

Challenge of Human Resources Management in Virtual Organizations – Relation between Degree of Virtualization of an Organization and Available Financial Resources

Reza Nasser Ghiri¹, Ali Nasser Ghiri²

1. Department of Computer and Information Technology, Amirkabir University, Tehran, Iran
2. Department of Irrigation and Drainage, Firouzabad Branch, Islamic Azad University, Iran
re.nasseri@gmail.com; re.nasseri@yahoo.com

Abstract: Today, virtual organizations have properly responded toward market's requirement and they have created good competitive market through using knowledge-oriented staffs enjoying high flexibility and more and better proficiency. Considering today's business development, base of the successful organizations is formed by virtual teams. With regard that all organizations seek more profitability and persons seek more income and as communications and information enjoy more importance day by day, therefore organizations tend to recruit effective people so that they cannot overlook these profitable resources. In order to enjoy such organizations, managerial issues related to them must be completely identified and organized. In this regard, financial resources of the organization must be properly applied for these kinds of teams; therefore, management of human resources has changed virtual organizations to a complicated and challenging issue. Low occupational commitment and high rate of job quit are some problems in this area. The present study seeks to find the relation between degree of virtualization of an organization and staffs' commitment considering their income in the organization. This study has been conducted through questionnaire. Results of this research show that even greater financial resources are provided for a virtual team, more occupational commitment is created in staffs, and therefore their dependency toward the organization's objectives becomes more.

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1. Introduction

Development of virtual organization in order to gain optimal usage of information technology to create competitive advantage and enjoy knowledge-oriented staffs in group activities, has been considered a new approach in organizing work environment [16][29]. Virtual teams are functional effect of information technology which has been referred as the future organizations due to creating markets and new products and flexibility to respond market requirements [23].

Organizing virtual organizations has five professional areas including: 1. Human resources; management; 2. Communications management; 3. Process management; 4. Knowledge management; 5. Technology management [7]. Virtual organizations may be different in appearance with former bureaucratic organization, however this view of Peter Drucker applies also in these organizations that human factor is the most important capital of an organization [31]. Success in organizational cooperation is more depended on human factor than technology. Despite fast development of virtual organizations, a few researches have been conducted in human resources area and behavioral characteristics of staffs in such organizations [24]. Subjects such as performance, job satisfaction, [26],

corporate identity, organizational commitment and job quit rate [26] [28] are proposed and challenging issues in area of human resources management in virtual organizations.

Commitment of staffs in organizations moving toward virtualization is one of the effective factors in productivity of such organizations so that there cannot be any assurance for surviving them without this commitment. Therefore studying the used financial resources for these virtual organizations is inevitable for such issues. The present study surveys the relation between degree of virtualization of an organization and available financial resources.

Literature of the Subject

A. Virtual Organization

The concept of virtual organization proposed in 1993 [4]. Abton & McAfee defines a virtual organization as a collection of companies, so that each of them concentrates on its own specialty and they flexibly cooperate with each other via electronic network regardless their location [30]. The main reasons to establish virtual organizations are:

1. Maximizing flexibility against changes of environment;
2. Concentrating on competitive advantage;

3. Changing size of an organization according to changes of market; and

4. Developing supply chain of an organization [18].

In view of Jagres et al., the general characteristics of virtual organizations are

1. Lack of limitation;
2. Completing competitive advantage of each other/Sharing resources;
3. Sharing knowledge;
4. Geographic dispersion;
5. Changing partners;
6. Equal partnership;
7. Instant electronic communication [13].

In addition, cooperation in electronic environment [10], temporary coalition to achieve common objectives [14] and effective and fast response to the customers' needs are some other common characteristics of virtual organizations. Life circle of virtual organization has 4 stages including: formation, operation, evolution and transformation, dissolution [17]. In fact VO forms to enjoy commercial opportunity and VO will be gone when this commercial opportunity is finished [12]. A study conducted in 2003 by Baier & Koszegi considers 7 aspects for VO in 4 main areas which are as follow:

i. Distinction - Modular and heterogeneous firms: Virtual organization requires some features to respond complicated and unique needs of its clients. In this regard, each of firms of virtual organization must enjoy particular characteristics and benefits which are their competitive advantage. Dimensions of this area are:

1. Creating value virtually;
2. Concentrating on competitive advantage [3];

ii. Configuration – Temporary and variable network: Despite unity of existence, virtual organization, in view of clients, is formed of several independent firms gathering when there is a commercial opportunity and separating when it comes to end. In this condition, sub-systems constantly change regarding market's characteristics and clients' needs but no changes occur in the main nature of virtual organization. Dimensions of this area are:

1. General characteristics of virtual network;
2. Independency of partner companies;
3. Formality and formal commitment between partners [3].

iii. Uniformity – Trust and mechanism of coordination: Regarding distinction of companies in virtual organization and also their temporary collaboration with each other, virtual organization requires mechanisms of coordination and uniformity. The most important factor of coordinating in this area is trust between partners. In the mechanism of control

by trust, behaviors are directed by norms, common values and self-controlling. The only dimension of this area is: Trust as a mechanism of coordination [3].

iv. Technology: Information and communication technology are coordinator base for activities and value chain in virtual organization. Dimension of this area is: Applying information communication and technology

Considering mentioned above characteristics, the definition of virtual organization in the present research is: a flexible and temporary network of independent organizations which share their competitive advantages to enjoy a delight commercial opportunity through optimizing value chain of processes of the organization [3]. Degree of virtualization is the amount of each mentioned characteristics enjoyed by an organization. With regard to the 4 proposed features for virtual organizations, 8 indexes including virtual value chain, competitive advantage, network characteristics, degree of formality, uniformity, trust, fair and information and communication systems have been applied in the present study to evaluate degree of virtualization.

B. Organizational Commitment

Organizational commitment is a psychological concept which has drawn many attentions during 14 past decades [21]. This concept has been studied in many researches related to different variables such as contextual performance [5], staffs' motivation [21], managerial leadership and organizational variables [2], job satisfaction and emotional intelligence [9], work-family climate and job quit [22], and charismatic leadership behaviors [25].

In the present research, Allen & Mear Model has been used for identifying organizational commitment regarding its universality and wide range of its application in many researches. They represent 3 factors or dimensions for commitment including emotional commitment, continuance commitment and normative commitment [19]. Each of these factors links staffs with organization. Distinction between these three dimensions, reflexes psychological identity of each dimension in relation with the organization [5].

Emotional commitment indicates emotional attachment toward organization and express of identity by the organization. Those with high emotional commitment continue to work in an organization as they want [27]. Continuance commitment is identified as willing to do continuance activity based on the person awareness of cost of job quit. Staffs with high continuance commitment remain in an organization as they need [27]. Normative commitment shows belief to continue

working in an organization. Staffs with high normative commitment remain in an organization as they feel that they must remain [19]. A person may have equal or different level of three kinds of commitment [2].

C. Challenge of Commitment in Virtual Organization

Youheng Chen conducted a wide research on degree of virtualization of organization and its relation with human resources management in organization in 2004. In this research degree of virtualization determined through evaluating dimensions of virtual organization and then its relation was valued with factors of eligibility of a person and his job. Finally, the effect of this relation was measured with factors of eligibility of a person and his job. Regarding positive relation of a person and his job to job performance, job satisfaction and organizational commitment and also considering its inverse relation to job quit rate, it can be concluded that degree of virtualization in an organization is effective on mentioned issues [26].

In addition of the mentioned above study, an study conducted by Gholipour (2009) on "challenge of organizational behavior in virtual organization" represents inverse relation between degree of virtualization in an organization and organizational identity of staffs. Therefore, virtual organization meets with challenge of organizational identity when degree of virtualization increases. Organizational identity is related to concepts of job satisfaction and organizational citizenship behavior. According to studies conducted by Haslem, Miber, Knipenger and Guinea, there is a close relation between organization identity and organizational commitment and decrease in organizational identity effects directly on organizational commitment [8][11][15][20]. It is obvious that challenge of organizational identity in virtual organization creates crisis of organizational commitment and due to negative relation between organizational commitment and rate of job quit [21][2], we are confronted with job quit of knowledge-oriented specialists. In addition of decrease in efficiency of organization [1], job quit is followed by recruitment costs, training, decrease of collective spirit and organizational memory erosion.

Most researchers believe that what makes a person depended on an organization and decreases possibility of job quit is organizational commitment [21]. Human force of virtual organization is majorly composed of experts of Information Technology (IT). This specialized force is the most valuable strategic resource of virtual organization. Based on a research by Kiang, experts and specialists of IT have the most rate of job quit. The major reasons are: fast changes

of technology, high job stress, better job opportunity and so on [28].

In his study, Ellison (1999) has dealt with effect of new technologies on distance-staffs and virtual teams and represented that distance-work decreases staffs' commitment toward their job. He identified this decrease due to work in an environment with ambiguity, isolation and free from outer support structure [6].

As staffs with internal cognitive style, liberal view and world cognitive style are more interested to work individually, they will have more commitment in distance work in compare with those with external cognitive style, conservative and local cognitive style [32].

2. Procedures of the Research

After surveying in literature of organizational commitment, virtual organization and also organizational commitment in virtual organization, the relation between degree of virtualization and financial resources available to create work commitment in individuals at an organization was proposed as the main question of the present project.

In order to answer this question, we use a questionnaire which has been applied in other researches too.

3. Hypothesizes of the Research

Main hypothesis:

There is a significant relation between degree of virtualization in an organization and amount of staffs' commitment and available financial resources.

Secondary hypothesizes:

- There is a significant relation between degree of virtualization of an organization and income of its staffs

- There is a significant relation between degree of virtualization of an organization and income of the organization.

4. Method of the Research

The present research aims to determine mentioned relations between dimensions of creating virtualness and organizational commitment using financial resources. Therefore, based on the objective, this research is considered as applicable research for it deals with knowledge development in area of IT and management of organizational behavior. It is a descriptive research as describes how to obtain required data. It is also a correlating study which relation between its variables is determined based on objective of the research. In order to be certain about the reliability of questionnaires, their primitive edition has been surveyed by professors (Dr. Afrazeh & Dr. Bakhsha).

Statistical Society

Statistical society of this study includes active corporations at the area of Information Technology and members of High Council of Informatics. These corporations have been selected based on purposive sampling. In purposive method, the sample must have special features. In this research, those organizations more grown in area of virtualness were selected. Ten questionnaires were considered for each corporation and 40 corporations were studied in general. Questionnaires were returned by 30 corporations and 5 corporations were excluded from the survey as they did not obtain the degree of virtualization. Therefore, the study was conducted on 25 questionnaires of managers of corporations and 225 questionnaires of staffs.

5. Method of Data Analysis

The present study has one main hypothesis and 2 secondary hypothesizes. It has dealt with relation among jobs through descriptive-analysis and deductive statistics. Hypothesizes of the research have been analyzed by SPSS and regression model.

6. The Main Findings of the Research

A. Descriptive Statistics

Obtained results from analysis of demographic information for variable of gender is 66.4% of females (166 out of 250 women) and 33.6% of males (84 out of 250 men), for variable of education is 24% of association degrees (60 out of 250 people), 60% of bachelor's degrees (150 out of 250 people) and 16% of higher degrees (40 out of 250 people).

B. Deductive Statistics

Mean and standard deviation related to internal control for different jobs has been calculated. The highest amount of these calculations is related to art jobs and the lowest amount belongs to public jobs. Multivariable tests in the calculations represent rejection of null hypothesis; as level of significance is less than 0.05 by all statistics. Level of significance has been calculated for all paired comparisons and it was less than 0.05 in all issues. This means that in all paired comparison, null hypothesis of equality of means has been rejected. Therefore, it can be concluded that the most amount of bonus is for art jobs and the least amount of it is for public jobs.

Results obtained by testing the research hypothesizes about art jobs and co contractual mmitment market represent that performance of human resources in proposed jobs enjoys a particular importance. In order to improve and develop efficiency in considered organization, bonus is considered as surplus of wage in particular and professional jobs. Planning for jobs must be for long

term and preserving dignity of specialist staffs must be under control. In other words, an organization shall pay out for specialists in order to preserve human resources. Most of public organizations confront with serious challenges to preserve specialists and it is considered as an important and critical harm for these organizations. In addition, based on the data in table 1, evaluability of these jobs is high and analyzability and variability of art and com contractual mitment jobs is low. Therefore, level of particular specialty, systematic planning, long term view, individual and bonus payments are internal and external in art jobs and contractual market. In order to control these kinds of staffs, universalizability, self-controlling and forethought are used and assessment of performance is individually and staffs' commitment is in high level. Also the possibility to replace a force is not simply available and specialty does not obtain out of organization and just creating trust can be effective to maintain staffs.

Table 1: Dimensions of human resource performance in art and contractual jobs

dimensions/ indexes	Type of performance	Analysis of multivariable variance (MANOVA)	Mean	Standard deviation
Bonus	Surplus of wages	Be accepted (Sig-0.000)	7.24	0.05
Planning	Long term	Be accepted (Sig-0.000)	7.08	0.78
Control	Interior	Be accepted (Sig-0.000)	7.07	1.82
Training	Official	Be accepted (Sig-0.000)	7.28	1.10
Type of specialty	Particular	Be accepted (Sig-0.000)	8.90	0.82
Evaluability	Many	Be accepted (Sig-0.000)	6.40	0.25
Analyzability	Little	Be accepted (Sig-0.000)	3.61	2.04
Variability	Little	Be accepted (Sig-0.000)	3.91	2.93

Result obtained from hypothesizes in non-repetitive jobs and relational team shows that human resource performances especially bonus, planning and training are considered in art jobs and relational jobs. Type of specialty is particular in these jobs and considered organization shall make its all efforts to preserve such persons. Neglecting these specialized staffs is considered as irreparable damage. Therefore, in order to create motivation to increase efficiency in an organization, bonus is paid based on meritocracy and surplus of wages. Long term planning shall enjoy economic justification and it shall be based on perspective of the organization. Internal control is considered for specialists as they have social dignity and enjoy work ethic and commitment in their performance. Training is one of the issues which is considered by public organizations. Therefore, for

specialists, formal trainings develop and improve their efficiency and respond positively toward the organization's needs. So, in order to meet basic needs of an organization, specialists shall be formally trained. In addition, evaluability and analyzability based on data of the table is in low level and variability is in high level for non-repetitive jobs and relational team.

In this case, planning, systematic recruitment, long term view, and payment in non-repetitive jobs and relational team will be done as a group, possibility of force replacement is not simply available, bonus is internal and external and control is of universalizability type. Individual performance is not measurable and managers can create motivation through creating commitment and trust and increase efficiency. Specialty in these kinds of jobs obtains simply out of organization.

Table 2: Dimensions of human resource performance in non-repetitive and relational jobs

dimensions/ indexes	Type of performance	Analysis of multivariable variance (MANOVA)	Mean	Standard deviation
Bonus	Surplus of wages	Be accepted (Sig-0.000)	7	1.42
Planning	Long term	Be accepted (Sig-0.000)	7.21	0.69
Control	Internal	Be accepted (Sig-0.000)	6.88	1.53
Training	Official	Be accepted (Sig-0.000)	7.20	1.32
Type of specialty	Particular	Be accepted (Sig-0.000)	6.40	0.53
Evaluability	Many	Be accepted (Sig-0.000)	4.32	0.83
Analyzability	Little	Be accepted (Sig-0.000)	3.93	1.09
Variability	Little	Be accepted (Sig-0.000)	6.37	2.33

Table 3: Dimensions of human resource performance based on economic approach

Kind of Job	Kind of bonus	Kind of planning	Kind of control	Kind of training	Human resources structure
Non- repetitive jobs	Surplus of wages	Long term	Internal	Official	Relational team
Art jobs	Surplus of wages	Long term	Internal	Official	Contractual market

7. Conclusion & Suggestion

Northug believes that organizations seek for efficiency. One of the reasons of recruitment, training, development and wages of human resources is to obtain efficiency in human resource area. In his view, all human resources and jobs of an organization do not provide equal efficiency and value added for the organization. Required specialty of jobs is here proposed for each organization so that particular

public jobs and consequently specialized employments and employments with public skills are proposed. Each of these specialties has particular importance.

On the other side, evaluating amount of efficiency of jobs to pay bonus is necessary so that it causes continuity in efficiency and creates motivation. In fact, some jobs enjoy evaluability and it is simple to find output of staffs but many of them have little evaluability but qualitative nature. The problem is aroused when evaluability of job is little and job is particular regarding specialty. These problem occurs in relational jobs. In these kinds of jobs, human resource planning, bonus payment, kind of control and human resource training enjoy a particular notice.

Based on this study, we propose to use financial resources as many as possible in order to preserve staffs who are very necessary for a virtual team. In other word they should be bought so that they cannot easily quit their job. It should be attempted to design a virtual team considering as a usual team to increase staffs' commitment.

8. Resources:

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