

## Introduction



Since Bill Gates founded Microsoft Corporation in 1975, its mission has been to create software for the personal computer that empowers and enriches people in the workplace, at school and at home.

Microsoft is now one of the largest companies in the world with a turnover in 1999 of nearly \$20 billion. It employs over 30,000 people worldwide, with nearly half the workforce engaged in research and development. Microsoft offers a broad array of products which have become an integral part of the way people work, live, learn and communicate. Microsoft products are available in more than 30 languages and sold in more than 50 countries.

The impact of new technology is one of the most exciting and challenging of all the external influences on a company. For some it is also the most daunting. This case study considers one aspect of Microsoft's current programme, the development of e-commerce and its impact on some of Microsoft's customers. E-commerce, the use of the Internet for business, is already revolutionising many business sectors due to its speed, reliability, accessibility and low cost.

In the coming years, digital technology will dramatically increase the speed at which business is conducted. Bill Gates himself coined the phrase '*Business @ the speed of thought*'. Technology is already transforming the relationship between businesses and their customers and it will radically change the way that individual workers perform their roles. The ability to adapt to this changing environment will depend on companies' internal digital processes, what Microsoft calls the 'Digital Nervous System'.

## Enabling business

The Digital Nervous System is not a separate product; you cannot buy it at your local computer supplier. In a human being, the biological nervous system controls all the basic systems - breathing, digestion, circulation - that make life possible. It also receives signals, transmits them to the brain and instantly triggers a response. In humans, the nervous system makes it possible to think and plan creatively and with foresight.



A digital nervous system performs the same functions in a business. It is a combination of hardware and software which enables the firm's internal processes to operate smoothly and quickly, which means it can respond rapidly to any change in the business environment.

The digital nervous system will fundamentally change the way businesses operate, bringing knowledge management to the fore and enabling the companies to take advantage of the opportunities afforded by e-commerce. Companies of all sizes are building e-commerce solutions with the help of Microsoft and its partners, a network of firms which operate in close partnership, providing hardware and service.

To appreciate the impact of e-commerce on a business fully, it is necessary to consider some real case studies. E-commerce solutions are typically introduced in stages, but usually beginning in one of four areas:

- Direct marketing and selling over the Internet
- Managing a company's purchasing
- The rationalisation of a firm's supply chain
- The world of financial services.

## Direct marketing and selling

Businesses can expand their potential market and the services they offer by using the Internet to contact customers daily.

### **HMV**

HMV, the number one specialist music retailer in the UK and a company that has traditionally been quick to adapt to changes in the market place, wanted to move beyond traditional retailing methods and take advantage of the global opportunities e-commerce can offer. The company was also keen that this new online plan was not isolated from its overall business strategy, but built on the strength of the high-street brand.

With the assistance of the Microsoft partner iXL and using Microsoft technology, HMV has developed a website specifically designed with the firm's business requirements in mind. Once the decision had been taken, it took just three months before the first Internet purchase was made. Demand has already exceeded HMV's expectations - the market continues to grow and HMV has plans to expand the site to reach a worldwide audience.

### **Carphone Warehouse**

When the Carphone Warehouse, one of the UK's largest independent mobile phone retailers, wanted to develop a sophisticated website to take advantage of e-commerce opportunities, it selected a Microsoft partner - the online business development consultancy, Clarity. The site had to reflect not only the changing nature of the mobile phone market and its customers, but also provide detailed information.

Clarity built a site capable of processing data entered by the customer using Microsoft software to work out the best choice from the four mobile phone networks, 21 tariffs and the 46 handsets available. It proved to be a highly efficient way of targeting millions of potential customers without the overheads of traditional sales channels.

### **Dixons**

Dixons, the electrical retailer with 890 high street stores first became aware of the potential of Internet selling in America. At the beginning of 1997, it joined forces with another Microsoft partner, Interactive Developments, to add e-commerce to its existing web site.

Within six months it launched one of the most advanced e-commerce websites in the country, offering 2,000 products for next day delivery anywhere in the UK. Modern shopping habits are changing rapidly, with late-night and 24-hour shopping becoming an accepted part of today's lifestyle.

Dixons wanted to create a shopping experience as close as possible to walking into a high street store. The website has proved to be an enormous success, receiving 160,000 visitors and is now offering exclusive discounts to Internet shoppers.

### **Rationalising the supply chain**

Microsoft was one of the first companies to appreciate the significant benefits to be gained by using e-commerce to make core business applications more efficient. In particular, the Internet can increase the speed and accuracy of communications with suppliers, distributors, retailers and other commercial partners. E-commerce makes it possible for organisations to link their systems together into an electronic chain, allowing information to be accessed much quicker, more accurately and enabling significant cost reductions.

Microsoft launched a 'Value Chain Initiative' (VCI) to dramatically improve the efficiency of the supply chain, from the raw materials right through to the point of sale. More than a hundred software vendors and Microsoft's 'partners' are dedicated to achieving the VCI goal.

Electronic supply chains offer business benefits in several ways:

- Greater speed, accuracy and reliability
- Decreasing the cost of transactions and making the system accessible to all sizes of firm
- Simplification of the data shared by the participants in the supply chain
- Integration of the operations of customers, suppliers and other business partners.



An example of supply chain communications is the leading tile manufacturer, H&R Johnson. Working with the Microsoft e-commerce partner, ABS, the company has developed an online supply chain system, linking suppliers right through to distributors. This system has enabled H&R to streamline its stock control and order processing, dramatically improving efficiency.

### **New technology in corporate services**



Corporate purchasing - or materials, resources and operations purchasing (mro) - covers the purchase of items such as office supplies, support services and consumables. Like many companies looking to reduce costs, Microsoft found that its own internal purchasing system was time consuming, labour intensive and inefficient. A paper based system is usually complicated to explain to users and suppliers. The answer was to develop a streamlined e-commerce application providing an easy-to-use online form for ordering anything from office supplies to lunch.

Microsoft developed MS Market, an Intranet application, which works through the firm's internal communications network. It proved so effective that the programme has been expanded to include the ordering of virtually all goods within the company.

As total orders exceed £1.6 billion, Microsoft is able to negotiate excellent terms with the suppliers who are in turn assured of a consistent flow of orders. The cost for processing direct purchase orders has dropped from \$60 per purchase to only \$5. A typical transaction now takes three minutes and most orders are filled within 24 hours. The system has saved Microsoft \$3 million per year.

PC World Business Direct, part of the Dixons Group Plc since 1996, is the business to business arm of PC World. It too decided on an e-commerce solution to tackle corporate purchasing problems. Publishing its Definitive Buyers Guide on the Web, it allows its business customers to order computer products and services and to track those products in real time. In most cases, the product is despatched within half an hour of the order being placed. A firm would know exactly where its order was and when to expect delivery.

The development of this system was partly in response to some of PC World's biggest customers who wanted to conduct business electronically and avoid losing out to competitors. PC World Business Direct, like the rest of Dixons Group Plc, believes that the use of the Internet is absolutely critical to its business. It is both a medium of communication from supplier to customer and a catalyst for business growth.

### **Supporting financial services**

The world of financial services is particularly well suited to e-commerce. The rapid growth of the Internet and the emergence of online services have forced many financial companies to examine new ways of doing business.

The Royal Bank of Scotland, one of the UK's largest banks, was quick to appreciate the potential of this market and was the first to announce an online banking service. The firm has developed a long standing relationship with both Compaq, the computer hardware firm and Microsoft to maximise the synergy available.

For many busy customers, traditional banking hours are not convenient. Consequently the bank has developed a more flexible way for its customers to access its banking facilities. The cost savings can then be passed on to the customers.

### **Conclusion**

Every day more people connect to the Internet and grow increasingly comfortable with digital transactions. Business will alter more in the next ten years than it has in the last 50. It is estimated that total transactions over the Internet will rise to nearly \$2,000 billion within three years and over \$3,500 billion within five.

The successful companies of the future will be those that take e-commerce seriously, dedicating sufficient resources to its development. E-commerce is not an IT issue but a whole business undertaking. Companies that use it as a reason for completely re-designing their business processes are likely to reap the greatest benefits.