

THE GLOBAL CAR

Inside A Factory VI



ONLINE SUPPORT MATERIAL

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INSIDE A FACTORY VI: SYNOPSIS

Globalisation means products are now put together using parts from all over the world. The company with its name on a product does less and less of the actual manufacturing – they just put it together. This film explains the complex global supply chain which produces the radiator cap for a US pickup truck, the Dodge Ram.

INDIA: Sundram Fasteners in India manufactures the radiator cap for the US pickup truck. Sundram also supplies eighty percent of all Chrysler vehicles assembled in the US, including the Dodge Ram.

UK: Meanwhile in the UK two British companies are suppliers to Sundram, providing them with parts to make the radiator caps. Berck and PCR compete with cheaper labour from emerging markets by using technology to increase productivity.

US: The radiator caps travel from India to Tennessee, US, where another company assembles the radiator – the first tier supplier Modine Radiator. Modine ships the radiator to another factory in Warren, Michigan, where the pickup truck is finally assembled.

OFF-SHORING: But constant competition means that supply chains are always changing. To stay in the supply chain, suppliers off-shore work to lower cost countries to keep their costs down. China is a prime location.

MODULES & PLATFORMS: Car makers are squeezing more and more out of their suppliers by the use of **modules** and **platform sharing**. But as their supply chains spread out across the world and become more complex, manufacturers face a growing array of problems – any of which could cost them dear.

INSIDE A FACTORY VI: STOP THE FILM TESTS

(A) Play the film up to the caption A WORLD OF INSECURITY. Stop the film and answer the following questions.

1. What is outsourcing?
2. Which manufacturer makes the Dodge Ram pick-up truck?
3. What is a supply chain?
4. What do they make at Teresa's factory?
5. What do they make at Boniface's factory?
6. In what way is Sundram Fasteners a "second tier supplier"?
7. Where is Berck and in what way is it a "third tier supplier"?
8. What does Berck make?
9. Where does the radiator cap supply chain start?
10. What is an OEM?
11. What do PCR make? Who do they supply?

(B) Play the film up to the caption "COMPETITION'S GOOD". Stop the film and answer the following questions.

1. How do Berck and PCR try to compete with companies in emerging countries?
2. What's meant by "product differentiation"? What does this mean at Berck?
3. What does the boss of PCR see as the hope for his company in the future?
4. Who was Sundram Fasteners originally owned by?
5. In which country were the radiator caps originally manufactured? Why was the assembly of the radiator caps moved elsewhere?
6. In which countries are Sundram's suppliers based?
7. What components does Sundram have local suppliers for?
8. Why does Sundram rely on the UK for bulk volumes of covers for the radiator caps?

(C) Play the film up to the caption OFF-SHORING. Stop the film and answer the following questions.

1. Who is the OEM for the Dodge Ram pickup truck?
2. What countries does the Modine company get its components from?
3. How does Modine assemble the radiators?
4. What do Teresa and her colleagues call their line? Why, do you think?
5. How many jobs does Teresa have in the factory? How often does she change (or rotate) jobs?
6. Why does Prem think India is an attractive country for foreign manufacturing companies?

(D) Play the film up to the caption THEY'RE MAKING MODULES. Stop the film and answer the following questions.

1. What does "off-shoring" mean?
2. How does Brian Yates say he wants to approach off-shoring?
3. What's meant by the "flattening" of the global economy?
4. Which country is a prime location for off-shoring?
5. How do Berck and PCR view the possibility of India and China completely overtaking manufacturing in the West?

(E) Play the film up to the caption THE END OF THE SUPPLY CHAIN: THE OEM. Stop the film and answer the following questions.

1. What's meant by a "module", in car manufacturing terms?
2. What's the attraction to an OEM of being supplied with modules?
3. What's the attraction to a supplier of making modules?
4. What's meant by platform sharing?
5. What are the attractions to the manufacturer of producing two vehicles on one platform?
6. Why is General Motors keen to have a "global cap" for the radiators on its cars?

(F) Play the film to the end. Then answer the following questions.

1. What three locations does the Modine cooling system go to after it leaves Modine?
2. Where is the Dodge Ram pickup truck finally put together?
3. How long has the assembly plant been operating?
4. How often can it produce a new vehicle?
5. What are the problems of managing the global supply chain?
6. What does a sequencing centre do for the OEM?
7. What, according to Prem, is his company's aim by 2010?
8. How has globalisation affected Brian's company?

INSIDE A FACTORY VI: WORKSHEET

1. Outsourcing means.....
.....
2. A supply chain is.....
.....
4. Teresa’s factory makes the.....for the pickup truck.
5. Boniface’s factory makes the.....
6. The radiator cap supply chain starts with.....in
.....who supply.....with rolled steel.
7. An OEM is the **O**..... **E**..... Manufacturer –
the company which..... the product and puts its name on it.
8. % of PCR’s turnover is exported.
9. Sundram Fasteners was originally owned by.....
10. The radiator caps were originally manufactured in.....
11. The OEM for the Dodge Ram pickup truck is.....
12. Teresa calls her line the.....
13. “Off-shoring” means a company.....
.....
14. The pickup truck is finally put together in.....
15. The assembly plant produces a new vehicle every..... seconds.
16. Prem says that by 2010 his company aims to become a.....
.....company.

INSIDE A FACTORY VI: WORKSHEET MODEL ANSWERS

1. Outsourcing means **DRIVING COSTS DOWN BY PICKING AND CHOOSING FROM SUPPLIERS ALL OVER THE WORLD.**
2. A supply chain is **A SEQUENCE OF COMPANIES WHICH TRANSFORM GOODS ONE STEP AT A TIME.**
4. Teresa's factory makes the **RADIATORS** for the pickup truck.
5. Boniface's factory makes the **RADIATOR CAPS.**
6. The radiator cap supply chain starts with **THYSSENKRUPP** in **GERMANY** who supply **BERCK** with rolled steel.
7. An OEM is the **ORIGINAL EQUIPMENT** Manufacturer – the company which **ASSEMBLES** the product and puts its name on it.
8. **50** % of PCR's turnover is exported.
9. Sundram Fasteners was originally owned by **GENERAL MOTORS.**
10. The radiator caps were originally manufactured in **BRITAIN.**
11. The OEM for the Dodge Ram pickup truck is **CHRYSLER.**
12. Teresa calls her line the **RACE TRACK.**
13. "Off-shoring" means a company **OPENS A FACTORY IN ANOTHER COUNTRY BUT RETAINS OWNERSHIP .**
14. The pickup truck is finally put together in **WARREN, MICHIGAN.**
15. The assembly plant produces a new vehicle every **68** seconds.
16. Prem says that by 2010 his company aims to become a **100 MILLION DOLLAR** company.

INSIDE A FACTORY VI: GENERAL QUESTIONS

1. What is outsourcing?
2. What is a supply chain?
3. What's meant by a first tier supplier? Which company in the film is a first tier supplier and what do they make?
4. What's meant by a second tier supplier? Which company in the film is a second tier supplier and what do they make?
5. Where is Berck? In what way is it a "third tier supplier"?
6. Which company is the fourth tier supplier in the radiator cap supply chain? What do they make?
7. What is an OEM? Who is the OEM in the radiator cap supply chain?
8. Where are PCR? What do they make and who do they supply?
9. What methods do Berck and PCR use to try to compete with companies in emerging countries?
10. In which country were the radiator caps originally manufactured? Why was the assembly of the radiator caps moved elsewhere?
11. What countries does the Modine company get its components from?
12. How hard does Teresa's job seem to you? What are her working conditions like?
13. Why is India an attractive country for foreign manufacturing companies?
14. What does "off-shoring" mean? Which country is a prime spot for off-shoring?
15. What's meant by the "flattening" of the global economy?
16. Why have "modules" become so important in car making? What are they?
17. What is platform sharing? How does it benefit a car manufacturer?
18. Where is the Dodge Ram pickup truck finally put together? How productive is this assembly plant?
19. What does the sequencing centre do for the OEM?
20. What are the problems of managing the global supply chain?

INSIDE A FACTORY VI: DISCUSSION TOPICS

1. Car manufacturers have gone from making most of their cars themselves to first putting work out to local suppliers, and ultimately to countries all over the world. Why?
2. Will India and China ever entirely overtake the West in manufacturing? How will the world change, if they do?
3. What are the dangers of ever-growing global supply chains?
4. If you were the boss of Berck what would you do to try to save your company in the teeth of global competition? If you were an employee of Berck, what would you do?
5. In the past those who believed in the free market encouraged workers in declining industries to move to other places to find new work. Should we all be thinking of moving to India or China?
6. If an American car is made up of components made all over the world, is it still an American car?
7. In the 1970s and 1980s the universal view was that the future of manufacturing lay in increasing automation. Management gurus talked of “lights out” factories where human beings were hardly to be seen and robots and computers did everything. What happened to these dreams?
8. Berck and PCR are using technology to try to compete with developing countries. Does this hold the secret of long-term success for manufacturing in the US and Britain?
9. Some people talk of the “flattening” of the global economy, and that, one day, wages for workers in industries across the world will become the same. Do you think this is going to happen?
10. What about the environmental costs of these huge global supply chains? What about the damage to the planet caused simply by moving components and raw materials around the world on this epic scale – and all to make a product which in itself is the prime engine of environmental destruction? Shouldn't we just be shutting all these factories down – today?