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The Significant Factors in Governing Performance in PGA Tour

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ABSTRACT

This study was designed to analyze the significant factors in governing performance in the 2000 PGA Tour. The top 100 PGA players were subdivided into the four different groups as follows: Group A (top 10), Group B (top 11-30), Group C (top 31-60), and Group D (top 61-100). The dependent factors of each player's performance in the 2000 PGA Tour included 21 factors. One-Way ANOVA and Tukey's Honestly Significant Difference (HSD) were used to analyze the variation between each group.

The results indicated that the significant factors in governing performance in the 2000 PGA Tour were as following: 1. Scoring Average Before Cut (69.74 stroke), 2. Par Breakers (23.4 %), 3. Scoring Average (69.83 stroke), 4. Birdie Average (4.089 time / per round), 5. Par 5 Birdie Percentage (48.5 %), and 6. Bounce Back (25.9%). In addition, the results showed that a good player will maintain a high performance level in the following areas: 1.A long driving distance. 2. A high birdie conversion percentage. 3. Good Par 4 score. 4. Good Par 3 score. 5. High Par 4 birdie percentage, and 6. Good scoring average in the final round.

Key Words: Scrambling, Bounce Back, Par Breakers, Birdie Conversion Percentage

INTRODUCTION

Hyman (2000) indicated that the PGA tour's television contract included a $650 million pact with CBS, NBC, and ABC, and all signs point to a huge increase in the value of the next deal, thanks to the new eyeballs Woods has brought to golf on TV. This year, attendance at tournaments in which Tiger Woods played were 105% higher than those in which Woods did not participate. Diaz and colleague (2000) stated that Tiger Woods holds the hammer in his sports like no other athlete in history because of his effective power play and give his singular position in the sport. Hence, they suggested that the Tour should respond by exploring a set of Tiger Rules that loosen the restrictions on where and when he can play and address his other concerns. Shipnuch (2001) indicated that Tiger Woods has set the bar so high that even he is playing excellent golf. If he does not win a couple of tournaments, it is as if he had committed a crime. This attitude may be the key to understanding Woods's game. On the other hand, how to improve and play a perfect game to Tiger Woods is the foremost goal for all professional players on the PGA Tour.

Anderson (1997) mentioned that in a country with only 350,000 golfers, 360 golf courses, and nongolf weather half the year, Sweden continues to develop a steady stream of world-class players.

Head coach Nilsson has made the Swedes a potent force in international golf, with a roster of players including Sorenstan, Liselotte Neumann, Helen Alfredsson, Jesper Parnevik, Per-Ulrik Johansson, and at least another three dozen pros around the globe. The list of the training topics for the Swedish team, which has helped grow stronger golfers includes more than 50 items and continues to expand. Among them are meditation, leadership training, history, time management, relaxation techniques, nutrition, flexibility, yoga, strength training, physiological causes of stress, cardiovascular fitness, philosophy, mission statement, habits of successful professionals in other careers, and techniques for growth. In order to make a good recovery and to save shots from the woods you must understand how different conditions and clubs affects your chances of success on the PGA Tour. Strange and Anderson (1996) indicated that players not swing before examining all options. Stand directly behind the ball and weigh the risk and reward for every possible shot. The six choices are: over, under, hook, slice, through an opening, or pitch to the fairway. They suggested that if you are down in a match, you probably have to take a bigger risk. At stroke play you are wise to play more conservatively and minimize your chances of making a big number. In fact, a lot of golfers wonder why there is a lack of improvement from year to year? Noel (1999) suggested that the first item was to set a challenging and measurable goal, and then reach the goal. The training goal should include physical fitness, a strategy, and improvement of putting.

The purpose of this study was to determine and compare the effects of the significant factors in governing performance in the 2000 PGA Tour. Taiwan's national golf team can put into practice the significant factors in governing performance, and develop new strategies in their golf games.

METHODS

Population and Sample

This study consisted of the top 100 players on the money list on the 2000 PGA Tour. The statistical information for the top 100 player's performance was offered by Mr. F. Haun, from the United State Golf Association. The top 100 PGA players were divided into four differ groups as follows: Group A (top 10), Group B (top 11-30), 3.Group C (top 31-60), and Group D (top 61-100). The dependent factors of the player's performance on the 2000 PGA Tour included the following 21 factors: 1.Scoring Average Final Round (SAFR)、2.Par Breakers (PB), 3.Scoring Average Before Cut (SABC), 4.Driving Accuracy Percentage (DAP), 5.Par 4 Performance (P4P), 6.Birdie Conversion Percentage (BC%), 7.Driving Distance (DD), 8.Scoring Average (SA), 9.Par 4 Birdie Percentage (P4B%), 10.Par 5 Performance (P5P), 11.Par 3 Performance (P3P), 12.Scoring Average 3rd Round (SA3R), 13.Eagles, 14.Birdie Average (BA), 15.Bounce Back (BB), 16.Scrambling, 17.Sand Save Percentage (SSP), 18.Putting Average (PA), 19.Putts Per Round (PPR), 20.Greens in Regulation Percentage (GRP), and 21.Par 5 Birdie Percentage (P5BP).

Data Analysis

The data was analyzed using the Statistical Package for Social Sciences (SPSS 8.0) program.

Twenty-one significant factors from the different groups were answered using a series of one-way analyses of variance (ANOVAs). For each ANOVA, the different categories for the subjects were the independent variables and the values of the significant factors were the dependent variables. All significant ANOVAs were followed by an appropriate specific comparison test to determine which levels of the three groups differ significantly from the others. All significant ANOVAs were followed by Tukey's Honestly Significant Difference (HSD) test to determine which demographic groups differed significantly from the others. The .05 level of significant will be used for all ANOVAs and specific comparison tests.

Results and Discussions

This study was to analyze significant factors in governing performance on the 2000 PGA Tour. The top 100 PGA players were divided into the four groups as follows: Group A (top 10), Group B (top 11-30), Group C (top 31-60), and Group D (top 61-100). Group A showed greater performance in PB, SA, BA, BB, and P5BP than Group B, Group C, and Group D. In addition, Group A also had greater SAFR, P4P, BC%, DD, P4B%, P3P, GRP than Group C and Group D. However, the Group A only showed a significant difference compared to Group D in SA3R, Eagles, BA. In fact, the top 100 players in DAP, P5P, Scrambling, and SSP showed no significant difference.

Group B showed significantly lower SAFA, SABC, P4P, SA values, and higher P4B% values than subjects in the Group C and Group D. Group B also had greater PB, and BC% values, and a lower score in SA3R compared to subjects in the Group D. In addition, Group C only had significantly lower SA, and SA3R values and higher PB values than Group D (see table 1).

Table 1.

Results of ANOVA for Groups A, B, C, and D

	Group A	Group B	Group C	Group D	F ratio
1.SAFR	69.97±0.007 (C、D)	70.14±0.006 (C、D)	70.79±0.007	70.99±0.008	9.169*
2.PB	0.234±0.023 (B、C、D)	0.213±0.012 (D)	0.209±0.013 (D)	0.199±0.012	17.62*
3.SABC	69.74±0.006 (B、C、D)	70.43±0.005 (C、D)	70.83±0.005	70.92±0.003	18.16*
4.DAP	0.698±0.035	0.707±0.047	0.691±0.047	0.698±0.040	0.532
5.P4P	-13.00±26.62 (C、D)	0.600±30.11 (C、D)	25.20±22.19	33.55±21.62	15.14*
6.BC%	0.326±0.021 (C、D)	0.309±0.021 (D)	0.306±0.020	0.294±0.018	7.746*
7.DD	281.3±8.194 (C、D)	274.8±5.750	275.2±5.932	273.7±6.567	3.801*

8.SA	69.83±0.006 (B、C、D)	70.35±0.003 (C、D)	70.78±0.004 (D)	70.93±0.003	24.018*
9.P4B%	0.182±0.016 (C、D)	0.176±0.016 (C、D)	0.166±0.013	0.158±0.010	13.68*
10.P5P	-115.2±22.10	-104.1±25.46	-107.4±26.31	-98.47±25.31	465
11.P3P	0.500±16.62 (C、D)	11.40±11.40	15.06±12.44	17.70±11.39	5.596*
12.SA3R	69.79±0.010 (D)	70.36±0.004 (D)	70.39±0.006 (D)	70.88±0.005	9.596*
13.Eagles	172.8±70.65 (D)	261.1±137.1	286.5±200.2	357.1±223.5	988*
14.BA	4.089±0.367 (B、C、D)	3.755±0.222	3.702±0.391	3.545±0.212	9.596*
15.BB	0.259±0.048 (B、C、D)	0.204±0.033	0.208±0.034	0.192±0.028	10.721*
16.Scrambling	0.625±0.031	0.592±0.076	0.604±0.023	0.604±0.025	375
17.SSP	0.571±0.048	0.561±0.061	0.557±0.100	0.533±0.066	1.169
18.PA	1.747±0.020 (D)	1.759±0.017	1.764±0.021	1.772±0.017	5.486*
19.PPR	28.91±0.402	29.01±0.393	29.02±0.398	29.08±0.375	605
20.GRP	0.699±0.031 (C、D)	0.682±0.019	0.668±0.027	0.665±0.022	6.373*
21.P5BP	0.485±0.114 (B、C、D)	0.407±0.046	0.394±0.039	0.376±0.036	12.07*

*P<0.05

This study suggested that the Scoring Average Before Cut (SABC) (69.74 strokes), Par Breakers (PB) (23.4%), Scoring Average (SA) (69.83 strokes), Birdie Average (BA) (4.089 time per round), Par 5 Birdie Percentage (PBP) (48.5%), and Bounce Back (BB) (25.9%) were significant factors by Group A on the 2000 PGA Tour. However, the top 10 players also showed high standard performance in other factors on the 2000 PGA Tour. These factors included: Scoring Average Final Round (SAFR) (69.97 strokes), Birdie Conversion Percentage (BC%) (32.6%), Par 4 Performance (P4P) (-13 strokes), Par 4 Birdie Percentage (P4B%) (18.2%), Driving Distance (DD) (281.3 meters), Par 3 Performance (P3P) (+0.5 stroke), and Greens in Regulation Percentage (GRP) (69.9%). This finding was supported by Overtoom (2000) who found that the dual challenges of competing in the world and rapid

technological advancements have made innovative training known as the high-performance necessary. He suggested that there is a need to require knowledgeable people to capable solve problems, create ways to improve methods, and engage effectively with their perfect game. Hence, in the PGA Tour players will need transferable core skills necessary for career success at all levels of performance and for all levels of education.

Conclusions and Recommendations

Conclusions

Conclusions drawn from this study reflect the research questions and the data gathered on the 21 factors of the in PGA Tour. Inferences from statistical analyses of the four groups are as follows:

1. The Scoring Average Before Cut (SABC) (69.74 strokes), Par Breakers (PB) (23.4%), Scoring Average (SA) (69.83 strokes), Birdie Average (BA) (4.089 time per round), Par 5 Birdie Percentage (PBP) (48.5%), and Bounce Back (BB) (25.9%) were defined as major significant factors in this study because these factors influenced the players ranking in the 2000 PGA Tour.
2. The top 10 ranking players also showed other significant factors in the 2000 PGA Tour. These factors included: Scoring Average Final Round (SAFR) (69.97 strokes), Birdie Conversion Percentage (BC%) (32.6%), Par 4 Performance (P4P) (-13 strokes), Par 4 Birdie Percentage (P4B%) (18.2%), Driving Distance (DD) (281.3 meters), Par 3 Performance (P3P) (+0.5 stroke), and Greens in Regulation Percentage (GRP) (69.9%).
3. The top 100 players in the PGA Tour, in fact, have been tested by a lot of tournament. If players improved their performance in these major significant factors from this study, their ranking list in PGA Tour might change rapidly.

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