## Discussion

# Comments on "Effective forecasting and judgmental adjustments: An empirical evaluation and strategies for improvement in supply-chain planning"

## Dilek Önkal

*Faculty of Business Administration, Bilkent University, Turkey*

Forecasts are requisite channels for knowledge sharing and operational decision making in supply chain management (Önkal, Gönül, & Lawrence, 2008; Smith-Daniels, 2008), with forecast quality directly influencing the performance of a supply chain (Zhao, Xie, & Leung, 2002). In fact, information sharing is an integral part of supply chain transparency (Akkermans, Bogerd & van Doremalen, 2004), which highlights the importance of forecast communication and forecast adjustments across the partners/links in supply chains. Hence, the authors are to be applauded for conducting this thorough study in an area where forecast improvement carries such strategic repercussions for interdependent decision making performances.

Drawing attention to the gaps in organizationally-based work on judgmental adjustments, the authors find that, while smaller perturbations cause a deterioration in accuracy, larger adjustments tend to improve it; with wrong-sided adjustments causing the biggest damage. Coupled with their finding on forecasters' discriminating skills in identifying those instances that most necessitate judgmental adjustments, these results lay the groundwork for the

authors to suggest promising strategies for enhanced forecasting.

I totally agree with their conclusion that automatic correction procedures may not work for motivational reasons. If used as mechanisms to correct unnecessary/excessive/reactionary adjustments, such procedures are likely to backfire, with the forecasters game-playing to 'correct for corrections'. Keeping in mind that judgmental adjustments are typically made under implicit organizational and political expectations and constraints, I believe that the use of such automatic procedures will inevitably have peripheral effects on the participants' understanding of and commitment to the forecasting and decision making processes.

I found it quite surprising that the forecasters in the companies studied were not knowledgeable about the statistical aspects of forecasting. With no knowledge of alternative forecasting methods and error tracking, how could they be expected to fully understand and rely on the reasoning behind the "system forecasts"? In other words, how could they NOT adjust the given forecasts? Periodic training and feedback are prerequisites to making the best use of the data, in addition to avoiding biases like overconfidence and wishful thinking, and this research once again stresses their added value for such companies.

Given our previous work on the effectiveness of explanations in increasing the acceptance of provided

forecasts (Gönül, Önkal & Lawrence, 2006), I found it promising to read that the systems studied in the paper had 'notes' facilities. Once again, I agree with the authors' suggestions on effectively using such explanation mechanisms to convey the reasons behind adjustments, and to expand the information flow in forecasting processes.

Improving decision-making performances in organizations relies in part on designing structured interventions (Venkatesh, Speier, & Morris, 2002), and this gains a special importance for applications of such work in supply chain technologies (Venkatesh, 2006). I believe that the authors successfully pinpoint the main issues for effectively designing such interventions in forecasting systems. Hence, I expect their results to have a profound impact on the proficient design and implementation of forecast support technologies. This will be especially important given the rising role of collaborative forecasting in efforts to improve efficiency and competitiveness (Aviv, 2001; Helms, Ettkin & Chapman, 2000). This paper will provide a basis for future work on the multi-organizational aspects of judgmental adjustments to forecasts, and forecast-sharing technologies taking a proactive role in the decision making process overall.

Congratulations again to the authors for bringing this issue to the foreground.

## References

Akkermans, H., Bogerd, P., & van Doremalen, J. (2004). Travail, transparency and trust: A case study of computer-supported collaborative supply chain planning in high-tech electronics. *European Journal of Operational Research*, *153*, 445–456.

Aviv, Y. (2001). The effect of collaborative forecasting on supply chain performance. *Management Science*, *47*, 1326–1343.

Gönül, M. S., Önkal, D., & Lawrence, M. (2006). The effects of structural characteristics of explanations on use of a DSS. *Decision Support Systems*, *42*(3), 1481–1493.

Helms, M. M., Ettkin, L. P., & Chapman, S. (2000). Supply chain forecasting: Collaborative forecasting supports supply chain management. *Business Process Management*, *6*, 392–407.

Önkal, D., Gönül, M. S., & Lawrence, M. (2008). Judgmental adjustments of previously-adjusted forecasts. *Decision Sciences*, *39*(2), 213–238.

Smith-Daniels, V. (2008). In this issue: Behavioral issues in IS-enabled operational decision making. *Decision Sciences*, *39*(2), 151–155.

Venkatesh, V. (2006). Where to go from here? Thoughts on future directions for research on individual-level technology adoption with a focus on decision making. *Decision Sciences*, *37*(4), 497–518.

Venkatesh, V., Speier, C., & Morris, M. G. (2002). User acceptance enablers in individual decision-making about technology: Toward an integrated model. *Decision Sciences*, *33*(2), 297–316.

Zhao, X., Xie, J., & Leung, J. (2002). The impact of forecasting model selection on the value of information sharing in a supply chain. *European Journal of Operational Research*, *142*, 321–344.

**Dilek Önkal** is a professor of decision sciences at Bilkent University, Turkey. She received a PhD in decision sciences from the University of Minnesota and is an associate editor of the *International Journal of Forecasting* as well as the *International Journal of Applied Management Science*. Professor Önkal's research focuses on judgmental forecasting, forecasting support systems, probabilistic financial forecasting, risk perception, and risk communication. Her work has appeared in several book chapters, as well as journals such as *Organizational Behavior and Human Decision Processes, Decision Sciences, Risk Analysis, Decision Support Systems, International Journal of Forecasting, Journal of Behavioral Decision Making, Journal of Forecasting, Omega: The International Journal of Management Science, Foresight: The International Journal of Applied Forecasting, Frontiers in Finance and Economics, International Federation of Technical Analysts Journal, Journal of Business Ethics, Teaching Business Ethics, International Forum on Information and Documentation, Risk Management: An International Journal,* and *European Journal of Operational Research*.