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The RSM Player Performance Study

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Purpose

The RSM Player Performance Study was a collaboration between RSM UK and the European Tour and was designed to provide insight for golfers at all levels to improve their performance. During the 2017 European Tour season the study examined the pre-shot routines of Professional Golfers playing in 4 UK based tournaments. Areas of focus were the consistency of behaviours in the pre-shot routine and time spent over the ball from address to impact. These two areas were selected after consultation with both the Tour and players and have previously been identified in the literature. Rousseau (2015) found that the longer a player spends over the ball the more they think about their swing. Such thoughts may lead to a reduction in subsequent performance through reinvestment (Masters & Maxwell, 2008) or an overly internal focus (Bell & Hardy, 2009). It has also been suggested that consistency of behaviours in the pre-shot routine may lead to improved performance (Douglas & Fox, 2002) although, the evidence for this is not clear.

Method

For the four tournaments, the data collection became part of the standard data collection that a player is informed might be taken during tournament play. Data were collected by volunteers who were golfers and who could commit to the four days of the tournament. All volunteers received a comprehensive briefing the day before the first round and were provided with the opportunity to ask questions about the study and the data that they were collecting.

Volunteers worked in pairs following the same player for each tournament round they played to ensure consistency of data collection. One volunteer recorded data related to the behaviours that occurred in a player's pre-shot routine. The other volunteer recorded the time that the player spent over the ball as well as other data related to the shot position and type. These observations took place inside the ropes from a distance of 10-15 metres.

Time over the ball was normalized for each round, this was carried out by subtracting the mean time for a shot type for a round from each individual shot time. For each shot type within a round the standard deviation of the variables was calculated as a measure of consistency. Players were grouped into those with high and low consistency in a tournament based upon an even split of the standard deviations. Odds ratios were calculated to examine the change in likelihood of an event based upon a player being quicker or slower than their normal time over the ball and having a high or low standard deviation in a variable.

Results

The study collected 22,579 shots across 304 rounds of golf and from 47 different players. Players who were in the low standard deviation group for looks to target at address were 1.45 times (χ^2 (1) = 7.17, p=.007) more likely to make the cut after two rounds than players who were in the high standard deviation group. This pattern was also seen in players who had a low standard deviation for their time over the ball with this group being 1.53 times more likely to make the cut than those with a high standard deviation for time over the ball (χ^2 (1) = 9.95, p=.002). Shots where a player was quicker than their average time over the ball were 1.31 time more likely to gain strokes than lose stokes based upon the strokes gained statistic (χ^2 (1) = 80.70, p<.001). This effect was most noticeable in putts with a quicker time over the ball 1.92 times more likely to gain strokes (χ^2 (1) = 167.48, p<.001).

Discussion

This is the first study that has been able to closely follow professional golfers inside the ropes during tournament play and whilst collecting data on their pre-shot routine. In line with the suggestion of Douglas and Fox (2002) increased consistency in pre-shot routine behaviours and time over the ball were associated with improved performance as measured by making the cut or not in a professional tournament. Alongside this when players were quicker than their mean time over the ball they were more likely to play a shot that gained strokes as opposed to one that lost stokes. This idea may provide support for the notions that reinvestment theory and distraction theory present although no direct evidence for either of these ideas is available from the current work.

Practical Application
The findings of this study suggest that golfers should pay attention to the consistency of their pre-shot routine and ensure that they do not spend too long over the ball at address prior to starting their shot.

References
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