

## Logistics and Supply Chains

### Warm Up:

- What do you think are the biggest issues supply chains face today?
- How do you think supply chains have changed in the last 20 years?
- Can you think of an example of a “bottleneck” in a supply chain and describe it?



### 1. Use the vocabulary in the box below to complete the sentences.

shortage	distribute	backlog	ship
	transfer	disruption	constraints

- After the leather is produced in India, we *ship* it to Egypt to be turned into the final product.
- The minerals and gemstones are mined and assembled in South Africa, shipped to Hamburg, and then we *distribute* them to retail stores all over Europe.
- We have to pay much more for freight costs because it's a hazardous material, and this can put some serious *constraints* on our supply chain.
- People are buying clothes online more than ever and we're having trouble sourcing enough fabric at the moment. We have a huge *backlog* of orders.
- We cannot get enough silicon to make our product, and everything from computers to cars have been affected by this *shortage*.
- Our products are coated with zinc to avoid rust, poured into containers, loaded onto trains, and sent to a harbour where cranes *transfer* them to ships.
- A hurricane in Cambodia caused a *disruption* in our supply chain, which means we've had to temporarily stop selling our tropical juice.



### 2. With a partner, match each of the sentences in exercise 1 to the products below.

screws <i>f)</i>	wallets <i>a)</i>	microchips <i>e)</i>	pineapples <i>g)</i>
ties <i>d)</i>	gasoline <i>c)</i>	jewellery <i>b)</i>	



### 3. Match the common supply chain issues to their causes

Unfortunately, there is/are ....

due to.....

- |   |                                       |
|---|---------------------------------------|
| a) a shortage of wheat... <b>4</b>                        | 1. a truck drivers' strike.           |
| b) some difficulties with retail distribution... <b>1</b> | 2. a warehouse flooding.              |
| c) a backlog of orders... <b>5</b>                        | 3. a drop in orders.                  |
| d) an increase in international shipping fees... <b>6</b> | 4. a drought in Africa.               |
| e) an overstocked warehouse... <b>3</b>                   | 5. harbours in China being shut down. |
| f) a lot of damaged stock... <b>2</b>                     | 6. a rise in petrol prices            |



### 4. Bridgerock Tires has contacted a logistical solutions company to improve their supply chain. Read through the email below and put the sections in order from 1 to 10.

- a) This is going to make getting the rubber to the factory much more expensive. Nevertheless, after it has arrived it is treated with chemicals and moulded into tires, which are then stored in warehouses next to the factory.
- b) From a logistical perspective adding this final touch in a country where labour is much more expensive may not make sense, but from a marketing perspective it does, as I will explain.
- c) Just to recap, their seems to be 3 main pain points in Bridgerock's supply chain. I'd like you to do some research, brainstorm some solutions, and get back to me ASAP.
- d) They have contacted us to make their processes more efficient, cheaper, and above all else, more reliable. I will outline their issues here. Their primary material, raw rubber, is produced in Thailand and sent to a factory in China via freight trucks through Vietnam.
- e) Hi Everyone, I'm just writing you regarding our newest client, Bridgerock Tires. They're a company that has issues at every stage of their supply chain.
- f) This is because Japan has begun to stockpile steel, and due to this the price of Japanese steel is forecast to rise sharply. These price rises may prove to high to bear.
- g) I use the term "warehouse" loosely, because these buildings are a mess. There is no WMS (warehouse management system), and poor organisation often creates shipping delays.
- h) The tires eventually are loaded onto container ships and shipped to America, where steel from Japan is used to add the air valves to the tires.
- i) Assembling the tires in America allows the company to put the "made in America" stamp on the product, and they are very reluctant to lose that stamp, even though it costs them millions of dollars a year, and in a few years it will cost a lot more.
- j) Unfortunately Vietnam has recently doubled tariffs on any product going through their country to China. This is a result of an ongoing land dispute between China and Vietnam.

Paragraph order: (1) **e** (2) **d** (3) **j** (4) **a** (5) **g** (6) **h** (7) **b** (8) **i** (9) **f** (10) **c**



5. The email above outlines 3 main issues. Read through the possible solutions to each issue below with a partner, discuss the pros and cons, and decide which option to choose. Feel free to suggest your own solution not listed here.

### Increased Vietnamese Tariffs

- a) Send the trucks through Myanmar instead of Vietnam. Just as fast, but could cause issues in the future due to political instability.
- b) Source rubber from India instead. Very expensive to move, but could save money in the long run.
- c) Ship the rubber in freight ships through the East China Sea to avoid the tariffs. Cheaper but more time-consuming.

### Disorganised Warehouses

- a) Outsource warehousing to a storage specialist in China. Expensive but better organised. Tires will be stored off-site.
- b) Hire a warehouse management consultant to modernize Bridgerock's warehouses and set up a WMS.
- c) Have your own in-house experts try to devise a better warehouse system (without actually visiting the warehouses in China).

### Japanese Steel

- a) Assemble the whole tire in China, saving on shipping and production costs, but losing the "Made in America" stamp.
- b) Switch to American steel, more expensive steel but lower shipping costs.
- c) Produce both the valves and the tires in China, but send them to America to be assembled.





6. You are going to watch a video about companies overhauling supply chains. The video uses the vocabulary in the box. Use the vocabulary to complete the sentences.

bottom line	sweeping changes	ripple effect
pay dividends	overhaul	stockpile

- A hurricane in India had a *ripple effect* on the global economy.
- Streamlining your supply chain can greatly improve your company's *bottom line*.
- This change will be expensive, but we expect it to *pay dividends* in the future.
- Corona has caused many companies to make *sweeping changes* to their supply chains.
- Before the war, the country started to *stockpile* weapons.
- We need to completely *overhaul* our production process if we want to stay competitive.



7. Watch "[How Companies are Overhauling Supply chains](#)"<sup>1</sup> and answer the questions.

- What does source map do? *It's a website that publishes data about supply chains*
- Where are Timberland Pitboss boots assembled? *Bangladesh*
- In your own words, what is the idea of regionalization? *Setting up multiple factories all over the world to supply areas near the individual factory (as opposed to having one central factory)*
- Why did Benetton decide to increase manufacturing in Serbia, Croatia, Turkey, Tunisia, and Egypt? *Because it's closer to where the products are sold, and therefore safer.*
- What is the difference between nearshoring and reshoring? *Nearshoring is setting up a factory in a country close to where the product is sold, whereas reshoring is moving back to the same country.*
- What is the estimated cost of moving all American and European manufacturing out of China? *\$1 Trillion*
- After watching this video, do you think the trend of trying to create smaller, more localized supply chains will continue?



<sup>1</sup> [https://www.youtube.com/watch?v=k59VG4Vmfuk&ab\\_channel=WallStreetJournal](https://www.youtube.com/watch?v=k59VG4Vmfuk&ab_channel=WallStreetJournal)