VIRTUAL ORGANIZATIONS: INFORMATION TECHNOLOGY

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Abstract

In the past decade, complex bureaucratic of organizations was containing such consistency and zeal that damaged it consider indecent and sometimes impossible. In this atmosphere, idea of creating virtual organizations was not dissimilar a dream. But today, the dramatic changes in the organization and inconceivable development of communication technology ,information and pervading computer networks in organizations and even homes, on the other hand, inefficient traditional organizations in response to these developments, cause fading of the administrative organization (bureaucracy) and Netocray reign(network reign on organization).However, the idea of virtual organizations not only has been appeared real, but is an undeniable necessity to 21st century organization. Today, many employees from their homes through information and communication networks such as the Internet, pager, fax, video conferencing and ... Offer their services to organizations. Also large and small organizations, by glancing unity to performing a special work in a group by using information and communication technology, even collaborate with their former rivals and make great things. However, in this paper, try to explain the need to address issues such as the concept of virtual organizations, and also life cycle, types, advantages and disadvantages of virtual organization as it possible.

Keyword: Virtual organizations - organizing - Organization structure

1. Introduction

In the early twentieth century, when the renowned French writer Jules Verne write stories such as: Journey to the Moon, 20 Thousand Leagues Under the Sea, Around the World in Eighty Days and ...Stories readers, knew him a fiction- oriented writer with sweet dreams and Perhaps the most optimistic fans couldn't thought that development of science and technology in the next decade reach to limit that Now, speaking of a residential building on the moon and sending fun TOURS under the sea is very possible and probable. And today, we see even modem warfare with a nuclear submarine that is more complicated and stranger than Captain Nemo (the hero of Jules Verne's stories) and supersonic speeds aircraft that revolves round the world in a few hours. Emergence of virtual organizations thought that at first time was introduced by Peter Drucker (Peter F.Drucker)at the beginning of the 1950 by publication of "ultra-modern world of ideas with employees circuit", at first it was as dreamy as Jules Verne's 's novels. Even later, in 1970, Alvin Toffler (Alvin Toffler) developed the idea of creating virtual organizations; anyone couldn't imagine that ICT reach the level of development in the 21st century that working in the cyberspace became inevitable. Like it or not, we must admit that the business situation today is very different than the past, And factors such as globalization, dramatic advances in the computer industry, staggering speed data transport, further communications facilities, changes from day to day marketing environment, Serial changes in preferences and tastes of our customers and exceed expectations by and their expectations, Requires us to respond quickly and

appropriately to these changes, ok for new structures. Because traditional structures (large groups of employees with integrated hierarchical structure and focus options above),that before economically was justifiable, could not respond competitive and variable environment and we should create a new project. Different organizations have different approaches in this field some prestigious organizations such as: IBM, General Electric, Microsoft, Nike, Rebook, Dell, Inc. and Twentieth Century Fox film ...select Different forms of virtual organizations and in this way were also very successful.

2. Organize and the need to deal with new structures

Richard L. Daft (2009) considers organization four characteristics: (2009)

1) is a social institution, 2) is based on goal 3) the structure intentionally planned that coordinated with the active systems 4) is associated with the external environment

About the Organize also has several definitions proposed by organizational scholars, some of which are mentioned:

-organizing contains activities of the group, appoint and provide the necessary conditions for the exercise of the power to perform organizational tasks.

- Organize is a process of giving and coordinating of tasks and resources to achieve organizational goals

One of the most important cases in coordinating human resource is assignment different job and task to the staff.(Jamshidian, 2007)

- Organize a sustained period of activity encompasses the design tasks and activities as classification tasks, jobs and organizational posts.

Thus, organizing is the process by which the division of labor, hierarchy and set of relationships for business purposes, it is possible.

Purpose of organization structure is a process in which organizational activities are divided, organized and coordinated (Javadin, 2005).

- Organize, is the place of appoint people in different parts of the organizational chart, in social positions and posts that effect on organizational relationships of this people (Richard ,2009).

According to these definitions, each organization is forced for improving their activities; choose an appropriate, organizational structure. In the past or even the present, many organizations choose structures base on duty, such as construction work, product, geographic location, client and ... Or a combination of them. Today these structures know as traditional structures, pyramid or hierarchy which, naturally, with regard to existing conditions contains limitations that are described briefly(Gilani nia,2009).

1) The traditional structure will be created based on the hierarchy and the communication is long and without precision and does not flexible enough to respond to changes in the environment.

2) Units are independently and strongly need to each other. So weakness of any single organization effect on entire organization system, Meanwhile, Each unit justifies its lack of progress in relation to poor performance of other units.

3)Relationships in traditional construction are individual and in group relations less effect.

4) Managers and staff in this construction only in a particular field that is their mission and responsibility, find experience and knowledge. Also specializes are trapped in stable organization home and gradually a special fascination, is created in each unit. Now this question arises that in age of the Internet and electronic commerce which organization will take advantage? Those organizations that has old pyramidal structure or organizations that acts in another way? So to answer the question, we should examine visualize of future organization.

Organizational theorists, JR. Kalb rays and an Edward Lavnr, have expressed new characters for new organizations, compared with traditional organizations(Stephen,2009).

It's clear inability of traditional structures for optimal response to the perceived attributes and characteristics in new organizations, And organizations in order to further exploit of opportunities, and the opportunities and a logical behavior with threats must follow more flexible more quickly action, Because speed could be the most important features of the third millennium. American author William David and Michael Malone, in organizations of the future will say:"of eyes of outside observers who look at these organizations, seem almost without a blade, interface layer is a soft, flexible and it's constantly changing and connect company to interest groups such as suppliers of raw materials or supplies and customer. if you look from inside, you don't face with hard and iron organizational but also offices, units and parts operations, constantly based on the conditions and needs change(Stephen,2010).

The final thing that now it is called virtual organizations, in such circumstances it is expected that the number of virtually companies has increased every day to use technology, logistics, transport and globalization in order to supply customer need (Javadian,2005).

his organization announced from new integration between departments and distributed units that with the help of communication network linked together and have created a new organization, Virtual organizations, are examples of a future organization which complexity, scope and volume of operations in such a way that they can't manage it no longer as a single and a centralized organization, to continue their work with need to other agencies(Gilani nia,2012)

3. Virtual organizations, new forms of organization

Virtual in term define as passing the truth. Nowadays, with the development of information and communication technologies and computer networks such as the Internet ,the concept of virtual ,entered imagination of everyday life of the twenty century human ,And this has cause people inside and outside the organization, experience new thing that called cyberspace. Nowadays children with computer games in cyberspace with their virtual friends are parlaying fun games. Students enrolled in virtual schools or universities, and pass academic degrees step by step. Surgeon at the farthest points attempt led the surgical team in other areas or even other continents. Navigator or pilot Students in virtual space with virtual simulator machines of or aircraft or ships practice fighting and fight with imaginary enemies. The buyers sit at home in a virtual market (corporate websites or stores) and choose product requirements based on their tastes and pay the costs virtually (credit cards).Many companies also use the opportunities presented, encourage their employees to do work at home. For example, Microsoft with 50 thousand employees in 78 countries is operating .that the staff consists of skilled programmers Europeans, Americans, Eskimos of Alaska, the young genius Hindi, Bengali, Korean, Arab, Iranian and , ... that the only connection between them is networks ,and they without the physical presence in company receive their salary. Without dispute, work in cyberspace is an integral part of organizations present age. This led to the emergence of the idea of virtual teams in organizations. By definition, a virtual team is a group of employees that relies on electronic communication technologies, and even though they are physically separated by mail, pager systems, video conferences, telephone.... They communicate with each other.

In this regard, the necessary infrastructure to realize the dream of creating virtual organizations is perfectly prepared and owners of capital stocks and organizational theorists posing the question that if the leasing organization and location why that they be purchased? These ideas were the basis of virtual organizations.

Different definitions of the same virtual organization sometimes raised by various scholars that some of them are:

1-Virtual organization, a small central organization that provides resources to other organizations, a virtual organization in terms of structure, is highly concentrated and, rarely, contains units or task expertise(Stephen,2009).

2- Virtual organization is a transient and temporary alliance between two or more organizations that perform a specific task and for a short time working as a team.

3-Virtual organization is a network of several organizations that are hooked together and contracts agreements through electronic networks and communication.

4-Virtual organization is a new form of organization that is referred gathering group of people that are scattered geographically and they are not depend on same organization and to achieve a goal through information technology in touch with each other.

5- The virtual network is a special type of organization, using the latest information and communication technologies such as the Internet, exchanges and cooperation with other individuals and organizations outside of space, time and organizational boundaries makes possible.

4. Characteristics of virtual organizations

Virtual organizations are listed in the following features; some of them are briefly mentioned (Heidari Tafreshi,2003):

1- Lack of clear boundaries: now many organizations are not able to provide a service or product alone and this need for flexibility can be achieved only by small organizations.

2- Use of common resources: the most important characteristic of virtual organization, gathering financial and human resources companies that make up this organization.

3-Beingdecentralized of the place:

Since the communication between companies done by using telecommunication technology, there is no need to residing person in one place and having particular place for do everything.

4-Variability Partners: a virtual organization can be form different type every day, for example as part of virtual organizations or from other companies will be formed.

5-Consistency and equality of partners: Due to the need for partners in these organizations to each other equality between partners occurs more.

5. Electronic Communication:

Base virtual organizations, based on break old traditions. Co-occurring in the organizations is based on communication through communication and Telecommunication technology.

6.Virtual Organization life cycle

For understanding virtual organizations, Kelabr provide Cycle of virtual organization model consists of four steps and 10 stages. Its ten steps are briefly mentioned:

According to this model, the first stage of the marketing research organizations and identify opportunities in the market, if the market demands alone cannot be the best use of the opportunities presented by the need of virtual organizations for the success appears. In the second stage, before the formation of virtual organizations, managers must deal with the cost-benefit analysis. With adjust A comprehensive business plan provide necessary information to facilitate decision making by managers. The third step is to evaluate the capabilities, competencies and capabilities of potential partners to meet the needs of the organization. In the fourth stage, after the investigations, company will choose their partners.. In the fifth stage, domain of functions, responsibilities, risk distribution, profits, agreement about the quality is defined. In the sixth stage, teams are introduced each of the partners .In the seventh stage, the information and communication technology infrastructure required for specific activities and responsibilities of each of the partners a virtual teams are defined and communicated. In stage eighth, virtual teams use information and communication resources in a virtual organization, and

each one in its professional do its task according to groups. In the ninth stage, virtual organization, continuously and constantly do its activity according to environment changing, market, technology, organization, etc. Finally, when a formed virtual organization became UN useful without hesitation, each of the teams will revert back to their original organization and this is end of a virtual organization.

7. Types of virtual organizations

In a virtual organization, an important factor that will determine being virtual is transfer activities to other organization and providing goods and services in collaboration with foreign firms and alliance with them. Whatever, this assignment be wider organizations have moved toward being virtual more. So rate of being virtual organizations can be demonstrated on a continuum where at one side MODULAR organization and on the other side boundary less organizations (with the highest degree of punishment).

MODULAR ORGANIZATION or organizations independent units

Modular organization defined their strategic activities and entrusted it to the external units. Thus, the cost is reduced and allows for management that devoted their resources to primary activities and leave the least important part of it's to foreign units(Monavaryan,2006).

In organization with Independent unit there are some advantages and some limitations and in some cases may cause defect (Jvadyan, 2005).

8. Network organization

A network organization is a small central organization based on agreement upon certain for production, distribution, marketing and other critical functions, it relies on other companies.

Organization net work in simple word is a network of organizations that have flexible boundaries, independent business and strategic planning and in them several goal are consider(Monavaryan, 2006).

In the network organization, competitive power increase and synergy effect causing the organization to take advantage of the opportunities available, there is more potential. (Jvadyan, 2005)

9. BARRIER FREE organization

This type of virtual organizations, no boundaries, horizontal, vertical, lateral and geography, is not confined. This way, for the first time was introduced by Jack Welch (John Francis Welch Jr.), Chairman of General Electric, Someone who wishes to eliminate the vertical and horizontal boundaries and also external barriers between companies, customers and suppliers in the GE. (Stephen ,2010).Boundary less organization allows information, ideas, resources, and energy flow across organization. Of course, being without border don't mean eliminating all border Because existence of boundaries to form organizations is essential, The issues make border more sensitive.

To extend the vertical lines, four fateful aspect include participate in information competency, authority, and assigning an appropriate reward. The best way to create horizontal permeable boundaries is pay attention to customer. About creating a relationship with customers, raw material suppliers, regulators and other organizations (external borders) must pay attention to the available opportunities in the environment And By establishing systems, processes and appropriate structures, cooperation and collaboration with external factors. About geographical boundaries also the company for the global activity, must be geographically should be utilized specific resources, especially in terms of human resources (Richard L,2009).

In boundary less organization, outer and inner talents and abilities of the outer and inner members develop in order to achieve pre-determined goals, strengthening cooperation, and

respond environmental demand will be available soon. In contrast, boundary less organization reduces trust among people, which make leadership difficult and make coordination difficult.

10. Benefits of Virtual Organization

1- High speed of response to customer demand and compliance with environmental changes
- Ultra flexibility
-Reduce costs through reduced paperwork, duplication of staff travel and staff costs.
4 - Quality of facilities and receive services at any time
5 - Improving productivity at the scale of individual, organizational and social
6 - Independent of most employees in doing their task
7 - With formation of virtual organizations, distance does not an obstacle to stop working, cooperation, and conferences
8- Increase profitability according to reduce costs and increasing efficiency in organization.
9- Possibility of performing great work is to provide for small business.
10-According to having a choice for subcontractors (trade partners), the best can be adopted to improve product quality and economy.

11. Disadvantages of virtual organizations

1-deficiency of Face interaction can reduce rust and honesty in business relationships between them and reduce their responsibility
2-Reduce the amount of manager controllers on key elements of in business (Stephen ,2009).
3- If teams forming a virtual organization, be from different countries with different cultures, maybe, cultural and social conflicts Arise due to differences in language, culture, race, religion and ....
4-Decreased mobility, especially physical activities
5- Increasing the working hours in their employees who may cause exhaustion
6-Reduce the rate of employee loyalty.
7-Employees are isolated from social contacts and lose stimulating personal and face to face
8-Increase In collisions between virtual staff from the central office staff.
9- Due to excessive dependence on virtual organizations, technology and communication equipment, any disruption or failure of communication networks, such as viruses and hacking of the websites of organizations that can totally disrupt the activities of such organizations.

12. Conclusions

Without doubt, everybody widely accepted belief that the business environment in 21st century organizations, change is dramatic and fundamental changes. Today, organizations need to succeed in a competitive world, a different approach with past. Because continuous changes in the environment has caused traditional structures doesn't have needed speed and flexibility to respond this changes. On the other hand, the increasing proliferation of Information and Communication Technologies has been providing comfortable conditions for work in cyberspace. So, one of the alternatives that makes organization optimize structures is using virtual structure. Thus, small organizations, with alliances and coalition partners, can increase their productivity, with reducing their costs. But what should not be overlooked is that in the meantime, to make organization visual without considering necessary infrastructure (software and hardware)And disseminate the culture among employees in Cyberspace Also consider giving some negative consequences that may be imposed on organizations by creating virtual organizations, has achieved something futile and useless.

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