Nov. 4 2009

Ying-Ju Chen

Background: most of the time in Taiwan, Electrical engineers, for the optimizing communications. Then decided to apply the engineering knowledge to benefit human beings. That was why he decided to pursue a PhD in business.

Not so much difference btw operations research and management. Only difference is the applied aspect of them. He chose the field that had a strong business flavor. In his dpt ppl were talking abt collecting data for solving large scale problems. While he himself was more into economic problems. To give us a flavor about what he is doing:

What to do to induce people to do things that you want them to.

Principal-agent model:

Signal (hidden info)

Effort (hidden actions)

Revenue

What is the good thing about letting the agent do the selling? Effort they put into the promotion.

Problem: P whats A to put all efforts in to the promotion

Solution: Right incentive.

The reason why it is called supply chain management is because it has multiple layers.

Most people were not concerned about the entire chain, but only the three-party structure above. Ignoring the other parties in the chain. What he is doing is to try to convince other people that the multiple layers do matter.

His question: why are there only six layers? Why not five or seven?

What is the benefit of introducing different layers? The reason we introduced middleman is because of we do not know all the information.

He went back to the first scenario. The main criteria for the Agent is how much time he spends on talking to customers.

We can have a middleman that checks on what the agent is doing,

Or we can have someone who is knowledgeable of the supply-demand relationship.

Example of India:

About 70% of the population are farmers, but the supply chain is extremely inefficient. The middleman would cheat the farmers on the weight and the produce. Five years ago, a company observed the imparity of information, so they set up collecting centers in the villages, provide market information and weather information.

In addition to that, they set up a network to bring the info to the farmers. What is the incentive for the company to do so? How reliable is the verbal agreement between the parties?

By not obeying the contract, they lower the price by selling to the local market.

By improving their productivity, they can get more product; also, it is going to bring the price down.