B2B relationships and networks in the Internet age

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Abstract
Internet-centred business models have proved to be an effective means of conducting business-to-business (B2B) commerce in many industry sectors. As an interactive and instantaneous medium, the Internet provides firms with a new platform - commonly referred to as electronic marketplaces or electronic hubs ("e-marketplaces" or "e-hubs"). This study examines the advantages of business networks and relationships, and elucidates how these have become increasingly imperative within the new e-business paradigm of the global marketplace. The study draws on the Covisint e-marketplace - the e-hub of the automotive industry - to illustrate some of the innovative business features that can be supported by e-marketplace business models and notes the complexities of e-relationships that require round the clock support.

Introduction
As well as buying, making, marketing, and selling products and services globally, firms can now effectively operate globally in raising capital, conducting research, recruiting staff, and executing projects. Quantum advances in technology, communication, and digital science, together with the proliferation of the Internet, have enabled firms to transform the challenges of the past into opportunities of the future. The digital world of today assumes a borderless globe inhabited by firms that are interconnected and interdependent through networks of relationships. Globalisation is not a one-way set of flows of goods, services, and economic relationships; rather it is a complex network of processes in which local and global activities are linked together and operate in several directions (Bryson, 2001).

Knowledge per se is thus not the driving force today. It is the connectedness of knowledge that is the driving force - as accomplished via networks, webs, and constellations of actors (Sweet, 2001). Product firms and service firms alike have recognised the numerous benefits that can be realised by "un-bundling" their business activities (Chase, 1978), and then "re-bundling" these activities using networks of partners. Globalisation has thus transformed traditional business models through the advances in information technology (IT), networks, and relationships.

Castells (2000) has argued that this "new economy" is fundamentally distinct from the traditional model, in that success now depends upon the effective use of information (knowledge), the implementation of global concepts (business organised on a global scale), and the creation of networks among economic agents (including interaction among various business networks). This concept of networks interacting with networks is best illustrated by the Internet itself. The Internet can best be understood as a global network of networks - a network that provides a unique infrastructure for global commerce in services (Zinckhan, 2002). The attractiveness of Internet-centric business models resides in their efficiency in:

- reducing search costs by facilitating comparison of price, products, and services;
- reducing lead times;
- improving production and supply capability;
- managing demand; and
- improving personalisation and customisation of product offerings (Bakos, 1998).

Business paradigms have undergone a re-examination in the light of growing competition. This has induced a shift from "generalist" organisations to "specialist" organisations. Firms are seeking new business models in a move away from vertically integrated structures towards horizontal structures that have a specialised focus on core activities together with the outsourcing of non-core activities. Indeed, as products and services grow in complexity, it is becoming increasingly difficult for a single organisation to undertake the entire process of production, delivery, and marketing effectively. It has become clear that the old "generalist" concept of business is no longer a viable concept, and that it is important for its adoption as a "specialist".

Modern technology and the Internet can thus assist firms to promote and serve global markets effectively through global networks and alliances, while allowing them to...
establish themselves as “experts” by focusing on their core competencies.

**Business advantage through networks**

The idea of a business network is not a new concept. The history of trade provides many examples of various types of networks being used for the buying and selling of products and services (Wilkinson, 2001). However, the business networks of today exhibit distinctive features that have revolutionised the notion of competition, bringing about what Best (1990) has called the “new competition”. In the “new competition” of the global marketplace, it is no longer firms that compete. Rather, it is networks that compete, and the competitive advantage in such a scenario is largely determined by the competitive advantage of the network to which the firm belongs (Lakhal et al., 1999).

Through “competitive collaboration” (Hamel et al., 1989), the various players in the value chain ensure that they benefit from their relationships. Each partner enhances the value of the network and simultaneously profits from being within the partnership (Kothandaraman and Wilson, 2001). The common core element of such networks is cooperation among distinct but related firms that allows these firms to share mutual benefits and gain a competitive advantage over their competitors outside the network (Jarillo, 1988). In the global marketplace, such competitive advantage depends on the ability of firms to forge relationships with stakeholders across international borders, as well as within them.

Supply networks in particular have been identified as a significant source of competitive advantage in the Internet age. Such networks provide an opportunity for mutually complementary action in pursuit of a common goal (Cunningham and Calligan, 1991). Marrying individual customer needs with “back-end” supply-chain activities can help firms to improve customisation and enhance value, thus serving customers with “end-to-end” customer support that extends from the initial contact through the entire purchasing cycle of order-taking, delivery, and after-sales service (Singh, 2002). In some cases, several firms can participate in a value chain, with the end-point of one firm’s chain linking to the beginning of another firm’s chain. Buyers and sellers can do this by cooperating electronically using networks of various types (Internet, intranet, and extranet) (Zinkhan, 2002).

**Current perspectives on managing relationships**

The present study asserts that relationships are fundamental to the effective development and adoption of new business models. Although merchants have nurtured relationships with customers for many centuries (Grönroos, 1994), the firms of today nurture and manage a greater variety of value-creating relationships with a much larger pool of stakeholders. These various business-to-customer (B2C) and business-to-business (B2B) relationships are crucial to a modern firm’s competency, competitive advantage, and profitability. The current popularity of “relationship marketing” is, in large part, a reaction against impersonal mass marketing and its associated inefficiencies. The focus in marketing has shifted from winning new customers to maintaining existing customers. In this regard, the seminal research contributions of Reichheld and Sasser (1990) and Reichheld (1996) demonstrated that a 5 per cent increase in customer retention resulted in an increase in average customer lifetime value of 35-95 per cent, thus producing an exponential increase in company profitability. It has therefore become imperative for firms to devise means by which they can nurture and sustain their one-on-one relationships with all stakeholders – customers, suppliers, employees, retailers, and shareholders (Kandampulliy and Duddy, 1989).

Relationships entail much more than isolated exchanges. Rather, they embody strategic and tactical issues based on a philosophical shift that is geared towards long-term organisational survival (Grönroos, 1996; Gummesson, 1984; Sheth and Parvatiyar, 1986). At the strategic level, organisations are encouraged to define themselves as service businesses, and to conduct their business from a process-management perspective that develops partnerships, alliances, and networks (Grönroos, 1996). From a tactical perspective, organisations need to engage in direct contact with customers, build a database, and create a customer-oriented service system that can interact with customers on a one-on-one basis (Peppers et al., 1999; Grönroos, 1996).

With the rising popularity of relationship marketing there has been a concurrent emphasis on cooperative relationships, as opposed to adversarial relationships, and an increasing interest in how such cooperative relationships in networks can assist firms to concentrate on their core competency and...
establish a unique competitive advantage (Kandampully, 2002). In this regard, networks help to:

- minimise the cost of essential infrastructure;
- maximise accessibility for every partner in the network; and
- facilitate knowledge and exchange of products and services to all network partners simultaneously.

Innovation and technological developments have significantly affected business concepts, models, and paradigms. Peppers and Rogers (1995) have claimed that the marketplace is undergoing a technology-driven metamorphosis. In the past, service firms were able to maintain a high level of service to the customer through traditional face-to-face interaction. However, because businesses now operate across international borders using “high-tech” modes of interaction, “high-touch” face-to-face interaction is no longer able to satisfy the instant service requirements of customers and suppliers. Technology serves as a powerful tool to improve the efficiency and effectiveness of firms. However, as Berry (1995) has argued, technology should be the servant, not the master, and technology should therefore empower its users with greater control in achieving their aims. Thus, the focus should not be on technology per se, but on the creative adoption of technology to enhance the value of a firm’s offerings. Service firms today are expected to delight customers with their creativity and innovation. Thus, in operational terms, technological innovation must be translated into marketing foresight that enables a firm to “think like a customer”, thus creating services that drive the marketplace.

In this respect, interactivity, a key attribute of the Internet, provides unique opportunities in the field of marketing (Deighton, 1998). Speed and efficiency are key benefits to buyers who are increasingly engaging in self-service technologies, as opposed to the more time-consuming face-to-face alternatives (Bitner et al., 2000; Meuter et al., 2000). Computer-mediated business transactions on the Internet provide numerous opportunities for procurement (Essig and Arnold, 2001) and other services, including marketing, communication, and distribution (Moncrief and Cravens, 1998; La and Kandampully, 2002).

However, it must be emphasised that e-commerce offerings are, by their very nature, essentially service transactions, even though they often involve the transaction of physical goods (Kolesar and Galbraith, 2000; Wymbs, 2000). Internet-centric business models thus “raise the bar” in terms of the service expectations of customers, especially with respect to speed, comparability, and price.

These various changes have fundamentally reshaped marketing strategies. The globalisation of marketing strategies via the Internet poses difficult questions for organisations in terms of content, Internet availability and access, and the various levels of customer service expected in different regions of the world (Crosby and Johnson, 2001). However, the Internet also provides numerous new opportunities for the development and maintenance of buyer-seller relationships, as discussed below.

**Electronic marketplaces**

**The role of e-marketplaces**

The Internet provides an effective interactive on-line tool that allows business processes to be aligned with growing demands for increased speed and efficiency at lower cost. The advances in IT that have made this possible have been described as “the second economic revolution” (Essig and Arnold, 2001).

The e-marketplace can be defined as...

- ...an organizational information system that allows the participating buyers and sellers to exchange information about prices and product offerings (Bakos, 1991, p. 286).

Firms today use the Internet to extend their relationships with tens of thousands of entities, including customers, suppliers, retailers, brokers, co-producers, employees, and shareholders, and try to maintain personalised relationship with them all. The Internet allows firms to move away from communication via the mass media – a form of communication that has limited advantage in today’s electronic marketplace. Modern technology has not only allowed producers to reach and sell directly to end-users (Porter, 2001), but has also facilitated the emergence of electronic intermediary service providers, who exploit the potential of advanced interactive technology to link sellers and buyers (Vandermerwe, 1999). A classic example of this is amazon.com, which started its “virtual business” in 1995 and, by 2000, reached annual sales of US$2.76 billion (amazon.com, 2002). The growing utility of the Internet as a trading ground poses a threat to traditional distribution channels of wholesalers, brokers, and retailers. However, it demands new and efficient ways by which

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they can maintain the myriad relationships they have within their business networks. Moreover, the Internet-centric business models raise the bar for all stakeholders with regard to expectations of speed, comparability, and price.

**Types of e-marketplaces**

Electronic marketplaces (e-marketplaces) can take many forms. Although some are biased, most electronic markets are neutral—favouring neither buyer nor seller. Most operate as an independent third party (Kaplan and Sawhney, 2000), and most B2B activities have been on-line exchanges and auctions (Wise and Morrison, 2000). Kaplan and Sawhney (2000) have classified e-marketplaces (or "e-hubs") into four distinct categories:

1. Maintenance, repair, and operating (MRO) hubs;
2. Yield management hubs;
3. Exchange hubs;

MRO hubs achieve efficiencies in the supply-chain process, as the items are low in value and otherwise attract high transaction costs. In contrast, yield managers predominantly focus on operating resources such as human and manufacturing resources, or advertising. Because these resources cannot be acquired immediately, value is added when the price and demand for such resources are unpredictable. Closely related to this type of electronic hub is the exchange hub, which concentrates on components needed for production. The catalogue hub, as the name suggests, focuses on non-commodity items. Such hubs are often industry specific.

The process by which prices are set further distinguishes e-markets from one another. Kaplan and Sawhney (2000) identified two sorts of pricing mechanisms—aggregation pricing and matching pricing. The former refers to e-hubs that bring together buyers and sellers with pre-negotiated prices, whereas the latter refers to e-hubs in which the parties negotiate prices on-line.

Electronic markets that engage in Web-based auctions typically do so in accordance with one of two dominant auction types. In the English auction, the seller starts the bidding process, after which buyers continue to bid upwards until the sale is made (Sashi and O'Leary, 2002). In contrast, Dutch auctions stipulate that buyers start the bidding process, after which sellers bid downwards until the sale is made (Sashi and O'Leary, 2002). A variation on these is the "reverse auction", in which buyers post their needs for a service or product and in which suppliers subsequently bid competitively to fulfill the posted need. On-line marketplaces offer numerous opportunities and benefits to both buyers and sellers, and operate on the true concept of relationship marketing.

Electronic marketplaces are thus two-sided marketplaces with multiple buyers and sellers who have a unique opportunity to review, assess, and negotiate various aspects of the products and services with a significant degree of customization. Price negotiations in the form of on-line auctions are growing in popularity because buyers are essentially guaranteed price reductions as a result of supplier biddings. Although proponents have highlighted the benefits associated with on-line auctions, others have been less welcoming of the model. Jap (2000) has argued that auctions, by their very nature, induce competitiveness among suppliers, and can leave them feeling exploited and less trusting of buyers. Such competitiveness can make smaller businesses less likely to compete, thereby providing buyers with fewer options (Jap, 2000).

**Value-added e-marketplaces**

The Internet is ideal for reaching international markets instantaneously and, as a medium for exchange, provides buyers and sellers with cost and process benefits. For example, General Electric (GE) reported enormous savings on the US$6 billion they auctioned via e-markets in 2000 and envisaged similar savings on the US$14 billion they planned to buy on-line in 2001 (Welch and Byrne, 2001). Electronic procurement systems are increasingly replacing traditional paper-based systems (Crosby and Johnson, 2001), and this will have significant impact on how transactions are conducted, relationships created, and profits made (Kaplan and Sawhney, 2000).

The following examples demonstrate the success of this new paradigm in commerce:

- Cisco System was able to save hundreds of millions of dollars by generating an increasing percentage of its sales through the Web;
- Amazon.com redefined the concept of book selling for ever, and established the model for managing a high volume of Web-based transactions;
- eBay.com (and other B2C and B2B Web auction sites) proved that a most ancient form of commerce could be replicated effectively via the Internet; and
AOL clearly demonstrated that there is money to be made in cyber matchmaking (Zemke and Collellan, 2001). In many instances, buyer organisations are driving the implementation of this matchmaking of buyers and suppliers. However, suppliers also stand to make major gains through electronic procurement. Thus changes in business practices, new knowledge, and new technology are assisting firms to find efficient solutions to old problems (Chapman et al., 2002), and B2B and B2C relationships are being redefined as a result of interactive Web-enabled tools. However, despite the increasing presence of e-markets, relatively little is known about their precise impact on B2B relationship marketing. In an effort to illustrate the changes effectively, the present study uses the example of the Covisint e-marketplace to illustrate how firms can effectively use the Internet medium to interact and to carry out all kinds of business activities that could not have been conceived of in the past. The Covisint example also identifies further changes that firms have to adopt as relationships and networks become the life source of modern business.

Covisint: e-marketplace for the automotive industry

On 25 February 2000, Covisint was founded (originally under the name of "NewCo") by Daimler Chrysler, Ford, and General Motors as the initial three original equipment manufacturer (OEM) partners. They were later joined by Renault S.A. and Nissan of Japan in April 2000, and the venture was renamed "Covisint" in May 2000. At the end of that year, Covisint was enhanced by the involvement of its technical partners Commerce One and Oracle and, in May 2001, Peugeot-Citroën also joined the initiative. The basic plan was to combine their efforts and to form a single global B2B supplier exchange through integration and collaboration that would be to the benefit all.

Covisint aims to transfer key business processes within the automotive industry to the Internet. It allows companies to harvest the power of the Internet and to gain significant value and efficiency through collaboration, visibility, and integration. The on-line environment of Covisint aims to connect the disparate elements of the automotive industry in a virtual environment to bring speed to decision making, eliminate waste, reduce costs, and increase efficiencies while supporting common business processes between manufacturers and their supply chain. In summary, Covisint functions as a global independent, e-business exchange for the automotive industry (www.covisint.com).

Covisint offers products and services (otherwise referred to as "solutions") that cover most business operations within the automotive industry at both the functional and corporate level. The emphasis is on reducing costs and saving time. In addition, to ensure that its products and services comply with industry standards, Covisint works closely with industry bodies such as the Automotive Industry Action Group (AIAG).

Covisint clients are provided with a secure B2B e-commerce technology that allows them to engage in information searches and online bidding, primarily for bulk items. In return for a transaction fee, clients are promised lower costs and more efficient business practices. Covisint has more than 250 customers and continues to attract new clients (Manufacturing Engineering, 2001). Through Covisint's Industry Sourcing Directory, clients also have the ability to locate more than 25,000 suppliers globally. It has been estimated that Covisint has saved manufacturers hundreds of millions of dollars by connecting their various business operations with multiple suppliers. Thus, some of the key benefits stemming from this online marketplace include the expedite of supplier selection, acceleration of contract negotiations, and reductions in overall costs. On the other hand, these benefits are typically accrued following complex technological integration.

From a global perspective, Covisint represents an industry standard in the provision of e-business solutions in the automotive industry and, to date, has no competitors. This status was further reinforced when Covisint was presented with the "2001 global integrated solutions provider" by the European Institute of Transport Management (www.eitm.co.uk) at London to Covisint Europe.

Covisint's success in the marketplace is very much due to its foresight in developing a network of partnering relationships with firms that strengthened Covisint business image. To this end, it attracted the world's foremost companies as partners. For example, Commerce One and Oracle, world leaders in technology, joined Covisint to serve as its technology partners. Commerce One provides Covisint with the procurement transaction engine for the e-trading of various goods and services. Oracle provides Covisint with the B2B software it requires to
support self-service auctions and to run internal business operations. Covisint also gained the assistance of electronic data systems (EDS), one of the leading global services companies to provide superior customer service support for the e-business customers of Covisint. By utilising EDS’s remote customer support services, Covisint customers are able to obtain immediate expert assistance in the use of their products and services, and EDS support provides answers to any customer problems encountered while utilising Covisint’s Web-delivery services. For example, EDS provides customers with real-time support for live auction – a situation in which immediate and effective assistance is critical. This support encourages customers to trust the system and their relationship with Covisint.

Covisint introduced a Web-based electronic data interchange (EDI) system to foster effective communication with all participants in the Covisint network. Covisint customers, including those without EDI systems, now have a cost-efficient method of electronically sending and receiving mission-critical supply-chain documents between trading partners. These documents include forecasts, shipping schedules, and advance ship notices. Covisint’s EDI system also assists partnering customers to improve the effectiveness of mission-critical processes such as collaborative product development, procurement, and supply-chain management – which enhances customers’ product quality, cost structures, and time-to-market world-wide. Until recently most automotive firms relied on manual methods of communication.

Powerway Inc. is Covisint’s chosen technology provider for communicating advanced quality activities, quality solutions, and quality planning. Covisint’s relationship with Powerway enables suppliers around the world to use one standard Web-based environment for communication and collaboration with their suppliers. This transparency and collaboration brings about considerable savings by eliminating potential quality problems before they occur. This unique network of communication and connectivity within the automotive supply chain provides an easy means of sharing quality information and displaying part quality readiness between customers. This information is critical for successful development and execution of manufacturing processes and quality plans in a thorough and timely fashion for the entire automotive community.

Covisint’s collaboration framework facilitates communication across corporate and enterprise boundaries. It also helps to eliminate friction created by the use of dissimilar collaboration tools among trading partners. Covisint claims that virtual collaborative teams can substantially increase the innovation, speed, and effectiveness of core functions – such as product development, program management, and strategic sourcing. Open communication and information sharing is the centerpiece of Covisint’s supplier-relations strategy, and the alliance with Powerway provides a unique environment in which to manage quality issues. This service underscores communication of quality performance data throughout each production process. An added advantage to the entire value chain is the rapid communication of important quality information with suppliers to ensure on-line, high-quality engineered products.

In response to the significant growth of the Covisint network, its supply-chain management infrastructure has been configured through “Covisint fulfillment”. This is an Internet-enabled application that processes within a global infrastructure that can effectively monitor various critical business events within the supply-chain activity. SupplySolution, a leading supply-chain execution company, has formed partnership with Covisint to offer greater value to network customers such as: manufacturers, distributors, exchanges and suppliers through the implementation of collaborative supply-chain applications. SupplySolution was recently named Top 100 Emerging Company for 2002 by Computerworld Magazine (www.computerworld.com), and is also a finalist in the 2002 Automotive News PACE Award for innovation in the automotive industry (www.autonews.com). Covisint, in the implementation of its “best-of-breed” strategy, has chosen several strong technology companies to provide key components of its applications and infrastructure. These include:

- Documentum;
- Mercator;
- SupplySolution;
- EAI;
- Powerway;
- WebMethods;
- MatrixOne; and
- SunMicrosystems.

Although not formal partners in the venture, these companies are important and integral members of the Covisint team.
**Conclusion and discussion**

The creative use of relationships, networks, and information has dramatically transformed the way that people think, conceptualise, and function in the world of business today. Technology is increasingly being utilised by firms to reap the highest value from both their business activities and their relationships with numerous stakeholders. Technology plays an integral role in many firms because it offers a unique opportunity to develop and invent service features that benefit both the firm and its stakeholders. The emerging e-markets in numerous sectors offer valuable service features far beyond the benefits achievable from price and product characteristics alone. Technology provides the opportunity to offer services far beyond the firm's business concept.

Covisint offers an excellent example to illustrate how businesses can transform themselves to the new ways of conducting business more effectively via the Internet. The electronic marketplace not only illustrates the potential of this new business model, but also, in the process, continues to invent numerous efficient ways to conduct businesses while simultaneously offering benefit to all parties involved. Businesses that choose to operate in the virtual marketplace, such as Covisint, enjoy lower overheads, are able to reduce processing times, and can offer customers various self-service and delivery options that their brick-and-mortar counterparts are unable to offer. In turn, these advantages offer considerable benefits to firms in the form of shortened transaction times, increased productivity, lower costs.

Internet-centric business models have also meant that firms have adopted numerous other changes in terms of company structure. Firms that have adopted e-business models have had to change from a vertical structure to a horizontal organisation to allow them to respond swiftly to market needs. These firms have also realised that it is imperative to change their limiting attitude of competition to one of collaboration, relationship, and exchange of transparent information. The e-market services provided by some firms allow customers to check the progress of their orders and to access other specific features - such as customer-specific drawings, access to manuals, and various other technical information. It is this concept of "thinking like a customer" that will enable firms to excel and become the innovators of tomorrow. Market leaders acknowledge the importance of relationships and information, not only to enhance the firm's core competency, but also as a service feature that assists all stakeholders. The example of Covisint demonstrates numerous ways in which firms can enhance efficiencies by collaborating and sharing information.

The network partners of Covisint e-marketplace are among a growing number of companies that are reaping the benefits associated with the increasing prevalence of the Internet in B2B commerce. As an interactive medium of information, communication, and exchange, the Internet has proved beneficial in achieving process efficiencies and cost reductions for businesses. As outlined in this paper, the ensuing growth of e-markets can be attributed to a number of global trends that have revolutionised traditional business paradigms, and subsequently called for a re-examination of what is truly possible by making use of networks, relationships, and Internet business models. Although the primary objective of relationship marketing is to build and maintain relationships with profitable customers, it is apparent that this concept has equally important opportunities if it were to be extended beyond the customer to include key stakeholders who play a pivotal role in the enhancement of the organisations' core competencies. As discussed in this paper, the growing popularity of the electronic marketplace, particularly within B2B markets, has numerous benefits. Despite the apparent benefits, there is very limited research on the long-term implications of on-line trade, exchange of information, buyer-seller relationships, and the numerous services associated with on-line business models. This warrants further study.

**References**


Best, M.H. (1990), The New Competition, Cambridge, MA.

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