



● **information technology** N-UNCOUNT

**IT** N-UNCOUNT

**Information technology** is the theory and practice of using computers to store and analyse information. The abbreviation **IT** is often used.

...the information technology industry.

The UK IT market is growing at a faster rate than in any other country in Europe.

● **business model** (business models) N-COUNT

A **business model** is the structure of a business, including the various relationships between the different parts of the business.

...the entirely new business models made possible by the Internet.

...inefficiencies in traditional business models.

● **vertical integration** N-UNCOUNT

**virtual integration** N-UNCOUNT

**Vertical integration** is the merging of two or more companies involved in different aspects of the same business, for example, a brewery might buy a chain of pubs. **Virtual integration** is close cooperation between two or more companies involved in different aspects of the same business, so that they operate almost like a single company. **Virtual integration** is based on the use of IT.

For the oil business the benefits of vertical integration are that supplies are assured and an immediate customer or outlet is available.

The biggest attraction of virtual integration is that organizations can integrate care without investing huge amounts of capital or completely altering their structures.

The most important difference in these new economies is that they favour virtual integration over vertical integration.

● **CAD** N-UNCOUNT

**CAM** N-UNCOUNT

**CAD** is the use of computer software in the design of things such as cars, buildings, and machines. **CAD** is an abbreviation for 'computer aided design'. **CAM** is the use of computer software in the manufacture of products. **CAM** is an abbreviation for 'computer-aided manufacture'.

A design made with CAD can be transmitted perfectly from one place to another, if they both use the same system.

The application of CAD/CAM makes traditional procedures more efficient and provides avenues for innovation and new development.

...CAD/CAM software.

● **microelectronics** N-UNCOUNT

**Microelectronics** is the branch of electronics that deals with miniature electronic circuits.

He thinks Daimler should buy its microelectronics from outside suppliers.

...a microelectronics company.

● **outsource** (outsources, outsourcing, outsourced)

VERB

**outsourcing** N-UNCOUNT

If a company **outsources** goods or services, it pays workers from outside the company to supply the goods or provide the services. **Outsourcing** is the use of outside companies to supply goods or services.

Increasingly, corporate clients are seeking to outsource the management of their facilities.

The difficulties of outsourcing have been compounded by the increasing resistance of trade unions.

● **fast track manufacturing** N-UNCOUNT

**Fast track manufacturing** is a manufacturing system which aims to speed up manufacturing times, for example by the use of more efficient practices or the pre-manufacture of components.

Our fast track manufacturing facility can build and ship complete turn-key systems in a matter of weeks.

● **flexible** ADJ

Production methods or working practices that are **flexible** are able to be changed easily so that they suit different conditions and circumstances.

...flexible production lines that can make whichever versions of its three main products are selling best.

Thanks to cheaper wages and flexible working practices, BA's operating costs are lower than its American rivals.

**Common Collocations**

flexible working arrangements

flexible working hours

flexible working patterns

flexible working practices

flexible hours

flexible work schedule

● **multi-skilled workforce** (multi-skilled workforces) N-COUNT

A **multi-skilled workforce** is a workforce that has many different skills, enabling them to do several different types of work within a company.

The importance of a highly trained, multi-skilled workforce has never been so crucial to the survival of the industry.

⇒ **just-in-time manufacturing**: Topic 5.1;  
**subcontract**: Topic 5.3; **mass production**: Topic 5.5;  
**order**: Topic 6.3; **supplier partnership**: Topic 12.2



## PRACTISE YOUR VOCABULARY

1 Use the terms in the box to complete the paragraph.

vertical integration    business model    IT    outsourcing    virtual integration

Companies based on a traditional, production-oriented \_\_\_\_\_ are often rather inefficient, and find it hard to adapt to change. A model where the management of a company owns other companies in the production process and the firm controls a number of successive stages in the supply of a product is an example of \_\_\_\_\_. Companies which buy in components and only assemble the finished product in-house, however, are using \_\_\_\_\_. Using other companies to supply goods rather than manufacture them themselves cuts down on costs, but can make it difficult to maintain quality. Many companies use new business models based on the use of \_\_\_\_\_. Computers can help two different companies work closely and form partnerships. This model is referred to as \_\_\_\_\_, and uses IT to achieve the benefits of both of the above systems.

2 Look at the information about seven companies. Which one is an example of:

- a vertical integration    c CAD    e fast track manufacturing    g CAM  
b virtual integration    d outsourcing    f multi-skilled workforce

- i Ashdown Components relies heavily on the use of IT in the production process. They work closely with their main customer, who uses their components to assemble cars at their nearby plant.  
\_\_\_\_\_
- ii The Dairy Box confectionery company makes chocolates and sweets. 15 years ago it bought cocoa plantations in Africa to produce its own raw materials.  
\_\_\_\_\_
- iii Big Eddie's International Trucking and Freight Company used to employ their own mechanics to repair and maintain their vehicles. However, 10 years ago they stopped this and now use a specialist firm to do this work for them.  
\_\_\_\_\_
- iv In the past, the company received many complaints from their customers about the length of time they had to wait for their orders to be filled. Following changes to their manufacturing system, this rarely happens now.  
\_\_\_\_\_
- v In the Shining Path paint factory the workers are expected to move round the factory, working at different points in the production process as the load of work demands.  
\_\_\_\_\_
- vi Hawthorn have invested a great deal of money in updating the production process at their factories, and have introduced sophisticated computer equipment to assist them.  
\_\_\_\_\_
- vii The machines at the Apollo sports shoe factory can easily be programmed to make different designs in response to the rapidly-changing demands of fashion.  
\_\_\_\_\_

3 Read the text and say if the sentences below are true or false.

JKM produce microchips that contain the electronic circuits used in spacecraft. Their computer system is networked with the computer system at the Space Agency, and computer specialists from both places work together in the design process. The Space Agency use the finished microchips in their spacecraft. The technicians can work at either site, and can adapt their designs rapidly if they need to.

- a JK M operate within the IT industry.    d The relationship between JK M and the Space Agency is an example of virtual integration.  
b JK M is a microelectronics company.    e JK M employees use flexible working practices.  
c The microchips are developed using CAD.