## The RSM Player Performance Study Findings

# The RSM Player Performance study looks to understand what leads to better performance in golfers on the European Tour. 

RSM wants to bring their brand promise - The Power of Being Understood to golf. How can golfers better understand what is driving their performance? This is the question the RSM Player Performance Study will answer. The study aims to identify the key drivers of player performance at the elite level and to provide credible data to shape the future of the game of golf.

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## Across five tournaments RSM volunteers have collected data on over 22,000 shots concentrating on two areas of pre-performance routines.



From the point at which they address the ball until impact with the ball players have the opportunity to think about many things be this technique, target or swing. Evidence from recent work at the University of Birmingham shows that the longer a player spends over the ball at address the more they think about their swing

This increased focus on carrying out a movement could lead to reduced performance when well learnt automatic movements, like the golf swings of European Tour players, start to become more consciously controlled rather than free flowing.

Time over the ball was recorded by an RSM volunteer positioned inside the ropes 10-15 metres away from the player. The volunteer also recorded the lie of the ball, type of shot and distance to the hole.


A pre-performance routine or more commonly known as a pre-shot routine by golfers is a sequence of shot-relevant thoughts and actions used by a player prior to a shot. A number of scientific studies have suggested that the use of pre-shot routines lead to increased performance.

Pre-shot behaviours both before and after address were recorded. This included the number of practice swings, whether the player stood behind the ball for a start line and the number of looks to target after address.

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40 RSM volunteers were recruited prior to each tournament. These golfers all received a comprehensive briefing the day before the first round and the were provided with the opportunity to ask questions about the study and the data that they were collecting.

Volunteers worked in pairs following a player throughout a tournament to ensure consistency of data collection for that player. If a player missed the cut volunteers were assigned a new player to follow for the final two rounds.

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.


Upon returning from the data collection for a round volunteers sat down with one of the study team who checked though the data sheets and queried any odd entries and answered any questions that volunteers had noted on the data sheets to check. Post tournament data were entered into a spreadsheet and then screened for obvious errors which were removed from the data set or corrected in the case of a data entry error.

To account for any differences in recording time over the ball by different volunteers at each tournament time over the ball was normalized for each round. This was carried out by subtracting the player's mean time for a shot type for a round from the each individual shot time. This normalized timing data was then used to identify outliers which were more closely examined to determine if the data recorded was realistic.

Finding one:

## Quicker shots improve performance and earnings



## When players spend less time over the ball at address, their performance improves

For putts inside 5 feet the likelihood of holing
the putt is doubled.

2
A shorter time over the ball for all putts results in a 90\% increase in the likelihood of strokes being gained.

Being quicker over the ball for tee shots gives a small (12\%) but significant likelihood of a golfer playing a better shot and gaining more strokes.


Finding two:
Consistency leads to making more cuts


## Consistency of time spent over the ball leads to greater chance of making the cut

When European Tour players are more consistent in their time over the ball in rounds one and two they are $50 \%$ more likely to make the cut compared to players who are less consistent.

Broken down for individual shot types:
1
Greater tee shot consistency made making the cut 70\% more likely.
2 Greater approach shot consistency made making the cut 90\% more likely.
3 Greater putt consistency made making the cut $80 \%$ times more likely.


Key

- Made cutMissed cut


## The consistency of pre-shot routine also increases the chance of making the cut

Pre-shot routine consistency - players who are more consistent in their
number of looks to target at address are more likely to make the cut.

Key

- Missed cut

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## Finding three:

## Less time over the ball may earn a European Tour player an extra €189k



## Spending less time over the ball could earn a European Tour player an extra $€ 189,000$ per season

1
Having found an effect of time spent over the ball at address on putt and tee shot outcomes we looked to see what would happen to a player's score if we adjusted for these slower shots that tend to lead to worse outcomes.

2
To do this we removed all putts and tee shots, good and bad, where a player was at least one second longer over the ball at address than their average time. These shots were replaced with the outcome of an average shot for a professional player from the corresponding lie and distance to the hole.

4
Whilst there was variation between individual players, this results in players scores being an average of 1.2 shots lower for a tournament.

The 2017 tournament finishes of the 20 players were then adjusted based upon the number of strokes lower their score would be at the end of a tournament. This adjustment revealed that on average not being slower over the ball:

Equates to potential additional winnings of $€ 189 \mathrm{~K}$
(3)

We did this in the 20 players where we had 8 or more rounds of data.

## Amateur golfers can also benefit from the RSM Player Performance Study



Be committed to the shot you decide to play

Be committed to whatever you are trying to do. It's easy to address the ball and question your club choice or ask "is the wind off to the right, or is the wind into me?" Once you commit to the shot, stick with it and believe in your choice.

Edoardo Molinari


Develop a personal pre-shot routine and use it consistently in practice and competition

Take 1-2 practice swings

2
Always stand behind your ball to identify your start line.

Don't stand over the ball too long, a shorter time will give you the best chance to play better shots and make more putts.
‘Carefree rather than careless’

