



MEASI INSTITUTE OF MANAGEMENT CHENNAI-14

Approved by All India Council for Technical Education and
Affiliated to the University of Madras, ISO 9001:2015 Certified Institute

CASE STUDIES SUPPLY CHAIN MANAGEMENT

CASE STUDY NUMBER	1
LEVEL OF TEACHING	L3
PROGRAM OUTCOMES COVERED	PO6, PO7
COURSE OUTCOME COVERED	C325.4

Fantastic Corporation designs and makes a fantastic new home entertainment center with widescreen HD TV and surround sound. It performs to demanding specifications and delivers impressive results. Customer demand is growing steadily, and if Fantastic does not keep up with demand, customers will go elsewhere and competitors will start taking market share. There have been some supply chain problems as Fantastic ramps up production. There are points in the supply chain where products are either running out or building up too much. And now the company has also decided to expand from its North American market into Europe.

You are head of supply chain operations at Fantastic and you already run a supply chain that extends from China to New York and points in between as shown in the screenshot below. Now you are going to extend that supply chain to Paris and Berlin. You need to design and execute a strategy to improve operations of the existing supply chain and then expand it to support the new business in Europe.

Your CEO has already described the company's business plan. The company intends to open stores in London, Paris, Amsterdam and Berlin. The CEO wants to enter the most promising European markets quickly, and then be ready to expand into further cities in Europe if prospects look good. Everyone is looking to you to deliver the products those new stores will need.

Your existing supply chain has grown up to support Fantastic Company operations and sales in North America and that is the base you will build on to support the company's move into Europe. Factories of suppliers in Japan, China, Vietnam and Singapore manufacture component parts that Fantastic needs to build its home entertainment centers. These parts are shipped (using ocean freight and air freight) across the Pacific Ocean to facilities in Tacoma and Los Angeles. Further assembly of parts is done in Tacoma, and from there, sent by railroad down to a factory in Los Angeles where final assembly of home entertainment systems happens.

As you work on expanding this supply chain you will get to practice setting up and managing a supply chain that is truly global in scope. As the supply chain grows, product lead times can be much longer than is the case in local or regional supply chains. And when transportation suddenly becomes significantly more expensive or time consuming, it creates a new set of conditions different from those encountered during expansion of a company within a single country, You will need to look into ways to increase the speed and volume of products flowing

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through the supply chain, while at the same time keeping an eye on costs and managing them so they don't eat up all the profit. You also need to look at managing supply chain lead times by using higher levels of safety stock inventory to ensure that facilities doesn't run out of inventory. You will see how inventory can easily build up to levels that are beyond what is needed for safety stock and become a significant expense to maintain.

QUESTIONS:

1. How to get the existing supply chain and assembly operations to run for 30 days and keep North American customers supplied with product over a 30 day period?
2. Once you have the existing supply chain running for 30 days, expand the supply chain to support new stores in Europe. How will you prepare for the move into Europe? What steps will you take to support the opening of the initial four European stores?



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CASE STUDY NUMBER	2
LEVEL OF TEACHING	L3
PROGRAM OUTCOMES COVERED	PO6
COURSE OUTCOME COVERED	C325.2

Zara changes its clothing designs every two weeks on average, while competitors change their designs every two or three months. It carries about 11,000 distinct items per year in thousands of stores worldwide compared to competitors that carry 2,000 to 4,000 items per year in their stores. Zara's highly responsive supply chain is central to its business success. The heart of the company and its supply chain is a huge, highly automated distribution center (DC) called "The Cube". The screenshot below shows a close up satellite view of this facility.

Manufacturing and Supply Chain Operations Make Zara Unique in Its Industry

Factories can increase and decrease production quickly, thus there is less inventory in the supply chain and less need to finance that inventory with working capital. They do only 50 – 60 percent of their manufacturing in advance versus the 80 – 90 percent done by competitors. So Zara does not need to place big bets on yearly fashion trends. They can make many smaller bets on short term trends that are easier to call correctly.

The company purchases raw fabric from suppliers in Italy, Spain, Portugal and Greece. And those suppliers deliver within 5 days of orders being placed. Inbound logistics from suppliers are mostly by truck.

The Cube is 464,500 square meters (5 million square feet), and highly automated with underground monorail links to 11 factories within a 16 km (10 mile) radius of the Cube. All raw materials pass through the cube and all finished goods also pass through on their way to stores. The diagram below illustrates Zara's supply chain model.

Questions:

1. How continuous adjustments that need to be made to keep the supply working and to keep operating expenses and inventory levels under control.
2. How Zara can make a better supply chain with their customers?



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CASE STUDY NUMBER	3
LEVEL OF TEACHING	L3
PROGRAM OUTCOMES COVERED	PO6
COURSE OUTCOME COVERED	C325.2

S&J Trading Company introduces a global and local supply chain supporting a growing company. The instructor study guide for S&J Trading Company is structured as a sequence of five scenarios to explore different aspects of this supply chain. As the railway network becomes operational again, and expands to link up with previously isolated cities, it is possible to transport people and products quickly and inexpensively. This intermodal transportation network (ship, truck and rail) enables commerce to increase and businesses to grow. You just graduated with an impressive degree in supply chain management and logistics, and this is your opportunity to prove yourself. You joined the family business, S&J Trading. The family has been in the import/export business for a long time, and they have a way of seeing opportunities early and getting in before everybody else. Angola's economy has a lot of potential, and up until recently it was one of the fastest growing economies in the world.

Then, with the drop in oil prices, it fell on hard times. But it will come back. Your father and uncle spent some time in Angola and opened up a distribution center and three stores. They are looking for you to grow the business and open new facilities. It calls for long hours and lots of perseverance, but the potential rewards are well worth the effort.

The company imports products from the United States and Europe and sells this merchandise through its three stores. There are three categories of products imported in quantities large enough to fill a growing number of shipping containers (the categories are: Product A; Product B; and Product C). You track inventory demand and product inventory at the shipping container level. Load the S&J Trading Company supply chain from the online library. In the Edit screen click on the tabs for the four entities and see more about the products, facilities, vehicles and routes that make up this supply chain

Questions:

1. Make changes to the existing supply chain and get it to run for 30 days. Then expand the supply chain to support four new stores.
2. Do some experimentation to find the best way to build a rail-based supply chain



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CASE STUDY NUMBER	4
LEVEL OF TEACHING	L3
PROGRAM OUTCOMES COVERED	PO2, PO4, PO6, PO7
COURSE OUTCOME COVERED	C325.5

Java Furniture Company is the largest business unit of a European furniture maker, and management is located partly in Europe and partly in Indonesia. The company makes stylish, high quality furniture from sustainably harvested teak and other exotic hardwoods. Its two furniture factories are located in Indonesia on the island of Java, and it sells to customers around the world. The company put together a supply chain task force composed of people from different areas – operations, purchasing, sales, and finance. To start this project, the task force members have traveled to meet in person at headquarters in Amsterdam. Your job is to guide them through a process of analyzing different options, and help them make decisions about how to create a supply chain to support the next level of company growth.

From what you've heard in individual conversations over the last few days, you realize different groups in the company are fixating on different parts of the supply chain, and pressing for their own interests without understanding the overall effects of different courses of action. The finance people in Europe are focusing on how to increase productivity at the two factories in Indonesia. Operations people in Indonesia argue that the most important issue is to improve movement of products between the factory and the port where they are loaded onto cargo ships for delivery to customers. Purchasing people want to know if they should line up new suppliers or shippers. And sales managers in Europe and Indonesia just want to do whatever it takes to increase production and support rising worldwide sales.

Your objective in this first meeting is to provide a big-picture understanding of the company supply chain and the basic relationships between different parts of that supply chain. With that common understanding, people can collaborate to solve problems instead of just arguing and bargaining. Good things happen when people collaborate effectively, and practical solutions to big problems can be found. You begin your remarks by pointing out that the factories and the port in Indonesia lie at the center of a global supply chain spanning four continents.

QUESTIONS:

1. How to Implement changes to the Java Furniture supply chain model?
2. How supply chain maintained across suppliers?



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CASE STUDY NUMBER	5
LEVEL OF TEACHING	L3
PROGRAM OUTCOMES COVERED	PO2, PO4, PO6, PO7
COURSE OUTCOME COVERED	C329.2
<p>You are head of the largest merchant trading house on the Silk Road. It is the year 210 AD, and the long prosperity of the Pax Romana has created strong demand in the Roman Empire for the luxury products you import from China and India. Chief among those products is silk. Everybody who is anybody wants their clothes made of silk.</p> <p>Along the length of the Silk Road stretching from the borders of the Roman Empire in the west to the Middle Kingdom (China) in the east, there are many cities and many merchants, yet all know your company and your name — you are the Merchant Trading House of Barmakid, in the city of Merv.</p> <p>The Silk Road was approximately 4,000 miles (6,440 km) from its start in China to its end on the shore of the eastern Mediterranean. This compares with 2,440 miles (3,930 km) between New York and Los Angeles, and 1,760 miles (2,830 km) between Paris and Moscow.</p> <p>Your city of Merv (3) is the largest city on the Silk Road. It sits at the main crossroads that connect the road's starting points in China (1) and India (2) with its end point in the Roman Empire on the shores of the Mediterranean Sea (4) (https://en.wikipedia.org/wiki/Merv).</p> <p>There is great desire in the west to have the exotic goods of the east. And the most widely desired of those goods is that marvelous fabric called silk. It is beautiful to the eye, smooth to the touch, light in weight and very strong. How it is made is a mystery, only the Chinese know that, and they carefully guard the secrets of its manufacture.</p> <p>Questions</p> <ol style="list-style-type: none">1. How to Silk Road supply chain from three perspectives: 1) Terrain; 2) Products; and 3) Time Scale2. How to utilize transportation an optimum way to achieve supply chain effectiveness?	