

CHAPTER 10

VIRTUAL MARKETSPLACE

LEARNING OUTCOMES

When you have read and worked through this chapter, you will be able to:

- **Appreciate the opportunities provided by the virtual marketplace**
- **Appreciate the theoretical and practical aspects of the virtual organization**
- **Understand the concept of virtual teams**
- **Appreciate the importance of trust when working virtually**

INTRODUCTION

The growth of the Internet has created opportunities for organizations to design new forms of arranging work, such as collapsing boundaries between supplier, customers and the internal organization. The highly turbulent environment makes it imperative for management to identify the key attributes and processes required for competitive advantage. This book has considered e-commerce as the main driving force behind organizational transformation. The ability to perform transactions in the virtual marketplace has been one of the central themes throughout the book.

In Chapter 1 the focus was on the Internet as a business driver, Chapter 2 considered the online transaction process from the supplier to the customer. Chapter 5 examined business models and organizational aspects were considered in Chapter 6. Marketing issues have been considered in Chapter 7 with Financial issues in Chapter 8. This chapter seeks to amalgamate some of the issues already discussed in the book, by considering the implications of virtuality. Organizations possessing an e-business operation have had to radically transform organizational processes. To obtain sustainable competitive advantage, it is necessary to identify the key facets of the intra- and inter-organizational aspects of virtual organizations. This chapter seeks to contribute to the theoretical and practical understandings of virtual organizations with emphasis on virtual marketplace, virtual teams and trust.

VIRTUAL MARKETSPLACE

The importance of virtual marketplace or cybermarkets has spread from society to society (Venkatesh, 1998). This diffusion of online activity has been illustrated in Chapter 1, with the Internet Industry Almanac stating that the number of Internet users surpassed 530m in 2001 and will continue to grow strongly in the next five years. This growth will be fueled with online developments in Asia, Latin America and parts of Europe. Moreover, by the end of 2005 the number of worldwide Internet users will double to 1.12 bn with increasing numbers of Internet users using wireless devices such as Web-enabled cell phones and PDAs to go online.

Businesses hoping to expand their activities onto the Internet are currently re-engineering or refining their products and services in order to take advantage of the new opportunities, as well as face the new challenges. Nevertheless, despite the Internet providing alternative

Key Term...**ICDT model**

The ICDT model (see Figure 10.1) proposed by is a systematic approach to the analysis and classification of salient business-related Internet strategies

Key Term...**Netoffer**

The NetOffer model developed through case study analysis has made a worthy contribution to the development of Internet offerings. The NetOffer model consists of two elements: customer participation and communication

channels for exchanging information, communicating, distributing different types of products and services and initiating formal business transactions, managers need help when classifying their product/service offerings. The following sections consider two frameworks that have made a contribution to the literature, the **ICDT model** (Angehrn, 1997) and **NetOffer model** (Gronroos, Heinonen, Isoniemi and Lindholm, 2000).

Information, Communication, Distribution and Transaction (ICDT) model

Ideally a firm's activities in a majority of virtual marketspaces should be aimed at increasing overall profitability, which can be achieved either

- By increasing revenues:
 - broadening the customer base (by acquiring new customers)
 - increasing the average spend by customers (through enhancing product/service offerings)
 - increasing the number of customer transactions (by enhancing re-purchase convenience)
- Or by decreasing costs:
 - reducing new service/product development costs
 - improving marketing effectiveness
 - improving inventory management
 - reducing process costs

The ICDT model (see Figure 10.1) proposed by is a systematic approach to the analysis and classification of salient business-related Internet strategies. The ICDT Model is generic and has been used to diagnose the Internet 'maturity' strategies of sectors, such as banking (Angehrn & Meyer 1997). It serves as a framework for segmenting the virtual market space into four distinct areas: virtual information space, virtual communication space; virtual distribution space; and virtual transaction space.

Virtual information space (VIS)

The virtual information space was the dominant development during the first phase of the Internet, as it provides an opportunity to obtain visibility on the Internet. Economic agents can exploit the information space and get prospective customers to convert their interest into action. It offers a variety of channels but remains a one-way communication channel.

Virtual communication space (VCS)

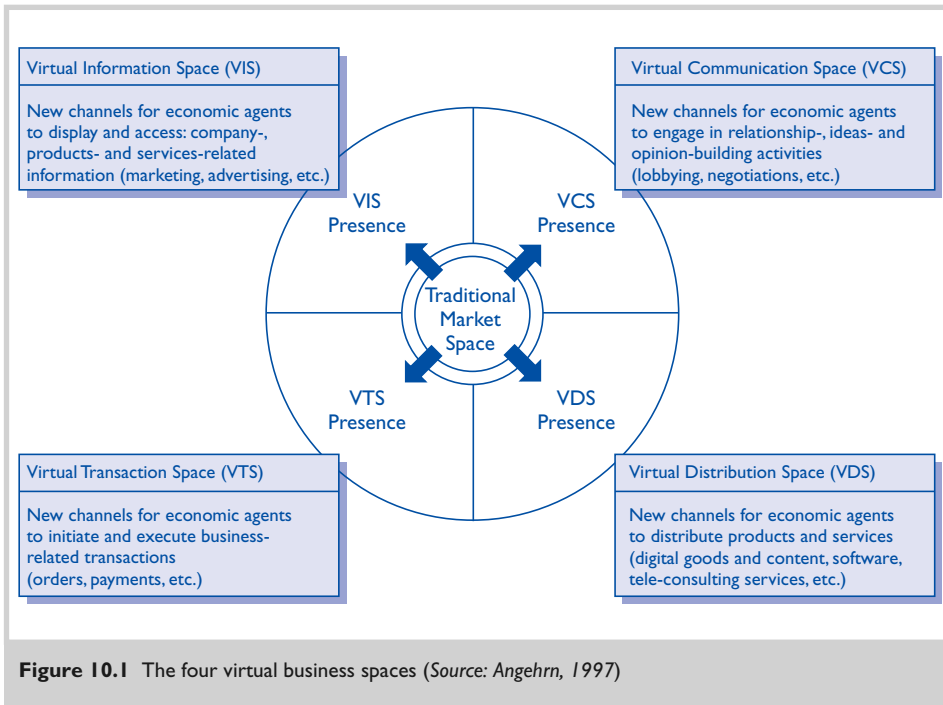
The virtual communication space is the quadrant that has attracted the least attention of companies. VCS provides new opportunities in which economic agents can interact. Organizations can exchange information with the various stakeholders in their business, their suppliers, customers and business partners. However, unlike the information provision activity in the information space, communication is now a two-way medium.

Virtual distribution space (VDS)

The virtual distribution space is the channel that provides the medium for the distribution of goods and services. As with the traditional postal service, there are limitations on what can be delivered. Those goods and services that can be digitized and that possess high information content, such as digitized media (e.g. books, music, software) and non-physical services (e.g. consulting, technical support, education, financial services) are best suited.

Virtual transaction space (VTS)

The virtual transaction space provides a conduit for economic agents to exchange formal

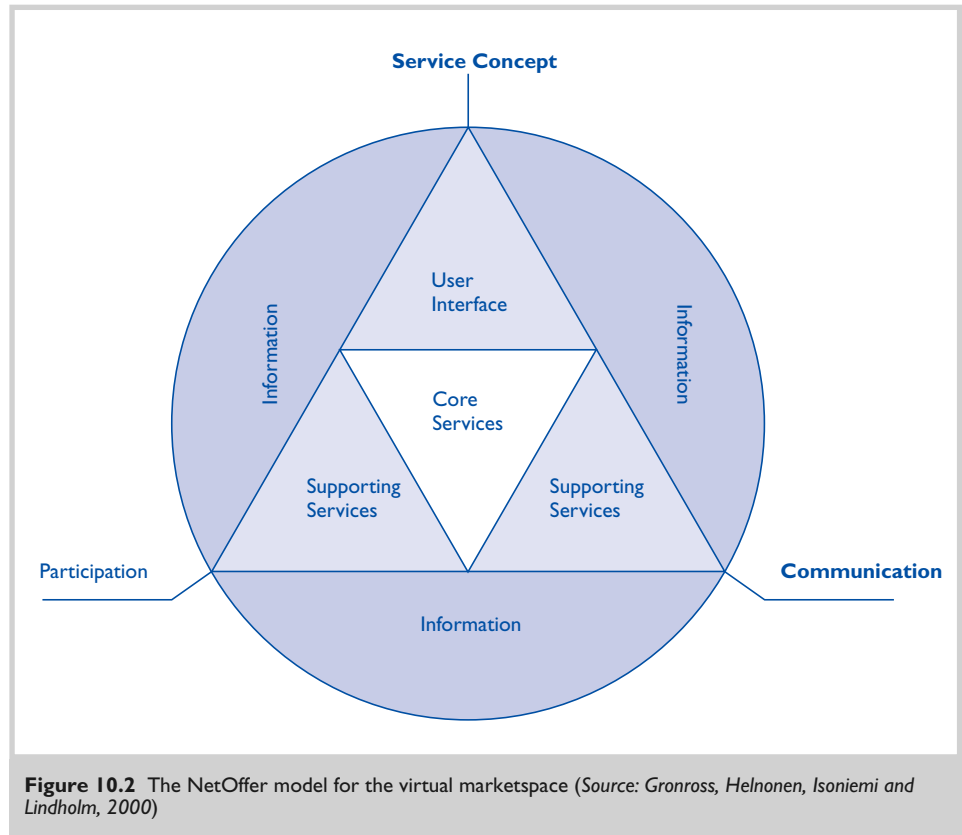


business transactions, which can include taking orders, sending invoices and receiving payment. A good analogy is financial stock exchanges, where goods and services are not physically transferred, but orders, commitments, invoices and payments are exchanged in the virtual marketplace.

NetOffer model

Building on the Grongross Augmented Service Offering model (Grongross, 1990), the NetOffer Internet model (see Figure 10.2) was postulated as being a useful framework for virtual marketplace (Gronroos *et al.*, 2000). The NetOffer model, developed through case study analysis, has made a worthy contribution to the development of Internet offerings. Gronroos *et al.* (2000) sought not only merely to test hypotheses but to develop a richer understanding about Internet offerings. They concluded that Internet offerings (goods or services) are processes that should lead to an outcome. Hence, the quality of an Internet offering is dependent on the perceived quality of the process of using the Internet as a purchasing and/or consumption instrument, as well as on the perceived quality of the outcome. Therefore, regardless of whether the organization offering is a service or good, buying in a virtual marketplace should be characterized as service consumption, splitting into two dimensions, process quality and outcome quality.

The NetOffer model consists of two elements: customer participation and communication. Customer participation relates to the skills, knowledge and interest of customers at the user interface. The user interface is important as accessibility and interaction elements merge into a communication element, which can only be facilitated through a well-functioning interface between the user and the computer. This element allows customers to communicate with the organization. By improving communications, the functional/process quality of the Internet offering (the how factor) is enhanced and the customer is able to perceive the technical/outcome quality of what is offered (the what factor).



VIRTUAL ORGANIZATION

The use of interorganizational systems, such as electronic data interchange and Internet-based extranets, enable new types of collaborative alliances between separate trading partners. These present additional B2C and B2B opportunities and successful adoption of these interorganizational systems will become a competitive necessity. Understanding how to best leverage the benefits from these IT-enabled alliances may mean the difference between industry dominance and industry exit.

As organizations take advantage of the networked economy, **virtual organizations** have been advocated during the last decade as a new paradigm of organization design. Organizational members can be separated by geographic boundaries or they can work in close proximity, but complex projects require collaboration and working across boundaries (Larsen and McInerney, 2002). Virtual organizations can be used in a variety of settings to enhance the efficiency and effectiveness of systems and to motivate managers and participants to reflect on organizational goals (Khalil and Wang, 2002).

The term ‘virtual organization’ was first coined by Mowshowitz (1986) and became a buzzword during the 1990s. Larsen and McInerney (2002) cite the definition of virtual organization advocated by Bultje and van Wijk (1998):

“A virtual organisation is primarily characterised as being a network of independent, geographical dispersed organisations with a partial mission overlap. Within the

Key Term...

Virtual organization

A virtual organization is primarily characterized as being a network of independent, geographical dispersed organizations with a partial mission overlap

ILLUSTRATIVE EXAMPLE I

Stitches in time – www.forbes.com/global/1999/0906/0217038a_print.html

Leonard Rabinowitz runs Carole Little, a women's clothing outfit in Los Angeles. He had a problem. It was losing money and needed to shift more of its apparel manufacturing overseas to survive. But the company didn't have the resources to set up and manage a worldwide production network

"I can't afford to have somebody sitting in Mauritius making sure the colors are right and the factory is producing on time," Rabinowitz explains. "You can't do that when you're a \$200 million company."

This year he made some radical moves. He shut Carole Little's Hong Kong buying office and outsourced 80% of purchasing and production management to Hong Kong's Li & Fung Ltd. Rabinowitz estimates that the move will save \$4 million a year in costs and help return his privately held fashion firm to profit this year after four years of losses. He says, "Li & Fung was a godsend for me."

For him and for a lot of other American and European private-label merchandisers. Through its network of 45 offices in 31 countries, Li & Fung supplies apparel for every division of the company: kidswear for Gymboree, noncosmetic goods for Avon Products, home items for Bed Bath & Beyond, clothing for Abercrombie & Fitch and Reebok and consumer items for Warner Bros. retail shops.

In an age when the Internet is supposedly going to eliminate the middleman, here's a middleman, an old Asian trading company, that has made itself indispensable.

When Roger Markfield, president and chief merchandising officer of American Eagle Outfitters, joined the burgeoning Pittsburgh, Pennsylvania-based private-brand retailer in 1993, one of his first acts was to outsource supply-chain management to Li & Fung. Formerly at the Gap, he'd known the Hong Kong company's controlling shareholders, the Fung brothers, Victor and William, since 1977. "They're the most efficient trading merchants in the business," Markfield says. "They have the capability to do sourcing worldwide better than we can."

And the Fung brothers know how to turn a profit. Since Li & Fung Ltd. went public on the Hong Kong Stock Exchange in 1992, the trading house's earnings have compounded at 26% a year and the stock is up tenfold. Goldman, Sachs' Tristan Tian-Yu Chua estimates the company will earn \$73 million after tax this year on revenues of \$2.2 billion and achieve an eye-popping return on equity of 50%. Chua forecasts that earnings will double again from 1998 to 2001.

The Fung brothers effectively own about 48% of Li & Fung Ltd., mostly through their holding company, Li & Fung 1937, in which South Africa's Oppenheimer family has a 26% stake. Toss in Victor's holdings in Prudential Asia plus Li & Fung's private consumer-goods distribution and retail operations in Asia (which include Toys "R" Us and Circle K franchises) and the Fungs are easily billionaires.

Their grandfather, Fung Pak-liu, took some meager savings from his job teaching English to cofound the company in 1906. Li & Fung was an export trading company in Guangzhou, a city 120 miles northwest of Hong Kong, in the waning days of the Qing Dynasty. One of the first Chinese-owned trading houses, Li & Fung exported porcelain, fireworks, jade handicrafts and silk, mainly to the U.S. In 1937 the firm incorporated in Hong Kong—hence the holding company name—to take advantage of the British colony's oceangoing ships.

Then came World War II and, soon afterward, communism's bamboo curtain. China

trade disappeared. Fortunately, Hong Kong was industrializing and becoming a competitive manufacturer of labor-intensive consumer goods.

"My father [Fung Hon-chu] reinvented the company to export what Hong Kong produced," explains William. "We lost China as the hinterland but gained 1.5 million refugees, who provided a labor pool." Li & Fung became a big exporter of garments, toys, wigs and plastic flowers.

Hon-chu gave his sons the best education money can buy. William, 50, graduated from Princeton and Harvard Business School; Victor, 53, earned two engineering degrees from MIT and a Ph.D. in business economics from Harvard. He also taught at Harvard Business School and became a U.S. citizen.

By the early 1970s the trading business was beginning to struggle, and Hon-chu called his boys home to help. Now Taiwan and Singapore were competing with Hong Kong. Li & Fung's broker role was being squeezed by both manufacturers and importers.

"My grandfather got a 15% commission basically because the buyers didn't speak Chinese and the sellers didn't speak English," recalls Victor, the listed company's non-executive chairman. "My father got 10%. We were getting 3% and all of our friends said, 'Why get into a sunset business?'"

So the Fung brothers set about remaking the company. First, they extended Li & Fung's buying network to Taiwan, Korea, China (open for business again) and Southeast Asia. "In many ways the Li & Fung story is the story of Hong Kong," explains Victor, who is also chairman of both Hong Kong's Trade Development Council and its Airport Authority. "Hong Kong has now become a real value-added nerve center offering services that support a manufacturing base which pervades the whole region."

Today Li & Fung buys from more than 2,000 factories around the world and supplies about 400 customers. Mexico, Honduras and Guatemala, for example, mostly serve the U.S.; Turkey, Egypt and Tunisia supply Europe. A fourth of Li & Fung's volume is in hard goods like toys, gift items and sporting goods, the balance in textiles and garments. One of Li & Fung's functions is to inspect factories in developing countries to ensure that they comply with rules in importing countries on environmental standards, child labor and prison labor.

But the Fung brothers aspired to more than just chasing the latest low-cost producer: China today, Bangladesh tomorrow. Explains William: "For labor-intensive consumer goods, where the technological barriers are low, there's always another country or factory that's going to be cheaper than you."

Victor: "We turned the whole thing into a concept of managing the supply chain. We orchestrate this great big network, from yarn to fabric to garments, moving to shipping and warehousing."

Li & Fung typically takes a product design, say, a toddler's outfit from Gymboree, and plans and manages global production and supply lines. This includes finding raw materials and fabrics, contracting production, conducting quality assurance and factory inspection, supervising the logistics of exporting, delivering on time and wading through the byzantine country-of-origin import quotas imposed by the U.S. and Europe.

Competitors? There are surprisingly few. The strong suit of William E. Connor & Associates, a closely held, American-owned, Hong Kong-based trading company, is large department store customers, such as Nordstrom and Dillard's, while Li & Fung focuses more on specialty store chains. Some private-label chains, such as the Gap (a former Li & Fung customer), take their buying back in-house when they grow to a certain scale.

For their efforts, the Fungs are rewarded with commissions of 5% to 8% on apparel and 7% to 12% on hard goods. Their spread is easily carved out of the wide-open spaces in the distribution channel: If a product costs \$1 at the factory in Sri Lanka it will be

priced at \$4 or more by the time it reaches the retail shelf. The Fungs earn their keep with their skills at operations research, optimizing results such as price, quality and production lead time, subject to constraints like shipping costs and labor rates.

Explains Victor: "I'm creating products that did not exist before, [for example] a product that is made from Korean yarn, Taiwanese dye and accessories from China, all sewn together in Thailand." Maybe an item is supplied from five different Thai factories. When it hits the retail shelf in the U.S., it must look as if it came from one factory.

Li & Fung's brisk growth is driven by several trends in fashion and retailing. Private labels are proliferating, and retailing is becoming more global. Retailers are more disposed to contracting out their overseas buying, and they want to buy smaller batches of merchandise on a shorter cycle. That cuts end-of-season markdowns.

Warner Bros. is setting up stores worldwide, so it is supplied globally through numerous Li & Fung offices. Reebok manages footwear production itself, while outsourcing its apparel line to Li & Fung; Avon handles cosmetics, but farms out giftware to Li & Fung. Speed is of the essence. When the Limited reorders a hot item, Li & Fung can arrange production and have it on the shelves in the U.S. within five weeks.

Is the Internet going to put the Fungs out of a job? Doubtful. "The Internet is a storefront," says Victor Fung. "It can't orchestrate the whole supply chain." It also is no match for the Fung brothers' personal touch. Says American Eagle's Markfield, "They're gracious and warm, but very, very aggressive."

network, all partners provide their own core competencies and the co-operation is based on semi-stable relations. The products and services provided by a virtual organisation are dependent on innovation and are strongly customer-based”.

Virtual organizations have been widely debated within academic and popular communities, and some authors have created a variety of different terms and definitions to describe this new organizational paradigm, such as virtual company (Goldman, Nagel and Preiss, 1993), virtual enterprise (Hardwick, Spooner, Rando and Morris, 1996) and virtual factory (Upton and McAfee, 1996). All these authors identified ICT as a prerequisite, facilitator or even the core of the new emerging virtual organization paradigm (Franke, 2001). Interestingly, the virtual organization does not need to constitute organizational design in the traditional sense and can embrace a variety of new ways of working together (Kasper-Fuehrer, Ashkanasy and Neal, 2001).

Venkatraman and Henderson (1998) reject the notion that the virtual organization is a distinct structure (like functional, divisional, or matrix). Instead, they treat virtualness as a strategic characteristic applicable to every organization. They view virtualness as a strategy that reflects three distinct yet interdependent vectors:

- The customer interaction vector (virtual encounter) presents opportunities for B2C interactions. E-business allows customers to remotely experience products and services and actively participate in dynamic bespoke enhancement of products/services and online communities.
- The asset configuration vector (virtual sourcing) relates to the vertical integration in a business network, in sharp contrast to the vertically integrated model of the industrial economy. As discussed in Chapter 2 organizations using the Internet for B2B transactions can structure and manage a dynamic portfolio of relationships with customers.
- The knowledge leverage vector (virtual expertise) focuses on the provision of diverse sources

of knowledge within and across organizational boundaries. IT is an enabler that allows organizations to enhance the intellectual capital of the organisation.

Jansen, Steenbakkers and Jagers (1999) indicate that, although there is a relationship between virtual organizations and e-Commerce, the relationship is not completely unequivocal. They assert that there are two reasons for the emergence of virtual organizations, these being an increasing need for flexibility and the need for greater efficiency. An organization may have a number of characteristics that can be used to assess its virtuality. These include:

- Boundary crossing
- Complementary core competencies/pooling of resources
- Sharing of knowledge
- Geographical dispersion
- Changing participants
- Participant equality
- Electronic communication

A virtual organization typically has minimal formal structure and is a practical grouping to address a particular business proposition. The focus of design can be on (intraorganizational) or between (interorganizational) issues. Another way of analysing the virtual organization is to ask to what extent do virtual organizations resemble traditional organizations? Previous researchers have argued that the difference is largely one of decentralization versus centralization, non-hierarchical versus hierarchical. Interestingly, Ahuja and Carley (1998) find this distinction misleading. They found evidence of both centralization and hierarchy in a virtual organization. Therefore, Ahuja and Carley (1998) speculate that the issue is not merely about centralization and/or hierarchical, but the identification of the optimal form for specific tasks.

Jansen, Steenbakkers and Jagers (1999) then contrast the two different types of virtual organizations – stable and dynamic, which are illustrated in Table 10.1. Interestingly Bultje and van Wijk (1998) identified four different sub-concepts of virtual and make the following distinctions:

- *Unreal, looking real* – the virtual organization has the appearance of a traditional company, but in reality this company does not exist, as it is only an amalgamation of independent network individuals.
- *Immaterial, supported by information and communication technology* – in this instance, the virtual shopping mall does not really exist, as it is only created by data.
- *Potentially present* – relates to the instance when the attribute of an organization does not exist, but has the possibility to exist.
- *Existing but changing* – the organizational unit exists, but the composition of partners is temporary.

Khalil and Wang (2002) assert that virtual organizations can be deployed in a range of organizational settings to enhance the efficiency and effectiveness of systems. Using IT, virtual organizations have replaced traditional, unitary forms with contractual relationships and provide management with maximum flexibility in response to market changes. The task of managing virtual organizations is called meta-management and, according to Khalil and Wang, meta-management provides a systematic approach to the exploitation of organizational resources. Meta-management has two major characteristics, when compared with traditional organizations. First, organizational goals must be explicit, with

	Stable VO	Dynamic VO
Duration of co-operation	Permanent	Temporary
Boundaries	Clearly defined	Vague/fluid
Based on opportunism	No	Yes
Based on ICT	Possible	Possible
Core partners	Obvious	No
<i>(Source: Jansen, Steenbakkers and Jagers, 1999)</i>		

Table 10.1 Some characteristics of stable and dynamic virtual organizations (VO)

intangible goals such as subjective loyalty to the community not being apt in a virtual organization. Second, the key task in meta-management is the preservation of temporary relationships. According to Khalil and Wang, the salient unique functions for meta-management functions are:

- New information technology adoption of IT is an important attribute of meta-management. Information filtering, knowledge acquisition and case matching are examples of organizational requirements in an e-commerce environment.
- Organizational learning is becoming an imperative, and the application of methodologies to generate and leverage knowledge faster and more effectively is becoming a promising new management practice.
- Co-ordination of sub-units of virtual organizations is becoming a major task of meta-management. In the absence of physical supervision, trust is often advocated as control component.
- Organizational redesign is necessary in organizations as some migrate towards virtualness. While this may not be such a problem if the virtual organization is new, organizational design in existing virtual organizations will be much more difficult.

The new economy thrives on networking, with technology providing the medium for rapid communication among those with common interests and individual users providing the stimulus growth. It is argued that the virtual organization is greater than the sum of its parts and this synergy presents a mutually beneficial opportunity for everyone. Therefore, some organizations prefer to focus on virtuality, rather than being formalized. Reasons cited include:

- The cost of a formal structure may be too high.
- In times of rapid change it may be necessary to develop transitory structures.
- Formal alliances may prove insuperable.
- Organizations need to transact beyond traditional boundaries.

Virtual team

The concept of the **virtual team** is not clearly defined and sometimes overlaps with the notion of the virtual organization. A virtual team can be seen essentially as a project- or task-focused group. The virtual team may be drawn from the same organization, (e.g. marketing manager and financial accountant) or from several different organizations, (e.g. when projects involve consultants or external assessors). Virtual teams can maintain relationships by using e-mail or teleconferencing and work by phone, fax or compressed video (Larsen and McInerney, 2002).

Key Term...

Virtual team

A temporary, culturally diverse, geographically dispersed, electronically communicating work group

ILLUSTRATIVE EXAMPLE II

Exostar strengthens global leadership position with addition of Rolls-Royce as fifth founding partner

Paris – Le Bourget (Hall I Stand E40)(June 15, 2001) – Exostar, an independent, global eMarketplace for the \$400 billion aerospace and defense industry, announced today at the Paris Air Show that Rolls-Royce has become the consortium's fifth founding partner

Rolls-Royce's significant financial investment in Exostar gives the company ownership parity with Exostar's four previously announced founding partners: BAE SYSTEMS, Boeing, Lockheed Martin, and Raytheon. "The addition of Rolls-Royce to Exostar's founding partners makes an already impressive consortium even stronger," said Exostar's Non executive Chairman, Paul Kaminski.

Rolls-Royce's decision to become a founding partner and governing investor follows an exhaustive competitive analysis of all major players in the aerospace and defense e-commerce industry and completion of a thorough due diligence process with Exostar.

Rolls-Royce Chief Executive John Rose stated, "Exostar will allow us to reduce material and procurement costs, shorten lead times and reduce our inventory. It will also enable us to collaborate more effectively with partners on designs for future projects. Exostar will allow design teams to hold shared, secure information which can receive input from around the world. This will allow us to bring ideas to life in the marketplace more quickly, enabling a rapid response to customer requirements."

Kaminski added, "The addition of Rolls-Royce enhances our value proposition to the common supplier base of all founding partners through system standardization and reduced reliance on manual data entry in a secure, reliable platform. Exostar's product and service offerings, backed by strong support among the founding partners, have enabled us to become the clear leader among aerospace and defense exchanges."

Another founding partner noted that the addition of Rolls-Royce to Exostar will further extend the consortium's reach outside North America. "We're delighted to welcome Rolls-Royce to the Exostar family," said Rod Leggetter, Group Procurement and IT Director of BAE SYSTEMS. "Having two of the leading European based aerospace companies on board will significantly strengthen Exostar's European presence. With this new partner comes a new supplier base and strategic focus, broadening Exostar's reach even further across the industry, providing a standard procurement and collaboration solution for over 40,000 suppliers."

Over the next two years, Exostar plans to connect over 250 procurement systems currently used by the five founding partners in 20 countries. Approximately 4,000 suppliers have been activated so far. Exostar already has implemented exchange interoperability with CommerceOne.Net and is in discussion with other industry exchanges.

Exostar, a global eMarketplace owned and operated as a separate company, represents the cooperative efforts of some of the world's largest aerospace and defense companies—BAE SYSTEMS (LSE: BA), Boeing (NYSE: BA), Lockheed Martin Corp. (NYSE: LMT), Raytheon Co. (NYSE: RTN, RTNB), and Rolls-Royce (LSE: RR)—its five founding members. Using a secure and open environment, Exostar provides Internet-based products and services that connect manufacturers, suppliers and customers of all sizes, around the world, for trade [using Commerce One (NASDAQ: CMRC) technology], and collaboration [using PTC (NASDAQ: PMTC) technology]. Rolls-Royce Corporation

announced on the 13 February that a cross-functional team including Exostar, CommerceOne and EDS has brought over 180 suppliers online in under three months to transact business electronically through Exostar's SupplyPass product.

Documents being transmitted are electronic planning schedules, goods receipt reports and invoice documents.

The team membership may be relatively stable (e.g. an established finance team) or change on a regular basis (e.g. project teams). Jarvenpaa and Leidner (1998) define a global virtual team to be a temporary, culturally diverse, geographically dispersed, electronically communicating work group (Figure 10.3). One of the core characteristics of a virtual team is the ability to link the culturally diverse and globally spanning activities so that members that can think and act in alignment with the diversity of the external environment. Further distinctions can be made relating to physical proximity (i.e. the team could be co-located and could be geographically separated) and to different time zones.

Ahuja and Carley (1998) assert that, in addition to managing formal reporting relationships, it is important to monitor and manage communication structures. Moreover, managers should not always assume that non-hierarchical communication structures are necessarily more effective than hierarchical structures. Attention should be placed on aligning the communication structure to the task characteristics. When a virtual team has a rudimentary task, a hierarchical structure may be preferable, because hierarchies provide efficient and economical forms of communication.

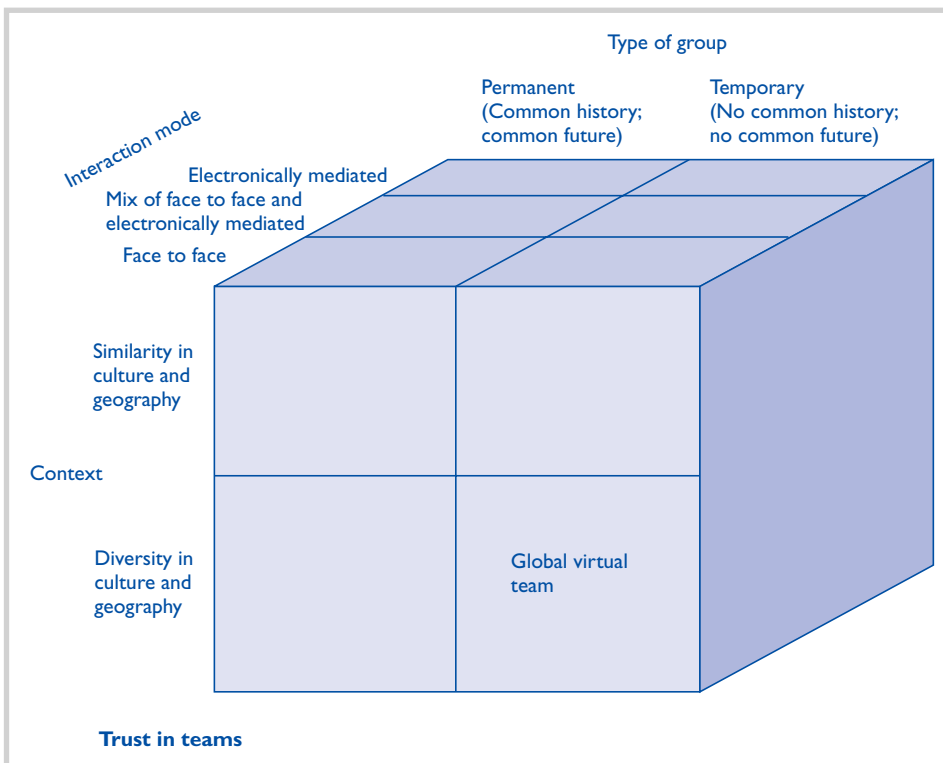


Figure 10.3 Global virtual team – trust in teams (Source: Jarvenpaa and Leidner, 1998)

When designing teams and their optimum structure for a particular task, it is not always easy to replicate the structure repeatedly. It must be borne in mind that designers should try to preserve organizational memory by retaining individuals who are at the centre of key information exchange networks.

Managers should monitor communication structures and design reward structures so that individuals acting as knowledge centres on specific topics can be retained and promoted. There should be a built-in reward structures that provide incentives for workers to exchange and share their expertise with other members of the organization. Furthermore, it is critical to develop members so that replacements are found as individuals are promoted, so that the communication structures can remain stable.

Interestingly, Ahuja and Carley (1998) found that objective performance was not influenced by task and structure fit. This could suggest that not all tasks are equally suitable for being performed in a virtual organization. Therefore, it is imperative that managers consider which tasks would benefit from a virtual environment prior to such an environment being launched. Tasks that need a high degree of expertise, are competence-based, require information and communication and utilize distributed resources may be particularly suitable.

Key Term...

Trust

Trust is most important in new and temporary organizations, as it acts as a substitute for the traditional mechanisms of control and coordination

Trust

As discussed previously, the business world is rapidly changing and one of the crucial implications of the virtual organization is that an individual may work with other members in a team who they have never physically seen. Working virtually makes communication a complex issue and trust is seen as a linchpin of success. Jarvenpaa and Leidner (1998) argue that trust is most important in new and temporary organizations, as it acts as a substitute for the traditional mechanisms of control and co-ordination. This is supported by Luo (2002), who states that trust plays a crucial role in electronic markets that possess high uncertainty and lack of legal protection.

Jarvenpaa and Leidner (1998) interestingly asked the question whether trust can exist in global virtual teams. Factors such as shared social norms, repeated interactions and shared experiences as necessary elements to facilitate the development of trust have been cited by a variety of researchers (Bradach and Eccles, 1988; Lewis and Weigert, 1985; Mayer, Davis and Schoorman, 1995). Promotion of trust and co-operation in the anticipation of deeper relationships has also been highlighted (Powell, 1990). The expectation of future association is higher among group members who are co-located than among physically dispersed members. Co-location, or physical proximity, is said to reinforce social similarity, shared values and expectations and to increase the immediacy of threats from failing to meet commitments (Latane *et al.*, 1995). In addition, face-to-face encounters are considered irreplaceable for both building trust and repairing a breakdown of trust (Nohria and Eccles, 1992; O'Hara-Devereaux and Johansen, 1994).

Some practical implications can be drawn from previous studies. For the manager of a virtual team, one of the factors that might contribute to smooth co-ordination early in the existence of the team is a clear definition of responsibilities, as a lack of accountability may lead to confusion and frustration. Providing guidelines on how often to communicate and, more importantly, inculcating a regular pattern of communication will increase the predictability and reduce the uncertainty of the team's co-ordination. Furthermore, ensuring that team members have a sense of complementary objectives and share in the overall aim of the team will help prevent the occurrence of desultory participation.

Trust Mechanism	Basis of Trust	Source of Trust	Solution to Privacy Concern	Example of E-business	Managerial Implications
Characteristic-based	Tied to person ascribed	Family, community, clan membership	Likely	Covisint, Boschtools.com, baby-center.com	Trust and brand loyalty is enhanced through e-community. B2B firms can enhance trust through strategic alliances
Process-based	Tied to repeated purchases or expected exchange	Reputation, brands, gift-giving	More likely	Dell.com, Honda.com Virtual vineyard	Provision of free gifts and extra advice will enhance trust. B2B firms may use an exchange to enhance trust
Institutional-based	Tied to formal social structure	Signals/cues	Most likely		Institutional-based trust provides a useful infrastructure
Person/firm specific		Professional, firm associations		Verisign.com, Trust-E, BBB online	Online vendors should acquire institutional-based trust
Intermediary mechanism		Bureaucracy, banks, regulation		MoneySave.com, E-cash.com	Online intermediaries should acquire institutional-based trust
(Source: Luo, 2002)					

Table 10.2 Three trust-building mechanisms

Chapter 7 provided an overview on how organizations can gain and sustain online competitive advantage. However, despite projections that the online retailing market will continue to grow rapidly, with IDC (www.idc.com) predicting that by the end of 2002 more than 600 million people worldwide will have access to the Web, security and privacy issues still remain a obstacle to success. Therefore, any theory that can provide some guidance as to how to identify salient obstacles to trust should be embraced by practitioners and academics. An interesting framework (see Table 10.2) postulated by Luo (2002) provides a useful overview. Blending the theories from relationship marketing and social exchange theory, Luo (2002) identified three mechanisms that help increase customers' trust of e-commerce and decrease privacy concerns: characteristic-based (e.g. community); transaction (e.g. repeated purchases); and process-based (e.g. digital certificates).

SUMMARY

This chapter seeks to amalgamate some of the issues already discussed in the book, by considering the implications of virtuality. Organizations possessing an e-business operation have had to radically transform organizational processes. To obtain sustainable competitive advantage, it is necessary to identify the key facets of the intra- and inter-organizational aspects of virtual organizations. This chapter seeks to contribute to the theoretical and practical understandings of virtual organizations with emphasis on virtual marketspace, virtual teams and trust.

Virtual marketspace

ICDT model

The ICDT model serves as a framework for segmenting the virtual marketspace into four distinct areas: virtual information space; virtual communication space; virtual distribution space; and virtual transaction space.

NetOffer model

Building on the Grongross Augmented Service Offering model (Grongross, 1990), the NetOffer Internet model was postulated as being a useful framework for virtual marketspace (Gronroos *et al.*, 2000). The NetOffer model consists of two elements: customer participation and communication.

Virtual organization

As organizations take advantage of the networked economy, virtual organizations have been advocated during the last decade as a new paradigm of organization design. Virtual organizations have been widely debated within academic and popular communities and some authors have created a variety of different terms and definitions to describe this new organizational paradigm, such as virtual company (Goldman and Nagel, 1993), virtual enterprise (Hardwick *et al.*, 1996) and virtual factory (Upton and McAfee, 1996).

Virtual team

The concept of the virtual team is not clearly defined and sometimes overlaps with the notion of the virtual organization. A virtual team can be seen essentially as a project- or task-focused group. Jarvenpaa and Leidner (1998) define a global virtual team to be a temporary, culturally diverse, geographically dispersed, electronically communicating work group.

Trust

The business world is rapidly changing and one of the crucial implications of the virtual organization is that individuals may work with other members in a team who they have never physically seen. Working virtually makes communication a complex issue and trust is seen as a linchpin of success. Jarvenpaa and Leidner (1998) argue that trust is most important in new and temporary organizations, as it acts as a substitute for the traditional mechanisms of control and co-ordination.

DISCUSSION QUESTIONS

1. What do you understand by the term virtual organization? You may find it useful to consider the variety of different approaches that are used to describe virtual organizations.
2. How does a virtual team maintain relationships across geographical boundaries? What are the problems of not maintaining face-to-face contact?
3. Businesses hoping to expand their revenues online are currently re-engineering or refining their products and services. How have the ICDT model (Angehrn, 1997) and the NetOffer model (Gronroos *et al.*, 2000) helped the e-business strategist?

ASSESSMENT QUESTIONS

1. What do you believe are the main differences between traditional organizations and virtual organizations? What do you believe are the major reasons for the emergence of virtual organizations?
2. Why is it important to aligning the communication structure to task characteristics within virtual teams?
3. In your opinion why are communication and trust so crucial in virtual teams?

GROUP ASSIGNMENT QUESTIONS

1. You are required to outline how either the ICDT model (Angehrn, 1997) or the NetOffer model (Gronroos *et al.*, 2000) can assist managers as they design new product/service offerings. You are required to illustrate your discussion with specific examples.
2. Lack of consumer trust has been cited by many analysts as an impediment to the continued growth of the e-business. What do you believe are the major issues consumers face when transacting online? What steps can be taken to enhance consumers' confidence?
3. The importance of virtual marketplace or cybermarkets has spread from society to society (Venkatesh, 1998). You are required to select any organization(s) of your choice to illustrate the emergence of a B2B virtual organization in any sector. You may find useful to look at the Li & Fung Ltd website (www.lifung.com).

MAIN CASE STUDY I – Survey: The real-time economy

Re-engineering in real time – 31 January 2002 – From The Economist print edition – http://www.economist.com/displayStory.cfm?Story_ID=949093

Information technology will transform the company as we know it

It was only early last year that General Electric started to talk about its plan to digitise its entire business, but arguably the whole thing started much earlier, in the mid-1990s. That was when GE launched its “Six Sigma” initiative, the management method on which its redoubtable quest for perfection is based. It is no accident that this effort was first led by Gary Reiner, the company’s chief information officer.

Six Sigma, in essence, is a way of creating a closed-loop system to make continuous improvements in business processes. First, you pick a goal, often customer-related, for instance the time you take to deliver a product, and measure how well you are doing against that goal—not on average, but in terms of variation. Then you try to change the business process in order to reduce that variation as much as possible. If you hit your goal 99.9997% of the time, you have achieved “six sigma”, a statistical term describing the degree of variation. In Six-Sigma parlance, it means your “defects per million opportunities” are down to 3.4.

GE has trained tens of thousands of its managers in Six Sigma techniques, which now makes it much easier for the company to introduce real-time technology. It allows results to be measured easily, and business processes to be adjusted quickly to improve these results. In fact, most of the start-ups mentioned in this survey say that their products are designed for exactly this kind of closed-loop decision-making.

Not many firms will be as prepared as GE to go real-time. Many will have to adapt their culture and the way they do business. And, for better or worse, things are likely to get more quantitative, centralised and ever-changing. Until recently, the corporate spreadsheet—the IT guts of a firm—was shaped mostly by the organisation for which it was designed. Now it is the spreadsheet which in many ways will shape the organisation.

Once again, with more feeling

Not that re-engineering combined with IT is a new concept. In the 1990s, many firms went through a wrenching re-engineering experience, often in parallel with the equally difficult introduction of an enterprise resource planning (ERP) system. But these were one-off efforts usually limited to one company. Real-time technology should make it possible to re-engineer business processes on a continuous basis, and across the boundaries of many firms.

Both authors of the infamous 1993 bestseller “Re-engineering the Corporation”, Michael Hammer and James Champy, have recently written new books. In “The Agenda” (Crown Business, 2001), Mr Hammer emphasises the need to “institutionalise a capacity for change”. Mr Champy, now chairman of consulting at Perot Systems, in “X-Engineering the Corporation” (Warner Books, forthcoming) invokes the increasingly pressing need for “cross-organisational process change”.

At this point, it is anybody’s guess what a typical real-time enterprise will look like. Ray Lane, a partner with Kleiner Perkins Caufield & Byers, predicts that in the long run real-time technology will do away with all the features of a firm that were needed to assure information flow in an offline world: hierarchies, departmental boundaries, paper-shuffling employees. To the former number two at Oracle, this is a tempting prospect because it would empower top executives: they would no longer be isolated from their business by layers of bureaucracy.

Tibco's Vivek Ranadivé, for his part, already has a rather precise vision of what he calls the "event-driven" firm. If he is right, running a company will be rather like managing an IT system today: machines monitor the business, solve problems by themselves as far as possible and alert managers when something is amiss. Mr Ranadivé calls this "management by exception", and to some extent already practises it at Tibco: most of the firm's employees are equipped with a BlackBerry, a wireless device that can receive and send e-mail, so that they can be given warning of an "event" such as an unhappy customer.

The shape of things to come?

How real-time technology may change the nature of the company

Characteristic or practice	Contemporary company	Event-driven company
Business strategy	Long-term strategic plan guides actions	Medium to long-term intent, but short-term planning horizon
Competitive posture	Study and understand your competition	Study and understand your customer
Management style	Consensus-oriented management	Entrepreneurial leadership, star system
Operational focus	Continuous monitoring to achieve quality	Quality is assumed, focus is on exceptional trends and events
Corporate culture	Egalitarian	Meritocratic
Recruiting	Hire team players	Team players are good, but prima donnas bring the greatest value
Implicit company/employee contact	Promise of lifetime employment	Opportunity for lifetime employability
Employee career management	Company manages your career	Employee manages own career
Information technology	Database centric, passive, demand driven	Information centric, active, event driven
Partnership model	Formal or informal <i>keiretsu</i>	Shifting alliances and "co-oppetition"
Corporate anthem	Sousa march	Jazz improvisation

Source: "The Power of Now", by Vivéc Ranadivé

Yet firms are not just paper- and people-based information systems, easily replaced by more efficient digital ones. Some aspects of non-computerised information systems that have developed over hundreds of years will be hard to digitise, not least because they are not always consciously understood, argues Ole Hanseth, the researcher at Oslo University, who is currently studying the way information about x-ray examinations is handled in a hospital. One example of such "hidden" data is the precise way a patient's chart is placed on a desk, which can indicate that the examination is over.

There are similar problems with another theory about the future of the firm: that information technology will slowly but surely deconstruct the company as we know it. According to this view, the fundamental building blocks of the economy will one day be "virtual firms", ever-changing networks of subcontractors and freelancers, managed by a core of people with a good idea. Eric Raymond, one of the intellectual leaders of the open-source software movement, even thinks that the future belongs to the "ex-corporation"—groups of people held together mainly by idealism or desire for self-expression and led by benevolent dictators, similar to today's open-source projects such as Linux.

Such predictions are often based on a one-sided interpretation of the ideas of Ronald Coase, a Nobel-prize-winning economist, says Phil Agre, a professor of information studies at the University of California at Los Angeles. True, he explains, technologies that speed up the flow of information bring down transaction costs, which

should induce companies to do less themselves and outsource more. But Mr Coase also argued that the size of a firm is determined by organising costs, which technology tends to lower as well, so the real-time enterprise might end up being larger than its less nimble predecessors. And there are other forces that keep a firm together. Even the best information flow cannot replace old-fashioned trust and social bonds. Besides, a company might want to keep control of its supply chain to protect its brand and knowledge.

Yet better IT will certainly allow the economy to be reorganised in more efficient ways, giving rise to ever more specialised firms. For instance, if the underwriting department of an insurance company is delivered internally as a web service, it could easily be outsourced or, more likely, offered as a service to others. The electronics industry is at the forefront of this trend. Most big computer makers no longer build what they sell, but outsource production to huge, albeit lesser-known providers of manufacturing services such as Flextronics or Soletron.

Polarising force

The firm as an institution is thus pulled in two directions: to become smaller as well as bigger. Perhaps the economy will one day look like traffic patterns on the Internet. There are a dozen or so websites, mostly portals such as Yahoo! or AOL.com, that attract millions of visitors every day. Then there are millions of websites that are lucky if they get a dozen hits a week. And there is not much in the middle. Similarly, there could be a few dozen giant global concerns that offer more or less standardised services in manufacturing, finance or computer systems which millions of small firms will use.

Much easier to predict than what will happen to the firm is what will happen to contracts. Information technology makes monitoring much cheaper, says Hal Varian, an economics professor at the University of California at Berkeley. And just as good fences make good neighbours, he argues, good monitoring makes good contracts. His favourite example is video shops. Before 1998, they generally paid distributors a whopping \$70 for each tape, which meant that they ordered only small numbers of even the most popular flicks. Now they pay a small charge of \$3–8 up front and then hand over 40–60% of every rental fee. This has become possible because smart cash registers and network connections are now cheap enough for distributors to monitor sales.

In this instance everybody wins: video shops can afford to order many more copies of popular movies from Hollywood, and consumers do not have to wait for them. But the effect of new technology may not always please all concerned. Software such as Siebel's recently released employee-relationship management program allows companies to monitor their employees more effectively, which makes it easier for them to weed out their worst performers. Siebel fires the bottom 10% of its workforce every year.

More and better information will also change contracts with suppliers. Vivecon, a start-up founded by Blake Johnson, a Stanford business professor and former investment banker, has developed software that helps firms manage procurement contracts. For example, should they ask for fixed quantities and prices, or should they have flexible agreements? And what should be the penalty if they want to be released from their commitment?

The aim of the game is to structure agreements with suppliers in a way that lowers cost and risk. A manufacturer hoping to launch a new product for which demand is uncertain may not want to get locked into buying a large quantity of a critical component. It might commit itself to a smaller volume, with a guarantee that more will be available, and pay a bit more per unit.

Vivecon also helps firms to choose the right portfolio of these “structured contracts”, along with long-term relationships with suppliers and spot-market purchases. Hewlett-Packard is already using the start-up’s software and services to manage the procurement of some of its memory chips and electric power. And that is only the beginning, says Corey Billington, who runs HP’s supply-chain services. To him, procurement will increasingly become like trading. Yet looking at Enron, the energy-trading giant which collapsed recently, that might not be such a good idea.

CASE QUESTIONS

Question 1 Why did General Electric use the ‘Six Sigma’ initiative prior to digitizing its entire business? What aspects of computerized information systems are hard to digitize.

Question 2 What general lessons have been learned from previous re-engineering efforts? How will real-time technology affect the features of a traditional organization?

Question 3 Tibco’s Vivek Ranadivé postulates that running a company will be rather like managing an IT system today: machines monitor the business, solve problems by themselves as far as possible and alert managers when something is amiss. Do you agree with this assertion? You are required to support your answer with relevant examples.

MINI CASE STUDY I

What going virtual means for the hotel industry – 12 May 2002 – Tara A. Wenner, Andersen.com staff writer – www.hotelbenchmark.com

With so many businesses taking their operations online, it’s no wonder analysts say e-procurement will quickly become a chief resource for many manufacturers and business owners. The hotel industry is no exception.

Known for its fragmented supply chains and inefficient distribution processes, the hotel industry would benefit from moving procurement and distribution online because of the potential to reduce infrastructure and transaction costs and improve efficiency and audit control.

Through various models, buyers are connected to suppliers and competitors are linked to potential partnerships, allowing the hotel industry to be better equipped to handle business needs.

According to an article by Elizabeth Ngonzi, a Hospitality consulting services manager at Andersen, digital marketplaces are breaking down trade barriers and offering access to hospitality companies of all sizes.

The article also includes estimates from Deutsche Bank, citing a US\$60 billion domestic and \$100 billion international market for hospitality e-procurement, including furniture, fixtures and equipment, renovation and construction, service contracts, operating supplies, and food and beverage. Cost savings from more efficient supply chain transactions are estimated at \$3.5 billion to \$4 billion in the United States and \$7 billion globally.

The future of B2B commerce

E-procurement is quickly becoming an e-business necessity. Experts predict that businesses not using e-procurement measures after 2002 will encounter significant cost disadvantages.

“For a hotel management company, the benefits [of going online] could be huge,” says Yael Nagler, a business consultant in Andersen’s digital markets/e-procurement group. Nagler says management companies (typically managing more than one hotel and franchise) need to find ways to manage the purchasing and brand requirements for each hotel and franchise. An online system with “smart” catalogs that limit, control and/or manage the information that the owner can view will ensure that the property is making purchases within their standards.

On the supplier side, the cost of doing business will decrease, creating higher margins and lower prices for the buyers. If the supplier’s customers were to place all orders online, the warehouses would only need to be staffed with people in charge of packing and shipping, which would be much cheaper than door-to-door sales and account management.

The cutting of costs at all ends is critical right now for the hotel industry, says Michael DiLeva, program director of electronic business-hospitality practice at Unisys, a company specializing in e-business solutions.

Unisys executives argue that within the next two years, 70 percent of all buying and selling will take place through electronic marketplaces, and the hotel industry is among the many that will benefit from its streamlined and cost-effective practices.

“The hotel industry is very fragmented in the decisions processes,” explains DiLeva. “Many chains are just management groups . . . a single hotel doesn’t have the purchasing power like a 2,000 hotel chain.”

DiLeva says that another problem for chain hotels owned and managed by different groups is that purchases like towels, pillows and bedding may not be “on brand” and consistent throughout the chain, which can lead to varying experiences for travelers.

If purchasing is done online, hotels can advocate brand standards and get a better product for a lower price because of aggregate purchasing power, DiLeva argues.

Many hotel chains have already caught on to the buzz surrounding e-procurement. On February 1, Marriott International, Inc. and Hyatt Corp. announced the launch of their independent company, Avendra. The new company provides the largest comprehensive procurement network in the North American market, estimated at \$80 billion annually. Avendra will link purchasers and suppliers and provide hotel owners and operators with a portal that will integrate a full vertical supply chain.

Trends

Nagler points out many different business trends in the hotel industry, including:

- *Direct vs. indirect purchasing.* Currently, the majority of purchasing done online within the hotel industry is considered “direct spend.” Hotels are able to afford direct-spend purchasing online because they keep some inventory in-house. Since the hotel industry does direct spend online, the opportunity for an e-procurement provider is increased.
- *Intranet and other online services streamlined.* Hotel companies are looking to incorporate efficiencies and functionality for a number of areas from the same engine. Nagler gives the example of hotels looking to make their online e-procurement provider also offer intranet services, like document posting and sharing.

- *FFE (furniture, fixtures and electronics)*. FFE and Hotel Design-Franchises are looking to put their concept and franchise development online. For example, if a management company wants to create a new Microtel hotel, company staffers could go to the Microtel web site and access a shopping list of items needed to build, open and operate a Microtel hotel. This would reduce the number of resources necessary from the franchise and would ensure brand standards are met.
- *Future Movement*. The industry is moving toward an “end to end” model which means all systems will be seamlessly integrated. For example, a restaurant’s Point of Sales System (POS) will link the restaurant’s reservations forecast to its kitchen inventory system to its purchasing engine, so the restaurant staff sees their forecast for covers and can view their stock. If the stock is low, the inventory system triggers the purchasing system and generates a “smart” purchase order based on the number of covers forecasted, which would then wait for the approval of the manager to automatically place the order of goods.

From bricks and mortar to the Internet

At this year’s annual UCLA Extension Hotel Investment Conference in Los Angeles, sponsored by Andersen, several industry insiders agreed there will definitely be more web players emerging, and the connection between the bricks and mortar and the online worlds will continue to increase.

So what does this mean for the future of the hotel industry?

According to the “eReal Estate: A Virtual Certainty” study conducted in 2000 by Andersen’s Real Estate and Hospitality Services Group and the Rosen Consulting Group, the “Internet and e-business will have a mixed impact on the hospitality sector, from increased operating efficiencies and the expansion of potential markets, to dramatically stronger pricing pressure on room rates.”

The study also found that Internet tools, such as comparative pricing tools, are being used with more frequency among travelers and corporate travel agents.

DiLeva says the combination of web-enablement and high-speed Internet access will allow the hotel industry to deliver services such as online reservations, room requests and even a virtual room tour that will create a better experience for the traveler.

The transformation to online services from more traditional means of advertising and business operations, say experts, will provide hotel owners and managers with more streamlined operations, resulting in fewer operational costs, better service offerings, happier patrons and more productive business relationships.

Tara A. Wenner is an Andersen.com staff writer based in Chicago.

CASE QUESTIONS

Question 1 Given the nature of the hotel business, which in its simplest form is the letting of rooms to guests, in your opinion what does going virtual mean for the hotel industry?

Question 2 How will the Internet affect the major business trends in the hotel industry?

MINI CASE STUDY II

Press Release – InternetWeek names Hilton Hotels Corporation 2001 e-business of the year – 15 June 2001 – www.thetimesharebeat.com/archives/2001/hlt/hltjune71.htm

Manhasset, NY & Beverly Hills, CA – InternetWeek has recognized Hilton Hotels Corporation (NYSE: HLT) as the 2001 E-Business of the Year, based on the results of the magazine's second annual InternetWeek 100 survey

Announced in the June 11, 2001, online and print issues, Hilton Hotels Corporation also secured the position of Recognized Leader in the Travel and Hospitality Industry for the second year in a row.

The InternetWeek 100, based on a performance-focused questionnaire of major U.S. companies conducted in February and March by InternetWeek Magazine, ranks the top 100 e-businesses in the U.S., across nine major industries that are driving their e-business initiatives to deliver new revenues, new customers and new opportunities.

More than 400 candidates were evaluated in several critical areas, including improved relationships with customers and suppliers, and the extent of involvement in electronic marketplaces.

Hilton Hotels Corporation was named the travel and hospitality industry winner – and the top e-business overall – because it has in the past year seen huge increases in the volume of online business booked through its brand websites, including Hilton, Doubletree, Embassy Suites, Hampton Inn and Red Lion Hotels & Inns, which booked more than \$300 million total online business during 2000, double the previous year's," said Bob Violino, Managing Editor/Features for InternetWeek.

"Hilton Hotels has taken what it learned from early Internet efforts and applied those lessons to major effect. For relying on the power of e-business not only to boost sales and slash procurement costs, but also to entirely remake itself into a multibrand powerhouse, Hilton stands out as InternetWeek's E-Business of the Year," wrote Richard Karpinski, InternetWeek's Online Editor at Large in the June 11 InternetWeek issue.

Hilton's major accomplishments during the past year include an extensive website enhancement and redesign project that will integrate and improve Internet information and transaction services on a single platform for the company's family of nearly 1,900 hotels across North America.

Hilton is honored to receive this year's top award from Internet Week. It represents our team's continued commitment to explore new technology opportunities and effectively develop a community of online resources and services that provide the greatest value and experience to our customers," said Bruce Rosenberg, senior vice president – eBusiness at Hilton Hotels Corporation. "We have and will continue our pioneering spirit in this arena to explore the dynamic power of e-business on all levels."

From a business-to-business perspective, Hilton has successfully developed and implemented its web-enabled, electronic procurement marketplace during the past year. An experienced procurement leader in the hospitality industry with more than 35 years of experience in the supply management field, Hilton's proprietary, real-time procurement network now links thousands of suppliers with more than 500 owned, managed and franchised hotels in the Hilton family of brands.

Hilton's e-procurement marketplace has enterprise-wide connectivity and a consistent intuitive platform that everyone can use, thereby benefiting our entire portfolio of properties without the barriers typically associated with implementing technology at

multiple sites across an enterprise,” said Anthony Nieves, Hilton’s senior vice president of purchasing and supply management. “The reduction in cycle time, improved accuracy and forecasting and the ability to aggregate our spend to realize economies of scale have greatly improved the way we do business and gives us the ability to operate our organisation much more cost-effectively, ultimately enhancing our value to our hotel guests.”

Hilton’s Information Technology team also has been working hard behind the scenes for internal customers – including back office technology initiatives that connect the company’s corporate headquarters, worldwide sales and reservations offices and regional support centers with hotels in all 50 states, Canada and Mexico.

“Everything we do in our business can have an e-business implication. Whether it’s our Internet site, a reservations call center, a meeting planner or a hotel, it is imperative that we are able to provide a consistent stream of information to every end user in our system,” said Tim Harvey, chief information officer for Hilton Hotels Corporation. “I am proud of our endeavors during the past year to incorporate all of these channels with the ultimate goal of ensuring that we provide the right information at the right time to the right customer.”

About InternetWeek (www.internetweek.com.) www.hiltonworldwide.com.

CASE QUESTIONS

Question 1 What do you understand by the term e-procurement? What are the opportunities available to hoteliers? How did Hilton Hotels exploit the benefits of the Internet?

Question 2 In addition to e-procurement, what additional benefits do you feel are available to a hotel company going online?

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