Chapter VIII

Virtual Organizing as a Strategic Approach to Stay Competitive - A Conceptual Analysis and Case Study

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Organizations are faced with a great challenge when trying to compete in the complex and unstable business environment of the twenty-first century. One of the potential solutions to this challenge is the new organizational form known as a Virtual Organization (VO). The aim of this paper is to clarify VO as a phenomenon, and to discuss different degrees of virtuality. A conceptual analysis of the phenomenon is presented, focusing on the characteristics of VO and institutional and functional views of it. This paper shows that the institutional view fails in many ways, and that the concept of VO should be understood rather as an organizational dimension than as a specific form. This paper emphasizes the ongoing process nature of virtual organizations, and therefore proposes to use the term ‘Virtual Organizing’ than ‘Virtual Organization’. An empirical study seeks to find out how the key principles of Venkatraman and Henderson’s descriptive VO model have been applied in a target organization. At the same time, the model is also evaluated. The empirical study shows that the used model provides a useful vehicle for analyzing the competitive effect of the target organization.

INTRODUCTION

Due to the globalization of markets and the increased need to react to continuous change, a growing number of new organizations have been established and many of the existing ones have been modified in the past few years. Organiza-
tional structures and approaches, like Weber’s model of bureaucracy or Taylor’s scientific management, can no longer be considered adequate for modern business. To be able to compete in the twenty-first century, organizations will have to be more flexible (Lucas 1996). Current developments require decentralization, which information technology (IT) should, in principle, be capable of coordinating. Jansen and Jägers (1997) argue that the noted shortcomings in the quality of present information systems and the lack of insight as to how such coordination can be achieved in and by means of IT is still something for the future. According to Malone and Rockart (1993), the primary changes today are being driven by changes in coordination. Information systems are becoming a direct instrument in coordinating and controlling organizational activities and are coming to replace the more traditional coordinating mechanisms. For this other structures or other types of organization are needed (Jansen and Jägers 1997). All kinds of close co-operative ties between organizations will develop so that the boundaries between organizations become blurred (Jansen and Jägers 1997).

A new business environment calls for a strategy based on three elements: low cost, high quality, and fast flexible responses to customer needs (Venkatraman 1994). Hale and Whitlam (1997) show that many successful organizations have been moving towards a genuinely different approach to conducting business in the future. According to Hale and Whitlam (1997) this appears to have been achieved by accident rather than by design. Hale and Whitlam’s (1997) research shows that organization designers are facing a difficult task. They cannot rely only on traditional organization design variables, and in order to be successful they have to concentrate on, among several another things, how new organizational structures and technology influence work and people (Lucas and Baroudi 1994). Organization designers are indeed facing many open, difficult questions: How should organizational structures be changed? What are the new coordination mechanisms and how should they be implemented? What kind of new internal and external integration is needed? Which possible steps and stages should be chosen for a future transition into a Virtual Organizational form?

Davidow and Malone (1992) introduced the initial term “Virtual Corporation” to the general public. Following the ideas presented in their book, Byrne et al. (1993)1 popularized the term further in a BusinessWeek cover story, and the virtual corporation came to mean a temporary network of independent companies that come together quickly to exploit fast-changing business opportunities.

The research questions for this paper can be described as follows:

• What are the characteristics of a virtual organization?
• How have principles of virtual organizing been applied in a case target organization?

The research methods utilized in this paper comprise conceptual analysis and a case study. The paper will provide a conceptual analysis of the phenomenon of virtual organization (VO) based on current research literature. A single-case-study is made through interviews conducted within a Target Company. General observation of target organization behavior and archives material is also used as a method for collecting information. The nature of this information is therefore qualitative and the case study is mainly descriptive.
Section “Exploring the Virtual” aims at clarifying the concept and the phenomenon of VO through exploring its definitions and characteristics. It introduces and compares two different views of VO. Section “Model of Virtual Organizing” presents the descriptive VO model developed by Venkatraman and Henderson (1998). Section “Case Study” describes the target organization and the research results achieved through a single-case-study.

EXPLORING THE VIRTUAL

The term “Virtual Organization”² is also known by other names, like “Virtual Corporation” (Davidow and Malone 1992), “Virtual Company” (Goldman et al. 1995), “Imaginary Organization”³ (Hedberg 1997), “Virtual Enterprise” (Cheng 1996) or “Cybernetic Corporation” (Martin 1996)⁴. Each of these has its own set of characteristics, and when comparing the definitions some contradictions can also be found. This section will concentrate on two matters. Firstly, two essential views of VOs are presented. Secondly, the characteristics of VO are defined.

Different Views of Virtual Organizations

In the literature dealing with VOs two distinctly different views of the definition of VOs can be identified (Sieber 1998a). On the one hand there are institution-oriented definitions, i.e. an institutional view, (Davidow and Malone 1992, Byrne et al. 1993, Goldman et al. 1995, van Aken et al. 1998), and on the other hand there are definitions with a clear reference to the effectiveness and efficiency of companies, i.e. a functional view (Venkatraman and Henderson 1995, Hale and Whitlam 1997).⁵

Institutional View

According to Sieber (1997) the concept of virtualness is based on strategic considerations, such as ascertaining the core competencies, optimum business size, or product market areas. Sieber (1997) has divided the organizational structural changes into five stages based on a comprehensive observation and analysis of VOs (Sieber 1996). The reasoning behind each structural type emphasizes a certain aspect of organizing business activities. This approach concentrates on developing and improving existing coordination mechanisms.

The representative definitions of an institutional view are as follows:

“The VO is a temporary network of companies that come together quickly to exploit fast-changing opportunities. Companies are linked by information technology to share costs, skill and access to global markets, with each partner contributing what it is best at.” (Byrne et al. 1993)

“In a VO, complementary resources existing in a number of co-operating companies are left in place, but are integrated to support a particular product effort for as long as it is economically justifiable to do so.” (Goldman et al. 1995)

The above-mentioned descriptions represent an institutional view of organizations and concentrate on the description of constituent features of organizations that differentiate VOs from other organizational forms. Thus VO is defined as a temporary network of independent companies linked by IT to share skills, costs and
market success. Companies are networked until a certain business purpose is achieved. The network has no or a very flat temporary hierarchy focusing on functionality along the value chain. Co-operation is based on trust and on the aim that each company contributes only what it regards as its core competencies. (Byrne et al. 1993, Zimmermann 1997, Sieber 1998a).

**Functional View**

The functional view of VO, which is gaining increased acceptance (Sieber 1996), is based on two fundamental assertions. Firstly, VO is **not a distinct structure**, but virtualness is a strategic characteristic applicable to every organization (Venkatraman and Henderson 1998). This functional view departs from the assumption that virtualness can be achieved by making incremental improvements to the existing business logic. The functional view is therefore applicable to old as well as to new companies. Secondly, **information technology** enables effective virtual organizing. Venkatraman and Henderson (1998) argue that virtual organizing is not even possible without the significant power of IT.

The representatives of the functional view define a VO as follows:

“Virtual Organization is an organization that adopts the ability of the organization to consistently obtain and coordinate critical competencies through its design of value-adding business processes and governance mechanisms involving external and internal constituencies to deliver differential, superior value in the marketplace.” (Venkatraman and Henderson 1998)

“The Virtual Organization is the name given to any organization which is continually evolving, redefining and reinventing itself for practical business purposes.” (Hale and Whitlam 1997)

The representatives of the functional view treat this approach as a powerful concept, which is focused on the importance of knowledge and intellect in creating value. They prefer to call this concept ‘Virtual Organizing’ instead of using the term ‘Virtual Organization’. The functional view is based on extensive research conducted by Henderson and Venkatraman (e.g. Henderson and Venkatraman 1991, Henderson and Venkatraman 1993, Venkatraman 1994) and on the strategic dimensions presented by Porter and Fuller (1986) in their simplified value-chain model.

**Characteristics of Virtual Organizations**

Different authors and researchers have identified and described various characteristics of VOs. This section seeks to gather together the characteristics identified by at least two authors (see Table 1).

- **Information Technology**

  Davidow and Malone’s (1992) vision of VOs is strongly based on computer-based information technology. Byrne et al. (1993) argue that informational networks will help far-flung organizations to link up and work together and the partnerships will be based on electronic contracts. Goldman et al. (1995) argue that VO acquires world-class technology. In VOs the use of technologies, which facilitate expediency in communication, is fully exploited (Hale and Whitlam 1997). The architecture of virtual organizing is not possible without
the significant power of IT (Venkatraman and Henderson 1998).

- **Core Competencies**
  According to Byrne et al. (1993, 36) it is possible to create a best-of-class organization, because every partner brings its core competence to the effort. This means that every function and process could be world-class, something that no single company can achieve. According to Goldman et al. (1995) VOs are planned to be world class and excellent in their core competencies. The combination of all core competencies enables a flexible way of meeting customer demands (Davidow and Malone 1992, van Aken 1998). Venkatraman and Henderson (1998) argue that an organization has to coordinate critical competencies consistently.

- **Network of Legally Independent Units**
  VO is a temporary network of independent companies that come together quickly to exploit fast-changing opportunities (Davidow and Malone 1992, Byrne et al. 1993). van Aken (1998) interprets VO as a special case of an organization network, which is defined as a set of independent organizations, connected by semi-stable relations.

- **Flat Hierarchies**
  Byrne et al. (1993) state that VO will not have hierarchy and vertical integration, neither a central nor office organization chart. Davidow and Malone (1992) argue that one shift is toward flatter organization in which much of middle management will disappear.

- **Blurred Boundaries**
  The new organization model redefines the traditional boundaries of an organization. Increased co-operation among independent companies – customers, suppliers and even erstwhile rivals - makes it harder to determine where one organization begins and another ends (Davidow and Malone 1992, Byrne et al. 1993). Goldman et al. (1995) argue that the synthesized character of the dispersed competencies may seem borderless to the customer. Hale and Whitlam (1997) argue that VOs in their most advanced form are actually difficult to see, touch or define. van Aken (1998) says that a VO is a combination of independent organizations which are structured and managed in such a way that it operates as a complete organization. Venkatraman and

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Henderson (1998) argue that one important feature of VO is the blurred distinction between competition and co-operation.

- **Temporality**
  A VO is a temporary network of independent companies which come together to meet a specific market opportunity and once the opportunity is met, the venture disbands (Byrne et al. 1993, Goldman et al. 1995). According to van Aken et al. (1998) temporary means that the members of a VO may outlive the VO, and thus the end of the VO does not necessarily mean the end of each of its individual members.

- **Flexibility**
  This new organization model will be fluid and flexible (Davidow and Malone 1992, Byrne et al. 1993). According to Goldman et al. (1995) a VO is a dynamic organizational tool, in agile competition where things change rapidly. The form of VOs is fluid, difficult to see and touch, and its flexible form is about speed of response, which is driven by strong customer orientation (Hale and Whitlam 1997). Organizations have to respond actively to changes in external and internal conditions (Venkatraman and Henderson 1998).

- **Less Formal Relations**
  Byrne et al. (1993) state that the relations between partners in a VO are less formal and less permanent. According to van Aken et al. (1998) these relations create dependencies among the partners, but partners can also survive without them.

- **Common Business Purpose**
  Goldman et al (1995) describe a VO as a group of companies, which have a certain common goal, e.g. a specific project to complete or a certain product to produce. A VO has its own identity which can be strong (a hard VO), or it might be fairly weak (a weak VO), in which case the identity of the partner can also remain visible. A hard VO looks from the outside like one common organization (van Aken et al. 1998).

- **Shared Risks / Resource / Knowledge**
  A VO can share skills, costs and have access to the global market (Davidow and Malone 1992, Byrne et al. 1993). According to Goldman et al. (1995) sharing resources will offer competitive advantages and sharing risks will improve competition possibilities. van Aken et al. (1998) argue that the risks have to be shared by every partner in the VO.

- **Based on Trust**
  These relations make companies more reliant on each other and require more trust than ever before (Davidow and Malone 1992). The destiny of each company is dependent on that of the others (Byrne et al. 1993). van Aken et al. (1998) argue that the less formal and less permanent (semi-stable) relations and shared risks make the partners more interdependent. In addition to institutional forms of trust the literature also acknowledges the existence of trust in interpersonal forms (Järvenpää and Shaw 1998). According to Goldman et al. (1995) teams cannot succeed if they do not behave toward each other in a trusting and trustworthy manner.
- **Attribute of Every Organization**
  According to Hale and Whitlam (1997) a VO is the name given to any organization that is continuously evolving for practical business purposes. Venkatraman and Henderson (1998) treat virtualness as a strategic characteristic applicable to every organization.

- **Value-Adding Business Processes**
  Virtualness is the ability of an organization to acquire and maintain critical competencies through its design of value-adding business processes and its organizational structure (Sieber 1997). The aim is to promote the active involvement of customers in the value-adding processes so that the goods or services are produced in co-operation with the customers (Venkatraman 1998).

- **Learning and Adaptive Orientation**
  New information is generated within and across organizational boundaries and it becomes available to everyone who is committed to obtaining it (Venkatraman and Henderson 1998). A key factor for many organizations in the future will be the willingness of its members to acquire new knowledge and learn new skills in order to develop new attributes (Hale and Whitlam 1997).

The above-mentioned characteristics have not been prioritised, and therefore it is not clear which of them are more important than others. However, none of them can be totally ignored. The success of VO will depend on the selection and usage of these characteristics.

**Discussion**

The institutional view represents a structure-driven definition of VO. According to Gristock (1998) this approach fails in the following ways:

- It fails to provide any thorough information of the processes that must be set in place to support any organizational form.
- It fails to provide an insight into the differences between the processes that support one organizational form as compared to another.
- It fails to provide aesthetics of services and products, which supports virtuality in organizations that can be created or exploited.

Sieber (1998a) argues that the institutional view also lacks a correlation between effectiveness or efficiency and organizational dimensions, whereas the functional view makes a clear connection between the objectives (deliver superior values in the market place) and the constituent features of the organization (consistently obtain and coordinate critical competencies). The functional interpretation does not highlight the actual structure of the organization but the strategic dimensions already discussed by Porter and Fuller (1986).

The institutionalization of the organizational form of VO with the previously mentioned characteristics (see Table 1) appears to be quite problematic. Many issues remain unclear:

- How is it possible to build up trust if the structure of VO is temporal?
- How is it possible to operate effectively if the relations among the units are informal and the units are legally independent?
- How is it possible to share risks, resources and knowledge among legally independent units in a temporal and informal environment?
Considering the definitions made, the question arises of whether a VO can be seen as a new form of organization (the institutional view) or should it be seen rather as a dimension, by which every organization can be typified to a greater or lesser degree (the functional view). Gristock (1997) argues that understanding the new organizational form lies not in the search for the characteristics and the definition of a VO, but in understanding how the use of advanced information and communication technologies surmount the communication barriers that exist when activities are organized virtually. The newest VO research seems to suggest that the concept of virtuality should not be understood as a special form (Davidow and Malone 1992, Byrne et al. 1993, Goldman et al. 1995, Grenier and Metes 1995, Martin 1996), but rather as an organizational dimension (Zimmerman 1997, Hale and Whitlam 1997, Palmer 1998, Gristock 1998, Venkatraman and Henderson 1998). VOs should not be considered as having a distinct structure, but as a continuum or degree of virtualness.

In the recent VO literature even the justification of the term VO has been questioned. Gebauer (1996) criticizes the common use of the term VO for lacking any theoretical foundation. Klüber (1998) argues that VO is a buzz-phrase with little theoretical foundation supported only by a variety of incomplete and unconnected perspectives. Some researchers (e.g. Venkatraman and Henderson 1998, Faucheux 1997) use the term ‘organizing’ rather than ‘organization’ to emphasize the continuously ongoing process nature of VO.

An important difference between the functional and institutional view is the independence of the legal constellation of the co-operation (Zimmerman 1997). An essential characteristic is the concentration on core competencies, which are coordinated, problem-oriented and dynamically able to cope with precise tasks on the basis of superior IT (Henderson and Venkatraman 1994).

**MODEL OF VIRTUAL ORGANIZING**

In order to understand the concept of virtualness the empirical part of the study is based on the Venkatraman and Henderson’s (1998) descriptive model of virtual organizing. This model measures a company’s virtualness along three dimensions: customer interaction, asset configuration and knowledge leverage. The combination of all three quantifies the virtualness of the company in question (see Table 2 and Figure 1). Venkatraman and Henderson’s (1998) model of virtual organizing is based on two fundamental assertions: Firstly, **VO is not a distinct structure** (like functional, divisional or matrix), but virtualness is a strategic characteristic applicable to every organization. Secondly, **IT capabilities are powerful enablers of the critical requirements for effective virtual organizing.**

In the literature a variety of other frameworks, which can be used for investigating VO empirically (cf. Travica 1998, Gristock 1998, Klüber 1998), have been introduced. Venkatraman and Henderson’s (1998) descriptive model of virtual organizing was selected for two reasons. Firstly, the model is based on extensive research conducted by Henderson and Venkatraman starting as early as 1991 (e.g. Henderson and Venkatraman 1991, Henderson and Venkatraman 1993, Venkatraman 1994) and on the strategic dimensions already presented by Porter and Fuller (1986) in their simplified value chain model. Secondly, the model has gone through clear
development phases since it was introduced in 1995 (Venkatraman and Henderson 1998).

Three Independent Dimensions

According to Venkatraman and Henderson (1998) virtualness can be quantified as the combination of three dimensions of virtualness: customer interaction, asset configuration and knowledge leverage. Each dimension has three evolutionary stages which describe the level of the virtualness. The combination of these three dimensions and the stage of each of them describes the virtualness of the company in question (see Table 2 and Figure 1).

Customer Interaction

The first dimension of virtualness focuses on the new challenges and opportunities for company-to-customer interactions. Venkatraman and Henderson (1998) divide the customer interaction dimension into three stages: remote experience of products and services, dynamic customization of products and services, and customer communities.

According to the studies made by Quinn et al. (1997) the remote experience of products and services as early as possible in the innovation process is crucial. Slywotzky and Morrison (1998) argue that the old product-centric market share approach must be shifted to the new customer-centric and profit-centric approaches. Venkatraman and Henderson (1998) stress that every company should estimate how to create superior linkages with customers and how products and services can be experienced remotely.

Venkatraman and Henderson’s view of dynamic customization of products and services is based on three principles: modularity, intelligence and organization.

- **Modularity** is an approach for organizing complex products and processes from smaller systems (see Table 3). The benefits are an increased rate of innovation, lower unit costs and greater customer satisfaction (Baldwin 1997).
- **Intelligence** is based on the continuous information exchange with customers, which can be used to match users with similar interests and make recommen-
Table 3: Examples of dynamic customization.11

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<th>Description</th>
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<td>Customized magazines</td>
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<td>Customized textbooks</td>
<td><a href="http://www.mhhe.com/primis">www.mhhe.com/primis</a></td>
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<td>Customized computers</td>
<td><a href="http://www.dell.com">www.dell.com</a></td>
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<td>Customized cars</td>
<td><a href="http://www.saturn.com/car/ipc/index.html">www.saturn.com/car/ipc/index.html</a></td>
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<td>Firefly Passport</td>
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<td>Movie Recommendation site</td>
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...ations on their shared interests (see Table 3).

- Dynamic customization of products and services requires an organization that is committed to operating in a new way. Venkatraman and Henderson (1998) stress that modularity and intelligence are useless without the adoption of the right organizational form.

Hagel and Armstrong (1997) state that customer communities signal a power economic value shift from manufacturers to customers. According to Venkatraman and Henderson (1998) the most profound aspect of interaction in the virtual model is the emergence of information gathering and information spreading customer communities.

**Asset Configuration**

The second dimension focuses on obtaining critical assets and resources. Venkatraman and Henderson’s view of asset reconfiguration is based on three stages: sourcing modules, process interdependence and resource coalitions.

Baldwing and Clark (1997) argue that the value-adding role of an organization is less in the manufacture of a critical component than in the creation of a product or in service architecture. Venkatraman and Henderson (1998) stress that organizations should constantly examine what modules should be obtained from outside and how existing sourcing logic should be revised.12

**Process interdependence** focuses on the interdependence of business processes across organizational boundaries, which means that one or more business processes will be delegated to an external specialist who then owns, manages and administers the selected processes (Venkatraman and Henderson 1998).

According to Venkatraman and Henderson (1998) organizations in the future may have two roles: a leadership position in one set of resources and secondary roles related to other complementary resources. The strategic challenge in these resource coalitions is the orchestration of an organization’s position in a dynamic resource network. Venkatraman and Henderson (1998) stress that these coalitions highlight...
one important feature of virtual organizing, which is the blurred distinction between competition and co-operation.

**Knowledge Leverage**

The third dimension focuses on the possibilities and mechanisms for the leverage of expertise at many levels (internal and external). Venkatraman and Henderson’s view of knowledge leverage is based on three stages: **harnessing work-unit expertise, recognizing knowledge as a corporate asset, and gaining access to broad professional community expertise.**

According to Venkatraman and Henderson (1998) the real challenge in maximizing work-unit expertise lies not only in designing the technological platform to support group work (e.g. groupware, videoconferencing and Intranet), but also in designing the organization structure and processes.

The second stage focuses on harnessing the collective expertise across work units rather than within units. The main focus is less on tangible and codified knowledge and more on tacit knowledge.

In the third stage, the focus is on the community well beyond the domain of local organization. Organizations are maneuvering to gain access to the expertise in the extended network and the broader professional community. Recent advances in IT fundamentally enable multiple experts from different locations to interpret simultaneously the meaning of indistinct events.

**CASE STUDY**

The empirical study has been conducted in Sampo-Varma Group National Insurance Company and for feasibility reasons it focuses on one of its commercial units known as Private Sampo. This single-case-study was implemented through interviews conducted in the Target Company.

**Current Situation**

Private Sampo has approximately 1,060,000 clients, comprising 985,000 private households, 36,000 self-employed people and 28,000 farms (Sampo 1997). The unit supplies property insurance and motor vehicle insurance, and maintains organizational client relationships. Private Sampo’s market position is about one third of the Finnish private household markets.

The Private Sampo service network comprises four geographical regions in which clients are served through 88 offices and the Sampo Call Centre telephone service. The number of clients who choose to handle their insurance matters by telephone is steadily rising. The demand for self-service access is also growing. Private Sampo’s Internet website was launched in December 1996 and visits to the site have increased steadily (during March 1999 there were around 260,000 visitors). It is expected that the focus of attention will fall on telephone and Internet services over the next few years. Nevertheless the demand for personal service in local branch offices will continue to be met in full.

The upgrade of Private Sampo’s operations and information systems has been presented in the Sampo 2000 plan launched in 1995. This plan that consists of
approximately twenty different projects is based on extensive and fundamental strategic discussions that cover the whole of the Sampo organization.

Virtuality in Private Sampo

As indicated above, Private Sampo aims at achieving a new improved form for its future operation. The ongoing change process is quite extensive, and to it demands a huge effort from every level of the organization to succeed in it. The evaluation of Private Sampo’s current virtuality is shown in Figure 1.

Customer Interaction

Private Sampo has reached the “Remote experience of products and services“ stage in the customer interaction dimension. The multi-channel approach to customer services means that the customer has several alternative service channels to choose from, e.g. insurance agents, office services, telephone services and the Internet. The Sampo customer service strategy emphasizes that providing customers with the same service through various channels is the best solution for the customers, because it allows them to choose the channel that best suits their specific needs.

Insurance agents and local branch offices have traditionally taken care of customer services in Private Sampo. A newer channel for customer service is the Call Centre telephone service initiated in January 1996. This service has turned out to be a significant innovation. Annually, the personnel of around 100 people in the Call Centre takes care of over two million customer contacts.
Private Sampo also offers an Internet-based service channel, although it does not provide all the services that the insurance agents, local offices and Call Centre do. Full self-service via the Internet is not yet a reality. However, Private Sampo regards the Internet as one of the core service channels of the future and therefore is actively developing and enhancing its Internet-based customer services. Moreover, the organization is promoting the vision whereby 20 percent of all service actions will be processed via the Internet by the year 2002.

Private Sampo’s insurance policies are usually drawn up so that the customer can choose different combinations from the insurance policies available, plus choose the level of security that suits their needs best, but customers cannot really customize the existing insurance policies. For example, it is impossible to buy travel insurance for one day only. Private Sampo argues that the problem in cases like this is the unjust correlation of the costs that buying the insurance causes and the profit obtained by selling it. However, the customization possibilities for insurance policies may change in the future. It may be assumed that the full utilization of the Internet will have an influence on the factors that determine the price of the service.

Private Sampo has good connections with communities that represent Private Sampo’s customers, such as labor market organizations and the Finnish Association of Private Housing. These communities may be used, when needed, as information and advertisement channels. However, at the moment Private Sampo does not maintain, nor is it developing, Internet-based customer communities.

**Asset Configuration**

One visible feature in Private Sampo is the fading of organizational structures, and this is a facet that is expected to continue in the future as well. Unnecessary structures can be seen as obstacles for building up a wholesome synergetic organization, and consequently they are being knocked down within Private Sampo. In building information-processing systems, a special effort has been made to find similar systems and structures that can be used in different parts of the organization (e.g. the Sampo Call Centre).

The outsourcing of software development has been carried out through having special external suppliers and a special co-operative company that is owned both by Private Sampo and the suppliers. The target of this arrangement is to obtain flexibility, effectiveness and the availability of capable staff. On the other hand, Private Sampo’s goal is to maintain a level of independence: On the one hand the company is not willing to depend entirely on the supplier, but on the other hand it is not willing to increase unnecessarily the number of software development personnel, either. Other examples of outsourced activities are the monthly reports of Private Sampo telephone service actions and sales of security merchandise as well as the development of information material about public security.

A good example of intensifying business activities using IT is the new indemnity service system. This means an arrangement between, for example, a garage and the insurance company: When a customer goes to a garage with a broken car, the garage has an electronic picture-transferring connection with a Private Sampo office. When the picture arrives at the office, the decision for indemnification, or at least the permission to repair the car, can be given immediately. The
inspection of losses in Private Sampo has earlier been outsourced, but it was recently taken under the company umbrella again.

Private Sampo estimates that the number of various resource coalitions will probably increase in the future, even though coalitions like this are relatively few at the moment.

**Knowledge Leverage**

Private Sampo has two active training laboratories for their employees, the Change Laboratory and the Boundary Crossing Laboratory. The work group of the Change Laboratory explores cases chosen in advance in order to develop processes inside working groups. The Boundary Crossing Laboratory explores processes that influence a variety of working groups. Through a simulation game an implemented case is opened and later inspected closely. Evaluators participate in the game and make observations and estimations of the situation.

In addition to usual staff consultations, meetings, internal bulletins and an e-mail system, Private Sampo uses, among other things, video techniques and training by telephone. An intranet system is planned to be introduced in to use in the near future, and the new workflow system, brought in along-side the Sampo 2000 Plan, will enable the internal control and decentralization of work in the future. Actual groupware software systems are not currently in use.

Private Sampo does not aim at collecting tacit information very extensively at the moment. However, Private Sampo is developing a system that is supposed to help collect tacit information. For example, in a customer consultation situation the customer service staff can record their own observations on the reasons why they failed to sell an insurance policy. At the moment, this is only a dawning IT utilization area, but it may become a significant area in the future.

In creating and developing the future image along the lines of the Sampo 2000 Plan, external competence has been used widely, e.g. in projects, processes and usability.

**Discussion**

Private Sampo tries to develop its customer services comprehensively by amplifying service support processes and developing a multi-channel customer service. Developing services to be alike, regardless of the channel through which the service is brought to the customer, is partly profitable for the customer, and partly not. This approach is oblivious to the uniqueness of the Internet. The company has pointed out the following problems in bringing all the services to the Internet:

- It is hard to build a system in which customers can make choices consciously knowing what they want (the problem is the extent and range of an insurance policy).
- Customers do not necessarily know enough about the services available (the vast variety of services provided).
- It may be hard for customers to realize their actual needs (the extent of the security, etc.)
- It may be hard for customers to realize all the factors having an influence on the price of an insurance policy.
Some of the traditional insurance services are suitable for the Internet as they are, while some are not suitable at all. The services provided through Internet should be explored entirely separately from the services provided through other channels. Then the inspection could focus on e.g. **the length of the insurance period, the entirely free customization of the insurance policies, new principles in price fixing, new types of insurance policies and new customer service channels.**

Therefore the Internet enables the customer to tally flexibly the desired insurance policies with the desired period of time. The customer would no longer be obliged to buy insurance for a whole year; instead, the insurance could be taken for a specific day or week in a year. For cost reasons, this kind of a system is not feasible with traditional customer service channels. However, it is possible that the Internet will change not only the expense structures of insurance policies, but also their basic structures.

Moreover, the Internet will enable the creation of an almost limitless number of service channels, which will be a part of the daily life of a third party. Why is it not possible to acquire an accident insurance, when you need it and where you need it? For example, why is it not possible for a golfer to buy his/her insurance at the same time when she/he pays for the one-day green-fee to a golf club? This sets new demands for the resource coalitions that the organization belongs to, as well as for the IT systems in use.

The situation is contradictory, because the Internet will enable a totally different set of procedures compared to the traditional channels. It is tempting to think that providing two different services will create a contradiction between the already existing service channels and the Internet service. For this reason it should be considered, whether these two will represent an extensive customer service potential, with two parallel ways to deal with the insurance policies? Private Sampo’s strategy emphasis on customer service is clearly seen in the effective training of the personnel and in the multiple means of communication. The Intranet will heighten the degree of internal communication, and the introduction of workflow systems will help in controlling documents and possibly liberating work from the restrictions of place and time. This will also intensify and facilitate communication. The customer recording system for collecting tacit information may make customer service more efficient.

Private Sampo has tried to obtain intra-organizational efficiency by knocking down synergy obstructing structures. Business activities have been outsourced moderately. Without exception, all the outsourced business activities are unimportant compared to the core business activities. Outsourcing is used for saving costs, gaining efficiency and maintaining a certain degree of independence. However, specific merit rating systems for controlling outsourcing have not been developed, nor are they planned. All decisions concerning process or business outsourcing are based on careful analyses and investment calculations. Changes happening in surrounding circumstances have caused the outsourcing of some of the previous in-house business activities, and even the taking back of some of the activities that had previously been outsourced.
CONCLUSION

In the beginning of the 90's, the term Virtual Organization (VO) emerged in the research literature. The early articles and books were more or less oriented to describing VO as a phenomenon (e.g. Davidow and Malone 1992, Byrne et al 1993). Some key characteristics, like concentration of core competencies, strong customer orientation and networks of independent companies, were presented. After this stage, conceptual models emerged. Jägers et al. (1998) introduced VO as a network organization in an extreme and far-reaching form. According to Jägers (1998), a VO is just a progressive step in a continuum of network forms in an environment of low control and high uncertainty. Venkatraman and Henderson (1998) presented their own virtual organizing approach based on two main assertions. Firstly, Virtual Organization is not a distinct structure, but virtualness is a strategic characteristic applicable to every organization. Secondly, IT is a powerful enabler of the critical requirements for effective virtual organizing.

An analysis of the recent VO literature suggests that the concept of virtuality should be understood as an organizational dimension rather than as a special form. In this view, VOs should not be thought of as having a distinct structure, but as a continuum or degree of virtualness. Even the justification of the term VO has been criticized to be without any or just a little theoretical foundation. It has also been argued that the term ‘Virtual Organization’ is a buzz-phrase, and that the term ‘Virtual Organizing’ should be used instead of it to emphasize the ongoing process nature of VOs.

This case study shows that the used conceptual model is a suitable tool for measuring the target organization’s degree of virtuality. Although the model does not provide any exact values for this, it gives an overall view of the level of target organization’s virtuality. The model also allows the same and different types of organizational forms to be compared with one another and it enables, for example, to examine the utilization of those technologies, which support specific forms of work. The model can also be used for analyzing the competitive advantage of the target organization. Yet, the model could also be further developed towards a universal model of organizational knowledge creation.

REFERENCES
Virtual Organizing as a Strategic Approach


ENDNOTES

1 Though the scientific credibility of Byrne et al. (1993) is questionable, it has been included in this paper because several well-known researchers refer to it (e.g. Goldman et al. 1995, Travica 1997, van Aken 1998, Sieber 1998b, Palmer 1998).

2 The term “virtual” can be traced back to the early days of computer technology, when “virtual memory” was used to describe a way of making a computer act as if it had more storage capacity than it really possessed (Byrne 1993).

3 Hedberg (1997) argues that the word “virtual” takes us to the world of technologies and the word “imaginary” carries more flavors from the world of humanities.

4 This list is by no means complete, but does represent some of the most commonly used names.

5 The characteristics of these views are presented in Table 1.

6 Venkatraman and Henderson (1998) use the term ‘organizing’ rather than ‘organization’ to emphasize the ongoing process nature of VOs.

7 According to Martin (1995) a core competency is a competency with a key technology or skill that can be used in many products.

8 Companies believed that if they focus on improving their products and building economies of scale the profit will follow (Slywotzky and Morrison 1998).

9 Companies identify customer priorities and construct business design to match them (Slywotzky and Morrison 1998).

10 Today, profit is not generated merely from the product a company sells, articulating and designing the effective profit model is a new strategic skill (Slywotzky and Morrison 1998).

11 The presented examples are mostly from Venkatraman and Henderson 1998, and Hagel and Armstrong 1997 with some of our additions.

12 IBM’s efficient sourcing logic became useless when the market shifted from hardware standard to a new standard based on software connected to the Intel processor (Venkatraman and Henderson 1998).