

**STATISTICAL ANALYSIS OF PAKISTAN ODI CRICKET TEAM
PERFORMANCE AGAINST INDIA**

Fazle Mansoor

Government Degree College, Chitral, Pakistan
Email: fazlemansoor14@gmail.com

ABSTRACT

In this research paper I want to gain knowledge about the performance of Pakistan ODI (One Day International) cricket team against India. I have used different aspects for analysis of Pakistan ODI cricket team performance against India. I have brought under consideration of about 15 aspects such as venue of matches, matches results, etc. which affect the performance of Pakistan cricket ODI team against Indian ODI team. I have used the website of www.howstat.com for the collection of data about the matches which have been played between Pakistan and Indian team. I have been used the Statistical tools for the purpose of the analysis of Data. I have been used the Statistical software SPSS for quick analyses of difficult Statistical calculations. I have used the following statistical tools for the analysis of the performance of Pakistan ODI team against Indian ODI team. Such as T-Distribution, Chi square test, and for the calculation I used Statistical software SPSS 16 version.

KEYWORDS

ODI, Aspects, Performance, Cricket, Matches, analysis, tools, Statistical.

INTRODUCTION

A One Day International (ODI) is one of the kind of limited overs cricket game, played between any two teams with international status, in this match each team faces a limited number of overs, generally 50 overs. The Cricket world cup also played in this format. We also called the one day international matches as a limited overs internationals (LOI). The one day international cricket game is developing twentieth century. The first ODI cricket match was played between Australia and England on 5 January 1971 at Melbourne cricket ground. The Pakistan national cricket team represents Pakistan in international cricket and is a full member of the international cricket council (ICC) with test and ODI (One day International) Status. Indian cricket team is also represent India in international cricket and is a full member of the ICC. India and Pakistan are two crazy nations and whenever these two teams clash with each other, it creates a very unique aura both inside and outside the stadium where the match is being played. The first India Pakistan Test series played in 1954. But the first ODI have been played between Pakistan and India in 1978. There are 129 ODI matches have been played between Pakistan and India from 1978 to 2017. In these matches Pakistan won by 73 matches against Indian ODI team. In this research I used the statistical tools to analysis the different aspect of cricket which affect the performance of Pakistan ODI team against Indian team. Such as

venue, toss, day or night match, target, batting Position, winning score, losing score, wining wickets, losing wickets.

METHODOLOGY

In this research paper I used secondary data. For the secondary data collection I used the website www.howstat.com by using systematic random sampling techniques. Because it is not possible to get each match detail. Therefore I selected 50 matches by using systematic sampling such a way that after 2 matches of record I collect 3rd match. And get the following record about the match Venue of the matches, Condition of the matches, Toss of the matches, Result of the matches, winning score of the matches, losing score of the matches, winning wickets of the matches, losing wickets of the matches, targets of Pakistan team, targets of Indian team. I have used the following statistical tools for the analysis of the performance of Pakistan ODI team against Indian ODI team. Such as T-Distribution, Chi square test, and for the calculation I used Statistical software SPSS 16 version.

Results of Pakistan and India Matches * Venue of Matches Between Pakistan and India ODI Team. Crosstabulation-1

		Venue of Matches Between Pakistan and India ODI Team		Total
		Home Venue	Not Home Venue	
Results of Pakistan and India Matches	Won by Pakistan Cricket Team	3	23	26
	Loss by Pakistan Cricket Team	4	20	24
Total		7	43	50

Chi square value = 0.273 with 1 degree of freedom.

Results of Pakistan and India Matches * Matches Condition Crosstabulation-2

		Matches Condition		Total
		Day	Day Night	
Results of Pakistan and India Matches	Won by Pakistan Cricket Team	18	8	26
	Loss by Pakistan Cricket Team	16	8	24
Total		34	16	50

Chi square value = 0.038 with 1 degree of freedom.

Results of Pakistan and India Matches * Who Won the Tosses? Crosstabulation-3

Count		Who Won the Tosses?		Total
		Pakistan	India	
Results of Pakistan and India Matches	Won by Pakistan Cricket Team	13	13	26
	Loss by Pakistan Cricket Team	11	13	24
Total		24	26	50

Chi square value = 0.087 with 1 degree of freedom.

Results of Pakistan and India Matches * Batting Position of Pakistan ODI Cricket Team against Indian ODI Team. Crosstabulation-4

Count		Batting Position of Pakistan ODI Cricket Team against Indian ODI Team		Total
		1st Batting	2nd Batting	
Results of Pakistan and India Matches	Won by Pakistan Cricket Team	15	11	26
	Loss by Pakistan Cricket Team	12	12	24
Total		27	23	50

Chi square value = 0.279 with 1 degree of freedom.

Table 1**95% Confidence Interval of the Winning Score of Pakistan ODI Cricket Team against Indian ODI Team**

Lower	Upper
45.23	87.52

Table 2**95% Confidence Interval of the Wining Wickets of Pakistan ODI Cricket Team against Indian ODI Team**

Lower	Upper
3.97	6.94

Table 3
95% Confidence Interval of the Losing Score of Pakistan ODI Cricket Team
against Indian ODI Team

Lower	Upper
26.27	73.11

Table 4
95% Confidence Interval of the Losing Wickets of Pakistan ODI Cricket Team
against Indian ODI Team

Lower	Upper
4.09	6.31

Table 5
95% Confidence Interval of the Target of Pakistan ODI Team
against Indian ODI Team

Lower	Upper
213.57	262.83

Table 6
95% Confidence Interval of the Target of Indian ODI Team
against Pakistan ODI Team

Lower	Upper
207.27	259.69

CONCLUSION

I have used the given information's and analysis the data by using statistical tool of chi square test. First I check the association between the results of matches with venue. I checked that either the venue affect the result of matches or not. I used two venues one home venue for Pakistan and the other venue which means other countries. I found that all the matches have been played between Pakistan and India the venue does not affect the result of matches. Because the chi square insignificant. It shows that the venue of matches does not affect in the Pakistan team performance. Second I checked the association between the results of matches with tosses. It shows that the toss does not affect the performance of Pakistan cricket against India. Similarly I checked the association between matches results with condition of matches and position of batting which also given the same result as above. I have also used the T-distribution for the purpose of estimation of winning score, wining wickets, losing score, losing wickets, Target of Pakistan team and target of Indian team by using 95% confidence level. I estimated that I have 95% confidence that the average winning score of Pakistan team

against Indian ODI team lies between (45.23 to 87.52) runs in all matches. The 95% confidence interval of average losing score of Pakistan ODI team against Indian team lies between (26.22 to 73.11) runs in all matches. The 95% confidence interval of average winning wickets of Pakistan team against Indian ODI team lies (3.97 to 6.94) wickets in all matches. The 95% confidence interval of average losing wicket against Indian ODI team is lies (4.09 to 6.07) wickets in all matches. The 95% Confidence interval of average target of Pakistan ODI matches against Indian ODI team lies between (213.57 to 262.83) in all matches. The 95% confidence interval of average target of Indian ODI team against the Pakistan ODI team lies between (207.27 to 259.69) all matches respectively. It shows that the average target of Pakistan ODI team is higher than Indian team. ODI team.

On the basis of all the above calculation I have drawn the conclusion that overall performance of Pakistan ODI team very well against Indian ODI team. And the above aspect cannot affect the performance of Pakistan ODI team performance against Indian ODI team.

Moreover I draw the conclusion that except the above aspects all other aspect may be affect the performance of Pakistan ODI team performance against Indian ODI team. (Such as performance of Players, Condition of Pitches, weather Condition, Crowded, Batting order, Before match Strategy, weak Captaincy etc.)

REFERENCES

1. Kohli, R. (2009). The launch of Indian Premier League. *Columbian Case Works*. <https://www0.gsb.columbia.edu/mygsb/faculty/research/pubfiles/5179/IPL.pdf>
2. Wickramasinghe and Pradeep, I. (2014). Predicting performance of batmen in test cricket. *Journal of Human Sport and Exercise*, 9(4).
3. Manage, A.B., Scariano, S.M. and Hallum, C.R. (2013). Performance Analysis of T20-World Cup Cricket 2012. *Sri Lankan Journal of Applied Statistics*, 14(1), 1-12.
4. Barreda, L., Nim, D., Ramamurthy, J., Sanford, J. and Chen, H. (2008). *Knowledge Management in Cricket*. MIS 480/580 - Project Report.
5. Lemmer, H.H. (2008). An analysis of players' performances in the first cricket Twenty20 world cup series. *South African Journal for Research in Sport, Physical Education and Recreation*, 30(2), 71-77.
6. Subhani, M.I., Hasan, S.A. and Osman, M. (2012). Will T20 clean sweep other formats of Cricket in future? *Munich Personal RePEc Archive*, MPRA Paper No. 45144.
7. Waingankar, M.M.R. (2014). *Study on Strategic Management of Mumbai Cricket and its Impact on Indian Cricket*. Doctoral Thesis. Padmashree Dr. D.Y. Patil University, India.