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Rationale for choosing a less accurate forecast

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Michael D. Geurts
Marriott School of Management, Brigham Young University, Provo, Utah, USA
e-mail: mdg2@ucs-exch.byu.edu

Michael Geurts is the J. Earl Garrett Professor of Business Management at Brigham Young University. He has been employed in a manufacturing company where he was responsible for forecasting, and has consulted for AT&T, HP, British Petroleum and other companies on forecasting systems. He has published in several marketing and forecasting journals.

ABSTRACT

This paper examines situations in which forecasters are asked to provide forecasts that are suboptimal in regards to accuracy. The paper looks at the impact on forecasters when they are asked to provide these less-than-accurate forecasts. Not providing the most accurate forecast is an ethical issue for some forecasters. The paper suggests a solution for forecasters who are asked to provide less accurate forecasts.

INTRODUCTION

Most forecasters believe that they should provide managers with the most accurate forecast possible. The only rationale for not improving forecasting accuracy is when the costs of the methods needed to obtain more accurate forecasts are larger than the benefits of the increased accuracy.

The forecaster is often surprised when asked to provide a forecast that is not likely to be the most accurate one. This can be troublesome to the forecaster especially if it is going to be used for political purposes or to manipulate a system.

The forecaster may feel that not providing the most accurate forecast is being unethical, perhaps feeling dishonest in compromising a moral position if the forecaster provides a forecast that he or she feels is inferior.

REASONS FOR NOT PROVIDING THE MOST ACCURATE FORECAST

In addition to accuracy, there are other criteria used in selecting a forecasting technique. Because of the selection criteria, a less accurate forecasting procedure may be chosen. Four criteria besides accuracy used in selecting forecasting models are:

- ease of producing a forecast
- expenses of producing the forecast
- importance of forecasting
- political expedience.

The ease-of-use criterion is highly subjective. For example, if an exponential smoothing model were almost as accurate as a Box-Jenkins method, the forecaster might use the model which is easier to work with even if it is slightly less accurate.

Some models require the use of experts and the gathering of expensive

data. Other systems require only the use of a computer. If the manager looks at the costs of gathering data and the costs of using consultants to forecast, the manager may choose to use a simple computer model to forecast sales if it is nearly as accurate as the model using experts and expensive data.

Some companies give little importance to the forecasts. Instead the company produces the quantity that would result in the greatest production efficiency and give the lowest per unit production cost for the product. These companies often adjust the prices to clear the inventory or keep from running out of inventory. This procedure may be optimal if the product is very difficult to forecast and all the forecasts have large errors. Because forecasts are of little value there is little concern about getting the most accurate forecast.

All of the above reasons for selecting a less accurate forecast are based on value considerations. The increased accuracy is not worth the cost of getting the accuracy improvement.

The final reason not to provide the most accurate forecast is political expedience. This is not a value issue. The rationale for the politically expedient forecast can be demoralising to a forecaster.

POLITICAL EXPEDIENCE

There are some situations in which the forecaster purposely creates a bias in their forecasts. The forecaster may take the initiative to provide an optimistic forecast when the consequences of under forecasting may be much more harmful to the forecaster than over-forecasting. If the president of a company is very upset when there is a shortfall in orders delivered because a forecast results in too little product being produced, the forecaster may provide a forecast that is higher than the most accurate model estimates to avoid criticism. The forecaster wants the forecasted sales minus the actual sales to be positive. The result is a forecast that over-estimates production needs so that there are no delivery shortfalls because of a lack of inventory. The result is that the company carries larger inventories than are needed. The forecasts are not criticised, however, because the forecast was too low and not enough product was produced. The author worked for a company where delivery shortfalls because of under forecasting were a very serious occurrence. Having high inventories and large warehousing cost were, however, much less important to management. In such a situation some forecasters would provide the most optimistic forecasts in place of the most likely.

A second situation in which a forecaster creates a less 'accurate' forecast is in forecasting for the government.[1] This is often the case in forecasting tax revenue for governments.[2] The forecast tax revenues become the collective budget for the various government divisions. It is generally less harmful to have tax

surpluses as opposed to tax shortfalls because spending more than is taken in causes bad publicity. The news media and the public get upset about deficits. Sometimes deficits can result in spending freezes. As a result the forecast receives lots of criticism and negative publicity. The result is that the forecaster is criticised. This causes a forecaster to be conservative in forecasting tax receipts. Underforecasts of tax revenues can be beneficial. Tax surpluses allow the government leader to say that the surplus revenue is due to the robustness of the economy and government fiscal responsibility. The economy is prospering under the politician's leadership and the surplus is a bonus that can be used as surplus money to be assigned to areas of need. The result is that some government units get to spend more than they had been allocated.

Often in sales forecasting, company political realities are involved.[3] Some companies use the sales forecast as if it is the sales goal. Some managers feel that increasing the forecast of sales can increase sales. The managers feel that if they increase the forecast, salespeople and the marketing staff will work harder to meet or exceed the forecast.

The forecast is sometimes used to assign quotes to sales divisions and salespeople. The managers involved in sales want the lowest possible forecast. The low forecast makes meeting sales goals easier.

Some companies base budget allocations for the following year on the forecast of next year's sales. This often happens with the advertising budget. As a result the advertising department has a vested interest in the forecast and would like to see it as large as possible. The result is a larger advertising budget. Lippman and Orwall[4] report on the impact forecasting errors can have on the movie advertising expenditures by Hollywood studios. Sometimes managers want actual sales to exceed the forecast sales to show that they are doing a good job. Often bonuses and performance reviews are based on exceeding the sales forecast. In this situation the managers want the forecast to be lower than the most likely value and the forecaster is asked to provide a pessimistic forecast. In the article 'Forecasts, budgets and goals: Is there a difference?' Lapide discusses the difference between goals, forecasts and budgets and what should be done when these planning tools show different values for the sales forecast.[5] Kirk in the paper 'Many plans, one realty: Which is the real forecast?' notes that 'One of the challenges in producing an accurate forecast involves reconciling sales, marketing, financial and operational plans.[6] Lapide discusses why different forecast values are obtained from different departments in an organisation.[7]

Sometimes the person in charge (the boss) does not like the forecast and tells the forecaster to change it. Sometimes the chosen forecast is the one championed by the individual with the greatest organisational power. In the above situations, accuracy is second to

political expediency. Great effort and expense in measuring accuracy or improving accuracy may not be warranted.

ETHICAL CONSIDERATIONS

Delivering a forecast that is less accurate than possible for political expediency is distasteful to many forecasters. It may be viewed as unethical as well as distasteful. Two philosophical views of ethics are deontology and teleology. Deontologists view acts as either good or bad and consider that it is unethical to commit bad acts. Providing less accurate forecasts is a bad act and therefore unethical. Teleologists view an act as unethical if the outcome lowers societal good. If a less accurate forecast produced less societal good than a more accurate forecast, then proving the less accurate forecast is unethical.

Regardless of ethical considerations, it seems to forecasters that providing a less accurate forecast is 'bad science'. It is uncomfortable from an intellectual viewpoint. American societal expectations and norms call for an individual to put forward a best effort. Choosing a less accurate forecast is not a best effort. Most individuals are taught that they should try their hardest and do their best. Providing less accurate forecasts is a process of perpetuating a deception. The forecaster may view the process of proving a less than accurate forecast as being negligent. Negligence is unacceptable behaviour in most cultures. Providing less accurate forecasts may be so distasteful that it causes a forecaster to seek employment at a different company.

One way of minimising the ethical dilemma is to let the forecaster provide several forecasts, and then have management decide which forecast to use. A forecaster could provide an optimistic forecast, a pessimistic forecast and a most likely forecast. Managers should avoid putting forecasters in an uncomfortable position of compromising the most likely forecast for political expedience. The forecaster's goal should be to provide the most accurate forecast possible given the restraints of money and time. Anything less than a best effort to provide the most accurate forecast results in job dissatisfaction for many forecasters.

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