Video-Assisted Refereeing in Association Football – Possible Adverse Effects on Uncertainty of Outcome

Kjetil Kåre Haugen
Molde University College, Norway, E-mail: kjetil.haugen@himolde.no

ABSTRACT

This (short) article/commentary discusses the video-assisted referee (VAR) system in association football. Based on simple logic, the link between uncertainty of outcome and VAR is established, and the article concludes that general introduction of the VAR system may be harmful to association football as it may lower uncertainty of outcome to levels which may seriously harm future demand.

Keywords: Video-Assisted Referee; Uncertainty of Outcome; Adverse Effects

1. Introduction

Not very surprising, I did spend some time watching the World Championships in association football in Russia this summer. My wife would probably claim I have spent more than some time, but such small conflicts are bearable as they emerge only every 4th year.

This time this new phenomenon, VAR (see [Wikipedia, 2018] or [FIFA, 2019]) has however made everything less pleasurable. In fact, it did (for me personally) have such a negative impact, that I chose to substitute WC matches against Norwegian league matches – highly unusual, and highly unexpected.

VAR or Video-Assisted Refereeing as I have understood is the meaning, is not Value At Risk, Value Added Reseller or Vector-Auto Regressive, which some of us might expect to hold the meaning. FIFA has a way to go in abbreviation creativity.

The concept allows the referee to keep in contact with a team of additional referees holding video tapes of the ongoing football match. Based on communication with this team of referees, the main referee could choose to stop the match to watch video of certain “serious” situations – penalty kicks or expulsions – and use this information to reassess his original refereeing.

This short article will discuss some adverse consequences of the VAR system and demonstrate that such a system may be very harmful for future demand of professional association football. (In the rest of the article, the term professional association football – or soccer for an US audience – is substituted with football for simplicity).

2. Effects of VAR

This type of system changes football. It introduces new stops in the game, in addition to already existing stops like free-kicks, penalties, throw in’s and the half-time break. Some of us, including me, would claim that football already has enough stops. Hence, such a system may have serious impact on viewer interest. One could fear that football develops in the direction of “boring”1 sports like handball or American football, full of time-outs and commercials.

However, these devastating prospects are not (as I see it) the main and really significant problem with VAR. This is a matter of fairness. When I was a young man, many years from now, I was desperately occupied with fairness. Unfair actions, especially against poor third-world people upset me, and prepared me to march in demonstrations. Today, hopefully I have learned something, and it may be that fairness is a little bit more complex.

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1 Obviously, this is the author’s own opinion.
In sports economics we have a name for this fairness, or should we say unfairness. We call it uncertainty of outcome. The point is that in sports, there is a demand or willingness to pay for this kind of unfairness. Clearly, much of the reason for watching sports at all, is the mere fact that we cannot predict the winner before the match, and that David (Croatia) sometimes beats Goliath (England). For a more comprehensive treatment of the term, Rottenberg’s original introduction of the concept (Rottenberg, 1956), or Sloane’s never contribution (Sloane, 2006) may be helpful to uninformed readers.

The main reason for introducing VAR was fairness. Why should a bad, cowardly or maybe even bribed referee be allowed to decide the game of life and dead that football clearly is? We must create more fair play and make sure that those that train hardest and make the best decisions win in the end. The core of the problem is rapidly approaching. Who are those who train hardest and make the best decisions? Obviously, those that are the better football teams. And (of course), introducing VAR would (logically) lead to less uncertainty of outcome as the better teams gain an advantage.

The introduction of VAR hence leads to more fairness, but less uncertainty of outcome. If the amount of penalty kicks increases, it will certainly favour the best teams. They play football better and are more often able to get themselves into the penalty area and consequently get more penalties. More penalties give more goals (roughly 80% return a goal, [Haugen, 2012; Chiappori et al., 2002; Bar-Eli and Azar, 2007]), and more goals give more victories for the best teams. That is fair.

If referees suddenly start handing out penalties for holding in the penalty area, the bad teams will lose the tiny advantage shirt-holding give them, and they must apply alternative strategies. One obvious alternative could be to try to avoid corner kicks. In equilibrium, one could in fact fear that football matches can develop into one team (the better) desperately trying to get corner kicks, while the other (the bad team) equally desperately are trying to avoid corner kicks against. An old Norwegian manager legend used to say: “Football fans won’t pay to watch throw-ins” – [Eggen, 1997]. I suspect the same holds for corner-kicks. This prediction may of course be a little extreme, not only losing valuable unfairness, but the game itself developing in completely unwanted directions.

Anyway, the ‘VAR-consequence’ of reduced uncertainty of outcome could of course be tolerable, given that the game holds “enough” as it is. Unfortunately, this is not the case.

Figure 1 below – see (Haugen & Heen, 2018a), holds the development of uncertainty of outcome in the English top division over the last 50 years, and shows that uncertainty of outcome already is a scarce good in football. An actual introduction of VAR into football in general, would hence only drive this unwanted development further in the wrong direction.

![Figure 1](image1.png)

**Figure 1**: Development of uncertainty of outcome in Premier League over the last 50 years.
3. Conclusions

The main conclusion ought to be very simple. Leave VAR as the experiment it was. Let us avoid further ‘not thought through’ rule changes. We have been struggling enough with previous rule changes like the introduction of the 3-1-0 system or return to goalkeeper rules – both favouring the best teams. (Refer to [Haugen & Heen, 2018b] and [Haugen, 2008] for a thorough discussion of the adverse effects of the three-points-for-a-win rule.)

Return more chances for bad teams to beat good teams. Let them play theatre, simulate head injuries and by all means keep on holding shirts. That is, let football keep the mythical mix of fairness and unfairness that makes us all love the game.

References

4. FIFA. Video Assistant Referees (VAR). Available online: [FIFA.com](accessed on March 26, 2019)
10. Sloane, Peter J. Rottenberg and the economics of sport after 50 years: an evaluation, IZA Discussion Papers, No. 2175, 2006, Institute for the Study of Labor (IZA), Bonn, GERMANY.