

11:16:17 Participant: @Prakhar - Is there interaction between the DCs and Fulfillment Ctrs?

11:16:57 From Ananth Raman, Harvard B School To Everyone:

Walmart's sales would make it roughly the 22nd biggest GDP in the world. The scale is staggering. Do we think adequately about scale when we design algorithms?

11:17:26 From Monika Shrivastav To Everyone:

Currently we do not have substantial interaction between FCs and DCs.

11:18:27 From Ananth Raman, Harvard B School To Everyone:

Was the out-of-stock caused by unpredictable demand or supply chain bottlenecks?

11:19:24 Participant: Love this slide!

11:19:50 From Ananth Raman, Harvard B School To Everyone:

I agree. What is your favorite part of this slide?

11:20:24 From Ananth Raman, Harvard B School To Everyone:

I LOVE that the slide distinguishes RISK and AMBIGUITY so clearly.

11:20:57 Participant: I worked with a number of companies over the initial outbreak and saw the risk effect. They ran into problems during the extended lockdown, but I hadn't thought of this issue as ambiguity.

11:21:41 Participant: The companies I observed had to turn off their forecasting-based planning and just react to demand.

11:22:24 From Ananth Raman, Harvard B School To Everyone:

I agree. The ambiguity is in Supplier and Operations, not on demand! Uncertain demand and Ambiguous Supply.

11:23:28 Participant: Ambiguous supply, labor, etc.

11:24:24 From Ananth Raman, Harvard B School To Everyone:

Soroush Saghafian (on this call) and Brian Tomlin touched upon this issue in their excellent paper, "The Newsvendor under Demand Ambiguity: Combining Data with Moment and Tail Information." The WMT problem is a LOT more complex.

11:25:46 From Ananth Raman, Harvard B School To Everyone:

The uncertainty of whether stores would be open and staffed was also seen at other retailers. Annemarie, you experienced this too. Do you want to add thoughts?

11:27:28 Participant: Thank you Ananth! In addition to the paper you mentioned, here is a blog post on AI techniques useful for dealing with ambiguity and the differences between risk and ambiguity: <https://scholar.harvard.edu/saghafian/blog/ambiguity-versus-risk-sequential-decision-making-incomplete-information-causal>

11:29:09 From MFredericks To Everyone:

During this period of ambiguity, due to the importance of "Recency", would simpler forecasting models that require less training data be better options than more complex models?

11:29:10 From Jason Merrick To Everyone:

Great references. Thanks!

11:30:34 From Wedad Jasmine Elmaghraby To Everyone:

I don't fully understand item 5 - propagation of risk probabilities across various agents might be able to model ambiguity. Can you elaborate?

11:32:28 From Ananth Raman, Harvard B School To Everyone:

In response to this question: During this period of ambiguity, due to the importance of "Recency", would simpler forecasting models that require less training data be better options than more complex models? YES, THIS IS TESTABLE AND HOPEFULLY PUBLISHABLE

11:35:05 From Ananth Raman, Harvard B School To Everyone:

Uncertainty on whether a store can open or not translates into ambiguity at the DC. In response to Wedad's question

11:35:14 From iPad (2) To Everyone:

Excellent talk. So you have enhanced your models to incorporate a broad range of the most recent signals. As we come out of the pandemic, do you expect to stay with these models, or revert back to the earlier models, and if so, how would you know when to do so?

11:35:30 From Jason Merrick To Everyone:

Are you iterating over model uncertainty and stochastic behavior in your simulations?

11:39:55 From Ananth Raman, Harvard B School To Everyone:

Would complex, sophisticated models work against recency? Complex models, especially at WMT's scale, would be slower, I think

11:40:32 From Christine Tang To Everyone:

Thank you for this practitioner presentation. I am a student (focusing on simulation) and was wondering what type of simulation modeling method(s) you used. Also, how did you account for weather disruptions?

11:47:25 From Jason Merrick To Everyone:

Was supply disruption, your own capacity disruption (labor?), or demand unpredictability the most challenging?

11:47:45 From divya Mereddy To Everyone:

Thanks for great talk! How exactly you improved importance of the recent data compared to old data. Did you just consider the complete recent data for model development or you considered old data and new data with more weightage?

11:53:49 Participant: How much did you suffer the bullwhip effect? Did automatic process help?

11:56:45 Participant: What have you learned during this disruption that will be applied to when things get back to pre-covid times, i.e., things are more predictable?

11:59:17 Participant: Great talk!! Thank you Prakhar and Monika!

11:59:42 Participant: Thanks a lot

11:59:48 Participant: Thank you for your presentation!

12:00:13 Participant: Thank you very much

12:01:57 Participant: Great presentation! thank you very much for the opportunity and fantastic idea to share this knowledge and experience!

12:05:05 From Ananth Raman, Harvard B School To Everyone:

Are companies that operated in hyper-inflationary or extremely uncertain environments better at dealing with ambiguity? I feel I grew up in a somewhat ambiguous world!

12:06:21 Participant: Thank you.

12:06:29 Participant: Thanks for sharing your great information with us!

12:09:38 Participant: All efficient supply chains needed to become agile over COVID

12:11:32 Participant: Thank you and all the best everyone.

12:14:03 Participant: "Person + Machine " -- great message

12:15:15 Participant: Great presentation and discussion! Thank you.

12:15:35 Participant: Thank you!

12:15:38 Participant: Thank you !