

John Korvell: Managing Logistics in Cosmopolis

Part One - Read to the bottom of this page, then stop until your teacher tells you to turn the page.

John Korvell hung up the phone with a smile. He was about to make a big sale!

John was a Sales, Planning and Logistics Manager for the Weyerhaeuser Company. He had worked for Weyerhaeuser for nine years, and spent his time working with a very important but not very well-known product: wood pulp.

Wood pulp is used by companies all over the world to make paper, tissue, and disposable diapers. During the 1990s, Weyerhaeuser was the world's leader in producing wood pulp. Weyerhaeuser manufactured over two million metric tons of wood pulp each year at its eight US mills.

John's mill in Cosmopolis, Washington, manufactured wood pulp for photographic paper and disposable diapers, as well as for other products not generally associated with wood: acetate for photo film, clear toothbrush handles, rayon for cloth, food additives, and pharmaceuticals.

John's possible big sale was with one of these more unusual pulp products. A Japanese textile firm was interested in buying five years' worth of a special kind of pulp used to make rayon. If John's mill could produce the pulp for the right price, the deal would be complete.

Now John had to learn how much this special order would cost him to produce. Then he would know if he could make the sale. The Cosmopolis mill didn't make this special kind of pulp everyday. It would require special raw materials and different steps to manufacture. And, John would have to ship the pulp to Japan.

John decided to make a list of all the things he needed to know.

STOP

Part Two - *Read to the bottom of the next page.*

John decided he needed to learn the answers to four sets of questions.

1. Which raw materials would he need for the rayon pulp, how much would he need of each raw material, and how much would each cost him to buy?
2. Which of the machines in the mill would have to be changed to produce the rayon pulp, how long would that take, and how much would that cost?
3. Once the mill was ready, how long would it take to produce the rayon pulp, how many millworkers would it require, and how much would that cost?
4. When the pulp was ready, how much would it cost to ship it from Cosmopolis through the Port of Seattle to his customer in Japan?

Finding answers to these questions would not be difficult. But, with each question, John realized that there were decision points that would affect the cost of the pulp.

For instance, he knew it would be much cheaper to order five years' worth of raw materials all at once. But then he would need to pay to store them, and while that wouldn't cost very much for a small amount of chemical additive, it would cost a lot –maybe even more than the amount he would save – for the bulkier materials he needed.

He knew that actually manufacturing the wood pulp would be cheapest if he could schedule it during a time his mill was not too busy. But that would depend on how flexible his customer was willing to be. If the Japanese textile company had firm deadlines, he might have to interrupt other projects at the mill... and that would cost more.

TURN PAGE AND KEEP READING

And, John knew that the same thing would apply to shipping the finished pulp to Japan. If he could commit to a schedule well ahead of time, that would save him money. But, he didn't know if his customer might have a sudden, urgent need for the pulp. Then, John would have to hurry to ship it to Japan and he would have to pay extra to change the shipping schedule.

He had a lot of information to organize. What should he do?

STOP

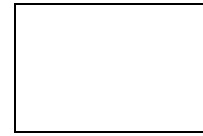
Part Three - Read to the bottom of the next page.

John decided to make a **flow chart** to track the things he needed to do to learn how much it would cost to produce the pulp. John knew that just as a good table can collect and organize information, **a good flow chart can organize a process**, or the order in which things have to happen.

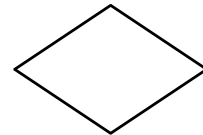
And, John knew that a good flow chart would help him see how a decision point – whether or not his new customer had a flexible schedule, for instance – was related to the actions he would take – whether, for instance, he needed to produce the rayon pulp immediately (if the customer’s schedule wasn’t flexible) or whether he could produce the rayon pulp when the mill was not busy (if the customer’s schedule was flexible).

John reviewed the basics of flow charting before he got started. He knew that flow charts use three basic symbols:

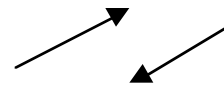
A rectangle is used to mark a basic step in the process:



A diamond is used to mark a decision point that has a ‘yes’ or ‘no’ answer:



Arrows show the direction of the process:

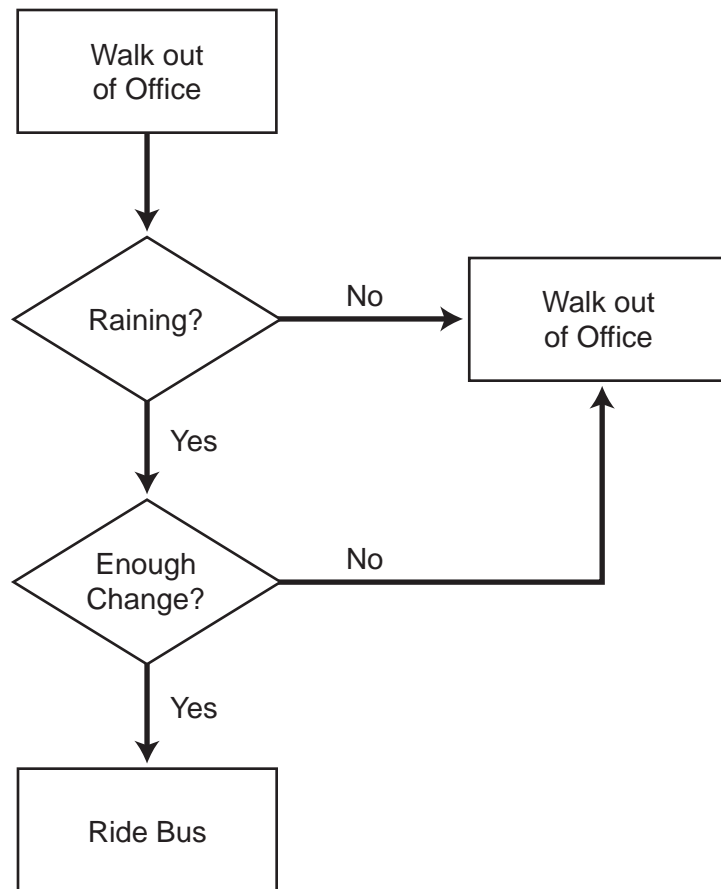


John knew that a flow chart should start in the upper left corner of the page and move right and down as he moved through steps in the process. He also knew that whenever he came to a decision point – a point in the process where he needed to know the answer to a question – he could use the flow chart to show the different actions he would take if the answer was ‘yes’ or if the answer was ‘no.’

TURN PAGE AND KEEP READING

Before tackling the difficult question of figuring out the cost of manufacturing the rayon pulp, John decided to practice with a simple flow chart.

John thought about the decisions he would make about traveling home from work that evening. He had ridden his bicycle to work that morning, and would ride it home again in the evening... but only if it wasn't raining. If it was raining, he would prefer to take the bus... but only if he had enough change for bus fare. If he didn't, he would have to ride home in the rain. How would that process look?



Now, it was time to create a flow chart for the rayon pulp.