sehwag, V	DD	25	25	3	604	94	27.45	0	4	3	358	168.72	6	0
Agarkar, AB	KKR	20	13	6	120	39	17.14	0	0	0	103	116.5	1	0
Ganguly, SC	KKR	26	24	1	538	91	23.39	0	3	2	514	104.67	8	0
Hodge, BJ	KKR	15	15	3	377	73	31.42	0	3	1	327	115.29	3	0
Hussey, DJ	KKR	17	17	2	417	71	27.8	0	2	2	318	131.13	6	0
McCullum, BB	KKR	17	17	2	473	158	31.53	1	2	1	331	142.9	7	0
Saha, WP	KKR	20	17	9	231	59	28.88	0	1	1	160	144.38	11	2
Shukla, LR	KKR	22	18	5	246	48	18.92	0	0	1	207	118.84	3	0
Chawla, PP	KXIP	29	17	8	121	24	13.44	0	0	5	95	127.37	12	0
Goel, K	KXIP	16	15	1	200	38	14.29	0	0	2	211	94.79	6	0
Hopes, JR	KXIP	11	11	0	221	71	20.09	0	2	1	148	149.32	3	0
Jayawardena, DPMD	KXIP	23	22	9	398	52	30.62	0	1	0	296	134.46	11	0
Katich, SM	KXIP	11	11	1	241	75	24.1	0	2	1	186	129.57	2	0
Marsh, SE	KXIP	11	11	2	616	115	68.44	1	5	0	441	139.68	3	0
Pathan, IK	KXIP	28	22	6	327	40	20.44	0	0	1	274	119.34	8	0
Sangakkara, KC	KXIP	24	22	2	652	94	32.6	0	6	1	522	124.9	10	2
Sohal, S	KXIP	10	10	0	119	43	11.9	0	0	2	101	117.82	3	0
Yuvraj Singh	KXIP	29	28	3	639	58	25.56	0	3	0	479	133.4	12	0
Bravo, DJ	MI	20	17	3	396	70	28.29	0	3	0	337	117.51	11	0
Duminy, J-P	MI	13	12	3	372	62	41.33	0	5	1	325	114.46	4	0
Harbhajan Singh	MI	16	13	3	113	28	11.3	0	0	2	70	161.43	5	0
Jayasuriya, ST	MI	26	26	2	735	114	30.63	1	4	2	501	146.71	4	0
Nayar, AM	MI	27	21	4	399	45	23.47	0	0	0	290	137.59	8	0

## Appendix 5 Continued

Player	Teams	Matches	Innings	Not Outs	Runs	Highest Score	Average	100	50	0	Balls	SR	Ct	St
Tendulkar, SR	MI	20	20	3	552	68	32.47	0	3	2	480	115	12	0
Dhawan, S	MI	19	18	5	380	68	29.23	0	4	1	340	111.76	10	0
Zaheer Khan	MI	17	12	7	42	17	8.4	0	0	1	54	77.78	3	0
Akhil, B	RCB	13	10	5	63	27	12.6	0	0	2	46	136.96	3	0
Boucher, MV	RCB	22	19	7	375	50	31.25	0	1	0	293	127.99	10	1
Dravid, RS	RCB	27	26	1	642	75	25.68	0	3	3	532	120.68	4	0
Kallis, JH	RCB	26	26	2	560	69	23.33	0	4	3	515	108.74	8	0
Kohli, V	RCB	29	25	3	411	50	18.68	0	1	1	376	109.31	11	0
Kumar, P	RCB	26	20	5	177	34	11.8	0	0	3	144	122.92	5	0
Kumble, A	RCB	26	12	9	29	8	9.67	0	0	0	36	80.56	7	0
Taylor, LRPL	RCB	15	15	2	429	81	33	0	2	1	289	148.44	3	0
Vinay Kumar, R	RCB	19	12	4	72	23	9	0	0	2	66	109.09	4	0
Uthappa, RV	RCB	29	27	7	495	66	24.75	0	1	1	449	110.24	16	1
Asnodkar, SA	RR	17	17	0	409	60	24.06	0	2	2	326	125.46	6	0
Jadeja, RA	RR	27	22	4	430	42	23.89	0	0	2	369	116.53	11	0
Kaif, M	RR	16	14	3	176	34	16	0	0	0	171	102.92	8	0
Pathan, YK	RR	29	28	2	678	68	26.08	0	5	0	426	159.15	5	0
Rawat, M	RR	16	10	6	50	23	12.5	0	0	1	58	86.21	15	1
Smith, GC	RR	23	23	3	653	91	32.65	0	4	2	578	112.98	4	0
Warne, SK	RR	28	18	5	178	34	13.69	0	0	4	175	101.71	12	0
Watson, SR	RR	15	15	5	472	76	47.2	0	4	1	311	151.77	2	0

## Appendix 6 – Batting Index

Player Name	Teams	Matches	Innings	Runs	Average	Strike Rate	Runs/Team Runs	Index
Marsh, SE	KXIP	11	11	616	68.44	139.68	0.1403	1341.1010
Hayden, ML	CSK	16	16	761	54.36	144.68	0.1602	1259.7593
Gilchrist, AC	DC	30	30	931	32.1	144.79	0.2008	933.1602
Raina, SK	CSK	30	28	855	34.2	141.56	0.1800	871.2599
Dhoni, MS	CSK	30	27	746	41.44	130.65	0.1570	850.1253
Jayasuriya, ST	MI	26	26	735	30.63	146.71	0.1848	830.4978
Watson, SR	RR	15	15	472	47.2	151.77	0.1100	788.3406
Gambhir, G	DD	29	29	820	31.54	124.81	0.1929	759.1571
Sharma, RG	DC	29	28	766	31.92	130.27	0.1652	686.9086
Sehwag, V	DD	25	25	604	27.45	168.72	0.1421	657.8890
Pathan, YK	RR	29	28	678	26.08	159.15	0.1581	656.1270
de Villiers, AB	DD	21	19	560	40	123.62	0.1317	651.2437
Symonds, A	DC	12	11	410	45.56	150.18	0.0884	604.9822
Sangakkara, KC	KXIP	24	22	652	32.6	124.9	0.1485	604.5945
McCullum, BB	KKR	17	17	473	31.53	142.9	0.1279	576.1466
Smith, GC	RR	23	23	653	32.65	112.98	0.1522	561.6191
Tendulkar, SR	MI	20	20	552	32.47	115	0.1388	518.2790
Dilshan, TM	DD	21	20	522	32.63	124.29	0.1228	497.8867
Yuvraj Singh	KXIP	29	28	639	25.56	133.4	0.1455	496.1970
Taylor, LRPL	RCB	15	15	429	33	148.44	0.1006	492.9545
Dravid, RS	RCB	27	26	642	25.68	120.68	0.1506	466.7131
Duminy, J-P	MI	13	12	372	41.33	114.46	0.0935	442.4931
Karthik, KD	DD	28	21	433	30.93	133.64	0.1018	420.9311

## Appendix 6 Continued

Player Name	Teams	Matches	Innings	Runs	Average	Strike Rate	Runs/Team Runs	Index
Hopes, JR	KXIP	11	11	221	20.09	149.32	0.0503	150.9825
Shukla, LR	KKR	22	18	246	18.92	118.84	0.0665	149.5321
Fleming, SP	C SK	10	10	196	21.78	118.79	0.0413	106.7355
Maharroof, MF	DD	13	10	146	20.86	146	0.0343	104.5747
Ravi Teja, DB	DC	16	12	174	19.33	114.47	0.0375	83.0301
Laxman, VVS	DC	11	11	174	17.4	105.45	0.0375	68.8506
Kaif, M	RR	16	14	176	16	102.92	0.0410	67.5735
Agarkar, AB	KKR	20	13	120	17.14	116.5	0.0324	64.7789
Goel, K	KXIP	16	15	200	14.29	94.79	0.0455	61.6966
Kumar, P	RCB	26	20	177	11.8	122.92	0.0415	60.2230
Warne, SK	RR	28	18	178	13.69	101.71	0.0415	57.7871
Harbhajan Singh	MI	16	13	113	11.3	161.43	0.0284	51.8305
Chawla, PP	KXIP	29	17	121	13.44	127.37	0.0276	47.1724
Sohal, S	KXIP	10	10	119	11.9	117.82	0.0271	37.9970
Oram, JDP	C SK	15	11	106	15.14	100.95	0.0223	34.0999
Akhil, B	RCB	13	10	63	12.6	136.96	0.0148	25.5029
Vinay Kumar, R	RCB	19	12	72	9	109.09	0.0169	16.5823
Rawat, M	RR	16	10	50	12.5	86.21	0.0117	12.5627
Zaheer Khan	MI	17	12	42	8.4	77.78	0.0106	6.8999
Kumble, A	RCB	26	12	29	9.67	80.56	0.0068	5.2994
Singh, RP	DC	30	15	35	4.38	85.37	0.0075	2.8223

## Appendix 6 Continued

Player Name	Teams	Matches	Innings	Runs	Average	Strike Rate	Runs/Team Runs	Index
Hussey, DJ	KKR	17	17	417	27.8	131.13	0.1127	410.9591
Jayawardena, DPMD	KXIP	23	22	398	30.62	134.46	0.0906	373.1796
Hodge, BJ	KKR	15	15	377	31.42	115.29	0.1019	369.1942
Ganguly, SC	KKR	26	24	538	23.39	104.67	0.1454	356.0823
Boucher, MV	RCB	22	19	375	31.25	127.99	0.0880	351.8374
Gibbs, HH	DC	23	23	538	26.9	111.62	0.1160	348.3690
Kallis, JH	RCB	26	26	560	23.33	108.74	0.1314	333.2551
Bravo, DJ	MI	20	17	396	28.29	117.51	0.0996	331.0148
Nayar, AM	MI	27	21	399	23.47	137.59	0.1003	323.9793
Morkel, JA	C SK	25	20	338	30.73	145.06	0.0711	317.1333
Uthappa, RV	RCB	29	27	495	24.75	110.24	0.1161	316.8139
Dhawan, S	MI	19	18	380	29.23	111.76	0.0955	312.1355
Asnodkar, SA	RR	17	17	409	24.06	125.46	0.0954	287.8513
Jadeja, RA	RR	27	22	430	23.89	116.53	0.1003	279.1042
Saha, WP	KKR	20	17	231	28.88	144.38	0.0624	260.3945
Venugopal Rao, Y	DC	27	23	412	21.68	127.16	0.0889	244.9458
Badrinath, S	C SK	30	22	369	24.6	125.51	0.0777	239.8031
Patel, PA	C SK	22	22	444	22.2	104.96	0.0935	217.7583
Smith, DR	DC	12	11	260	23.64	151.16	0.0561	200.3644
Kohli, V	RCB	29	25	411	18.68	109.31	0.0964	196.8626
Pathan, IK	KXIP	28	22	327	20.44	119.34	0.0745	181.6566
Katich, SM	KXIP	11	11	241	24.1	129.57	0.0549	171.3859
Suman, TL	DC	12	12	237	23.7	124.74	0.0511	151.1003

## Appendix 7 – Bowling Index

Player Name	Teams	Matches	Overs	Wickets	Average	Economy Rate	Ind Wickets/Team Wickets	Index
Sohail Tanvir	RR	11	41.1	22	12.09	6.46	0.1128	0.1445
Singh, RP	DC	30	111	38	22.61	7.74	0.2147	0.1227
Kumble, A	RCB	26	97.3	28	23.25	6.68	0.1818	0.1171
Pathan, IK	KXIP	28	103.2	32	23.09	7.15	0.1871	0.1134
Ojha, PP	DC	28	90.3	29	21.79	6.98	0.1638	0.1077
Mishra, A	DD	17	62	25	17.28	6.97	0.1238	0.1028
Warne, SK	RR	28	102	33	23.3	7.54	0.1692	0.0963
Patel, MM	RR	26	89.5	30	22.03	7.36	0.1538	0.0949
Nehra, A	DD	27	95.5	31	22.39	7.24	0.1535	0.0947
Malinga, SL	MI	13	49.3	18	17.33	6.3	0.1023	0.0937
Chawla, PP	KXIP	29	91.4	29	24.03	7.6	0.1696	0.0929
Maharroof, MF	DD	13	46	19	16.53	6.83	0.0941	0.0833
Muralitharan, M	CSK	28	108	25	26.6	6.16	0.1351	0.0825
Morkel, JA	CSK	25	88	30	24.23	8.26	0.1622	0.0810
Harbhajan Singh	MI	16	54	17	19.88	6.26	0.0966	0.0776
Bravo, DJ	MI	20	61.3	22	22.32	7.98	0.1250	0.0702
Sreesanth, S	KXIP	22	74.1	25	25.36	8.55	0.1462	0.0674
Sharma, RG	DC	29	27	12	15.5	6.89	0.0678	0.0635
Kumar, P	RCB	26	94.2	24	31.67	8.06	0.1558	0.0611
Balaji, L	CSK	22	70.2	24	25.08	8.56	0.1297	0.0604
Watson, SR	RR	15	54.1	17	22.53	7.07	0.0872	0.0547
Sharma, I	KKR	24	85.1	18	34.78	7.35	0.1395	0.0546
Gony, MS	CSK	23	77	22	27.95	7.99	0.1189	0.0533

## Appendix 7 Continued

Player Name	Teams	Matches	Overs	Wickets	Average	Economy Rate	Ind Wickets/Team Wickets	Index
Zaheer Khan	MI	17	63	19	26.26	7.92	0.1080	0.0519
Bhatia, R	DD	17	43.4	16	20.56	7.53	0.0792	0.0512
Steyn, DW	RCB	13	47	12	26.17	6.68	0.0779	0.0446
Sangwan, P	DD	20	70.4	20	28.75	8.14	0.0990	0.0423
Trivedi, SK	RR	22	68	19	29	8.1	0.0974	0.0415
Kulkarni, DS	MI	18	55.3	16	27.63	7.96	0.0909	0.0413
Mahesh, VY	DD	12	44.1	17	23.24	8.94	0.0842	0.0405
Dinda, AB	KKR	22	63	13	34.85	7.19	0.1008	0.0402
Nannes, DP	DD	13	49.3	15	24.8	7.52	0.0743	0.0398
Agarkar, AB	KKR	20	57	14	35.07	8.61	0.1085	0.0359
Pollock, SM	MI	13	46	11	27.36	6.54	0.0625	0.0349
Vinay Kumar, R	RCB	19	55.2	14	32.36	8.19	0.0909	0.0343
Pathan, YK	RR	29	63.1	15	31.53	7.49	0.0769	0.0326
Shukla, LR	KKR	22	26	9	24.89	8.62	0.0698	0.0325
Ganguly, SC	KKR	26	32	8	28.13	7.03	0.0620	0.0314
McGrath, GD	DD	14	54	12	29.75	6.61	0.0594	0.0302
Hodge, BJ	KKR	15	20	7	23	8.05	0.0543	0.0293
van der Merwe, RE	RCB	10	34	9	27.56	7.29	0.0584	0.0291
Raina, SK	C SK	30	31	8	24.25	6.26	0.0432	0.0285
Yuvraj Singh	KXIP	29	29	9	25	7.76	0.0526	0.0271
Shahid Afridi	DC	10	30	9	25	7.5	0.0508	0.0271
Jayasuriya, ST	MI	26	40	11	29.27	8.05	0.0625	0.0265
Powar, RR	KXIP	14	33	8	27.88	6.76	0.0468	0.0248

## Appendix 7 Continued

Player Name	Teams	Matches	Overs	Wickets	Average	Economy Rate	Ind Wickets/Team Wickets	Index
Sharma, J	CSK	12	31.4	10	29.6	9.35	0.0541	0.0195
Singh, VR	KXIP	18	57	12	41.83	8.81	0.0702	0.0190
Styris, SB	DC	10	35	8	32.88	7.51	0.0452	0.0183
Kartik, M	KKR	16	48.4	7	46.86	6.74	0.0543	0.0172
Jadeja, RA	RR	27	25.3	6	28.67	6.75	0.0308	0.0159
Akhil, B	RCB	13	28.2	6	35.67	7.55	0.0390	0.0145
Oram, JDP	CSK	15	31.3	8	35.25	8.95	0.0432	0.0137
Symonds, A	DC	12	30.5	7	37.29	8.46	0.0395	0.0125
Smith, DR	DC	12	25	6	34.5	8.28	0.0339	0.0119
Kallis, JH	RCB	26	80.2	10	66.4	8.27	0.0649	0.0118
Raje, RR	MI	10	23.1	6	34.83	9.02	0.0341	0.0109
Hopes, JR	KXIP	11	28	7	39.43	9.86	0.0409	0.0105
Venugopal Rao, Y	DC	27	29	6	43.17	8.93	0.0339	0.0088
Bangar, SB	KKR	12	25	4	54.75	8.76	0.0198	0.0041

The Total Runs and Total Wickets per team to calculate the “runs/total runs” and “wickets/total wickets” can be seen in Appendix 8.

## Appendix 8 – Total Runs and Total Wickets

Team	Total Runs	Total Wickets
Bangalore	4263	154
Chennai	4751	185
Deccan	4637	177
Delhi	4252	202
Kolkata	3699	129
Mumbai	3977	176
Punjab	4391	171
Rajasthan	4289	195

## Appendix 9 – Total Performance Index

Name	Team	Batting Index	Bowling Index	Total Performance Index	Price	Bang per Buck Index
Sohail Tanvir	RR		100.00	100.00	\$ 100,000.00	1000.00
Marsh, SE	KXIP	100.00		100.00	\$ 32,000.00	3125.00
Watson, SR	RR	58.78	37.89	96.67	\$ 125,000.00	773.37
Sharma, RG	DC	51.22	43.95	95.17	\$ 750,000.00	126.89
Hayden, ML	C SK	93.93		93.93	\$ 375,000.00	250.49
Pathan, IK	KXIP	13.55	78.47	92.01	\$ 975,000.00	94.37
Singh, RP	DC	0.21	84.93	85.14	\$ 875,000.00	97.30
Raina, SK	C SK	64.97	19.72	84.69	\$ 650,000.00	130.29
Kumble, A	RCB	0.40	81.04	81.44	\$ 500,000.00	162.87
Jayasuriya, ST	MI	61.93	18.36	80.29	\$ 975,000.00	82.35
Morkel, JA	C SK	23.65	56.09	79.74	\$ 675,000.00	118.13
Ojha, PP	DC		74.57	74.57	\$ 30,000.00	2485.77
Bravo, DJ	MI	24.68	48.58	73.27	\$ 150,000.00	488.43
Pathan, YK	RR	48.92	22.55	71.47	\$ 475,000.00	150.47
Mishra, A	DD		71.13	71.13	\$ 50,000.00	1422.70
Warne, SK	RR	4.31	66.68	70.99	\$ 450,000.00	157.76
Gilchrist, AC	DC	69.58		69.58	\$ 700,000.00	99.40
Chawla, PP	KXIP	3.52	64.28	67.80	\$ 400,000.00	169.50
Patel, MM	RR		65.68	65.68	\$ 275,000.00	238.85
Nehra, A	DD		65.54	65.54	\$ 30,000.00	2184.58
Maharroof, MF	DD	7.80	57.67	65.47	\$ 225,000.00	290.98
Malinga, SL	MI		64.85	64.85	\$ 350,000.00	185.28
Dhoni, MS	C SK	63.39		63.39	\$ 1,500,000.00	42.26

## Appendix 9 Continued

Name	Team	Batting Index	Bowling Index	Total Performance Index	Price	Bang per Buck Index
Harbhajan Singh	MI	3.86	53.73	57.59	\$ 850,000.00	67.76
Muralitharan, M	C SK		57.09	57.09	\$ 600,000.00	95.15
Gambhir, G	DD	56.61		56.61	\$ 725,000.00	78.08
Yuvraj Singh	KXIP	37.00	18.78	55.78	\$ 1,063,750.00	52.44
Symonds, A	DC	45.11	8.68	53.79	\$ 1,350,000.00	39.84
Sehwag, V	DD	49.06		49.06	\$ 833,750.00	58.84
de Villiers, AB	DD	48.56		48.56	\$ 300,000.00	161.87
Ganguly, SC	KKR	26.55	21.71	48.26	\$ 1,092,500.00	44.17
Kumar, P	RCB	4.49	42.26	46.76	\$ 30,000.00	1558.51
Sreesanth, S	KXIP		46.68	46.68	\$ 625,000.00	74.68
Sangakkara, KC	KXIP	45.08		45.08	\$ 700,000.00	64.40
McCullum, BB	KKR	42.96		42.96	\$ 700,000.00	61.37
Smith, GC	RR	41.88		41.88	\$ 250,000.00	167.51
Tendulkar, SR	MI	38.65		38.65	\$ 1,121,250.00	34.47
Sharma, I	KKR		37.79	37.79	\$ 950,000.00	39.78
Dilshan, TM	DD	37.13		37.13	\$ 250,000.00	148.50
Gony, MS	C SK		36.86	36.86	\$ 30,000.00	1228.77
Taylor, LRPL	RCB	36.76		36.76	\$ 100,000.00	367.57
Zaheer Khan	MI	0.51	35.93	36.45	\$ 450,000.00	80.99
Bhatia, R	DD		35.42	35.42	\$ 30,000.00	1180.59
Dravid, RS	RCB	34.80		34.80	\$ 1,035,000.00	33.62
Shukla, LR	KKR	11.15	22.51	33.66	\$ 30,000.00	1122.03
Kallis, JH	RCB	24.85	8.19	33.04	\$ 900,000.00	36.71

## Appendix 9 Continued

Name	Team	Batting Index	Bowling Index	Total Performance Index	Price	Bang per Buck Index
Duminy, J-P	MI	32.99		32.99	\$ 950,000.00	34.73
Jadeja, RA	RR	20.81	11.01	31.82	\$ 30,000.00	1060.61
Karthik, KD	DD	31.39		31.39	\$ 525,000.00	59.78
Steyn, DW	RCB		30.86	30.86	\$ 325,000.00	94.94
Hussey, DJ	KKR	30.64		30.64	\$ 625,000.00	49.03
Agarkar, AB	KKR	4.83	24.88	29.71	\$ 350,000.00	84.89
Sangwan, P	DD		29.29	29.29	\$ 30,000.00	976.26
Trivedi, SK	RR		28.71	28.71	\$ 30,000.00	957.16
Kulkarni, DS	MI		28.61	28.61	\$ 30,000.00	953.81
Mahesh, VY	DD		28.04	28.04	\$ 30,000.00	934.70
Dinda, AB	KKR		27.84	27.84	\$ 30,000.00	928.05
Jayawardena, DPMD	KXIP	27.83		27.83	\$ 475,000.00	58.58
Nannes, DP	DD		27.56	27.56	\$ 250,000.00	110.26
Boucher, MV	RCB	26.23		26.23	\$ 450,000.00	58.30
Gibbs, HH	DC	25.98		25.98	\$ 575,000.00	45.18
Venugopal Rao, Y	DC	18.26	6.09	24.35	\$ 30,000.00	811.72
Pollock, SM	MI		24.18	24.18	\$ 550,000.00	43.96
Nayar, AM	MI	24.16		24.16	\$ 30,000.00	805.26
Uthappa, RV	RCB	23.62		23.62	\$ 800,000.00	29.53
Dhawan, S	MI	23.27		23.27	\$ 30,000.00	775.82
Smith, DR	DC	14.94	8.21	23.16	\$ 100,000.00	231.55
Asnodkar, SA	RR	21.46		21.46	\$ 30,000.00	715.46
McGrath, GD	DD		20.91	20.91	\$ 350,000.00	59.75

## Appendix 9 Continued

Name	Team	Batting Index	Bowling Index	Total Performance Index	Price	Bang per Buck Index
Saha, WP	KKR	19.42		19.42	\$ 30,000.00	647.22
Shahid Afridi	DC		18.77	18.77	\$ 675,000.00	27.81
Hopes, JR	KXIP	11.26	7.29	18.55	\$ 300,000.00	61.82
Badrinath, S	CSK	17.88		17.88	\$ 30,000.00	596.04
Powar, RR	KXIP		17.18	17.18	\$ 170,000.00	101.08
Patel, PA	CSK	16.24		16.24	\$ 325,000.00	49.96
Kohli, V	RCB	14.68		14.68	\$ 30,000.00	489.31
Sharma, J	CSK		13.52	13.52	\$ 225,000.00	60.09
Singh, VR	KXIP		13.18	13.18	\$ 30,000.00	439.41
Katich, SM	KXIP	12.78		12.78	\$ 200,000.00	63.90
Styris, SB	DC		12.67	12.67	\$ 175,000.00	72.41
Oram, JDP	CSK	2.54	9.49	12.03	\$ 675,000.00	17.82
Akhil, B	RCB	1.90	10.02	11.92	\$ 30,000.00	397.22
Kartik, M	KKR		11.89	11.89	\$ 425,000.00	27.99
Fleming, SP	CSK	7.96		7.96	\$ 350,000.00	22.74
Laxman, VVS	DC	5.13		5.13	\$ 375,000.00	13.69
Kaif, M	RR	5.04		5.04	\$ 675,000.00	7.46
Goel, K	KXIP	4.60		4.60	\$ 30,000.00	153.35
Bangar, SB	KKR		2.86	2.86	\$ 30,000.00	95.27
Rawat, M	RR	0.94		0.94	\$ 30,000.00	31.22

## Appendix 10 – Pre Auction Bowling Statistics

Name	Team	Tests			ODI's			A List			Age	Captaincy
		Wickets	Average	Econ Rate	Wickets	Average	Econ Rate	Wickets	Average	Econ Rate		
Symonds, A	DC	14	39.42	2.66	124	38.2	4.99	280	33.1	4.78	32	0
Pathan, IK	KXIP	92	31.65	3.27	127	27.81	5.08	220	28.68	5.06	23	0
Jayasuriya, ST	MI	98	34.34	2.46	41	36.38	4.75	399	35.26	4.76	38	1
Sharma, I	KKR	6	31.5	3.62	0	NA	5.42	81	29.43	5.51	19	0
Duminy, J-P	MI	NA	NA	NA	3	48.66	5.4	23	37.43	4.98	23	0
Kallis, JH	RCB	222	31.32	2.81	237	31.61	4.82	327	30.7	4.71	32	1
Singh, RP	DC	29	32.89	3.76	48	31.7	5.23	147	29.38	5.14	22	0
Harbhajan Singh	MI	251	30.72	2.82	181	33.46	4.18	307	31.11	4.26	27	0
Morkel, JA	CSK	NA	NA	NA	22	29.86	5.18	173	29.56	4.92	26	0
Shahid Afridi	DC	47	34.89	3.18	212	35.98	4.62	373	33.6	4.61	27	0
Oram, JDP	CSK	43	35.6	2.58	117	30.47	4.5	186	31.25	4.31	29	0
Sreesanth, S	KXIP	46	28.23	3.26	50	32.48	5.78	97	36.16	5.67	24	0
Muralitharan, M	CSK	723	21.77	2.4	455	22.68	3.84	650	22.29	3.83	35	0
Pollock, SM	MI	416	23.19	2.39	387	24.54	3.69	573	22.93	3.65	34	1
Kumble, A	RCB	591	28.63	2.66	337	30.89	4.3	514	27.58	4.2	37	1
Jayawardena, DPMD	KXIP	4	58	2.96	7	79.71	5.75	23	49.3	5.38	30	1
Warne, SK	RR	708	25.41	2.65	293	25.73	4.25	473	24.61	4.25	38	1
Zaheer Khan	MI	170	33.6	3.29	201	29.4	4.91	310	29.47	4.88	29	0
Kartik, M	KKR	24	34.16	2.54	37	43.56	5.07	213	29.68	4.34	31	0
Chawla, PP	KXIP	1	53	3.74	17	31.64	4.84	108	27.2	4.96	19	0
Malinga, SL	MI	91	33.8	3.86	67	24.67	4.72	166	26.11	5.06	24	0
Agarkar, AB	KKR	58	47.32	3.39	288	27.85	5.07	399	26.42	4.98	30	0

## Appendix 10 Continued

Name	Team	Tests			ODI's			A List			Age	Captaincy
		Wickets	Average	Econ Rate	Wickets	Average	Econ Rate	Wickets	Average	Econ Rate		
McGrath, GD	DD	563	21.64	2.49	381	22.02	3.88	458	21.7	3.8	37	0
Steyn, DW	RCB	76	25.25	3.84	11	28.36	6.21	123	25.82	4.8	24	0
Hopes, JR	KXIP	NA	NA	NA	13	38.53	4.55	186	29.05	4.53	29	0
Patel, MM	RR	28	33.57	2.98	32	29.5	4.76	105	29.82	4.59	24	0
Smith, GC	RR	8	100.12	3.64	18	52.83	5.56	47	38.21	5.47	26	1
Dilshan, TM	DD	7	43.71	2.83	44	43.36	4.7	78	37.98	4.66	31	0
Maharroof, MF	DD	24	60.75	3.32	100	23.88	4.65	165	28.2	4.82	31	0
Katich, SM	KXIP	12	33.83	3.69	NA	NA	NA	24	34.04	5.58	32	0
Styris, SB	DC	20	50.75	3.1	117	33.69	4.74	284	30.34	4.61	32	0
Powar, RR	KXIP	6	19.66	2.8	34	35.02	4.65	142	30.92	4.74	29	0
Bravo, DJ	MI	50	40.78	3.27	83	30.36	5.26	164	26.95	5.08	24	1
Watson, SR	RR	2	61.5	3.96	62	34.11	4.89	156	30.8	5.01	26	0
Sohail Tanvir	RR	5	63.2	3.76	11	32.18	4.99	88	28.2	5.17	23	0
Smith, DR	DC	7	49.14	3.17	49	37	4.8	94	33.22	4.84	24	0

## Appendix 11 – Pre Auction Batting Statistics

Name	Team	Tests		ODI's		A-List		Age	Captaincy
		Average	Strike Rate	Average	Strike Rate	Average	Strike Rate		
Dhoni, MS	C SK	36.68	70.42	43.66	94.72	50.14	-	26	1
Symonds, A	DC	33.33	65.05	41.33	93.43	33.9	-	32	0
Pathan, IK	KXIP	30.9	51.86	24.19	79.39	22.53	78.86	23	0
Jayasuriya, ST	MI	40.07	-	32.63	-	31.15	-	38	1
Sharma, I	KKR	0	0	NA	NA	5.85	40.19	19	0
Duminy, J-P	MI	NA	NA	22.8	73.23	34.81	78.64	23	0
Kallis, JH	RCB	58.01	43.86	44.77	71.03	44.35	-	32	1
Singh, RP	DC	6.66	30.3	10.4	44.44	10.57	62.08	22	0
Harbhajan Singh	MI	15.27	66.82	13.81	80.09	13.49	-	27	0
Uthappa, RV	RCB	NA	NA	30.35	104.65	33.06	91.04	22	0
Sharma, RG	DC	NA	NA	20.33	82.43	32.94	81.73	20	0
Gambhir, G	DD	32.95	59.04	30.67	75.14	36.44	-	26	0
Gilchrist, AC	DC	48.91	81.96	36.03	96.9	34.94	-	36	1
Sangakkara, KC	KXIP	56.37	56.08	35.6	73.83	38.61	-	30	0
McCullum, BB	KKR	30.65	61.73	25.55	85.51	29.4	-	26	1
Morkel, JA	C SK	NA	NA	18.15	85.19	27.34	-	26	0
Shahid Afridi	DC	37.4	86.13	23.28	110.13	25.21	-	27	0
Oram, JDP	C SK	38.24	50.23	23.52	80.91	26.78	-	29	0
Kaif, M	RR	32.84	40.31	32.01	72.03	36.77	-	27	0
Raina, SK	C SK	NA	NA	26.6	72.68	38.84	92.07	21	0
Sreesanth, S	KXIP	15.18	64.47	4.16	30.86	6.15	44.08	24	0
Hussey, DJ	KKR	NA	NA	NA	NA	40.01	-	30	0

Appendix 11 Continued

Name	Team	Tests		ODI's		A-List		Age	Captaincy
		Average	Strike Rate	Average	Strike Rate	Average	Strike Rate		
Muralitharan, M	CSK	11.67	69.67	5.77	70.74	7.3	-	35	0
Gibbs, HH	DC	42.05	50.13	36.65	83.1	35.5	-	33	0
Pollock, SM	MI	32.31	52.52	26.33	86.59	26.66	-	34	1
Karthik, KD	DD	32.1	49.81	22	69.76	30.26	91.97	22	0
Kumble, A	RCB	18.05	38.99	10.53	61.06	11.2	-	37	1
Pathan, YK	RR	NA	NA	NA	NA	32.62	118.99	25	0
Jayawardena, DPMD	KXIP	51.93	52.36	33.17	76.74	32.34	-	30	1
Warne, SK	RR	17.32	57.65	13.05	72.04	11.81	-	38	1
Zaheer Khan	MI	12.07	51.14	14.34	80.38	12.98	-	29	0
Boucher, MV	RCB	29.88	50.61	28.74	84.1	28.77	-	31	1
Kartik, M	KKR	9.77	38.09	14	70.78	11.46	-	31	0
Chawla, PP	KXIP	1	11.11	5	58.82	20.64	86.55	19	0
Hayden, ML	CSK	53	60.24	44.2	79.06	44.77	-	36	0
Malinga, SL	MI	9.14	38.17	7.3	61.86	6.52	-	24	0
Agarkar, AB	KKR	16.79	52.82	14.58	80.62	17.39	-	30	0
McGrath, GD	DD	7.36	40.82	3.83	48.72	3.51	45.89	37	0
Fleming, SP	CSK	39.61	45.29	32.4	71.49	35.13	-	34	1
Steyn, DW	RCB	9.87	44.5	2	26.66	8.12	84.96	24	0
Patel, PA	CSK	31.85	45.11	14.66	58.4	24.75	78.08	22	0
de Villiers, AB	DD	36.36	52.74	36.46	86.57	43.59	-	23	0
Hopes, JR	KXIP	NA	NA	26.66	106.19	26.98	87.23	29	0
Patel, MM	RR	4.57	31.06	6.4	62.74	7.68	-	24	0

Appendix 11 Continued

Name	Team	Tests		ODI's		A-List		Age	Captaincy
		Average	Strike Rate	Average	Strike Rate	Average	Strike Rate		
Smith, GC	RR	45.82	59.63	39.81	81.66	41.69	-	26	1
Dilshan, TM	DD	37.89	56.92	29.65	79.38	36.7	-	31	0
Nannes, DP	DD	NA	NA	NA	NA	3.6	40.9	31	0
Maharroof, MF	DD	19.92	40	19.76	87.02	22.14	80.05	31	0
Sharma, J	C SK	NA	NA	35	116.66	20.65	88.4	24	0
Katich, SM	KXIP	36	49.45	35.78	68.74	37.45	-	32	0
Styris, SB	DC	36.04	51.34	33.07	79.22	33.27	-	32	0
Powar, RR	KXIP	6.5	72.22	11.64	62.69	17.17	-	29	0
Bravo, DJ	MI	33.16	48.17	25.3	81.8	22.27	-	24	1
Watson, SR	RR	20.25	38.2	34.51	80.01	38.37	81.11	26	0
Sohail Tanvir	RR	5.66	38.63	13.25	120.45	16.5	81.14	23	0
Taylor, LRPL	RCB	11	78.57	32.76	83.2	37.58	-	23	0
Smith, DR	DC	24.61	70.02	14.92	101.54	21.86	-	24	0
Marsh, SE	KXIP	NA	NA	NA	NA	35.7	74.34	24	0