

# HOW TO USE A "GOLF" GAME TO ENHANCE THE FORECASTING PROCESS

By **Kenneth B. Kahn**

*Describes how a "GOLF" game strategy can be profitably used in forecasting ... it may not only motivate people to participate more actively in their forecasting efforts but also may encourage them to collaborate with their partners, with the result being both process and forecasts improvements.*

**F**orecasting is not normally considered a fun, enticing company-wide activity. However, I have proposed to various companies how the use of a forecasting "golf" game can help build interest in the forecasting effort and motivate personnel to achieve the best forecasts possible. In this article I illustrate how a Golf Game strategy can be used to enhance the forecasting process and consequently lead to forecast improvements.

## WHAT IS A FORECASTING GOLF GAME?

The game is called Forecasting Golf because, like the game of golf, participants play individual holes which represent each forecasting period. The goal of the game is to get a low score, and thereby, minimize forecast error. Assuming that the Forecasting Golf Game is conducted monthly, twelve holes of golf would be played through the course of a year. During and at the end of the game, prizes would be awarded to individuals who achieved the lowest scores, i.e., the most accurate forecasts.

Akin to the regular game of golf, a Forecasting Golf Game uses the terms of eagle, birdie, par, and bogey to describe a

score during each forecast period (each hole). These terms are used to describe how close the forecast came to actual sales, where "eagle" is extremely close, if not perfect; "birdie" is very close; "par" is within an acceptable region of error; and "bogey" is beyond an acceptable region of error. Note that such terms are especially useful because they translate statistical language into a more understandable form. For example, if I report a forecast error of 23%, it is not readily recognized whether this error is good or bad? However, if I report that a particular forecast was "par," then everyone in the company, including

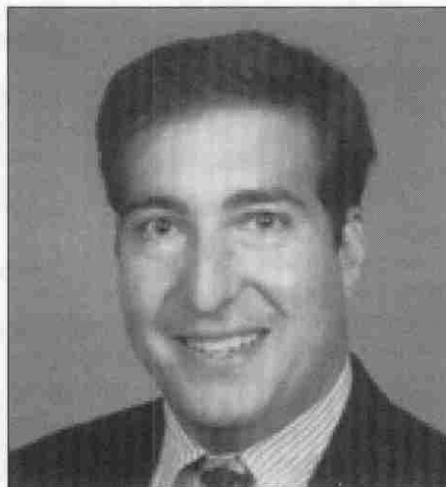
other departments and management levels, can readily interpret that error as being acceptable.

A Forecasting Golf Game should be especially popular with salespeople, who typically play golf and are characteristically competitive in nature. Playing a monthly golf game coupled with prizes should peek sales force interest in their forecasting efforts, which in turn, serve as a motivator to get sales force participation in the forecasting process. Monthly groupings of personnel into "scrambles" can further enhance the game by offering someone not doing very well year-to-date the chance to still win, and thus, stimulate personnel to continue their participation in the monthly forecasting effort. "Big" prizes for the lowest scores at the end of the year would serve to reinforce participation and instill the desire to minimize forecast error.

## A CASE EXAMPLE

To show how a Forecasting Golf Game would be played, the following case example is provided. This example is based on a consumer products company that has one forecaster who develops forecasts (termed "the baseline forecasts"), which are then distributed to the sales force for adjustment. Each salesperson can agree with or adjust the baseline forecasts — in either case, the salesperson replies with his or her own recommendations. The salesperson recommendations (termed "the adjusted forecasts") are aggregated and submitted into the S&OP process. The S&OP process culminates with a consensus meeting to agree on "the final forecasts."

The objective of the proposed Golf Game was to motivate the sales force to



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provide realistic adjustments. Each golfer (salesperson) would play 12 holes of golf with 1 hole per month. The basis of scoring would be a weighted mean absolute percent error (MAPE) based on actuals for the products that each salesperson sold (note that forecasts represented products by customer). The baseline forecasts provided by the forecaster would serve as par. This means that a salesperson could play par golf just by agreeing with the supplied forecasts. The benefit of this is two-fold: one, it forces people to think twice about making adjustments, and two, it gets immediate buy-in into the baseline forecasts, which in turn, builds credibility for the forecaster because he/she becomes the focal point of the forecasting process. Hence, a salesperson should only adjust baseline forecasts if he/she knows how to improve upon them, rather than to have excess inventory or sandbag for the sake of quota. The following scoring methodology would be applied:

**Eagle** = A score of one = a weighted MAPE of less than 2.5% and less than the given baseline forecast.

**Birdie** = A score of two = a weighted MAPE of more than 2.5% but less than the given baseline forecast.

**Par** = A score of three = within 5% of the given baseline forecast's weighted MAPE.

**Bogey** = A score of four = greater than 5% of the given baseline forecast's weighted MAPE and less than 10% of the given baseline forecast's weighted MAPE.

**Double**

**Bogey** = A score of five = greater than 10% of the given baseline forecast's weighted MAPE and less than 20% of the given baseline forecast's weighted MAPE.

**Triple**

**Bogey** = A score of six = greater than 20% of the given baseline forecast's weighted MAPE.

The scoring scheme is illustrated in Table 1.

**TABLE 1  
SCORING SCHEME**

Sales person	Sales			MAPE		Golf Score
	Baseline	Adjusted	Actual	Baseline	Adjusted	
A	100	105	90	11.11%	16.67%	4 Bogey
B	225	250	240	6.25%	4.17%	2 Birdie
C	300	275	325	7.69%	15.38%	4 Bogey
D	200	275	220	9.09%	25.00%	5 Double Bogey
E	160	160	175	8.57%	8.57%	3 Par

Yearly awards would be given to the lowest scores, i.e., first place, second place, third place, and honorable mentions. The Golf Game also would include closest-to-the-pin during a given month (i.e., lowest weighted MAPE for that month) and closest-to-the-pin during the year (i.e., who had the lowest weighted MAPE for a month over the course of the year). Awards for hole-in-one's would be awarded to individuals who had an exact forecast number.

The major resource necessary to implement a forecasting golf game is the time required to assess game participant's performance. Other game components could be the development of scorecards and an overall game-board—both of which could be in a spreadsheet format. The game also could include "hole" descriptions via Product Fact Books describing customer and product history that company personnel could use to develop/augment forecasts. After the first year, handicaps could be considered to even the playing field for those having to forecast products that are highly volatile; a handicap could be easily calculated by using the standard deviation of actual sales. A future consideration would be to give a salesperson-customer relationship award as a way to motivate customers and the sales force to get involved in collaborative planning, forecasting, and replenishment (CPFR) efforts within the guise of a forecasting golf game.

**SOME CONCLUDING THOUGHTS**

Obviously, there are countless game

variations that a particular company can employ. For example, other personnel can be included in the game besides salespeople. A "forecaster" golf game can be implemented where the forecaster (developer of the baseline forecasts) would be benchmarked against the statistical forecasts—the raw forecasts generated by the company's forecasting system. In this case, the forecasts generated by the forecasting system would serve as "par" and the forecaster would rely on his/her experience, intuition, and analytical skills to better the system forecasts.

Note that a critical underlying issue with Forecasting Golf is the need for a good forecasting performance measurement reporting system. This is a necessity so that forecasting performance is tracked timely and accurately, and provides the correct corresponding golf scores. Failure to have an effective system will only frustrate employees wanting to know how they're doing and doom future efforts to motivate personnel to improve on their forecasting efforts.

Naturally, if properly supported by a performance measurement reporting system, a Golf Game can add spirit to the forecasting effort and make it relatively "fun." Furthermore, a successfully implemented Golf Game should bring about a renewed effort to better the forecasting efforts and a willingness to participate in the forecasting process. In short, playing this kind of golf could actually enhance the overall forecasting process. ■