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| ***External influences – Technological*** |

**Introduction:**

* **How technology affects businesses**

***p.91-97***

**Technology – what does it mean?**

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Let’s focus on high-technology machines and processes that are loosely based on information technology (IT).

Changes in technology often act as the major influence on an organisation. Any business that fails to keep pace with technological change will find that its competitive position is affected through (for example) operating outdated production equipment, using slow or inefficient communications equipment, or failing to use the internet and other e-commerce technological developments.

**New products**, **markets** or **segments** are created through **technological developments**.

Examples include:

* The worldwide mobile phone market – dumb phones versus smartphones
* Electronic downloads of **music files**(MP3/MP4) that replace **CDs** and **DVDs** being bought – nowadays clouds may store them or YouTube, Youku
* Developments in **videoconferencing**, avoiding the need to meet face to face
* **Solar panel** and **wind technologies** being used for power and heating
* **3D printing** replacing some prototype manufacturing
* **GPS** positioning that are used with mobile devices – opportunities for businesses locations and marketing - **mapping**
* New materials - smaller devices - faster processors
* Power of **software** over **hardware** – apps
* Change in **nature** of some goods - virtual products such as Avatars, gifts that represent real life goods
* **Payment** methods – smartphones, payments platforms (Alipay/PayPal), ‘Quick Pass’
* **Medical care –** monitoring

**Applying technology to business - potential limitations**

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| Costs | Labour relations | Reliability | Data protection | Management |
| *Capital costs*  *Labour costs*  *Redundancy* | *Damage to worker relations*  *Lower motivation levels* | *Breakdowns in automated production*  *Initial introduction problems take longer than expected* | *Rights to hold data on staff, customers*  *Legal restraints* | *Fear change*  *Managing the process of technology adoption* |

**IT and business decision making**

Using data to manage through the use of IT is referred to as ‘management information systems’ (MIS). Computers provide managers with data about the firm’s operations, often in real-time.

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| Benefits | Drawbacks |
| *Managers obtain data quickly and frequently from different departments, divisions and even individual machines*  *Computer can analyse and process data rapidly: manager can then make quick decisions based on them*  *Increases the communication process to people who need to know* | *Data overload*  *Information could be centralised – loss of empowerment and authority for middle-managers* |

Gives substantial power and information to centralised managers

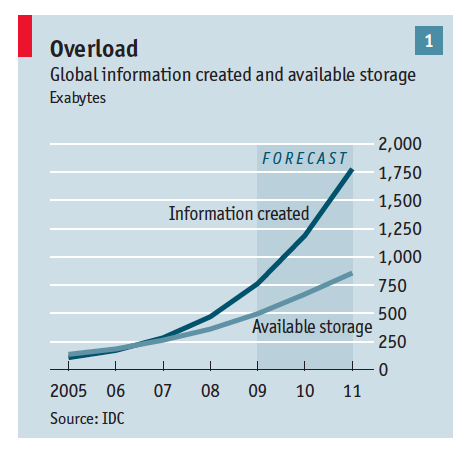
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| **IT system** | **Common business application** | **Advantages** |
| Word processing |  | Speed  Accuracy  Links with other programs |
| Databases |  |  |
| Spreadsheet programs |  |  |
| CAD |  |  |
| CAM |  |  |
| Internet/intranet |  |  |

**Introducing technology effectively**

* **Analyse -**
* **Involve -**
* **Evaluate -**
* **Plan -**
* **Monitor -**

**Is technology always the best solution?**

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***Worksheet summary quiz and activity:***

1. Should technology always be adopted by a business? Explain.

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1. Management Information Systems mean better communication. Explain.

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1. Disruptive technologies are perhaps one of the most important external factors that affect businesses. Choose one and explain its implication for a business.

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**Summary of the worksheet in your own words (in English and Chinese):**

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*Vocabulary check:*

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| **English** | **Chinese** |
| **Acquisition** |  |
| **Handset** |  |
| **Livery** |  |
| **Holistic** |  |
| **Liberalisation** |  |
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