A Research on Reliability of Umpire Decision Review System in Cricket

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Abstract - Umpire Decision Review System (UDRS) is a technique used in cricket to overcome the controversial decisions made by the on-field umpires as to declare a batsman out or not. The accuracy of UDRS comes to around 90%. However, teams like India oppose the technology as they quarrel that the technology should be totally accurate or else the on-field umpires are a better option. We focus on whether the technology can be totally reliable given the scenarios of the decision made.

Index Terms - Cricket, UDRS, DRS, Reliability, Umpire Decision Review System Decision Review System, Technology, Controversy.

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1 INTRODUCTION

The UDRS has been a talk of discussion in generally, all the board meetings of the International Cricket Council(ICC). Every meeting ends with a lone rejection by the Board of Control for Cricket in India (BCCI). The reason may seem dissatifying to all the other boards, however India has got a valid reason, not to go with the technology. This research is aimed at supporting the reasoning behind the oppose.

Firstly let us get into what UDRS actually is. Umpire Decision Review System consists of three main ingredients viz,

1. Hotspot
2. Snickometer
3. Hawk Eye

Fig 1. Hotspot

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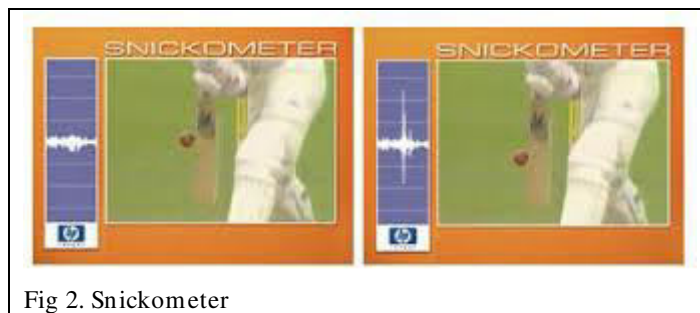- *Siddharth Panday and Ramratan Singh are students of MCA Sem VI at TIMSCDR, Mumbai, India.*
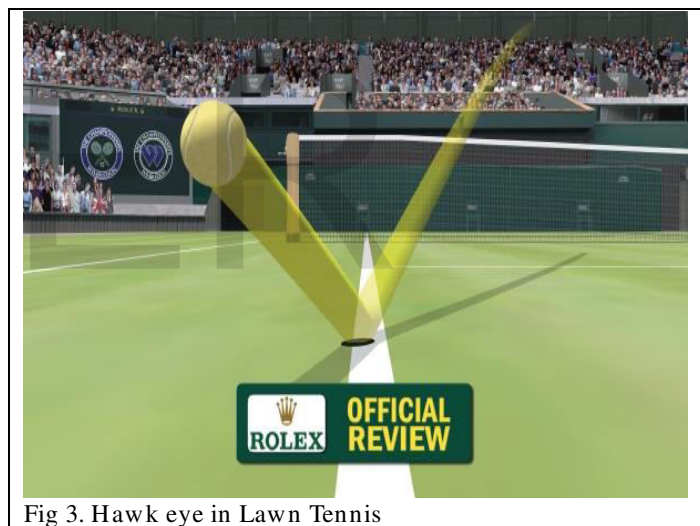
Fig 2. Snickometer

Fig 3. Hawk eye in Lawn Tennis

The claim of UDRS is that it is 90% accurate. However, in cricket even a single wrong decision can turn the course of the game. Each team is allowed 1 review per match in an ODIs and in Test Matches 2 referrals per 80 overs. A team can use the technology to argue the out or not out decision made by the on-field umpire. The batsman or the fielding captain can signal 'T' to the umpire. The on-field umpire then refers the decision to the third umpire. The third umpire then performs the necessary procedure. In case of UDRS, only the clearly incorrect decisions are reversed; if the Third Umpire's analysis is within conventional margins of error or is otherwise unconvincing, the on-field umpire's original decision stands.

There are instances, even technology cannot give a fool proof evidence whether the batsman is out or not. In this case the benefit of doubt goes in case of the batsman.

Let us go through some parameters that are needed to be satisfied:

1. The ball must have pitched in line within the stumps or the impact of the ball should be outside the off stump.

2. When a not-out Leg Before Wicket (LBW) decision is reviewed, and if the replay shows that the ball has made impact more than 2.5 m away from the wickets, various supplementary criteria apply to account for the improbability of the ball's possible direction after pitching. For e.g., if the ball pitches more than 2.5 m from the stumps and travels less than 40 cm prior to hitting the batsman, then any not-out verdict by the on-field umpire stands.

3. It has also been determined that if the batsman is more than 3.5 m from the stumps, then not-out decisions will stand. The only picture in which an LBW decision will be benefited in favor of the bowler is, if the batsman is 2.5–3.5 m away from the stumps and the ball moves more than 40 cm after pitching prior to hitting the batsman. In that case, some fraction part of the ball has to hit the middle stump, and the ball must be hitting the wickets below the bails; otherwise, the result is again inconclusive and the call stands.

4. In cases where the original decision is out, the 2.5 m or 40 cm distances do not apply, as in that case Hawk Eye must display the ball to be totally missing the stumps in order for the umpire to undo his decision.

2 METHODOLOGY

We have chosen the Case Study approach based on the findings on the internet. Literature review was done and following problems were found. UDRS technology costs a lot of money, leaving out 4-5 countries, we saw that it was not economically feasible for the countries like Zimbabwe, Afghanistan and all other associate nations to use this technology. We also reviewed few matches where the technology was used. We found situations when the technology hampered the game in critical situations with a few tricky decisions.

3 DISCUSSION

While we consider that the UDRS does help lessen umpiring errors, there are some issues that need to be addressed out for the UDRS to be a truly fair system.

1. Under the DRS rule only clearly wrong decisions are overturned; if the Third Umpire's study is within established margins of error or is otherwise unconvincing, the on-field umpire's original call stands.

2. The trajectory of the ball hitting the stumps can cause a deception to the third umpire as the swing can vary from pitch to pitch. The technology cannot be accurate in predicting the swing.

3. Given that the factor of subjectivity is expected, the person best positioned to assess the subjective elements should be allowed to decide. The third-umpire is not likely to follow the game every ball (or even if he is, he does so on television – which obviously is not quite similar as standing 22 yards away from the batsman and noting particular areas of the pitch where there is more turn or movement that a bowler is getting off the seam and through the air etc.). Accordingly, the on-field umpire is best placed to make a decision on anything subjective. The third umpire is required to do the basics i.e give the umpire on-field facts – where the ball hit and what distance away and what its projected motion is. It's not a huge bag of facts! If anything, on the basis of this entire if there is anyone who would ever even consider other variables and choose a result opposing to what technology suggests, it will be the on-field umpire. And he is who should be given this responsibility. On the contrary, (unless the umpire is bought over), the correct result will be reached even with the current system.

4 CONCLUSION

The Umpire Decision Review System has generally received positive response from players and coaches since its launch, though there have been a few criticism as well. West Indies legend Joel Garner named the system a gimmick. Another West Indian Ramnaresh Sarwan said that he wasn't a adherent of the trial referral system. Former umpire Dickie Bird also criticized the system, saying it weakens the right of on-field umpires. Pakistani spinner Saeed Ajmal articulated unhappiness over the DRS after a semi-final of 2011 Cricket World Cup against India. Ajmal said that DRS demonstrated the line of the ball deviating more than it in fact did. Hawk-Eye officials confessed in December 2014 that their review technology made a mistake in a decision to give Pakistan opener Shan Masood out in the second Test vs New Zealand in Dubai

(17-21 November 2014). At a summit held at the ICC office in Dubai two weeks later, Hawk-Eye is understood to have approved by Pakistan captain Misbah-ul-Haq and team manager Moin Khan that the projection used by their technology for the lbw decision was incorrect.
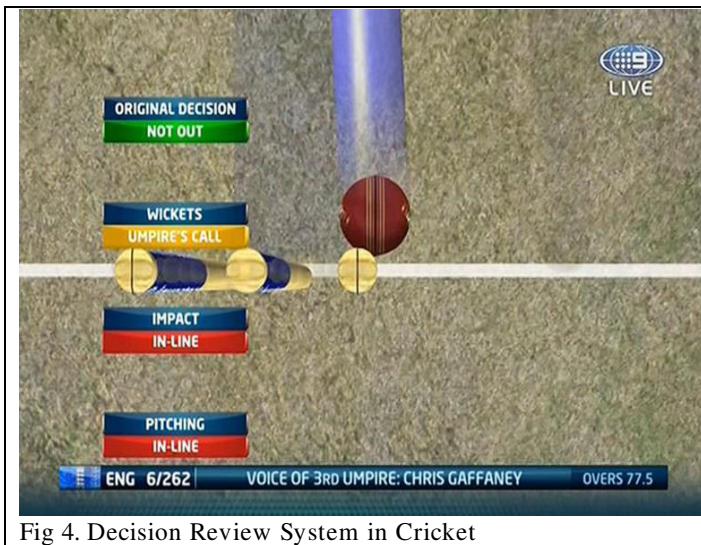

Fig 4. Decision Review System in Cricket

On the Indian team's disinclination to use this technology – We think it stems mainly from the fact that players are used to believe the subjective element of the umpire and are happy to take the positives and negatives as they think it eventually evens out. They do not want UDRS to be used as a strategic tool.

We therefore conclude that the UDRS should be modified in such a way that the on-field umpire should be given the facts by the third umpire, and they should be the one who should actually decide on their decision based on those facts.

5 ACKNOWLEGEMENT

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