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The Possibilities of IP Networks in Strategic Partnership Development

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1. INTRODUCTION

This study focuses on the status of using the Internet in partnership development. The aim is to find out how respective parties in partnership can benefit from the available data networks (the Internet, Intranet and Extranet). The also study explains what the typical practices at the moment are and what features might be exploitable in the future. The research problem is to find out whether there are any possibilities to utilize the web more than is done at the moment.

This study is a preliminary study for a more extensive study on the topic "Information technology in business relationships".

1.1 Background of the study

There are very many examples of how the Internet can facilitate operational, day-to-day functions in many companies. These include for example such matters as electronic orders, requests for quotations, billing, price checking and online delivery information. However, very few articles have been written about using the IP networks in strategic planning and partnership development. The trend is that the business is more and more moving towards online trading and holistic supply chain management.

1.2 Progress and outline of the study

First this paper explains what a strategic partnership is. Then, on the basis of several articles, there is a survey on how a relationship develops from a traditional buyer-supplier interaction to a strategic partnership. After the partnership issues follows a discussion on what kind of information can be transferred via the Internet, Intranet or Extranet. Also previous cases are regarded in which partnerships have been managed using these solutions. Practices in Europe and the USA are compared with each other.

Before conclusions and summary, a table is presented, in which the phases of partnership development and the use of IP networks are linked together.

This paper approaches the subject from the buyer's viewpoint, because supply management and its decisions affect the company's success widely. In this paper the transactions between parties concern only the buyer-supplier –relationship, not the whole network, which should include also customers and other interest groups.

For the purposes of this paper it is appropriate to consider a strategic partnership to be distinct from an operational partnership. The difference between a strategic and an operational partnership is that in a strategic partnership the partners (for example manufacturer and its component supplier) are involved in developing a shared strategy and supervising the scheme, while in an operational partnership (for example retailer and logistics services) the partners are rather involved in day-to-day implementation of projects. (Foley & Hutchinson, 1994)

1.3 Concepts

The basic concepts used in the text are explained briefly below:

- **A Browser** is a software which locates and displays information on an Intranet, Extranet or the Internet. Most browsers can display graphics, photographs, text, audio and video. (Durlacher Research Ltd., 2000, 66)
- **IP (Internet Protocol) Networks** are in this study the Internet, Extranet or Intranet sites that the user can access through a browser.

1.4 Methodology

This qualitative study is a literature review on strategic partnership development by using IP networks for collaborative work between partners. The qualitative methodology was chosen as the research approach because the scope of this study was

to survey what has been written about the subject until these days. (Hirsjärvi et al.,1997, 253-256)

Articles, publications and other information has been collected from various sources such as databases (Abi/Inform, Ebsco and Encyclopedia Britannica), research centers (the National Technology Agency in Finland, Telecom Business Research Center of Lappeenranta University of Technology, Goldman Sachs Investment Research, Durlacher Research Ltd.), companies' homepages, dissertations and journals. The articles were searched mostly by words like business-to-business electronic commerce or e-commerce, e-business, partnership, supply chain management, electronic purchasing / procurement, relationship management and electronic business model. The collection of appropriate information continued during the study and potential articles were taken into closer consideration.

The study progressed as follows: First the definitions for strategic partnership and different IP networks were mapped out. After that the stages of partnership development were listed. The possibilities of the use of IP networks were collected continuously during the research process as well as cases from the United States and Europe. Finally a table was compiled in which the phases of partnership development and the use of IP networks were combined.

2. DEFINITIONS OF A STRATEGIC PARTNERSHIP

2.1 What is a strategy?

Toivo Äijö has quoted Walker et al. in his working paper to define the concept of marketing strategy as follows: "An effective strategy would embrace: what is to be attained, which product markets should be the focus: and how resources and activities will be allocated to each product market to meet environmental opportunities and threats." (Äijö, 1999, 10)

As opposed to a marketing strategy, a purchasing (supply management) strategy can be described in the following way: "Strategic supply management is the design, development, optimization, and management of the internal and external components of the organization's supply system." (Burt & Pinkerton, 1996, 218)

Today, as information technology develops faster and faster, the supply chain strategy could also be explained like this: from the point of view of the end-customer the purchasing strategy aims to deeper the company's core competence by continuously developing the supplier network, simultaneously keeping the total costs low and the competitive advantage as high as possible, also taking into account the effects of the operations.

Also Professor Virolainen offers an overview of the term "strategy" in his dissertation. On the basis of his quotations from different articles it can be stated that a strategy in general means a well-planned long-term basis of business operations. It is a plan that integrates a company's objectives, policies and events into a uniform entity. A well-formulated strategy also helps to mobilize and to allocate an organization's resources into a company's unique core competence and in addition to develop cooperation with its partners. (Virolainen, 1998, 16-17)

2.2 What is a strategic partnership?

"Customers and suppliers working together as a team can drive down total cost, improve quality and speed products to market far more effectively than the same people working as adversaries." (Partnership Sourcing Ltd, 1992)

"Partnership sourcing is a commitment by both customers and suppliers, regardless of size, to a long-term relationship based on clear, mutually-agreed objectives to strive for world-class capability and competitiveness." (Partnership Sourcing Ltd, 1992)

A buyer-supplier relationship is characterized by a long-term perspective, an interactive nature and a win-win principle of a relationship. Long-term perspective means such issues as developing configuration and co-ordination of activities in the supply chain. Apart from sustained development, continuous open communication and management

of the relationship between the buyer and the supplier are important tasks in the partnership. The social, cultural, technical and commercial points of each participant involved in the relationship cultivate the partnership between organizations. A long-term strategic perspective is needed for executing and improving operational processes. (Saunders, 1997, 252-254)

However, it has to be noticed that the partnership does not only exist between the purchasing and the sales departments. It is a relationship between the entire two organizations. The relationship can be explained in the following way: "Partnership is an on-going relationship between two firms that involves a commitment over an extended time period, and a mutual sharing of information and the risks and rewards of the relationship." (Ellram, 1995, 41)

Increased visibility of information between partners, together with integration with the partner's processes and systems can eliminate unnecessary overlapping processes and improve efficiency. Complete integration within partners will thus create a seamless co-operation between independent organizations. (Tuunainen, 1999, 31)

Typical characteristics for a partnership are continuous improvement, focus on future transactions, long-term on-going relationships, sharing and trust between the parties and a total cost focus. Open two-way communication between the parties is a key role in continuous improvement. (Tuunainen, 1999, 59)

The benefits of a successful partnership include for example the following:

- Improved product quality – shared design and conformance aspects
- Development of technical support capabilities in product and process engineering
- Improved product technology
- Inventory reductions
- Improved transport and distribution arrangements
- Management of cost reduction activities
- Improved administrative processes to reduce cost and time
- Development of shared electronic commerce systems (e.g. the Internet, Intranet and Extranet technologies) for better distribution of information

- Improved competition advantage
- Shared risks and problem solving
- Stable total costs, shortened time-to-market, reliability of delivery times

2.3 What aspects are included in the strategic features of a partnership?

Broadly speaking a strategic partnership encompasses the goals and objectives of both companies in addition to the means by which these mutual goals are to be achieved. According to this definition concrete strategic functions in partnerships can cover many issues. Table 1 shows several essential points collected from various articles. (Berlow, 2000, 109-114; Lancioni et al., 2000, 45-56; Porter, 2000, S32)

Table 1. Some strategic features of a partnership

Own company	Define global supply chain capabilities
	Categorize, define and enable relationships by correct e-commerce technologies
	Take care of responsible employees for designing information-based performance measures and continuous-improvement targets based on core business strategies and market conditions
Supplier development	Benchmark companies
	Build supply chain capable of satisfying functions at highest financial return and customer satisfaction levels
	Develop cross-enterprise workflow processes
	Demand management collaboration
	Keep joint planning committees / task forces on key issues
	Automate daily routines
	Establish standard decision processes and rules
	Align appropriate cross-functional and cross-business resources, processes and technologies
Supplier management	Accomplish vendor rating, compliance and performance tracking
	Monitor supplier performance reviews

	Conduct global supply chain capability investigations and profitability modeling reviews
	Manage rate, price and term negotiations and agreements
	Look after functional leaders in selecting and implementing appropriate technology applications to automate according to the buy-sell relationship pursued
Collaborative development	Exchange technical information for design and development of manufacturing
	Look for new beneficial ways to do business
	Maintain proactive attitude
	Control and manage risks
	Profile markets that can reveal often unforeseen trends, distances are no more a hurdle
	Develop collaborative design
	Think about supply chain in terms of function and value
"Should-cost" – analysis	Design the highest profitability in supply chain
	Determine how to make money: what to buy, from whom and at what total costs

3. PHASES OF FORMING PARTNERSHIP

Numerous development models for buyer-supplier relationships have been introduced during the past two decades. Two models are investigated in this chapter, one by Professor R.M. Kanter and the other by Scanzoni quoted by Professor F. R. Dwyer et al. These models have been taken into a closer consideration because they both have five phases and they are frequently mentioned in articles concerning partnership development.

According to the case studies in Professor Virolainen's dissertation, the evolution of possible relationships moves from a potential partner through expansible types of partnering eventually to a full partnership. (Virolainen, 1998, 192)

3.1 Kanter's and Scanzoni's development models

The development phases towards a confidential partnership are presented starting from the point when the supplier has already been selected and the relationship is going to arise. The different phases of the relationship development are explained in Table 2.

Table 2. Kanter's and Scanzoni's models of forming a partnership.

Phase	***Kanter's model***[1]	***Characteristics of phase***	***Scanzoni's model***[2]	***Characteristics of phase***
1	*Courtship*	Discovery of compatibilities, mutual attraction	*Awareness*	Recognition of the other party to be a feasible exchange partner, perhaps positioning or posturing, still no interaction exists
2	*Formal plans "Engagement"*	Drawing up plans, closing the deal	*Exploration*	Testing period for the relationship. Attraction, communication and bargaining, development and exercise of power, norm development, expectation development (trust and desire to coordinate)
3	*Housekeeping*	Discovery of having different ideas, problem solving	*Expansion*	Range and depth of mutual dependence increase
4	*Innovation*	Devising mechanisms for bridging the negative	*Commitment*	The most advanced phase: solidarity and cohesion, consequently

[1] Kanter, 1994, 99-107

[2] Dwyer et al., 1987, 15-20

		differences, developing techniques to getting along, learning to collaborate		in practice measurable things: inputs, durability and consistency → engaging resources to maintain the relationship
5	*Comfort*	Discovery of internal changes, possible company fusions and mergers	*Dissolution*	Dissatisfaction with the other party, concluding that costs of continuation or modification outweigh benefits

The most significant differences between these two models occur at the following phases: the time for commitment, the speed of deepening the relationship and the determination of the relationship. Figure 1 shows the phases and the differences in these models.

In Kanter's model the first attempt for mutual commitment appears early in the "engagement " phase right after the prime attraction. Sooner or later the parties close the deal. Scanzoni's model, on the other hand, proposes the commitment time for later steps of the relationship to secure solidarity and cohesion. Before the deal both parties must have a mutual dependence. When Kanter has already made a deal, Scanzoni only tests the companion and perhaps negotiates.

Moving on towards a deeper relationship Kanter describes as a quicker process than Scanzoni. According to Kanter the relationship begins to develop right after the courtship phase, while Scanzoni expects more accurate information about the potential partner. Scanzoni also defines the determination of the relationship to end into the dissolution, where bindings will be broken. Kanter proposes that the relationship continues until the merging or company fusion.

Symbol of a different development phase

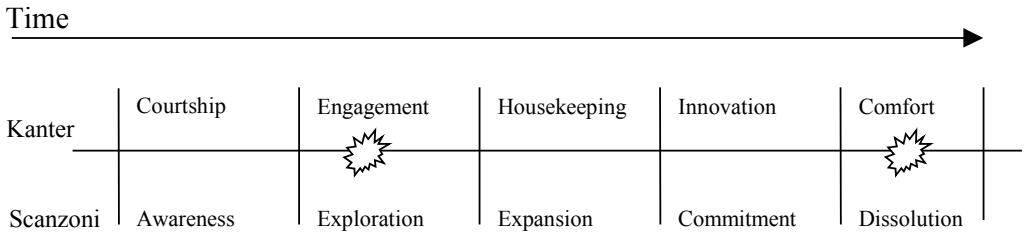

Figure 1. Timelines of Kanter's and Scanzoni's models

3.2 Trecha's development model

Trecha's partnership development model represents functions in this decade. The phases are described in Table 3. Trecha has compiled a table of characteristics that appear during the buyer-supplier relationship development. Depending for example on the procurement type, market characteristics or importance of the purchase to product / service success, buyers and sellers can target one of four relationships.

Table 3. Trecha's model of a buyer-seller relationship continuum

Phase	***Trecha's model***[3]	*Characteristics of phase*
1	*Traditional buyer – supplier relationship* *- Supplier is an "enemy"*	Bidding → lowest price → buying Blanket orders Competitive price Standard leadtimes Multiple back-up suppliers
2	*Simple leverage* *- Perhaps we could manage some operational matters together*	Best price → one year contract Brand preferences Simple availability Simple quoted leadtimes Emergency response
3	*Transaction and Logistics*	Supplier managed and inventory

[3] Porter, 2000, S34

	- We should monitor total cost of each purchase and optimize them	released programs Freight management Purchase consolidation and cost savings → Total cost acknowledgement
4	*Operations and Design* *- Mutual trust and open communication, shared future plans*	Operations, design and planning integration Operations / problem solvers – hands-on collaboration Operations training Continuous improvement initiatives

This modified model from Steve Trecha is used below as a basis for a deeper analysis of using Internet technologies in partnership developing.

4. DEFINITION OF THE INTERNET, INTRANET AND EXTRANET

In business-to-business networks companies have many ways to use different web technologies and systems, and there are several directions into which to develop the use in order to gain more benefits from it. In the following chapters the differences between the Internet, Intranet and Extranet are discussed. The differences are regarded as processes through a browser. A significant point to notice is that the browser is not a part of the Internet, Intranet or Extranet, it is simply a tool which a user uses to view the data.

4.1 Internet

The Internet is a network connecting many computer networks and is based on a common addressing system and communications protocol called TCP/IP. The original

uses of the Internet were electronic mail, file transfer, bulletin boards and newsgroups, and remote computer access (Telnet). The World Wide Web (www or merely web), which enables simple and intuitive navigation of web sites through a graphical interface, expanded dramatically during the 1990s and became the most important component of the Internet. (Anonymous, 2000a)

A common definition of the Internet is calling it a public web site. Its primary users are both current and potential customers and suppliers, the general public and other people outside the company. The Internet can be described as a big welcome mat, where the entrants step first when they get acquainted with the company for the first time.

Types of available information on a company's Internet site can be for example:

- Product and service information,
- Contacts (sales, service, investor relations, media relations, etc.),
- Product and sales support,
- Value-add sections (mailing lists, interactive areas, open vacancies, etc.),
- Solutions and success stories. (Ringle, 1999, 16)

4.2 Intranet

An Intranet is a private network for internal company use only. Businesses might deploy intranets for sharing information and collaborating within the company, usually insulated from the surrounding Internet by computer-security systems (Zwass, 2000). It is a great advantage to utilize the web and Intranet in daily processes such as delivering reports and agendas, plans and proposals, to mention a few. But also dangers exist in the net. It has to be checked that unauthorized users cannot read, modify or copy confidential documents that are sent through the Internet.

Figuratively thinking, an Intranet is a castle surrounded by a moat. To enter the castle, the entrant must have a suitable access code for the security guard standing at the door. If he has the right code, he can get in, but if he does not, he is not able to enter.

These types of applications suit perfectly to the added security and privacy of an Intranet:

- Company directory,
- Project status reports,
- Budgets and forecasts,
- High-level reporting
  (such as customer satisfaction issues, supplier performance data etc.)
- Internal files that are meant for staff only
  (for example minutes of meetings, summer holiday lists, and so on). (Ringle, 1999, 15-16)

4.3 Extranet

Businesses rely frequently also on extranets, which are extensions of a company's intranet and allow portions of its internal network to be accessed by collaborating businesses (Zwass, 2000). In fact, extranet is a special web site for partners, suppliers and vendors. These people and organizations have a closer relationship with the company's operations because of their contributions to products and services. Despite that, their access should be more limited than company employees'.

Let us imagine the same castle as in the Internet and Intranet chapters above. This time the entrant has a right to go to certain, beforehand defined, places. The entrant has consequently a restricted access to certain rooms in the castle and the other rooms are only for the company staff.

Here are some examples of extranet applications:

- Inventory checking for the sales force or supplier,
- Ordering information with special pricing,
- Partners' network with private discussion groups or mailing lists, templates for requisitions,
- Work orders and expenses. (Ringle, 1999, 16)

4.4 The use of IP networks today

The results of a survey made among purchasing professionals in the US reveal that most major buying organizations are only in their early stages of implementing e-business strategies. Electronic relationships to the suppliers are just in the planning stages, for example 13 % of the survey respondents use an Extranet now and 78 % will use one in the future. 9 % of the respondents told they would not use it at all. On the other hand, Intranet was widely used, about 70 % of the respondents admitted using Intranet now and 30 % stated they would use it later. (Fitzgerald, 2000a, S7)

In general the purchasing professionals believed that the most significant long-term benefit of a solid e-business strategy would be freeing purchasing resources from traditional buying toward strategic sourcing activities.

Procurement professionals must, however, be aware of the fact that the Internet cannot facilitate everything. The editor-in-chief in Journal of Purchasing, Kevin R. Fitzgerald, has listed some examples of issues that are worth noticing. According to him there are many issues in which Internet applications must be developed tremendously, such as the following:

- Creating a clear supply management strategy that fully leverages supply value to satisfy customers and clearly articulates the strategy to the suppliers
- Identifying suppliers that are most strategic to a company's business success and forge close, trusting relationships with them
- Determining which internal activities belong to the company's core business and which activities are better to be outsourced to experts
- Working closely with suppliers on joint initiatives to reduce cost, improve quality, shorten delivery times and otherwise add value
- Creating and maintaining systems that accurately measure supplier performance and feed performance information back to the suppliers in a way that continuously improves quality and operations
- Recruiting and training purchasing professionals to succeed in today's changing marketplace

- Managing people and organizations through changes that new technologies like the Internet bring
- Convincing executive management that the purchasing / supply management function must have a strong voice in developing business strategies
- Working more closely with technical functions in an effort to get their acceptance for purchasing and supplier input on today's new product designs and the future direction of technology. (Fitzgerald, 2000, 23)

4.5 Internet-based relationships from the buyer's viewpoint

The growth of internet-based applications for electronic business has created many suggestions for creating a model of its impacts on business.

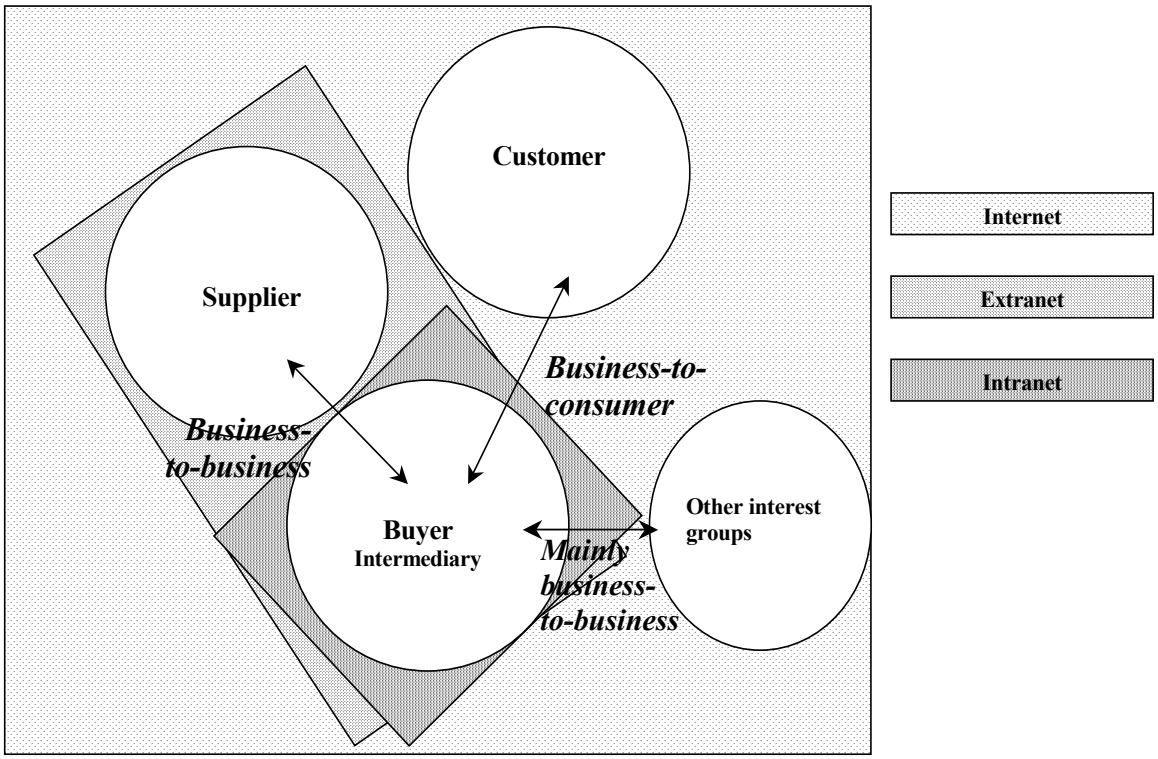

Figure 2. IP networks from the buyer's view with key relationship types

Figure 2 illustrates the main relationships between the parties and IP networks in the supply chain from the buyer's viewpoint. The basic idea of Figure 2 is from Graham & Hardaker's article, with slight modifications. (Graham & Hardaker, 2000, 286)

The buyer's Intranet is the smallest box around the circle called "Buyer Intermediary". It is for the buyer's distribution of internal information. Other parties do not have access to it. An enlarged version of the buyer's Intranet is the Extranet between the buyer and the supplier. This network is for the management of the business-to-business relationship and it is usually built to support and ease the partners' communication. The Extranet exists as a box surrounding both the supplier's and the buyer's circles in Figure 2. The frame of the whole figure illustrates the Internet. Each one of the interest groups as well as customers, investors, researchers etc. have access to it. In the Internet the types of relationships vary from business-to-business and business–to-customer relationships right up to business-to-government relationships.

5. PREVIOUS STUDIES AND ARTICLES ON USING THE INTERNET IN STRATEGIC PARTNERSHIPS

The following quotations from articles of different industry sectors present how the Internet is being used in some companies' business activities. There are numerous articles of e-commerce in several databases, but very few of them discuss strategic partnership development using Internet capabilities. Other sectors of e-commerce, like operational functions and supply chain matters, are studied and explained well in many articles. Strategic development issues were looked for in this part of the study, but only some issues were found. Some important operational practices are also presented in this chapter.

5.1 The United States and Canada

According to Kafka, an analyst of e-business trade for Forrester Research, across all industries in the United States 93 percent of companies expect to do some business in the Internet. More than two-thirds of buyers and sellers expect e-commerce to be central to their activities by 2002. (Challener, 2000, F3) Thus it is not a wonder that the ways of working through the Internet contain also other methods than the companies' operational functions only.

5.1.1 Process industry

According to Forrester Research more than 100 billion dollars' worth of products will be bought and sold in the Internet in the petrochemical industry in the first two years of this millennium. (Challener, 2000, F3) There are three main e-commerce strategies that exist in the chemical industry at the moment: first the companies join on-line exchanges, then use e-commerce to connect directly with their most strategic customers and suppliers, and finally develop real-time on-line marketplaces for the sale of products, leveraging either their buying or selling power.

The chemical industry sees that "the role of e-commerce is to reduce the overall cost of the buyer-seller relationship, to facilitate sharing of information that creates further efficiencies and/or delivers a higher level of service" (Challener, 2000, F4-F5). The Internet is also seen as a very potential information tool: it is much faster, less subject to the interpretation than previous information tools and provides a clear audit trail.

The concrete approaches to e-commerce strategies in the chemical industry include such things as: customized web-site interfaces for suppliers and customers, on-line catalogs, pricing facts, order placement and tracking, material safety datasheet information, certificates of analysis, billing and financial settlement, shipment tracking, integrated vendor management inventory and demand planning all the way in the supply chain.

14 companies of e-commerce forerunners have been mentioned in several articles, because they have made up a consortium called Envera. Envera is a neutral, secure and confidential marketplace, which allows integration and networking among chemical and process companies.

5.1.2 Assembly industry

In February 2000 Ford, General Motors (GM) and Daimler Chrysler (DC) announced a decision to combine their online trading community plans and began to develop a common interface for suppliers. They had noticed that their online strategies were becoming more and more similar and they would have a notable benefit from combining their plans. (Paul, 2000)

The key goal for this network is to communicate requirements to the supplier base fast and thus provide their customers with more customized vehicles. Through websites these companies can transfer such information as advanced planning and scheduling, demand forecasting and design collaboration.

The potentiality for Ford, GM and DC to reduce their internal costs and to speed up the process is clear. On the other hand, the savings promised through aggregated buying power could easily be lost through increased computing infrastructure costs and bureaucratic mistakes. Despite a common trade exchange these three parties are still competitors and they have their own purchasing strategies. (Paul, 2000)

The carmakers and suppliers have for the last four years tried to develop a network (the Automotive Network Exchange, ANX) to transfer large amounts of very secure data. (Paul, 2000) The ANX will establish a standard method for the parts suppliers to communicate with and obtain order information from the auto manufacturers. (Graham & Hardaker, 2000, 287) The benefits, such as for example lower cost structure, will modify the competitive strategies and interaction among all participants. However, this will not work if there are only a few participants using the network for buying some pencils and papers.

Gary Cross has described ANX in one of his articles as follows:

"The Automotive Network Exchange (ANX) is the initiative from the Automotive Industry Action Group, an association of automobile manufacturers and their suppliers. Its goal is to develop a secure, high-performance, and highly reliable extranet that members can use to exchange the large volumes of design data their computer-assisted design and manufacturing systems generate." (Cross, 2000, 39)

5.1.3 Telecommunication

Stentor is the national alliance of the leading telecommunications companies in Canada. The alliance works together to provide centralized support and expertise in managing national network operations for the delivery of top-quality national telecommunication services to their customers. (Stentor, 2000) Stentor Resource Centre Inc. (SRCI) works closely with this alliance and has about 1000 employees in 11 centers across Canada.

The real power of modern networked communications lies in their ability to make the distance irrelevant. The alliance intranet links the Stentor alliance companies and SRCI from coast-to-coast. It is under construction, but it will include 19 pages. Some sites provide details about a particular line of business and its services. There are also advanced sites, such as an interactive database to handle information of the latest product information and new developments. Moreover, other sites showcase emerging technologies or provide technical support. Apart from the above-mentioned sites there is a developer's center and a betaNet site, where employees can experiment with new Internet technologies and services. (Stephenson, 1998, 23)

For common use Stentor has a public web site where it distributes company news to the customers and stakeholders. It also provides product information, but this is limited because SRCI does not directly sell anything to Canadians. In addition to this an advanced search engine exists in their Internet sites to allow the customers to query and to find information from all Stentor alliance sites.

5.2 Europe

According to the Electronic Commerce Report of the consultancy company KPMG the top 100 UK companies, including The Co-operative Bank, Nationwide Building Society, RS Components, Waterstones and Eagle Star Direct have developed e-business strategies and are gaining valuable experience of deploying web-based business solutions. These UK companies in fact believe that 20 percent of their revenue will come from e-commerce transactions. (Fraser, J. et al., 2000, 7) However, the Goldman Sachs Investment Research has worked out an e-commerce study in which they state that business-to-business electronic commerce lags the United States by two years. (Goldman Sachs, 1999, 41)

5.2.1 Process industry

The brewery Heineken wanted to cut their leadtimes for orders by half, from 12 weeks to 6. The company decided to implement an extranet linking the brewery to the customers and the suppliers through the Internet. This system would also work as an intranet enabling the sales staff to log on to a central database.

The new system offers opportunities to perform real-time forecasting and deal with customer orders. It also makes it possible to customize forecasting data to individual distributors. The Voyager, as this system is called, operates also as a calendar system, which helps Heineken to tell interest groups about problems and new products. Besides cut-down delivery times, online planning has also cut procurement costs and reduced stock inventories.

The system itself is very easy to introduce. The distributor needs only a PC, a modem, an Internet connection and a web browser. This is a big advantage for Heineken, which does not have to pay for an expensive direct line between the parties. (Anonymous, 2000b, 34)

5.2.2 Machinery industry (part distribution)

Endorsia.com is an innovative portal that allows companies to do electronic business without expensive investments. This informational platform was developed by Sweden-based SKF AB, a manufacturer of bearings and seals. Endorsia.com was launched in the end of 1999 with a Finland-based pilot program. Finland was chosen for pioneer because SKF has several very capable internal project leaders here. Due to the positive feedback the company plans to roll out the portal to the rest of Europe during the year 2000.

Endorsia.com provides SKF's customers, as the first of all industrial distributors, with full online support for products and services, for example real-time access to technical information, product availability, delivery times and commercial terms and conditions. It includes an electronic catalog, product search metaphors and procurement. Endorsia.com connects also the buyer and the supplier trading partners for handling online business transaction and document exchange. The goal for this portal is to reduce costs through faster and more efficient product handling, inventory management and logistics. The site is not only for electronic commerce, because it also supports the supply chain with the necessary product and application know-how. (McCrea, 2000, MC5)

5.2.3 Telecommunication

Only a few mentions about the use of the Internet between partners were found about the telecommunication industry in Europe. For example, companies like British Telecommunications and Deutsche Telekom were referred to occasionally in the articles, but concrete case studies could not be found. Davis P. Goodman stated in his article: "British Telecommunications claims it will save a billion dollars next year by sourcing exclusively through the Internet and any of its suppliers that aren't ready won't be suppliers any longer. Where you are geographically will matter less and less. Even the venerable sales call will be an endangered business form since pictures, videos and live conferencing are cheaper and more convenient." (Goodman, 1999, 112)

6. FROM PURCHASING CONTRACTS TO A PARTNERSHIP

The Internet is accelerating the disintegration in every industry by eliminating the cost advantages that used to come with keeping everything together under one roof. In fact, we are rapidly getting to the point where vertically integrated companies will be at a distinct disadvantage when trying to compete with companies that utilize virtual supply chains. (Johnson, 2000) The business is identifying a variety of industries that have very large players and that have an interest in coordinating, collaborating and optimizing the entire supply chain. These industries are for example the aerospace, retail and telecommunications sectors. (Cooke, 2000, 48)

However, e-business is seen as a comprehensive automation of a company's collection of relationships – business partners, competitors, customers, employees and suppliers – into a unified value chain, all based on IP and web applications.

A major benefit of the information "highway" is that relevant information can be sourced from the desktop or armchair. (Cooke, 2000, 48) Procurement professionals need no longer travel long distances to participate in follow-up meetings or common development planning. By using appropriate web applications they can save time and money while attending these meetings via the network.

It is assumed in Table 4 that the buyer has made a long-term contract with a supplier, but there is still no deeper contact between the two parties. The table shows what kind of strategic improvements and developments can be made in a partnership by using Internet solutions.

Table 4. Typical characteristics and potential IP network solutions in different phases of partnership development (the phases are based on Trecha's model).

	Traditional buyer-supplier relationship	**Simple leverage**	**Transactions and logistics**	**Shared operations and design**
Typical characteristics, strategic issues	Reactive Focus on operations Very hierarchical organization Lack of trust No purchasing contracts Win – lose – mentality (bidding, many alternative suppliers, who has the lowest purchase price at the moment may deliver goods → *Spot procurement*)	Short-term one-year contracts (The price is the most important purchasing criteria, when selecting the annual supplier) Simple availability and quoted leadtimes Emergency preferences Think about your own company's goals and if needed, start to define possibilities of partnership with the vital supplier	Benchmark companies Reverse marketing → Supplier development "Should-cost"-analysis Supplier management	Proactive Focus on future planning Low organization Mutual commitment Collaborative development Win – win – mentality Total cost of ownership – mentality
Utilization of Internet technology	Search new suppliers, product and service information Simple order entry	Inventory controls and availability information Advanced order entry	Performance measurement reports Shared documents of demand and supply forecasts Joint virtual rate, price and term negotiations	Overall communication Development and future planning Status checking
Internet applications	Online catalogs Source selection tools like search engines, link lists, newsgroups, mailing lists, information portals to locate suppliers on the	Besides previous issues: Contacts (sales, service, investor, media relations etc.)	Besides previous issues: Virtual spaces for meetings and negotiations	Besides previous issues: Product and sales support Interactive areas, for example help desk for end-customers

	Internet, execute bidding Auction houses Electronic marketplaces			Other solutions and success stories
Extranet applications	Nothing to share between the buyer and the supplier	Inventory checking for both the buyer and the supplier Ordering information with special pricing	Besides the previous issues: Presence calendar available for both parties, accept meetings and update the calendar Demand and supply reports and forecasts → common plans	Besides the previous issues: Partners' network with private discussion groups (chat), mailing lists and templates for different documents Work orders and expenses Virtual spaces for sharing ideas, conducting value analysis and value engineering and collaborating in real-time on the manufacturing processes Virtual design and development meetings and conferences as well as reviews with decision support applications (virtual voting etc.), virtual plant tours and product demonstrations, virtual plant management
Intranet applications	Company directory Weekly announcement (holidays, menu, happenings, and other internal issues) Instructions for new employees	Besides the previous issues: Budgets and forecasts Proceedings of meetings Internal news Open internal vacancies	Besides the previous issues: Supplier performance and risk management data Decision support reports Project, market and supplier status	All the previous issues and future solutions

	Templates for different papers	Training possibilities Bulletin board	reports Accurate product information Competitor comparisons	
Examples of where already implemented	*Europe*: Machinery industry Endorsia.com	*Europe*: Process industry Heineken British Telecommunications *US*: Chemical industry	*US*: Telecommunication Stentor	*US*: Automotive Network Exchange (ANX) is aspiring to this

This paper considers the relationship development from the buyer's viewpoint and between the buyer and the supplier. The IP networks can facilitate both operational and strategic functions at any point in the existing supply chain either to streamline the entire existing process or some parts of the process. Figure 3 describes the supply chain.

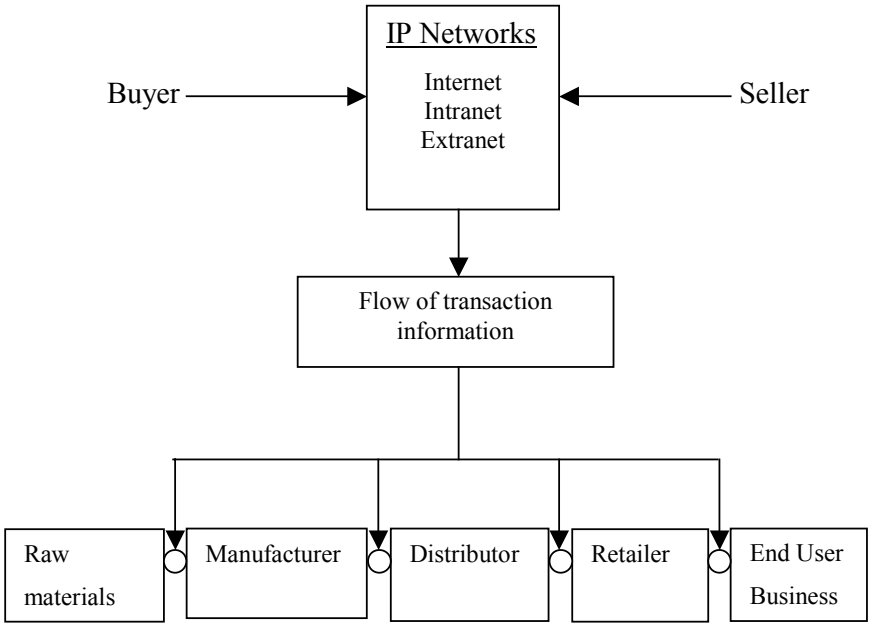

Figure 3. The IP networks can facilitate action in any part of the supply chain

7. SUMMARY

This study focused on investigating the status of the use of the Internet in partnership development. The aim of this study was to work out how the parties in the partnership can benefit from the available IP networks like the Internet, extranet and intranet when they want to transfer real-time information to each participant. This study explained also what the typical practices are at the moment and what might be exploitable in future. In addition, this study took a closer look at the features of the strategic partnership.

The research problem was to find out what the most typical ways to use the Internet, Intranet or Extranet are at the moment and whether there would be any possibilities to utilize the web more than is done today. The problem was approached by analysing the available information on the subject. The results of this study form a basis for a more extensive study on real-time information transfer for strategic business planning in a partner network.

7.1 Conclusions

According to the sources of this paper the IP networks are the Internet, intranet and extranet. The Internet is the most commonly used network. Both small and large companies already have web sites for various interest groups were general information about the company can be found. It is worth noticing that in the simplest way for these IP network solutions the user only needs a browser and connection to the Internet to access these IP network solutions. The company's size is thus not a crucial issue, because the expenses to get along are quite low. In the Internet exist also many marketplaces and other online stores, which help the buyer in his operational work. In fact, the operational solutions for buying seem to be in a good mode and the buyer can decrease his non-value-adding costs by electronic commerce.

Nevertheless, solutions to help *strategic functions* between parties still do not exist or they are so secret and included the company's core information that nobody wants to tell about them in public.

In this study it was also emerged that Intranets are becoming more common than Extranets. The company's internal documents and other activities are easy to deliver through an Intranet. The utilization of Extranets make the information handling between parties faster by eliminating for example costly traveling and accommodations. Distance becomes irrelevant when the information is available close at hand.

Broadly speaking there are many ways to make real time information transfer between partners easier and thus intensify the relationship development. Some solutions are already in use, but the more efficient means are waiting for their time. The adoption of "Internet thinking" takes time and solutions like virtual meetings and plant tours are developed all the time to be more user-friendly.

7.2 Issues for further studies

This study raised a couple of topics for further studies. First, it could be worth examining, how virtual meetings and plant tours serve the idea of mutual bargaining. Would these solutions really work in practice? Can both parties gain enough information and do they find the information correct and genuine?

Secondly it could be studied how the IP networks can help make-or-buy –decisions and supplier selection. These are the earlier phases of purchasing strategy when the company concentrates on its core competence.

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