

VIRTUAL ORGANIZATIONS

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Introduction

First we would like focus on connotation when one hears the word "Virtual organization". It seems, that many people facing the term of "virtual organizations", instinctively think about something futuristic, that does not apply to present. Actually, they are wrong, as virtual organizations are implemented even at present. Many authors have interpreted the word "virtual organization" in different ways, but generally, we can say that they are nothing more than traditional organizations, but differ in the ways of operating. Let's look what the definition says:

VO's (virtual organizations), refers to a new organizational form characterized by a temporary or permanent collection of geographically dispersed individuals, groups or organization departments not belonging to the same organization – or entire organizations, that are dependent on electronic communication for carrying out their production process.

The very essence of virtual organization is outsourcing – process of finishing necessary work out of the company's boundary. Furthermore, it includes widely usage of the Internet, computer networks and collaboration software – called Groupware. As it can be easily understand from the definition, virtual organization's features exclude own factory, headquarter building, distribution system, retail store and so on. The question is: what can it give to us? Why virtual organizations are one of the fastest growing forms of our time? We are trying to answer these questions in next paragraphs.

Management and implementation

Etymologically, the word "Virtual" means "Power" or "Quality". According to the International Association of Virtual Organizations, in 1997 there were approximately 8 million people involved in some form of virtual work. It has been predicted that by the end of 2008 41 million employees around the world will spend at least a day a week working from home and nearly 100 million will do it at least one day each month. The origin of Virtual Organisation was Eurotechnopolis – an organization founded in 1992 which grew out from the co-operative movement popular in France and Italy. Knowledge work is the fastest growing component of the 21st century workplace, forcing companies to rethink the traditional space model and consider additional work arrangements to accommodate fluidity, transient work forces and vastly differing types of work. Globalization, spread of IT, birth of Information Economy and dismantling of hierarchy have also given a birth to idea of virtual organizations. However, workplace planning is some more difficult than the regular one. Six keywords can describe shortly the idea of virtual organizations:

- **technology:** a fundament of connection and co-operation between members and companies that are far away is communication using computer and telecommunication networks
- **improvement:** every member must have some distinctive added value
- **opportunity:** the main reason of creating and closing virtual organizations is aspiration to take a particular market opportunity. Projects should be the focus of the corporation.
- **trust:** low formalization level and lack of strict coordination tools make members to develop high level of trust and understanding
- **no borders:** sometimes it is hard to show where one company starts and second begins; it is related also to globalization process
- **no clear identity:** virtual organizations haven't clear roles, contrasting to traditional organizations, where there is a clear border between client, supplier and competitor

And below are listed some important ingredients of successful virtual organization:

- **workforce:** a younger, well technologically educated workforce without the mind boundary that physical presence in an office is a determinant of work.
- **technology:** an integration of computers, networks, communication technology and consumer devices.
- **globalization:** the interdependence of knowledge, data, goods, money and ideas
- **competition:** a fierce competition for global market share, with agile, innovative companies being the winners.
- **change:** a volatile business environment demands agility and speed to keep up with changing markets.

- **social inventions:** essential new business models to keep up with the e-commerce revolution.

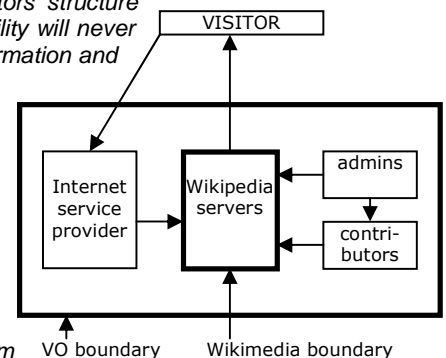
A virtual organization, like any other organization, must be managed. There are three points that apply to all virtual organizations, regardless of their structure. First, virtual organization may be a complex structure. The information-based taxonomy (see next chapter) describes simple, elemental structures, but practical virtual organization will be a combination of these elemental structures. Second, each member or group of virtual organization may simultaneously operate within several others organization. Third, the principles of virtual organization's management may also be applied within a single company.

What should be implemented, so as the virtual organization could work, is strictly connected with its method of working. Regardless of work location, facility executives need to implement and provide several tools for workers.

- I. Consistent connectivity available for voice, data and/or video in the office, at home and on the road. This may include:
 - Wired networks that provide speed and allow to transfer large and secure files (maximum flexibility).
 - High-speed data connections, like DSL, cable, so as not to waste time because of small throughput
 - Wi-Fi access in public places
 - Internet-enabled service for a growing number of mobile personal communication devices
- II. Appropriate software, devices and other work tools to support the work being done, such as:
 - Collaboration software for Web conferencing.
 - Instant messaging capabilities.
 - Virtual private network access while logging in from outside the facility.
 - Desktop video; IP phones; laptops; PDAs and other mobile devices
- III. Support services, such as:
 - Space reservation systems to ensure appropriate space is available before a worker comes to the office and to track use over time to fine-tune the types and quantities of space provided.
 - Concierge services to help mobile employees set up their work areas before their arrival.
 - Mail and package delivery to ensure that mobile employees receive packages in a timely manner without making special trips to the office.
 - Planning social events to help keep scattered employees connected.

EXAMPLE

An simple example of classic Virtual organization is known by most of people Wikimedia foundation. This is non-commercial organization, which has many thousands members from the whole world. The main project of Wikimedia is Wikipedia – the open and free encyclopaedia contributed by internauts from the whole World. As it can be easily understood, it would be impossible to keep everything in a boundary of traditional organization, taking the account the fact, that members come from many countries. In this case, the concept of virtual organization works best. The core are the servers, which are mainly located in Florida in U.S.A, but they are the only thing physically located. Wikipedia has its own management, administrators and contributors structure consisted of individuals from the whole World, but those individuals with a high probability will never see each other in real life. So as to allow to manage this big amount of knowledge, information and people the MediaWiki platform has been created – it is used to contact between particular contributors, show the effect of their work, discuss and make decision and controlling the work of other members. There is informal horizontal and vertical structure of management, which means there are existing groups working on the particular articles (horizontal), but also every individual is controlled by the other contributors and administrators (vertical). To build a strong community, the conferences and meetings are organized. So as we can see on this example, Wikimedia fulfils the main goals of VO – it has proper workforce, no physical offices or buildings, hi-tech communication technology and groupware (MediaWiki system) and globalization (knowledge, members, funds).



Of course there are many more famous examples of virtual organizations, varying from Polish mBank to international companies like General Motors, Nike, Chrysler etc.

Information-based taxonomy

There are many authors and many more publications, which try to assign taxonomy of virtual organizations. Because of that, we decided to choose one of the taxonomy, called i-based taxonomy. The i-based taxonomy defines necessary information flows between member organizations. Three broad categories of information flow are used:

- **Planning:** Information used for defining the shared purpose, for setting the scope and direction for organization
- **Operational:** Information used in the day-to-day activities of each member organization.
- **Coordination:** Information flows to ensure that operational activities effectively support the shared purpose

Taking into account those categories, we can distinguish following types:

- **Virtual Face:** A cyberspace incarnation of a non-virtual organization.
- **Star Alliance:** A grouping of independent organizations, with a core organization taking the lead management role.
- **Market Alliance:** A core organization manages all sales contacts for the other member organizations.
- **Co-alliance:** A grouping of independent organizations, each with equal commitment to the alliance.
- **Value Alliance:** Each member organization adds value to the work of the previous organization in the value (or supply) chain.

- **Parallel Alliance:** One member organization adds value to the work that is being done concurrently by another virtual organization member.

Arguments for and against

Forming the company in the shape of virtual organization can bring some advantages and benefits, which are shortly listed in a table below.

For employee	For organization	For society
<ul style="list-style-type: none"> • <i>Less stress</i> • <i>Ability to go to school while working</i> • <i>Improved family life</i> • <i>Opportunity to make more money (more free time)</i> • <i>Money saved on lunches, clothes, gas, car maintenance</i> • <i>Employment opportunities for housebound people (single parents of children, handicapped)</i> 	<ul style="list-style-type: none"> • <i>Increased productivity</i> • <i>Reduced real estate (or rent) cost</i> • <i>Staffing flexibility</i> • <i>Less paperwork</i> • <i>Less absenteeism</i> • <i>Fewer labor costs</i> • <i>Better interaction of employees and suppliers</i> • <i>Ability to work 24 hours a day (different time zones)</i> • <i>Give access to a wide range of specialized resources</i> • <i>Can be reshaped and change members according to the project or task in hand</i> • <i>Flat structure</i> 	<ul style="list-style-type: none"> • <i>Less air pollution</i> • <i>Fewer traffic problems and car accidents</i> • <i>More business for suburbs and rural areas</i>

However, the ways of operating make some disadvantages, problems and threats as well:

For employee	For organization
<ul style="list-style-type: none"> • <i>Sometimes family life disturbed</i> • <i>Difficulty in establishing close personal relationships</i> • <i>Procrastination</i> 	<ul style="list-style-type: none"> • <i>Hard to control and identify rule breakers or human errors</i> • <i>Information overload, problems with controlling</i> • <i>Copyrighted or secret information and technologies can be easier revealed</i> • <i>Problems with relations between external partners can occur</i> • <i>New technologies may be unreliable</i> • <i>Weaker identification of employees with organization</i>

So what are the conclusions from those? Let's list them below:

- Virtual work is not for everybody – some people need the structure of traditional work more than others.
- Virtual work depends on a move away from a culture where staff is rewarded purely for being in a particular place at particular time.
- It should not be promoted as a way of saving money.
- It needs a reliable technology that serves its users even if it is not the most advanced technology available. Support for technology is also needed.
- It works best for 'knowledge workers' and with use technologies such as databases that encourages knowledge sharing.

Conclusion

The definition of virtual organization is very wide, but we can generally distinguish some features, that every kind of virtual organization has in common. These are Outsourcing (process of finishing necessary work outside company's boundary) and so-called Groupware. We can distinguish several kind of virtual organizations, that depends on definition we choose. In our project we have presented one of possible taxonomy – information-based taxonomy, although there are much more of them. The results of implementation can be very useful in corporation, where the most deceiving factor is knowledge and information or quick chance to take the opportunity without need to spend much more money on unnecessary in virtual organisations facilities. Here we come to the advantages, including for example increased productivity, smaller costs, but there also some disadvantages (hard to control everything, no clear boundary etc.) Nevertheless, what is certain and shown in prognosis is, that there is a future in virtual organizations, and the number of this form of organizations will be growing up gradually in next years.

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