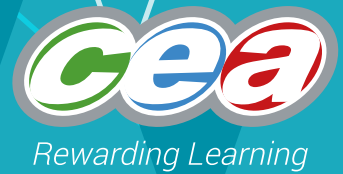


# FACTFILE: GCSE

# Technology and Design

## OPTION C: PRODUCT DESIGN



## 2.52 The Global Market Place and Production

### Learning Outcomes

You should be able to:

- discuss the impact of globalisation on design and manufacture, for example;
  - variations in labour costs;
  - availability of raw materials;
  - moral issues in outsourcing production;
  - transportation costs; and
  - environmental costs.

### Course Content

If you look around your home, school and community you will realise how many food products and goods have been imported. We are living in an increasingly small world due to the effect of globalisation in our everyday lives. No matter where you travel the evidence of global products is everywhere. The impact of globalisation is everywhere. Children of all ages know the logo brands of clothing items from Adidas to Nike.

communicate within and between countries. World trade has opened up so that brands can now be sold everywhere. Technology is used to access the internet in order to gather and send information and purchase all kinds of goods and services from all over the world. Companies use technology to acquire materials and products from distant lands and sell goods and services abroad.



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People can travel quickly and easily around the world. The internet means that everyone can

Globalisation has enabled companies to go almost anywhere in the world and access local expertise. Significant advancements in information technology and transportation methods are making it easier, faster, and less costly to move data, goods, and equipment.

Globalisation means that companies can operate in many countries and so international operations are increasingly important for people and companies. For transnational companies decisions taken in one country will have an international effect because of the improvements in transportation and the spread of global communication, such as email and video conferencing.

### Variations in labour costs

Globalisation means that there is free movement of products, services and capital, across the borders of the world, helping the world economy to grow. Countries like India have been affected greatly by globalisation. The Indian economy has grown significantly since the 1990's when trade barriers lessened, entrepreneurs have been actively encouraged and the government has welcomed foreign investment. It is believed that India's low labour costs and its largely English speaking workforce may make it very attractive for foreign investors in everything from manufacturing to call centres. This economic growth has driven up living standards for the whole population of India.



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The world's modern transport infrastructure means that the flow of labour, especially skilled labour is relatively quick. A global company locating in a country means the creation of jobs and provides a stable income that is a more reliable than income than that from farming. This has resulted in improved investment in education and internal infrastructure such as roads and public buildings. This can have the effect of creating a more stable economic base for the country.

Transnational companies (TNC's) are able to reduce their overall production costs through access to low-cost labour. For many years, companies have located factories in low-wage nations to manufacture all kinds of goods, including toys, small appliances, inexpensive electronics, and textiles. However, in recent years there has been a significant increase in the production of services such as accounting and research. Many European and U.S. businesses have moved their customer service and other non essential operations to places as far away as India to cut costs.

An alternative view however suggests that there are many disadvantages of globalisation. Despite the economic growth there are still millions of people in underdeveloped nations living in poverty; and many children are malnourished. The gap between the rich and the poor is very evident. India may be a richer country but these benefits are not being accessed by the majority of the population.



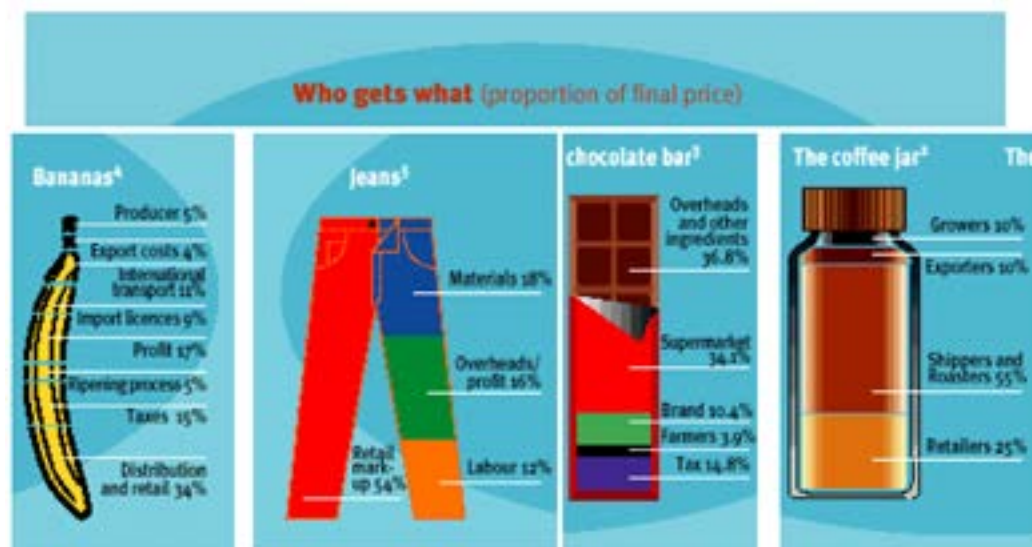
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### Availability of raw materials

Finite resources like coal, oil and gas are being used at an alarming rate and are not evenly distributed around the world. Trade occurs because no country has enough raw materials to be self-sufficient. One of the major attractions of a multinational company relocating in another country is the availability of cheap raw materials. Globalisation can often lead to enormously effect world issues such as deforestation and global warming.

Japan is an island nation with very few natural resources of its own—especially forests. However Japan's largest paper company, Nippon Seishi, does more than simply import wood pulp. The company owns huge forests and corresponding processing facilities in Australia, Canada, and the United States. This gives the firm easy access to this essential resource. A large number of Japanese firms are relocating production to China and Vietnam to access cheaper energy resources for their manufacturing bases.

## Moral issues in outsourcing production



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As the above image illustrates the farmers and workers employed in the less developed countries are paid a very low proportion of the overall price of the product and their wages are significantly less than their UK counterparts. They sometimes work in poor and often dangerous conditions. Multinational companies can sometimes damage the local environment by ignoring laws regarding the harvesting and disposal of raw materials. Natural resources can be over exploited. Pollution may also be higher. There is also an environmental cost in transporting goods all over the world. Companies often promise but do not deliver on reinvestment in the local area. There is often instability for the region if the company loses its incentive to stay or the resources run out.

### Transportation costs

The cost of transporting raw materials must be compared to the cost of the finished product. Many global companies will find it more cost effective to relocate to the source of the raw materials. However, if the finished product is more expensive to transport then multinational companies will locate themselves nearer to the target market.

Traditionally bulky cargo was transported slowly by sea and rail. More recently however, the introduction of container ships, carrying shipping containers, led the way for globalisation of trade. Large amounts of manufactured goods could be loaded on to ships, transported and unloaded with relative ease and relatively cheaply. For smaller or

more expensive items air transport means people and goods can be moved quickly from one place to another.



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Retailers worldwide rely on imports to stock their storerooms with finished goods and to supply factories with raw materials and intermediate products. Innovation in the shipping industry is helping globalise markets and production by making shipping more efficient and dependable. In the past, a cargo ship would sit in port for up to 10 days while it was unloaded one pallet at a time. Cargo today is loaded onto a ship in 20- and 40-foot containers that are quickly unloaded onto railcars or truck chassis at the final destination. A 700-foot cargo ship is routinely unloaded in just 15 hours.

### Environmental costs

Many natural resources have been depleted and others are too expensive to continue extracting. There are many worries about pollution of rivers

and beaches from textile processes. This has led to growing support for recycling and development of new recycled fabrics and encouraging preferences for traditional fabrics eg. Wool over synthetic material. It is important for the government of underdeveloped nations to enforce laws to protect the environment of their country.



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### Conclusion



VS



The dilemma with globalisation will always be is the spread of commercialisation always best for the local people? This question will always remain a hugely debated topic of conversation.

### Advantages of globalisation:

The consumer will be able to buy cheaper products. There is increased availability and variety of products.

Cultural diversity in all nations will improve as people move around the world following employment.

It will lessen skill gaps in countries as there is a constant flow of technical skills from one region of the world to another.

Large numbers of people can be taken out of poverty, as the world economy grows.

There is increased trade across nations and therefore corresponding economic success.

There will be the constant flow of ideas and improvement in education.

As products are cheaper they become more widely available to poorer regions of the world.

### Disadvantages of globalisation:

Many manufacturing industry are constantly chasing increased profits. They often move to the source of cheap labour, leaving unemployment behind (e.g. the UK in the 1980s and 90s, hundreds of thousands of manufacturing jobs were lost to countries such as China). This can cause social unrest.

As globalisation moves into under developed nations, this can lead to increased pollution and environmental damage. More and more natural resources are used, often without a sustainable solution for the natural resource being considered.

The primary reason for some companies to move their manufacturing plant to countries is for cheap labour . This can means health and safety laws which they would have to comply to in the UK are often ignored. This can compromise the safety of workers and good practice with regard to pay and working conditions are less regulated. This can mean the workers may have longer working hours and less holidays.

### Web resources

<http://www.bbc.co.uk/education/guides/z2knb9q/revision/6>

<http://www.bbc.co.uk/education/guides/z2knb9q/revision/5>

<http://www.bbc.co.uk/schools/gcsebitesize/design/graphics/designandmarketrev2.shtml>

<http://www.bbc.co.uk/schools/gcsebitesize/design/resistantmaterials/designsocialrev10.shtml>

