



Research School for Operations  
Management and Logistics

**Shifting attention to algorithmic prediction accuracy decreases acceptance of point but not interval predictions**

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Virtually all decision-making in an operations context relies on predictions of future events. Prediction errors can erode trust in prediction algorithms, leading to the dismissal of algorithmic advice and reduced decision accuracy. Previous research indicates that prediction intervals, where a prediction is a range of possible outcomes, are trusted to be more accurate by decision-makers compared to point estimates. However, research remains unclear whether this heightened trust in interval predictions holds in operational contexts, and whether decision-makers behave according to their accuracy perceptions by default or only after perceptions of accuracy are provoked before making predictions. In this research, we aim to resolve these unclarities and perform two behavioral experiments. In the first experiment, participants rated algorithmic sales predictions, presented either as point or interval predictions. We see that when actual sales fell within the interval bounds, participants regarded these predictions as highly and consistently accurate, while perceived accuracy of point estimates decreased quickly as prediction errors increased. Our second experiment showed participants a graph displaying historical sales data alongside algorithmic predictions, presented as either point estimates or interval predictions. Participants decided whether to make ten predictions themselves or delegate this responsibility to an algorithm. Remarkably, provoking accuracy was necessary to obtain a behavioral response: while participants generally viewed interval predictions as more accurate, their perceptions alone did not translate into different behaviors. Instead, only when participants' accuracy perceptions were provoked before making a delegation decision did the prediction format, point or interval, significantly impact their decision to delegate to the algorithm. Our findings contribute to theory by showing that the beneficial effect of interval predictions on people's accuracy perceptions of algorithmic predictions translates to an operations management context. For industry, where professional forecasters are inherently focused on model accuracy, our findings suggest that the adoption of interval predictions holds the potential to facilitate willingness to delegate to algorithms, fostering operational efficiency and more reliable predictions.