

Gold dust

08 Mar 2005



Queen Elizabeth watches James Dyson unveil a plaque with a vacuum cleaner during a visit to his factory in Malmesbury, Wiltshire, before he shifted production to Malaysia in 2002.

© Reuters

UK firm Dyson has recorded record profits this year. The Dyson vacuum cleaner is cleaning up in the US and sales are sweeping across Japan too. Yet just three years ago, owner James Dyson was heavily criticised for sacking 800 UK workers and moving his manufacturing plant to Malaysia. So do the new figures prove his critics wrong? And what does the success of Dyson tell us about globalisation?

Until 2002, the Dyson vacuum cleaner company was widely regarded as a rather unusual British business. Its owner, James Dyson, had deliberately resisted moving operations abroad, despite the fact that labour and land costs would certainly be cheaper elsewhere. Choosing instead to keep his manufacturing plant in the UK, Dyson was often portrayed by the media as a patriotic figure, given that his reluctance to relocate was increasing the firm's operating costs and reducing potential profits. In economists' jargon, he was held up as a perfect example of a *satisficer* (someone who does not seek out the optimum geographical location for maximising profits).

The Dyson vacuum cleaner

Invented by James Dyson, an inventor from Norfolk, after 5,127 prototypes

Launched in 1993, it has no bag — centrifugal force pushes dust to edge of internal cylinder

DC07 upright cleaner sells for \$415 (£220) in America

First produced in Malmesbury, Wiltshire; now made in Malaysia

Slogan: "The cleaner that doesn't lose suction"

Why did Dyson change his mind?

In 2002, Dyson suddenly announced that he was relocating the production wing of his business to Malaysia. As a result, 800 semi-skilled UK assembly workers lost their jobs, although 1200 head office (tertiary) and research (quaternary) employees have remained in place at the firm's Wiltshire headquarters. The sackings led to accusations of hypocrisy being levelled against James Dyson by workers and Trade Unions. He quickly became "a symbol in the debate over globalisation and outsourcing" (*The Independent on Sunday*, 27 February 2005). However, this year's record profit of £102.9m - representing a 137% increase on previous figures - seems to vindicate his decision to move. Dyson products have even overtaken those of the Hoover firm to become the number one best-seller in the US. It appears the new locational strategy is working!

Costs

UK worker: £9 per hour

Malaysian worker: £3 per hour

UK office rent: £114 sq m a year

Malaysia office rent: £38 sq m a year

Source: Economist Intelligence Unit and BBC

Important concepts for A2 economic geography

Sub optimum location A choice of location that has higher production costs or lower profits than could have been achieved elsewhere. A sub-optimum location may be chosen because of: lack of knowledge of where the optimum site is; political controls may prevent occupation of optimum site; the owner has personal reasons to locate elsewhere.

Division of labour The spatial separation of the low and high skilled parts of a company, either on a national or international scale. In classical industrial location theory (e.g. Weber's model), a company seeks out a single least cost location. With globalisation, the spatial division of labour allows firms to use geography to actively increase profits by seeking the least cost location for different phases of the production process, all linked via modern telecommunication networks.

Saturation of markets When everyone has bought a product then there will be very limited future sales, unless the product is improved or new markets are sought elsewhere.

Quaternary industry Industries that research and develop new products or services. This may include ICT, engineering, pharmaceuticals, biotechnology and aerospace industries. Constant innovation by quaternary scientists allows new products to be created whenever a market is at risk of saturation.

What happened next?

When the cast of US TV show *Friends* were recently seen using a Dyson vacuum cleaner, American sales began to soar. An investment of \$20m in US advertising also helped. With production now based in Malaysia, Dyson was able to quickly and cheaply transport vacuum cleaners to North America, bringing sales to 891,000 in 2004. This represents an amazing 350% increase on sales in 2003 (*The Guardian*, 28 February 2005). Dyson has so far captured 20% of the US market, despite pricing his vacuum cleaners at around \$450 each (about £250). This is nearly three times the prices of many rival brands and show just how strong the image of Dyson as a premium quality product has become.

'Geography matters': how James Dyson used geography to make his firm more profitable

1. Malaysia has many advantages as a manufacturing location. It offers a cheaper labour force than the UK. It is a perfect geographical distribution centre for global exporting to new markets in the Japan and the US (where sales rose by 350% last year). Many of the parts used to assemble the Dyson brand are actually produced in south-east Asia and are now cheaper to gain access to. It is also easier to get planning permission to extend the factory when required. Overall **production costs have fallen** by 30 per cent.
2. Despite being manufactured overseas, the product has retained its high quality specification and also its high price tag. Malaysian labour is relatively more skilled (and expensive) than in many other LEDCs. Indeed, James Dyson has controversially claimed that his Malaysian workers are better-skilled than those used in the UK until 2002. With no obvious reduction in quality, sales rising and costs falling, **profits are soaring**.
3. The boost in profits has, in turn, allowed Dyson to **expand the research division** in Malmesbury, Wiltshire, employing even more quaternary staff to think up new designs. Last year, Dyson spent £40m on research in the UK and he plans to increase this to £50m in 2005. Close to universities such as Oxford and Cambridge, this is a good site to attract key workers.
4. All of this allows for **more rapid innovation** and for new, improved models to appear in stores more frequently (new product lines are essential when a market is approaching saturation, and UK sales have begun to slow down since the first bag-less Dyson vacuum cleaners appeared in 1993). With so many Wiltshire employees now being paid to design fresh products, the company is set to launch a brand new design called "The Ball" on 14th March 2005. Scientists are also currently working to produce much smaller, lighter motors that may encourage existing Dyson owners to replace their current model sooner.
5. The firm has therefore created a **spatial division of labour**, where different phases of the production process are located in different regions, each of which has a particular comparative advantage. The Wiltshire site can attract skilled research scientists. Malaysia has cheap assembly workers and an excellent geographical site for global exporting. The giant leap in profits shows that this clever use of geography has clearly worked to the firm's advantage. James Dyson sees a spatial division of labour as the only future for UK industries, claiming that "as a country... we have to exploit our British skills of creativity and inventiveness" (*The Independent on Sunday*, 27 February 2005).

Who benefits?

There are benefits for Malaysia, as this inward investment helps the development of that country. Workers' earnings help to boost Malaysian consumer markets. There are benefits for the UK economy also, as Dyson's profits increase. Increased corporate taxes mean more money is available for public services in the UK, such as health and education. There are new opportunities for scientists to work for Dyson.

However, the manufacturing workers sacked in Wiltshire in 2002 may have a differing view of events and some will have struggled to find new work. There are always losers and winners whenever firms relocate. In an interview with *The Independent on Sunday* (27 February 2005), Dyson still stands by his decision. "I would love to still be there now," he explains, "but it simply wasn't possible. If anyone else thinks it is, they are welcome to have a go. But I wasted a lot of money on the factory trying to do it."

11-16 curriculum links

The Dyson story can provide an up-to-date look at the globalisation of industry (in this case the global electronics industry), including the winners and losers of the relocation processes involved. Important themes in the Dyson story for Key Stage 4 students include:

- Changing features of employment as a country develops and industry evolves from secondary to tertiary and quaternary and its geographical causes and consequences.
- Many countries which are rapidly industrialising are known as NICs: Newly Industrialised (or Industrialising) Countries, and they include places such as Taiwan and Malaysia. These countries are also part of the Pacific Rim giving industries located there easier access to North American markets.
- LEDCs emerging as the 'least cost location' for a number of industries, notably in manufacturing. Also, many call centres (tertiary industries) are being moved to countries other than the ones in which the companies headquarters are based. Manufacturing examples are the move of companies like Dyson to Malaysia and Dr. Martens to China.

Dyson could be a useful starting point for a debate or DME on Malaysia as a NIC: decide for yourself whether this country will meet its target of being an MEDC by 2020 (e.g. looking at salaries, quality of labour, employment structure changes).

A2 exam tips

This story supports answers to the following questions taken from recent A2 examination papers:

Examine the causes and consequences of deindustrialisation (OCR Spec A, January 2003)

Examine the rise and decline of consumer industries (Edexcel Spec A, June 2002)

The **causes** of deindustrialisation (declining employment in manufacturing industries, including consumer industries), many of which apply to Dyson's decision to re-locate, include:

- Cheap labour overseas (lower wages, no minimum wage, ineffective trade unions, unequal pay for women, lower health and safety costs)
- Lower land costs and less restrictions on expansion
- Enlargement of the EU means firms can now leave the UK and re-locate to eastern Europe as well as LEDCs
- Automation leads to labour shedding
- Saturation of home markets
- Easy access wanted to emerging markets in Asia
- A product may become obsolete (vinyl records, VHS cassettes)

The **consequences** might include:

- Benefits for the region experiencing deindustrialisation (cleaner environment following the loss of smokestack industries)
- Costs for the region experiencing deindustrialisation (higher unemployment and cycle of deprivation in inner cities)
- Benefits for the country that branch plants relocate to (salaried workers help stimulate the local economy)
- Costs for the country that branch plants relocate to (environment deteriorates, workers may be exploited)

Try to take the long view of some these changes. For instance, long-term improvements in water and air quality in the UK have accompanied the growth of post-industrial cities, with affluence growing as workers shift into tertiary work. There have also been long-term benefits to nations such as South Korea from inward investment.

By Dr Simon Oakes, a geography teacher and a senior examiner for Edexcel.

http://observer.guardian.co.uk/uk_news/story/0,6903,1431679,00.html

Observer - Dyson sees a cleaner future in 'The Ball'

<http://www.dyson.co.uk> - Dyson.co.uk

<http://www.telegraph.co.uk/opinion/main.jhtml?xml=/opinion/2005/02/28/do2802.xml> - Telegraph - Dyson is making pots of money for Britain by going to Malaysia

<http://www.telegraph.co.uk/money/main.jhtml?xml=/money/2005/02/27/ccdys27.xml> - Telegraph - Dyson's chip with everything

<http://www.geographypages.co.uk/dyson.htm> - Geography Pages - **Industrial location and change case study.**