



Virtual Organizations - as Lead Organizations in the Twenty-First Century and Beyond

KEYWORDS

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ABSTRACT

In the modern era of economic liberalization and globalization, business environment has become highly competitive and turbulent. In order to survive and grow in a fast changing and highly uncertain environment, business organizations have to become more flexible and adaptive and highly responsive. Adami says "Flexible or dynamic organizations are said to have internal structures and capabilities to facilitate responsiveness and adaptability to changes in economic and market conditions, changes in Government policy and employment legislation, unemployment, developments in technology and methods of production, competitiveness and removal of skill boundaries." In order to build flexibility and responsiveness in organizations, several work practices, e.g., flexi time, job-sharing, home based working are being used. Another option is a virtual organization. The business environment will no doubt require firms to become even more flexible, more agile, and to bring products and services to market at an increasing rapid pace. Traditional organization firms are no longer capable of sustaining the needs of this relentless pace. This article brings out the essential features, evolution, types, technologies, issues and challenges of the new form of organizations.

Introduction

Virtual organization is a new form of organization that emerged in 1990. A virtual organization is an organization involving detached and disseminated entities (from employees to entire enterprises) and requiring information technology to support their work and communication. Virtual organizations do not represent a firm's attribute but can be considered as a different organizational form. Unfortunately, it is quite hard to find a precise and fixed definition of fundamental notions such as virtual organization or virtual company. The term virtual organization ensued from the phrase "virtual reality", whose purpose is to look like reality by using electronic sounds and images. Virtual can be defined as "not physically existing as such but made by soft ware to appear to do so", in other words "unreal but looking real".

The term virtual organization is used to describe a network of independent firms that join together, often temporarily, to produce a service or product. Virtual organization is often associated with such terms as virtual office, virtual teams, and virtual leadership. The ultimate goal of the virtual organization is to provide innovative, high-quality products or services instantaneously in response to customer demands. The term virtual in this sense has its roots in the computer industry. When a computer appears to have more storage capacity than it really possesses it is referred to as virtual memory. Likewise, when an organization assembles resources from a variety of firms, a virtual organization seems to have more capabilities than it actually possesses. Technology and globalization both support this particular type of organization.

Concept of Virtual Organization

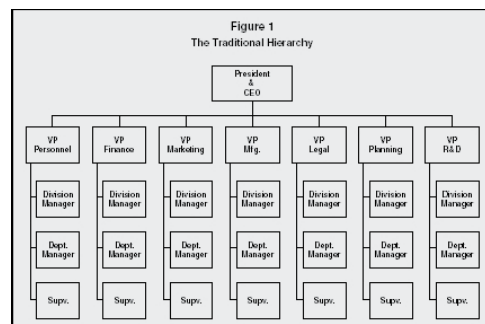
Virtual organization is also known as network organization, modular organization or digital organization. Simply stated, a virtual organization is a network of corporations made possible by, what is known as Information and Communication Technology (ICT) which is flexible and is created to meet the dynamics of the market. In other words, the virtual organization is a social network in which all the horizontal and vertical boundaries are removed. In this sense, virtual organization is a boundary less organization. It consists of individuals working out of physically dispersed work places, or even individu-

als working out of mobile devices and not tied to any particular work place. In the virtual organization, ICT coordinates the activities and combines the skills of workers resources in order to achieve the common goal. The network of relationships permits contracting, manufacturing, distribution, marketing and other business functions. A small group of managers oversee directly any activities that are done in-house. They coordinate and control external relations with the help of computer net work links. Nike, Reebok, Puma, Dell Computers, Hindustan Lever are some of the companies which are working virtually. Thus, a virtual organization is a loose web of individuals, capital and technologies which operate without time and space constraints. It operates without fixed structure and its boundaries keep on changing.

BACKGROUND

a. The Traditional Hierarchy

Traditional organizations integrated work vertically; that is, they delegated authority in a pyramidal, hierarchical structure. As the pyramid shape suggests, power was concentrated primarily among the handful of individuals at the top. The prominent theorist of traditional hierarchical organizations, Frederick Winslow Taylor, a renowned industrial engineer introduced the principles for designing and managing mass-production facilities. The following figure describes the traditional form of organization.

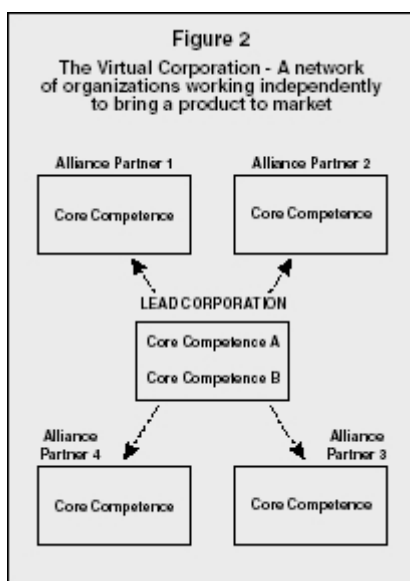


The hierarchical structure was designed to manage highly complex processes like automobile assembly where production could be broken down into a series of simple steps. Hierarchical corporations often controlled and managed all activities of a business from, the raw materials to their allocation to consumers. A centralized managerial hierarchy controlled the entire production process, with white-collar workers establishing rules and procedures to manage a blue-collar workforce. From World War II until the early 1980, the trend was to build increasing layers of management with more staff specialists. This centralized hierarchical structure was seen as effective for managing large number of workers, but lacked agility and was unable to process information rapidly throughout the organization.

Since the 1980s, many organizations have flattened their structures by shifting authority downward, giving employees increased autonomy and decision-making power. Advantages of flatter organization forms include a decreased need for supervisors and middle management, faster decision-making, and the ability to process information faster because of the reduced number of layers in the organization. A consequence of flatter organizations is that employees tend to be more dispersed both geographically and organizationally. Responding to this problem of dispersion, many organizations have eliminated superfluous processes and begun focusing on their core, value-added business. Flat organizations using joint ventures and strategic alliances are providing increased flexibility and innovation, and are replacing many traditional hierarchies.

b. The New Business Form

There has been a shift to this new organizational structure as a response to unprecedented customer expectations and alternatives, global competition, time compression, complexity, rapid change, and increased use of technology. Ray Grenier and George Metes describe the virtual model as a lead organization that creates alliances with groups and individuals from different organizations who possess the highest competencies to build a specific product or service in a short period of time. The following figure shows the virtual corporation – a network of organizations working independently to bring a product to market.



They further explain that these alliances are virtual because products and services are not produced in a single corporation whose purpose is longevity. Rather, these new virtual

organizations consist of a hybrid of groups and individuals from different companies that might include customers, competitors, and suppliers who have a focused purpose of bringing a high-quality product or service to market as rapidly as possible. These alliances may be temporary with short concept- to-delivery cycles.

The virtual corporation is more permeable than traditional organizational forms. Interfaces in a virtual organization between company, supplier, and customers continuously change, resulting in a blurring of traditional functions. Inside the office, work groups and job responsibilities may shift regularly. The virtual organization may not have a central office or an organizational chart. Suppliers, customers, and even competitors may spend time alongside one another in the virtual organization.

Distinction between Traditional Organization and Virtual Organization

Every organization requires a team to carry out its activities in an orderly manner. In a virtual organization, the driving force is the virtual team. In a virtual team, members interact primarily through some combination of electronic communication system to tie up with dispersed members who never or rarely come face-to-face. Members communicate on-line using links like e-mail, video conferencing and WAN.

The main factors that differentiate virtual teams from face-to-face teams are as follows:

Absence of para verbal and non-verbal cues (e.g., facial expression, eye movement, body language).

Limited social contacts.

Ability to overcome constraints of time and space.

The need for virtual teams is increasing particularly in global organization. But virtual teams cannot work successfully without personalized trust relationships. Such relationships are normally established through face-to-face interaction and socialization. Information and communication technologies appear to be inadequate for establishing personalized trust relationships due to the absence of face-to-face interaction.

Characteristics of a virtual organization

The following are the characteristics of a virtual organization.

- Flat structure.
- Dynamics.
- Goal orientation.
- Customer orientation.
- Information sharing.
- Knowledge workers.
- Multi disciplinary teams.
- Power Flexibility.
- Informal communication.
- Vague organizational boundaries.
- Home working.

Types of Virtual Organizations

According to the degree of virtuality, there are three types of virtual organizations:

- **Telecommuters.** In telecommuting companies, employ-

ees work from their homes. They interact with the work place via personal computers connected with a modem to the phone lines.

➤ **Outsourcing Employees.** These organizations outsource most or all core competencies. Marketing and sales, human resources, finance, research and development, engineering, manufacturing, information systems, etc, are the areas of outsourcing. Such a virtual organization performs one or two areas of core competence with excellence and other functions are outsourced.

➤ **Completely virtual.** This type of virtual organization is tightly linked to a large network of suppliers, distributors, retailers and customers as well as to strategic and joint venture partners.

Technology of Virtual Organization

Employees in a virtual organization will become emasculate and ineffective in the absence of information and knowledge. Therefore, virtual organizations use a seamless web of electronic Communication media. The main components of this web are as follows:

➤ **Technology.** The traditional ways of working has been transformed through new technology. Combination of computing and telephony is opening up new possibilities. Computer Technology Integration (CTI) will create a new revolution to the desktop. The CTI has traditionally been used in call centre applications.

➤ **E-mail Integration.** The whole organization can take advantage of SMS products such as 'Express Way' by integrating SMS into the existing e-mail infrastructure.

➤ **Office Systems Integration.** SMS technology can greatly enhance the existing or new office systems. For example, phone messages can be sent via SMS rather than returning it in a message book.

➤ **Voice Mail alert.** Addition of SMS technology to the existing voice mail system builds an effective method of receiving voice mail alerts.

➤ **Mobile Data.** This enables a laptop to retrieve information anywhere through the mobile phone network. In the past corporate information has been inaccessible from many places where it is needed. One can keep connected to his/her virtual organization from anywhere by linking laptop to mobile phone. Mobile data communications can revolutionize where and how work is done.

Issues and Challenges

Virtual organizations can be very complex and problematic; they fail as often as they succeed. Among the many challenges of the virtual organizations are strategic planning dilemmas, boundary blurring, a loss of control, and a need for new managerial skills.

Strategic planning poses new challenges as virtual firms determine effective combinations of core competencies. Common vision among partners is quintessential to cooperating firms. Focused on a common goal, firms develop close interdependencies that may make it difficult to determine where one company ends and another begins. The boundary-blurring demands that these boundaries be managed effectively. Coordinating mechanisms are critical elements for supporting these loose collections of firms. Virtual structures create a loss of control over some opera-

tions. This loss of control requires communication, coordination, and trust among the various partners, as well as a new set of managerial skills. Virtual organization has both positive and negative implications for human resources. Positive implications include greater job autonomy and more financial stability due to reduced commuting, lunches and clothing costs. In addition, there are a perceived increase in performance, reduced staff stress, and better social relationships owing to dissolution of barriers between the home and work interface. Negative implications consist of longer working hours, increased work demands, poor physical working condition, less social support from work, poor social position and fewer career opportunities. Jobs are variable and short-term. People with multi skills are required to share and assimilate information easily for quick decision-making.

The main human resource issues in a virtual organization are as follows:

- Recruitment is conducted under time pressure and requires high performance expectations
- Both human capital (knowing one's job) and social capital (knowing each other) become extricably linked.
- Social relationships do not require much stability.
- Workplace is variable because there is high need for readiness to be mobilized at any moment.
- Value idleness is shown in terms of learning by watching what others do.
- Master apprentice relationships and craft based learning become significant.
- Job status and project feedback is short-term. Therefore, virtual organizations require a heavy investment to create systems and staffing structures.
- Employee selection and performance management are the two critical human resource problems

To conclude, human resource management in virtual organizations requires shift from person-job fit to person-role fit.

Communication

Communication is a crucial factor in a virtual organization as it is responsible of its efficiency and even to its survival. Virtual organizations imply various autonomous and international workers, which also involve challenges such as different time-zones and language barriers. The collaboration between associates might also get quite complicated as this type of organization denotes only a slight amount of face-to-face interaction. Thus, a lack of multiple communication approaches can be observed in virtual organizations.

Cultural

Culture constitutes an essential element in any organization of any type. Yet, virtual organizations have to be even more vigilant about this notion as they imply a shared leadership between the team, which is composed of self-reliant workers from all around the world. Virtual organizations must find a way to overcome cultural differences, which involve dissimilar approaches of working (such as time and deadlines) and living (punctuality for instance), in other words, distinctive philosophies. Thus, virtual organization must exegete respect for differences among the team.

Interpersonal

Managing virtually successfully requires a valuable communication and cooperation among the team. Perceptions between partners might be quite dissimilar and could lead to

conflicts concerning the management of the virtual organization. Thus, it is more than necessary that associates build a solid relationship despite the distance obstacle 4] Trust is also a crucial matter as a shared leadership among co-workers consequently implies the loss of control on certain functions entrusted to other associates

Technological.

Virtual organizations are completely dependent to technology as they are entirely internet-based. It is more than necessary for the individuals involved in a partnership to possess similar technological tools from its associates. Compatibility matters resulting from the hardware and software such as the operating system as well as certain computer's software might disturb the efficiency of the virtual organization. Security and data protection also constitute a significant challenge as all the information regarding virtual organizations are transmitted and gathered digitally. A continuous control and evaluation of the technology utilized should be done by virtual organizations in order to prevent being outdated and losing opportunities.

Economical.

Virtual organization involves considerable costs. Between the setup and equipment costs and the maintenance costs, the bill can become quite steep quickly. It also constitutes a challenge to measure, evaluate and track the work done within the different departments of the virtual infrastructure. This might lead to partners missing deadlines, the necessity to rework and, thus, a loss of efficiency and profit.

Future of Virtual Organizations.

The business environment will no doubt require firms to become even more flexible, more agile, and to bring products and services to market at an increasing rapid pace. Traditional organization firms are no longer capable of sustaining the needs of this relentless pace. New forms of organizing, such as the virtual organization, hold promise as organizational leaders experiment and learn new strategies for managing in the twenty-first century and beyond. These new structures, however, will require managers and leaders to face exciting challenges as they move into an environment of increased uncertainty and volatility.

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