

## Module 4

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### Managing Information in Organisations Overview

In this study module, you look at the evolution of Strategic Information Systems Planning (SISP) approaches and explore why these have had to change to suit the networked organisation of today. SISP has undergone some radical changes, but from the perspective of this course, the most important change has been the need to encompass inter-organisational strategies in an externally focused “co-opetive” strategic framework.

Having gained a clear understanding of the complexities of SISP, you will move into the section of the concept of value chain integration. You will now be able to see how a single firm’s integrated value chain extends into supply and demand chains and will further explore the concept of the virtual value chain. The potential for exploiting virtual value chains as part of the e-business planning process is reviewed with strategies for positioning new forms of business within the virtual market. At this stage we will introduce a number of different case examples for you and ask you to identify their strategies through the various models discussed. We particularly want you to be able to identify partnerships with partners, suppliers, agents and alliances and the extended value services these allow you to offer to customers or clients.

By the end of this module you should be able to participate in an e-business planning process for your own organisation and to evaluate the stage of growth you have reached in ICT exploitation and growth. More significantly, you should be able to identify new opportunities for strategic developments.

Upon completion of this module you will be able to:

- *define* the concepts of business transformation
- *give* reasons for the need to build an infrastructure for managing change
- *formulate* an effective implementation plan
- *manage* the effects of convergence on organisations and people



Outcomes



## Terminology

Co-opetition	Co-opetition refers to the fact that <b>business Web participants simultaneously co-operate and compete with each other</b> . Collaborative advantage is mixed with pure competitive advantage, and cooperative strategy becomes a focus alongside purely competitive strategy.
Multi-enterprise capability machine	<b>Multi-enterprise capability machine</b> emphasises that the business webs rely on a market model of partnering and alliances rather than the <b>internal monopoly</b> of a build-or-acquire model. Thus the traditional corporation defines its capabilities as its employees and the assets it owns, whereas the business Web marshals the contributions of many participating enterprises.
Selective sourcing	<b>Outsourcing of some aspects of a function or business process</b> . For example an IT department may decide to outsource computer systems development and retain other IT services internally. Or more selectively still, only certain computer systems development projects may be outsourced.
Strategic alliances	A situation in which <b>investments are shared between one or more business partners</b> , each business partner focusing on their areas of competence. In strategic alliances, separate revenue streams are maintained for each organisation.
Supplemental staffing	An <b>external sourcing option in which non-company personnel are used</b> , often at times of peaks in demand, to help carry out business operations. Such personnel could be unskilled or skilled temporary operatives or clerical workers, consultants or contractors.
Tactical outsourcing	<b>Internal business services and operations are benchmarked</b> against the marketplace of external providers of such services. If the costs and benefits of internal sourcing of such services do not compare well with external sourcing, the business service is outsourced.

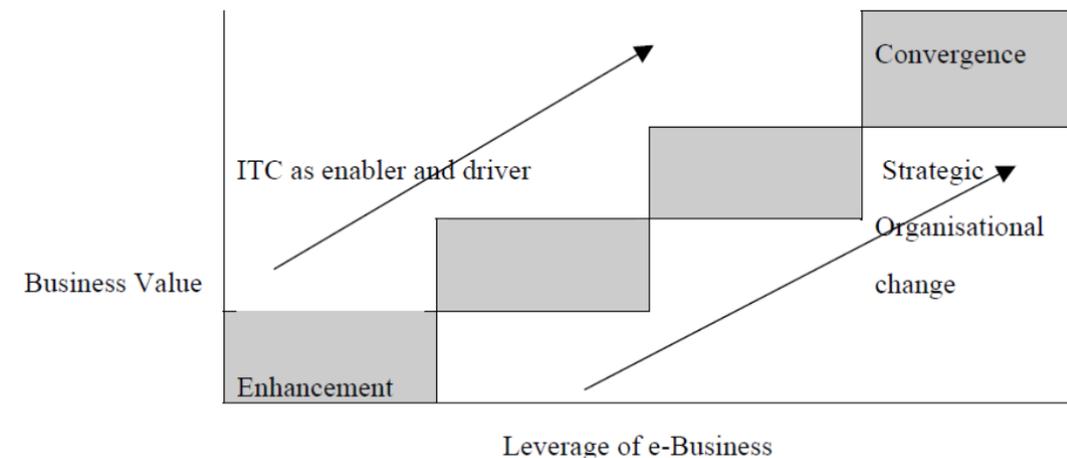
## Models of industry transformations

### A staged transformation model – leveraging the organisation through ICT and e-business

We will discuss a model of contemporary and future business, taking account of and projecting developments concerning the Internet and e-commerce/e-business. It is now a good time to revisit this “stages of growth model” as shown again in Figure 4.1. This figure shows four stages of increasing business value resulting from the increasing leverage of e-business.

Over the last decade, organisations have been forced to re-examine the role of ICT as a support tool within the organisation and accept that it has become a major driver for business change. E-business is no longer optional and has become the standard mode of operating not only in financial services, publishing and retail – where we have already seen rapid and profitable advancement – but everywhere business is conducted. E-business is fundamental to business strategy and process execution, but new concepts of value require executives to re-examine strategic approaches and ways through which they can exploit the power of e-business.

Price Waterhouse Coopers identify a panorama of e-business change that can be used to redefine corporate strategy rather than merely re-engineer and improve processes. This panorama (see Figure 4.1) encompasses four stages of change. It begins with the use of ICT to enhance sales or buying channels through some form of e-commerce. This stage is followed by the application of ICT within and across value chains, inevitably leading to industry transformation as networks of organisations are formed through e-business. Finally there will be a convergence where many companies come together and work within the same e-space.



**Figure 4.1** Model of Industry Transformation



As organisations move from left to right across this panorama they are likely to gain added value but also to encounter much greater risk. Leveraging e-business is far less than it is assumed to be about technology application, far more about equipping the people who use it with the business skills to make their business lives more productive and the corporation more successful. Organisations moving through these stages will be looking to make improvements in revenue enhancement, cost reduction and relationship management.

### Stage 1: Channel enhancement

In stage one, companies exploit the Internet as an alternate or additional marketing, sales and payment channel. This might resemble the Virtual Face Model described and a great variety of implementation forms might be expected. The chief characteristics of this model as a stage is that it is advanced as both a desirable starting point for most, if not all organisations, and that it treats Internet tools as add-ons to be bolted on to pre-existing processes without question. This is not necessarily the best approach to change but certainly it is often the approach organisations select as the least cost and least disruptive in the short term. Long-term, it may prove far more expensive, since difficulties will arise with fully integrating processes into an e-business value network.

#### Should you use the Internet to buy or sell?

Typically an organisation will look to ICT to enhance selling or buying channels. Those that engage primarily in B2C commerce will probably give priority to their sell side to generate increased revenue, better manage customer relationships and reduce costs. This is especially true of the dot-com companies that typically have negligible supply chains and that are driven by a need to gain market share rapidly.

Companies that engage primarily in B2B commerce will tend to give priority to reducing the costs of selling, buying, or both. Increased revenue and enhanced customer relationships are bonuses. B2B e-commerce includes the creation of:

- e-procurement systems for buying non-production goods, and
- electronic channels to link distribution networks more tightly.

### Stage 2: Value chain transformation

In the second stage, Value Chain Integration, companies focus on their core value creating activities and integrate their value chains and information systems with the value chains of suppliers, logistics providers, distributors and retailers to maximise efficiencies and reduce costs. With the outsourcing of non-core activities and the integrating of business processes with efficient partners along the value chain, we have the creation of a virtual corporation consisting of the company and its value chain partners.

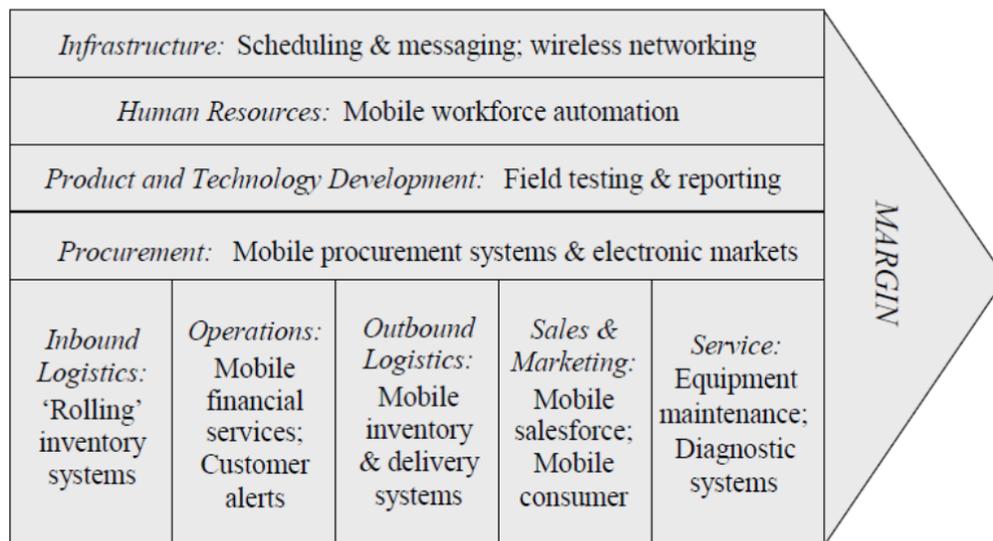
At first glance, this looks like a restatement of our Value Chain Alliance but in a weaker and less useful form. Let us merely note that there are organisations whose position with their business environments may make it advantageous to adopt this position, but, again, it's not a recommended evolutionary stage for all.

### Who are your strategic partners and how will you link with them?

Having analysed your company's value chain, it is now time to examine how you can integrate your value chains and information systems more closely with those of suppliers, logistics providers, distributors and retailers to maximise efficiencies and reduce costs. In a mature state, value chain integration allows companies to share real-time planning, cost and production data between Enterprise Resource Planning (ERP) systems such as SAP. Such integration allows for the creation of a fully e-enabled extraprise, a term used to characterise an extended enterprise consisting of the company and its value chain partners. The major decision that the organisation has to make at this stage is to choose its strongest and strategic partners and determine how to link with them.

Let's consider a case where a company employs a large sales force working from different branch offices across Asia. They source products from a large number of manufacturers in mainland China in several different provinces and throughout India. The headquarters is in Hong Kong and all financial, purchasing and sales procedures are routed through the HQ. These busy communication channels cause long delays in handling transactions. The company has a centralised computer system linking to the branch offices and now wants to extend this system into their suppliers in China and India. They still, however, anticipate delays between the inbound logistics (order processing from sales force and product procurement from suppliers) and outbound logistics (delivery of products to customers). One obvious technology which might be applied is mobile technology. Providing the sales force with handheld computers can allow easier flow of information across the whole network, as shown in Figure 4.2.

#### SUPPORT ACTIVITIES



#### PRIMARY ACTIVITIES

**Figure 4.2** The Mobile Value Chain



### Stage 3: Transformation

In stage three, Industry Transformation, a parting of the ways is reached as a consequence of e-business strategy adoption. Some companies progress to the stage of focusing their core competencies on knowledge (Knowcos) and others focus their core competencies on excellence in physical processes (Physcos).

Knowcos focus on such activities as market strategy, product design, marketing and customer management. They also have well-honed skills in managing relationships in networks of collaborating firms, as in virtual organisations or extended enterprises. Thus a Knowco will have the agility to take on threats from competitors and respond with new products and services more quickly, because it does not need to factor in costs and utilisation of physical assets, such as updating capital equipment, when making strategic decisions. Strategic networks of companies connected by high-speed “backbone” computer networks, will support the Knowcos. Among these will be:

**Strategic service partners:** Strategic service partners (SSPs) will supply Knowcos with extensions of core business processes. If a Knowco wishes to design a new product but not manufacture, warehouse or distribute that product, then one or more SSPs may provide those functions. Thus for one product, product design and customer relationship management may stay with the Knowco while manufacturing, warehousing and distribution are provided by the chosen SSPs. Communications with SSPs are over a high-speed backbone communications network. The business processes and information systems of the SSPs and the Knowcos will be seamlessly integrated.

**Value added suppliers:** Value added suppliers (VASs) would provide Knowcos with engineered or configured parts or subassemblies unique to their client specific requirements.

**Commodity suppliers:** Commodity suppliers (CSs) will provide component parts and subassemblies commonly available on the market – these may be sourced through horizontal or vertical portals.

**Non-strategic service partners:** Non-strategic service partners (NSPs) will deliver outsourcing capabilities for commodity type administrative and other business processes, including accounting and finance, human resources, indirect procurement, and travel – all processes integral to a company’s ability to operate. Such companies may be similar to the business service providers (BSPs) that are emerging today.

**Network operations partners:** Network operations partners (NOPs) use secure, high-speed backbone to connect companies with SSPs, CSs, VASs, and NSPs. It is believed that companies will turn to NOPs for full-service and applications-based information systems outsourcing.

**Applications service providers:** Applications service providers (ASPs) will use the Internet or alternate fast computer networks to deploy, manage, and lease packaged application software to customers from centrally managed facilities. Thus, in this stage of Industry Transformation there is a differentiation of firms based on knowledge, and an even more extensive and significant use of outsourcing and partnering with efficient service and technology providers of all kinds.

At this stage, the real problems begin and many organisations remain entrenched at this stage attempting to integrate front-end e-business processes with back-end ERP based processes within the organisation. Even more complex is the required integration with other organisations along the alliance network. We will look at this again later in this module.

### **Do you want to be a knowledge-based company or a physical company?**

As companies collaborate along their value chains, the nature of the industry begins to change as organisations decide to outsource some of their traditional functions and focus on their core competencies. The term “going to market” will no longer be defined as the way a company enters the marketplace but rather it will characterise the way an integrated group of companies creates a set of cascading values to transform the marketplace into a network of value providers. At this stage, companies will make a conscious effort to orient their strategies toward becoming knowledge-based (Knowco) or physical goods-based (Physco) companies. This is not normally a complete transformation but rather an orientation towards one or the other. Knowcos will focus on building brands, capturing ownership of the customer-end market relationship, and investing in knowledge-based core competencies such as marketing and product or service development.

They may well expand into providing customer knowledge management services to other companies in their marketplace. Physcos will become hubs of processing expertise. Their success will be based on speed, quality and delivery. So what model should a company adopt, and how will they prepare for this transformation?

A franchising process results in either a Knowco or a Physco structure, depending on which group of functions the organisation splits off as a virtual enterprise. Organisations that franchise the presentation of the product (front end) rather than the data-rich parts of the business, such as the logistics or catalogues, are examples of Physcos. A Knowco would come with franchising of back-end processes. In our mobile value chain example above, the company could decide to move exclusively into managing the whole process and focus only on customer relationship marketing and brand image. They would outsource all other activities and even manage knowledge-based activities for their business alliances. This would make them a Knowco.

### **Stage 4: Convergence**

Stage four is a stage of convergence, the coming together of companies in different industries to provide goods and services to customers. Thus, finally, we not only have the blurring of organisational boundaries, but the blurring of industry boundaries. This comes about, not only as a result of the Internet and e-commerce, but also as a result of these developments together with other developments which are possibly just as significant change drivers for contemporary business, namely deregulation and globalisation.

The above model is advanced by Price Waterhouse Coopers as a helpful sense-making model of business today and in the future. It has been developed for consultants to use as a simple model when talking to



business clients so that a common ground for action or advice can be established.

The significance for this course is that it provides another lens through which to see the role and importance of change management, outsourcing and partnering for contemporary business. As business moves to more effective and agile organisational forms, the practices of outsourcing and partnering will be vital ones to do well, and the capabilities associated with outsourcing and partnering, such as relationship management, will be increasingly valued in business.

The drawback of this model is that it tends to constrain thinking in a stage growth mode. It is too easy to see the four stages outlined above as necessary or optimal stages through which each enterprise should pass. This temptation should be resisted. While there is a stage growth model for the development of a butterfly not everything can, or should, turn into a butterfly. For this reason, you should consider the range of models introduced throughout the other units and select appropriate models based on your organisation's specific needs and strategies.

### Where do you want to end up?

Convergence is the coming together of companies in different industries to provide goods and services to customers and is as much a function of deregulation and globalisation as it is of ICT enabled e-business models. An example is the merger of AOL and Time Warner. Virtual business networks will be the ultimate result of an e-enabled economy. These e-markets will be differentiated by the services they offer and will be constantly creating new services based on their digital assets. In this digital world the company that owns the customer relationship and the customer knowledge will be king.

- These challenges have to be recognised by organisations wishing to succeed and prosper in the 21st century and some basic rules need to be borne in mind.
- E-business employs disruptive technology. It can both enhance and disrupt the value chain by changing interactions between companies.
- E-business success is not about technology; it is about organisational change management and leadership.
- E-business and e-markets will become increasingly complex.
- The organisation that survives will be a knowledge-based, strategy-focused organisation.

## The alliance for converging technologies model

Another model for business in the Internet and internetworked world of contemporary business is that presented by Don Tapscott and his colleagues at the Alliance for Converging Technologies, an international research and consulting group. They see the fundamental wealth-creating vehicle moving away from the integrated corporation of the industrial age toward fluid inter-networked congregations of businesses called business

webs. Whereas the industrial corporation was ownership and power-based, the business web is knowledge-based and relationship-based.

Embracing this new organisational form to greater or lesser extent is an essential part of business survival and success in the future.

The business web is defined as a distinct system of suppliers, distributors, commerce service providers, infrastructure providers and customers that use the Internet for their primary business communications and transactions. Several business webs may compete with one another for market share within an industry. In mature business webs, each business focuses on a limited set of core competencies, the things that it does best.

## Key design dimensions

There are a number of key design dimensions for effective and competitive business webs. Among the characteristics are the following:

- Multi-enterprise capability machine
- Co-opetition
- Customer-centricity
- Bathed in knowledge
- Value proposition innovation
- Internet infrastructure

## Multi- enterprise capability machine

By referring to business webs as multi-enterprise capability machines this emphasises that the business webs rely on a market model of partnering and alliances rather than the internal monopoly of a build-or-acquire model. Thus the traditional corporation defines its capabilities as its employees and the assets it owns, whereas the business web marshals the contributions of many participating enterprises. The advantages of this mode of organisation – cost, speed, innovation, quality and selection – typically outweigh the risks of partner opportunism.

## Co-opetition

Co-opetition refers to the fact that business web participants simultaneously co-operate and compete with each other. Collaborative advantage is mixed with pure competitive advantage, and cooperative strategy becomes a focus alongside purely competitive strategy.

## Customer-centricity

Effective business webs function as highly responsive customer fulfilment networks. Members of traditional supply chains, such as the automobile industry, tend to focus only on the next link to which they ship their products. As competition moves from competition between firms to competition between supply chains, effective business webs encourage all participants to focus on the end customer.



## Knowledge management

Knowledge is extremely important for business webs. Knowledge sharing, particularly knowledge of business processes and operations is important to establish competent, competitive and innovative supply chains that operate seamlessly across the boundaries of business web partners. The Internet is a vital low-cost tool in this knowledge sharing. It is worth noting in passing that business Web partners, of course, while sharing operational knowledge, are more cautious when it comes to strategic or competitive information or knowledge.

## Value proposition innovation

Business webs are inherently innovative and often deliver new value propositions to customers that tend to render obsolete old ways of doing things. An example is the MP3 business web of commercial service providers, technology providers and content providers (musicians), which enables the downloading of music and infinitely expands the music community.

## Internet infrastructure

Internet infrastructure is another characteristic of business webs. The participants in the business web capitalise on the Internet's ability to lower transaction costs, using it as their primary infrastructure for interpersonal communication and business transactions.

Thus we have some idea of the characteristics of a mature business web. How then do such entities come about? A process of disaggregation and re-aggregation should take place.

## Disaggregation and re-aggregation

In disaggregation, one first examines the end customer value proposition, looking for those aspects of the end-customer experience that really give value. Then follows the examination of the value chain of activities that end in the delivery of that valued experience, including the analysis of the role of the particular firm and its partners in that value chain. We want to know what are the core competencies that the firm has, and how do they best contribute to the end customer's valued experience. We also want to know what the core competencies of potential partners are, and how they could contribute. Further we want to know what the potential role of technology and the Internet in creating value is in this value chain. Once these questions have been answered the process of re-aggregation begins. This is very similar to the SVA process.

Given the analysis above, including the new role of the Internet and technology, how could we re-aggregate the value chain effectively? What things need to be done in what potentially new ways? What is the role of partners in this new enterprise? Thus to move away from the industrial age corporation toward the business web, new business partners and a careful outsourcing of business processes may be necessary. The business processes to be taken on by partners are likely to be different from the business processes in the original integrated firm. Tapscott gives a warning about attempting to move toward the business Web organisational form by old-style outsourcing of the quick-fix cost-cutting

style. That kind of outsourcing of problem functions or activities is dead, he maintains. The new partnerships or relationships are not the type of situation where both players are in a zero-sum financial game lacking openness and trust. This mindset should be replaced by well-aligned harmonious and mutually beneficial relationships.

Thus we have seen two models of the future of business – namely the Price Waterhouse Coopers model and the Alliance for Converging Technologies model – in which management of different change processes, outsourcing and partnering play vital roles. We will now examine in greater detail the effects of industry transformation on organisations, people, processes and technology before we look at the important concepts of outsourcing and partnering in turn as they are currently understood in this context.

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## Effects Of transformation and convergence on organisations

### Transformation changes

During the process of industry transformation organisations will create and execute very different business models from those they used in the past. This will involve major business change but allied with very fast decision making as organisations attempt to merge, acquire and ally with e-partnerships. The organisational transformation process is towards becoming the effective extraprise. This involves massive restructuring and typically the flattening of hierarchies. This not only impacts on structure but also industry culture.

Changes will impact at a number of different levels.

### Effects on people

Much has been said in this course about the external drivers for e-business and how this concept will change how organisations work and the role of their employees. The same phenomenon has been noted in large organisations where ERP systems have been introduced impacting greatly on the internal structures and processes for labour and work division.

This combination of technologies, e-business and Enterprise Resource Planning Systems, offers established companies the opportunity to build interactive relationships with partners and suppliers, improve efficiency and extend reach, all at a very low cost. For example, GE estimates to save USD 500 million to USD 700 million of its purchasing costs over three years and cut purchasing cycles by as much as 50 per cent. The Norwegian company Statoil, processes more than 350,000 invoices annually, and awards over 40,000 contracts through Web-enabled ERP commerce. The company expects a considerable improvement in the ratio of invoices to orders as well as a tangible contribution to revenue. Eventually, both companies expect to buy the majority of their purchases



through Web-based bidding systems. Faced with such e-business innovations, companies are looking for effective solutions to marry the two technologies for strategic advantage.

Inevitably this will have a major impact on their employee workforce, the processes they have to perform and their skill requirements. The workforce has had to embrace a new culture as a knowledge-based community with far more flexible work roles. Increasingly, we are seeing the large traditional organisation breaking up and the emergence of new, networked organisational forms in which work is conducted by temporary teams that cross organisational lines.

In this new climate, organisations have to learn new approaches to managing a workforce of knowledge workers, yet little information is available on how to implement this successfully and how to ensure more effective personnel performance as a result.

Drucker (1998) suggests that the traditional role of managers telling workers what to do is no longer viable and instead managers must direct people as if they were unpaid volunteers, tied to the organisation by commitment to its aims and purposes and often expecting to participate in its governance. As information technologies continue to permeate all aspects of organisational life the role of the IT professional will also change and they will have to embrace a set of shared values and assumptions about how things work in the organisation.

Markus et al, (2000) suggest that organisations will have to seek to harness the talents and energies of dispersed communities of practice and increasingly will face a workforce of volunteers as more people choose periods of less than full time work. The concept of virtual teams with project teams being formed from distributed locations without any physical contact is gaining in popularity. This obviously raises the question of how traditional management tasks of motivating and directing employees will have to change in the face of these new realities.

Some key success factors are:

- Identify and target key staff as candidates for leadership roles overseeing the extraprise
- Create new critical coordination roles
- Build strong integrated work relationships
- Drive continual communication
- Build a culture as the extended family
- Introduce new compensation measures
- Introduce new employee evaluation metrics

## Effects on processes and ICT

Processes will need to be reengineered to comply with standards that enable scalability, portability, and automated control, integrating seamlessly across partner company boundaries. This level of efficiency will come only when ICT is being fully leveraged across the whole extended value chain. Data warehousing becomes critical and solutions

must be found to enable companies to discover the true value of their information, to improve decision making, increase competitiveness, develop more focused marketing programs and better manage customer relationships. This must be supported by a high speed backbone and managed by a webmaster.

The heart of the matter is that the organisation must be able to fulfil its business commitments. We have looked in depth at how this might be affected for the customer requirements cycle in the previous module but it is worth examining some of the issues which impact on standard B2B operations.

## Order fulfillment

Fulfilment is the process of accepting an order, assembling the component in production or in transit, and then packaging, shipping, and delivering the order. The area we call e-business will look a lot more important a year or two from now. Somebody has to pick, pack, and ship until they figure out a way to squeeze baked beans down the phone line (which we aren't ruling out just yet). It's one thing to take an order, but the resources of the extra price can offer unprecedented levels of service in fulfilment areas like the following:

- Accurate due delivery dates.
- Real-time product availability as opposed to what can be ordered.
- Coordination of multiple line items, maybe from different suppliers, to reduce shipping costs.
- Real-time shipping status – as popularised by Fedex.
- Pricing options for preferred production/delivery options.
- Available to Promise – item made and delivery to order.
- Capability – product hasn't been made but production capacity can be reserved.
- Intelligent, automated, alternatives to fill demand and optimise for market share, fill rates, profitability, or customer satisfaction.
- Integrated orders that span multiple manufacturers but give one order status and price for the final component.

## Curing the blind spots

Because the chain of commerce is fragmented, we are accustomed to many blind spots in the traditional fulfilment process. These cost money. All companies are at the mercy of the varying efficiency of trading partners, but coordinating fulfilment across multiple supply chains is difficult to do manually. And the problem is growing more acute. Raw competition is spawning more configurations and flavours of products with shorter life cycles. In 1981, 2,700 new products hit grocery shelves in the U.S.; that figure had ballooned to 20,000 by 1996. That variation poses big problems for supply chain management.



### **The first blind spot is end-market demand**

Real-time demand is invisible to most companies because most sell through intermediaries or don't have any lead-time from their customers on demand shifts. Manufacturers may forecast with historical data but often don't have current information on shifts in demand. To avoid running out of stock and losing sales when demand escalates, companies build for all scenarios.

Some makers require their suppliers to keep 90-150 days of inventory on hand and have resigned themselves to the cost of carrying this excess inventory in the supply chain. The U.S. had a USD 1.37 trillion investment in inventory in 1998, and 40 per cent of carry costs on this inventory was obsolescence! The better solution is to accept orders for things that haven't yet been built and deliver them quickly.

### **The second blind spot is through the supply chain**

No company can tell what inventory and manufacturing capacity is available in their own supply chains: they're too complex, and anyway, until now the time taken to find out meant that the information was necessarily out of date and inaccurate. Their suppliers in turn can't see demand two or three levels up the chain. So they build inventory as well. Because manufacturers can't get real-time product availability from their suppliers, they assume fixed lead-times on all products, but life is variable. They can work to fixed lead-times if they require suppliers to carry excess inventory, but then the supplier has higher carrying costs and spoilage that show up in the final price.

### **The third blind spot – building to inventory yields higher defect rates**

You can't see what's wrong with products sitting in a warehouse – they have to be used first. Tightening the link between production and consumption provides more frequent product feedback that can be rolled into production plans. Matching production to real-time demand is an obvious objective but difficult to achieve. Pretty quickly, one gets the picture of the massive inventory blowout that could be reduced if the entire supply chain had transparency of process and demand.

### **Virtual supply chains collaborating in real time represent the fastest return on the dollar**

At stake are billions of dollars in inventory reduction, transport costs, and process improvement. The recent explosion of industry horizontal and vertical portals and hubs (e-hubs) reflect natural points of integration and coordination to facilitate the synchronisation of demand and supply chains. The standard tradition is for companies to create build-to-order environments. Today the goalposts have been shifted. The goal is to build less generic product for inventory (that has to be stored and handled) and more custom products for a known order – preferably being shipped right out the door. To do this, companies must create a global shop floor to link production more tightly to current demand.

## Once commerce is online, every demand is an input into production planning

We know that marketing campaigns, configuration events, rebates, advertising, quotes, bids, partner campaigns, and negotiations all combine to drive production. Usually, production is the last to find out about these events because of the complexity and costs associated with sharing this information with all the relevant parties that lie along the route between a raw material producer and the consumer's point of purchase or consumption. E-commerce can help bring more precision to a historically imprecise process. The discontinuity between multiple parties in the chain of commerce, some within the same company, is immense and a small improvement could make a big difference.

Manufacturers need broad product lines to be competitive and meet a wide variety of buyer preferences. Yet you can't stay in business by offering all products in unlimited quantity all the time. You have to develop complex strategies for estimating which portions of the product line will sell over a given production horizon. All that estimation then translates into stock outs and backorders or, conversely, excess inventory for the supplier.

As a result, buyers want to reduce their risk of getting a backorder or stock out. They'd like to see detailed information about inventory and production capacity (available to promise, capable to promise). Instead of ordering and waiting for order status information, buyers would like real-time availability information and the ability to reserve products by serial and bin number.

## Exchanges present and future

To date, exchanges have, at best, served as a rough and ready communications mechanism for shipment status. Typically, exchanges send the order to the supplier and leave the fulfilment and settling process to the trading partners working offline. Most exchanges can't verify inventory before the order because they can't see the supplier's back-end systems. And, of course, if suppliers post product listings on multiple exchanges without real time inventory availability, they'll end up selling products they haven't produced, and compound the problems of backorders and stock outs.

However, more advanced order management systems will accommodate the dynamic nature of Web channels. All this isn't simple and won't happen overnight. Yes, companies have invested in supply chain software for years, but most of this has been inward looking and designed for internal planning and scheduling only. Today the Internet presents a platform for inter-enterprise optimisation and planning with some exciting opportunities. Hundreds of e-hubs have begun operations and their processes are evolving rapidly.



## Drivers and capabilities for convergence

### Drivers of convergence

The key trends that interact to enable convergence are increasing customer sophistication and expectations, deregulation, competitive imperatives and technology. Table 4.1 illustrates some of these.

<p style="text-align: center;"><b>Technology</b></p> <ul style="list-style-type: none"> <li>• E-commerce</li> <li>• Customer based IT</li> <li>• Death of distance</li> <li>• Digital convergence</li> <li>• Growth of information content of products and services</li> </ul>	<p style="text-align: center;"><b>Deregulation</b></p> <ul style="list-style-type: none"> <li>• Regulated markets opening up</li> <li>• Fewer regulatory impediments in business</li> <li>• Single currency zones</li> <li>• Changing boundaries of e-business</li> </ul>
<p style="text-align: center;"><b>Competitive Imperatives</b></p> <ul style="list-style-type: none"> <li>• Imperatives: <ul style="list-style-type: none"> <li>○ Real growth</li> <li>○ Globalisation</li> <li>○ Customer orientation</li> <li>○ Knowledge and capability as assets</li> <li>○ New entrants</li> </ul> </li> <li>• Enablers <ul style="list-style-type: none"> <li>○ Alliances</li> <li>○ Outsourcing</li> </ul> </li> </ul>	<p style="text-align: center;"><b>Customer Sophistication</b></p> <ul style="list-style-type: none"> <li>• Demand for better and more convenient solutions</li> <li>• Increased emphasis on service</li> <li>• Demand for added value</li> <li>• Less tolerance of poor standards</li> <li>• Just-in-Time delivery</li> <li>• Global influences</li> <li>• Brand "savvy"</li> </ul>

**Table 4.1** Convergence key trends (adapted from Deise et al, 2000)

This stage of convergence is one where organisations have moved from products and services to relationships and combine to offer a bundle of services. For example, the car industry becomes a mobility service when the vehicle is combined with leasing, finance, insurance and roadside repair and recovery services.

### Capabilities for convergence

Diese et al (2000) suggest there are effectively seven key dimensions of capabilities which will define the successful e-business:

1. **Alliances and partnerships** – sustained relationships are often the most valuable.
2. **Customer relations** – adopting CRM.
3. **Customer information** – including customer interaction data.

4. **Corporate brand** – realise that this may be a barrier as well as an opportunity, for example, when Midland Bank U.K. (Now HSBC) opened a radically new form of banking service with First Direct they did not link it in any way with the Midland corporate brand, which was too traditional.
5. **Facilitating technologies** – these need to be constantly reviewed and managed.
6. **Innovation** – create and sustain the ability to stimulate and apply new ideas.
7. **Regulatory environment** – understand and manage the environment.

These convergent companies will be customer-centric, project-oriented, pragmatic with regard to technology, flexible with regard to resources and knowledge-based. They will also continually evolve both product and service offers as well as business models, be expert at partnerships, networking effectively across boundaries and be virtually vertically integrated. This convergence will also involve multiple shifts in strategic emphasis.

## Convergence strategies

Various convergence strategies can be used, separately, in combination and simultaneously:

- Leveraging relationships, for example, a supermarket might decide to offer a credit card service of its own to customers (or possibly form a consortium of retailers for the credit card).
- Bundling – combining a number of services into a product.
- Gatekeeping, for example, create a captive customer for whom all purchases must be funnelled through the gatekeeper, such as the frequent flyer programmes.
- Cross-industry competence, developing transferable services such as management of call centres.
- Disintermediation/reintermediation – moving from manufacturing into direct retailing.
- Brand acquisition – merging a vehicle fleet service with a white goods manufacturer.
- Technology convergence – cross industry devices such as personal organisers and cell phones.
- Market making – creating entirely new products and services – new entrants such as MRO.com are setting up services based on sourcing indirect goods and services.

Whatever strategy is selected the organisation will then have to position itself across a number of dimensions such as sector, market and partnerships before deciding on the extent of change to which it will commit itself and the extent to which an aggressive strategy will be



pursued. A particular approach to implementing these strategies is outsourcing and we look at this in depth in the next section.

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## Outsourcing and partnering for the virtual organisation

We have suggested that one useful concept of the convergent organisation is that of an opportunistic grouping of collaborating organisations, each of which focuses on a set of core competences or capabilities at which it excels. This opportunistic network of firms is fluid and changes according to circumstances and needs and is often referred to as a Virtual Organisation.

Such a network of firms is likely to be created and sustained through the processes of outsourcing and partnering/alliance formation.

As the trend toward moving away from non-core activities intensifies, and indeed as the relationship between companies and their suppliers becomes less and less like the purchasing of the service and more like a partnership, so the trend toward virtual organising will increase. Furthermore, as firms utilise IT and the Internet to expedite the information exchange elements of maintaining such relationships, we move even closer to the classically defined virtual organisational form.

Outsourcing is the contracting out of the provision of the business process, service or function to an external vendor. Taking a long-term view of outsourcing, the Corbett Group ([www.Corbettgroup.com](http://www.Corbettgroup.com)) defines outsourcing as the long-term results-oriented relationship with an external service provider for activities traditionally performed within the company.

Outsourcing usually applies to a complete business process and implies a degree of managerial control and risk on the part of the provider.

Outsourcing is a practice that is transforming the face of business today, redefining the firm to be more agile and nimble, more concentrated around its core competences, while networked with best-in-class business partners. Starting out as an efficiency-driven, cost-cutting tactic, outsourcing has grown into a vast trend of business practice that is now concerned with redefining and redesigning the firm for increased adaptability, flexibility and competitiveness.

Starting as a small trend in the 1980s, outsourcing grew rapidly in the 1990s into a global phenomenon accounting for transactions priced at hundreds of billions of dollars. The Corbett Group's 1999 Strategic Outsourcing Study found that one third of executive budgets are externally sourced today, and predict that that there is more external sourcing to come in the future. Dun & Bradstreet estimate that by 2001, global outsourcing will be worth more than USD 1 trillion.

As the size of the outsourcing phenomenon has grown, so has the scope. While the early trend tended to see outsourcing being undertaken for specific functions or activities (such as cleaning services, canteen

services, IT services and so on) outsourcing now encompasses almost all business services. The major business services outsourced are IT, human resources, marketing and sales, and administration, with IT comprising 30 per cent of the total, human resources 16 per cent, marketing and sales 14 per cent, and administration 9 per cent.

## Outsourcing and external sourcing

Outsourcing can be viewed as one of a number of external sourcing options, which include:

**Supplemental staffing:** Supplemental staffing is an external sourcing option in which non-company personnel are used, often at times of peaks in demand, to help carry out business operations. Such personnel could be unskilled or skilled temporary operatives or clerical workers, consultants or contractors.

**Selective sourcing:** Selective sourcing refers to the outsourcing of aspects of a function or business process. For example, an IT department may decide to outsource computer systems development and retain other IT services internally. Or more selectively still, only certain computer systems development projects may be outsourced.

**Total outsourcing:** The term total outsourcing can refer to the contracting out of an entire business process. However, often the term total outsourcing is used for a situation in which a large proportion, 80 per cent or more, of a department or function is outsourced.

**Strategic alliances:** A strategic alliance refers to a situation in which investments are shared between one or more business partners, each business partner focusing on their areas of competence. In strategic alliances, separate revenue streams are maintained for each organisation.

**Joint ventures:** In a joint venture, the new business entity with its own revenue stream is created. Investments in the new entity are shared between business partners.

Often, supplemental staffing, selective sourcing and the outsourcing of a business process or function are all collectively referred to as outsourcing. It is worth noting in passing that when outsourcing is viewed as a long-term relationship with a provider of business services, this relationship gets very close to what we have referred to above as a strategic alliance. However, outsourcing is essentially a fee-for-service relationship based around a contract. In a strategic alliance, not only do the strategic partners share resources, they also share in profits and losses.

External sourcing, then, is sometimes taken to be more general than outsourcing in the sense that supplemental staffing is not taken to be outsourcing. In this unit we will treat outsourcing as including supplemental staffing as well as selective sourcing. However, we recommend that, with us, you distinguish between outsourcing and strategic alliances and joint ventures in which profits and losses are shared.



## Strategic, transformational and tactical outsourcing

There are three broad approaches to outsourcing: strategic, transformational and tactical.

**Strategic outsourcing** is an approach in which the firm invests internally in those business activities from which it derives a competitive advantage and outsources the other necessary business activities to best-in-class providers of those activities. Essentially the firm concentrates on its core competences and actively considers outsourcing its other business activities.

In **transformational outsourcing** the firm utilises outsourcing to bring about innovative change. Relationships with world-class vendors of business operations and services are utilised to help move the firm to global best practice in all non-core business processes. Thus outsourcing helps in achieving the firm's strategic vision, and supports the management of organisational transformation.

**Tactical outsourcing** is the use of outsourcing to bring about operational efficiencies. In tactical outsourcing, internal business services and operations are benchmarked against the marketplace of external providers such services. If the costs and benefits of internal sourcing of such services do not compare well with external sourcing, the business service is outsourced.

## Strategic outsourcing and core competences

Strategic outsourcing rests on the proposition that resources and management time are focussed on core competences while considering non-core activities as possible targets for outsourcing.

But to be able to focus on, cultivate and grow core competences, one must first identify them.

However, given that organisational core competencies are rare, complex and embedded in organisational routines and practices, it can be difficult to identify and characterise them.

The core competence approach to outsourcing tells us that we may usefully see the defining characteristics of core competences as:

- Skill and knowledge sets, not just products and functions
- Broad areas subject to reassessment, adaptation and evolution
- Limited in number
- Unique sources of leverage in the value chain
- Areas where the company can dominate
- Elements important to customers in the long run
- Embedded in the organisation's systems and practices

Core competences are unlikely to be located in products or functions. Competitors too easily imitate these. Core competences are likely to emanate from certain sets of skills and knowledge which are difficult to

specify and imitate. The skills giving rise to core competences are likely to cut across several functions, and knowledge is likely to be tacit rather than explicit. Core competences, because of their importance in underpinning the competitiveness and hence the survival of the firm, require intensity of focus and management dedication.

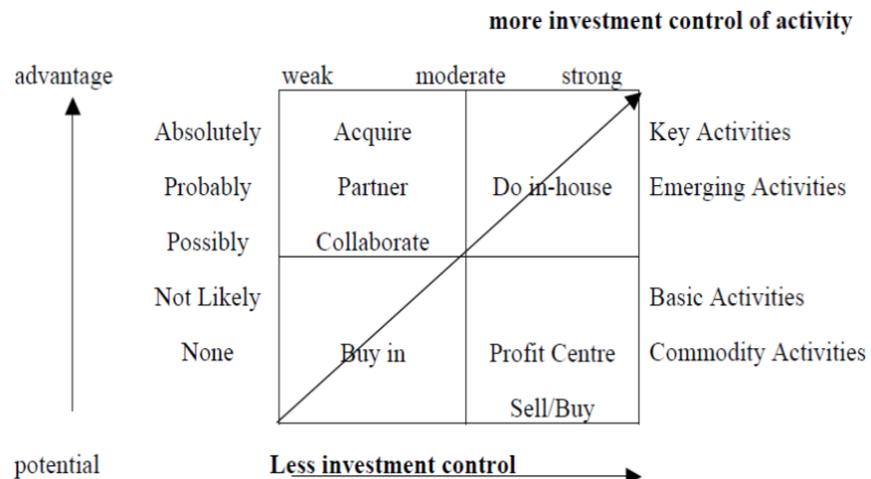
For these reasons core competencies in the true sense should be limited to two or three in number, and certainly do not number more than five. They are concentrated in areas where the firm can dominate. Since each company is really in competition with every supplier of every activity in its value chain, it is important that the activities in which it chooses to excel are areas in which it can really achieve pre-eminence. It is worth noting that at least one of these areas should be in the domain of understanding and managing the customer relationship, since this is so important to business competitiveness and survival.

Finally, core competences are likely to be embedded in organisational systems, routines and practices thus not only rendering them difficult to imitate but also difficult to identify, understand and cultivate. Nonetheless, core competences are vital capabilities that are important to nurture, evolve and grow.

In common with the Price Waterhouse model discussed earlier this thinking aligns with the idea that there must be a single dominant player leading or controlling the consortium. This is at odds with the more flexible models tacitly assumed throughout this course.

## Linking outsourcing to strategy

It is important that an enterprise's external sourcing decisions are aligned to its strategy. Insinga and Werle (2000) present a planning guide to help in this matter. The guide is structured around two basic dimensions (Figure 4.3.)



**Figure 4.3** Internal capability of enterprise to perform in comparison to competitors

First, the activities of the firm are considered for their potential to yield a competitive advantage, and are assessed as either key to producing a



competitive advantage, emerging towards being the key activity, basic to the firm or simply commodity activities. Secondly, the activities of the firm are rated in terms of the firm’s capability at undertaking them, and assessed as activities in which the firm has a strong, moderate or weak capability.

Generally speaking as one moves down and to the left of the matrix in the Figure 4.3 it is recommended that there be less investment in the activity, less knowledge of the particular business domain nurtured in the company, and less direct control over the day-to-day operations involved. Core competences are thus located in the upper right of the matrix and commodity activities, suitable for outsourcing to a business service provider, are located in the lower left.

However, when activities are examined in this way there may be significant differences between the recommended position of the activity in the company and its historical and present reality.

Such differences require the attention of senior management, since these differences indicate other than the sensible and optimal allocation of resources. Figure 4.4 shows the use of this model as a planning guide to identify appropriate actions.

**Competitive Advantage**

Absolutely	1. Get capability	2. Build strength	3. Do in-house	Key activities
Probably	4a. Partner	5a. Partner 5b. Collaborate	6a. Do in-house	
		4b. Collaborate	5c. Share risk	6b. Share risk
Possibly	7. Buy	8a. Develop second source (external) 8b. Buy	9a. Make it a profit centre 9b. Consider selling/buying	Basic Activities
Not Likely	10. Buy	11. Exit/Buy (sell, abandon, allow to weaken)	12. Consider selling/buying	Commodity Activities
None				
	Weak	Moderate	Strong	

**Figure 4.4** Planning guide to identify appropriate actions

Cells 1, 2, 4, 5 indicate a need either to acquire the capability or to partner with an organisation that has the capability. Partnering implies investing in the collaborating organisation and positioning one’s company to acquire more ownership if the particular activity emerges over time as more key or central to the competitive positioning of the company. As one moves to the lower levels of cells 4 and 5, and the activity is seemingly less critical to competitiveness, a collaborative positioning of pooling knowledge and sharing risk with less of an emphasis on ownership possibilities is recommended.

Cells 3 and 6 indicate activities which are critical to competitiveness or are emerging towards such status. They are also activities in which the organisation has a strong internal capability.

These activities should be being performed in-house under tight control. Where the activity is just emerging as being important to competitiveness, and there is uncertainty about its future criticality, as in the lower part of cell 6, a suitable position might be to collaborate to share risk.

This would economise on resources expended in carrying out the activity, but position the organisation to take the activity in-house if necessary.

Cells 7, 8, 10, 11 indicate both the weak or moderate internal capability in the activities, together with a low potential for yielding a competitive advantage. These characteristics of the activities indicate suitability for outsourcing to suitable external providers. As one moves toward the upper right of this set of activities, toward the top of cell 8, there is likelihood that one would keep more knowledge and control of these activities and perhaps engage in a selective sourcing of sub-activities. Alternatively, one might simply seek to reduce the dependency on internal capabilities by developing alternate sources of the activity.

Cells 9, 12 indicate a similar low potential for competitive advantage, but indicate a relatively strong internal capability. The planning guide recommends that a company should consider selling such a capability to the marketplace and investing the proceeds in more critical capabilities. The necessary activities and skills should then be purchased in the marketplace from competent providers.

## Leadership issues

Once an outsourcing strategy is in place and the extent and significance of outsourcing increases, one must consider the management of the outsourcing relationships. Management in an organisation with a significant number of outsourcing relationships requires a new blend of capabilities and talents. Useem and Harder (2000) claim that in the new organisation, characterised by extensive and significant outsourcing, managers must concentrate on negotiating results rather than issuing orders. They must add to and to some extent substitute the skills for sending work downward, and gain skills in arranging for sending work outward. They need to exercise lateral leadership.

### Four primary traits

Useem and Harder argue that the following leadership capabilities are required of managers, as outsourcing becomes significant in firms:

**Strategic thinking:** Strategic thinking that links outsourcing considerations and decisions to issues of core competence and competitive advantage is a vital capability. Being informed by a strategic vision and perspective when deciding what to outsource and how structure the outsourcing relationship is vital to future business competitiveness and survival, particularly when significant amounts of outsourcing are taking place.



**Deal making:** Deal-making skills are important in securing compatible and high-quality providers of the outsourced business processes and activities. Deal-making also involves obtaining buy-in from those within the firm who must forge a seamless business process interface with the external provider. Thus, the dealmaker needs the skills to establish an effective and mutually supportive web of relations between the organisation and the outsourcing provider that stretches seamlessly across the boundary of both organisations.

**Partnership governing:** Outsourcing to best-in-class providers of business processes and activities will likely bring innovation and change to the organisation.

**Managing change:** As always, effective change management is required and is crucial to the success of the organisational change involved. After a deal is secured with an appropriate outsourcing vendor, a good relationship must be established and sustained so that both partners in the relationship work together constructively.

This is particularly important in today's business world where situations of turbulence, change and innovation pertain in so many markets since legislating vendor behaviour under such conditions with a contract is often difficult and suboptimal.

None of the qualities mentioned above, when taken singly is unique to the management of outsourcing, but their combination, is critical to managing organisations with important outsourcing relationships. In an extensive survey of U.S. managers, a large proportion of the managers surveyed reported that they would pay a premium for persons with such skills.

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## Formulating e-business roll-out strategies

### Development options

A number of options present themselves for e-business development:

- Internal development
- External development
- Selective sourcing or partnering

Together with four hosting options:

- Dedicated hosting
- Shared hosting
- Internal hosting
- Colocation

The selected strategy will depend on a number of factors such as the stage of growth of the organisation as an e-business (or maturity), internal resources, competitive pressures, and the presence of a critical mass of

customers and content. Damsgaard and Scheepers (2000) suggest that this leads to a four stage implementation model with three major crises – initially the intranet must be **nurtured** to evolve beyond its experimental beginnings; then a critical mass of **consumers** and **content** must be reached **simultaneously** and finally, the intranet **must be controlled**.

## Stages of implementation

As early as 1974, Richard Nolan identified a staged growth model of IS implementation (later extended to six stages as: Initiation, Contagion, Control, Integration, Data Administration and Maturity). This is a descriptive rather than prescriptive model used to explain different implementation strategies as an organisation progresses through stages of IS development.

Damsgaard and Scheepers propose a similar model for intranet implementation. They have combined this model with the Seven S model introduced in Module 2, to provide a comprehensive framework for e-business implementation.

Stage	Initiation	Contagion	Control	Integration
Strategy	Selling the Intranet concept	Reach followed by range	Control vs standardisation	Continuous optimisation
Structure	Independent individuals	Informal project team	Intranet steering group	Dispersed multi-disciplinary entity
Systems	Use mode: publishing	Use mode: publishing, interacting, searching	Use mode: publishing, interacting, searching, transacting	Use mode: publishing, interacting, searching, transacting, recording
Staff	Technology champions	Sponsors, informal project leaders	Formal coordinators centralised	Process owners decentralised
Style	suspicion	Laissez-faire	formal	committed
Skills	technical	marketing	Project management	Knowledge management
Superordinate Goals	Engaging a sponsor	Reaching a critical mass of users and content	Rationalisation and management control	Intranet institutionalisation

**Table 4.2** Stages of intranet use and management

## Management structures

In the previous section we discussed some of the leadership traits required to act as a champion for strategic use of IT and the development of an effective extended extraprise. Leadership on its own, however, is



insufficient to maintain sustainable competitiveness. The organisation also needs an effective management structure where the management of e-commerce is recognised as central and critical to the organisation. Plant describes this as an e-centric management structure with strong links to cross-functional groups which bring technical and managerial skills together.

Of particular importance are the content owners to ensure continual realignment of content with the organisation's strategic objectives. This group must also be responsible for access policies and standards setting.

This whole process needs to be handled with care since it will involve many different groups with different views, some of whom will be highly reluctant to embrace change. In the final section of this module we examine a model for change management and summarise some of the critical issues for success.

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## A framework for e-business change management

The model in Figure 4.5 identifies a useful framework within which to identify facilitators and inhibitors of successful e-business change. The relationships presented in the framework are based on relevant work in organisational change, strategic management innovation, and information systems adapted from Guha et al, (1997) work on – **business process change management**.

*Any significant business process change requires a strategic initiative where top managers act as leaders in defining and communicating a vision of change. The organisational environment, with ready culture, a willingness to share knowledge, balanced network relationships, and a capacity to learn, should facilitate the implementation of prescribed e-business management and change management. Both of these are requisite for customer success and ultimately in achieving measurable and sustainable competitive performance (p 121).*

Kalakota (1999) states – the creation and implementation of an e-business project is inextricably linked to the management of change. This requires systematic attention to learning processes, organisational culture, technology infrastructure, people and systems thinking. These gain even greater significance when considering the alignment of these dimensions with respect to ERP and e-business implementations. E-business change is defined here as an organisational initiative to design an e-business project to achieve significant (breakthrough) improvements in performance (quality, responsiveness, cost, flexibility, satisfaction, shareholder value, and other critical e-business measures) through changes in relationships between management, information, technology, organisational structure, and people. Planning and managing such systems requires an integrated multi-dimensional approach across the e-business and the development of new business process models.

Therefore, in any examination of outcomes, consideration should be given to:

- a. the environmental conditions for change and
- b. the ability of the organisation to manage change in those conditions.

Successful e-business projects tend to have facilitators over many dimensions. Failure is most likely to occur where too little consideration has been given to key factors such as cultural readiness or change management.

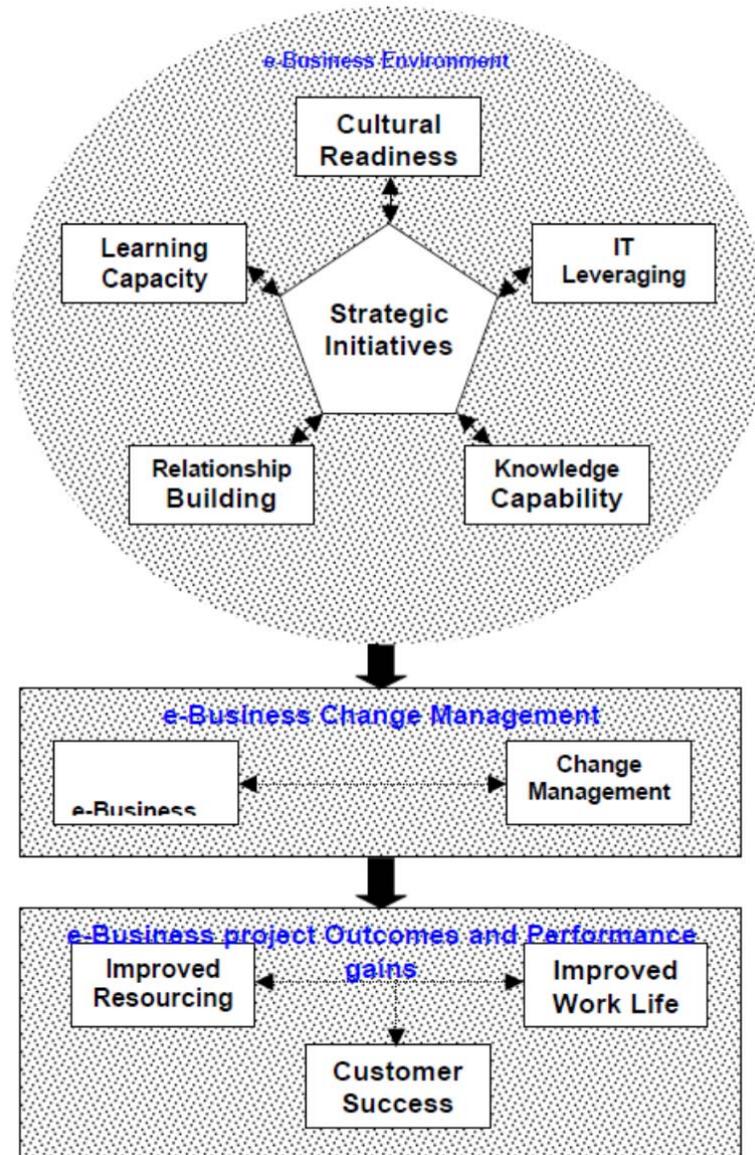


Figure 4.5 Framework for change management

## Analysing the change environment

A recent study of international organisations implementing e-business change through ERP found the following factors as critical to e-business success (Ash & Burn, 2000).

### Change environment

**Strategic initiatives:** These were frequently driven by user management rather than IT management and were generally initiated in a local block rather than from centralised decision making.

**Cultural readiness:** Champions were typical of change and necessary to promote the change. Frequently interdepartmental rivalry inhibited change and further a culture of resistance to accept change was introduced from other business partner organisations.

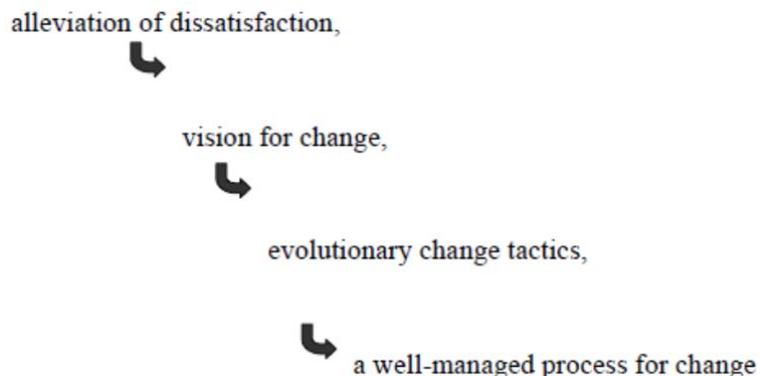
**Network relationships:** In all successful cases the e-business project demonstrated positive inter-agency cooperation and the beginnings of cross-functional cooperation. As one IT manager stated, “Our Web-base solution assists the most casual user with global, personalised, and secure access to our corporate information on demand.”

**Learning capacity:** In the most successful projects, learning by doing and learning from others helped improve the professional end-user IT skills. This enabled project managers to adapt to a quality decision making procedure.

**IT leveragability and knowledge capability:** Generally, successful projects demonstrated positive local leadership, superior IT design for improved learning, and business-to-employee communication. To overcome resistance to change, knowledge capability must be aligned (along with the enabling technology) to the strategic e-business initiatives.

### Change management

The pattern of change was reported to be a participative change tactic resulting in an evolutionary change. This was viewed as a waterfall progression of change, starting with an alleviation of dissatisfaction by end users and eventually arriving at a well-managed process:



## Outcomes and performance gains

Outcomes of e-business change can be measured at various levels of the broad complex phenomenon of any e-ERP project. More recently, leading firms that have begun to undertake e-business to meet strategic goals recognise that they only accomplish their objectives through people, therefore placing importance on improving the quality of work-life issues. If effectively managed, employees should ultimately be more productive in their work tasks and better able to serve customers, suppliers, and business partners. The key constructs that can be probed here are:

- gaps between effectiveness expectations (goals) and
- actual performance improvements, – employee work satisfaction, efficient resourcing, and customer interaction (Venkatraman and Henderson, 1998).

### Outcomes

It was found that where success was achieved, the project showed an improvement in one of the outcome constructs – the quality of work life from the outset thus motivating employees to support additional change processes.

### Performance gains

The performance gains were typically achieved from two sources; labour cost savings and greater operational efficiency through optimised resource allocation, and more effective decision making through access to more reliable real-time data frequently via mobile technology.

The intrinsic motivation and self-management of autonomous knowledge within the development teams played an important role in the successful implementation. The emphasis was very much more on collective performance rather than individual, but at the same time development and maintenance of personal and professional reputations was a significant driver.

## Successful management of change

In the future, as e-business activities become common place, corporate portals for empowering employees will be considered an economic necessity. The next wave of economic advantage lies in revenue generation from new business opportunities in other business-to-business models, such as business-to-consumer for customer satisfaction.

These are complex problems that can never be solved with technology alone. They require leadership, appropriate problem-solving skills, lots of hard work and executive commitment and a culture that embraces the ideals of the learning organisation (a team and community-oriented work process).

The organisational design, learning environment, and human-to-human communication and collaboration must be aligned to the enabling technology. One should always keep in mind the balance between people, business processes, and technology.



In a labour force of cross-functional virtual teams, management will be more about motivation and governance may be largely a question of self-regulation rather than traditional managerial control. IT professionals may well be better equipped for this change given the large community of practice with a strong, shared culture of technical professionalism and their extended use of technology for communication and decision making.

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## Module Summary



### Summary

In this module we have introduced you to a number of organisational transformation and change management models. We find that these models make much use of the concept of outsourcing, and we have tried to make sense of current uses of this term.

There are inevitable confusions arising in this context. When is a product or process outsourced?

Do we speak of outsourcing water? Electricity supply? Buildings? Perhaps the answer will alter between cultures, but no matter wherever we are, there will always be things we expect to bring in from outside, and those which our current state of industrial development leads us to expect to supply from within.

At this stage of the course, we should pause to reflect that while the first half of the last century showed us that the most effective form of business enterprise was the hierarchical structure which subsumed suppliers and competitors horizontally and vertically as the (transaction cost-based) chance arose. During this time economies of scale were venerated, and in many cases realised, as firms organised into bureaucratic silos of divisions or functions. Information naturally flowed, like water, along the easiest paths – in this case determined by divisions and lines of authority. The coordination of power and responsibility was a central function of the apex of the pyramid, power being distributed from the centre in the form of resources.

By the 1980s it had become clear that enormous economic and social pressures had already effected great change to the previous beliefs about organisational structure and efficiency.

Market convergence, the internationalisation of competition and the advent of innovative information and communication technologies, came together to produce restless marketplaces in which short-term shifts could easily destroy long-term survival. As well as strategy, firms were forced to rethink both structure and strategy to respond dynamically to change. The past hierarchies proved insufficiently responsive, and dynamic networks of organisations, or within organisations proved their worth. It is recognition of this that led to the positing of networks as novel, and the tired notion of the necessity of stage growth that has led to the PriceWaterhouse and Tapscott models introduced above.

Similarly, it is the retention of thinking in terms of central authority and control that necessitates thinking in outsourcing terms. We have introduced these here for you, but caution reliance on these when they are failing to demonstrate their relevance in the e-business environment we are facing.



It is our contention that this course as a whole will encourage you to see emerging business forms as taking advantage of new technologies and increasingly adopt network postures. At the same time, middle management function will be less concerned about making inhouse or outsourcing, but will replace internal administration tasks with the roles of information integrator and entrepreneur.

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## Assignment



### Assignment

1. Consider the two models of business transformation we have just examined in this module. What do you see as the major differences between them? Try to identify at least three major issues here.
  - a. Do you think one model is better than the other?
  - b. Are the models useful?
2. In this module we have looked at the impact of organisational transformation (the move towards the extended enterprise as an extraprise or virtual organisation) on people and processes.
  - a. What do you see as social consequences for the future if these changes come to pass?
  - b. Should we be making changes now to the way we view employment?
3. Many organisations have embraced the concept of outsourcing in the last decade but have found that there were problems which they had not considered. Some organisations have now gone as far as to revert to in-sourcing to overcome these problems.
  - a. What do you see as problems?
  - b. How might these be overcome?
4. Using the planning guide presented in Figure 4.4 try and chart your own organisational activities. You will find it helpful to apply a strategic analysis tool such as the competitive forces model to identify specific systems which might lead to competitive advantage and then evaluate these against the model to identify internal capabilities to perform these activities.



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## Case Study Reading 4.1



Case study

### **Case Analysis – Amazon.com – A Business History.**

Please go to Case Study 4.1 *Amazon.Com- A Business History* by Sandeep Krishnamurthy and answer the questions posed in the text.

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# Assessment



## Assessment

1. Explain the difference between a Knowco and a Physco and give an example of each.
2. Consider each of the following three cases and identify for each how they should leverage ICT for e-business advantage. You should consider each of the four questions posed in the stage model we have just explored.
  - a. Company A is end consumer focused and sells directly to the general public from its own stores.
  - b. Company B has many suppliers, and efficiency of supply and purchasing is a key differentiator in this industry. They are the major player in Asia and in the top ten internationally.
  - c. Company C is an information service provider and is growing rapidly. Its strength is its professional staff, and they have a strong culture of shared information.
3. Damsgaard, J. and Scheepers identify three crises which need to be managed – what are these?
4. The four stages of implementation need very different strategies and skills (seven Ss) - explain why this is so and how will this impact on the management of implementation?
5. Is the integrated model useful to managers?
6. What are the advantages and disadvantages when a nation such as the U.S. outsources work to a nation such as India? What are the social implications, if any?
7. In 2002 most countries of the European Union moved to the Euro as a common currency.
  - a. What impact do you think this will have on business in Europe and business globally?
  - b. What do you see as the people issues in the adoption of a common currency?
  - c. Would you support the adoption of a global currency? Why or why not?



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