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Research Interests:
· Dynamic Balancing of Supply and Demand
· Revenue Management

Research Abstract

“DYNAMIC BALANCING OF DEMAND AND SUPPLY”

My main research interest is in dynamic balancing of supply and demand, which I believe is one of the ultimate goals of supply chain management with limited resources but fast growing needs from the world’s rapidly increasing population.

I dream of a supply chain where demand and supply are perfectly matched, which eliminates shortage or waste: customers get what they need and suppliers provide what is needed, which is completely consumed.

To this end, effective mechanisms should be devised, such that the true demand and supply information can be shared among related parties. Further, effective planning and execution with incomplete demand and supply information would also be necessary as it is close to reality, especially in case of newly introduced products or services.

Specifically, when it comes to sharing of true information, I believe that balance may not be achieved without commitment or contracts, because human preference is subject to change from time to time, especially pursuing more benefit or profit. So far, most researchers have concentrated on B2B environments when contracts are considered, but I think that individual customers and suppliers, such as in the retail industry, may also have bidirectional commitments or contracts.

Regarding working with incomplete demand or supply information, dynamic or adaptive coordination or learning would be necessary to balance both sides. From the supplier’s point of view, effective demand-shaping methods, such as dynamic pricing, should be devised.

I have been exploring these areas described above to find more specific research topics with an additional focus on the telecommunications industry.