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Impact of Implementing Teleworking on Organizational Commitment Case Study: Shatel's Technical Support and Sales Support

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Abstract: Today's world is changing and developing rapidly. The need for consonance and flexibility with the pace of changes has prompted the pioneer organizations to use new patterns of work and organization which this important measure is facilitated in the light of information and communication technology. Teleworking virtual organization is a new paradigm of working which it enables institutions to meet the need for flexibility appropriately so they still maintain their vita through the efficiency which resulted by it in the intensive competitive environment. The most important asset of any organization is its human resources and whatever this asset gets higher quality, the probability of survival, success and promotion of organization will be higher. The level of employee's commitment is an essential factor in this regard. Experience of developed countries in the field of telework projects have revealed that successful implementation of such projects requires appropriate hardware and software i.e., laws and executive regulations and comprehensive readiness of managers and employees in organizations. Otherwise, the positive results of project will not in the expected extents and it will leads to negative effects such as physical and career isolation in employees and so on. Population of this research was selected among one-hundred technical support's and sales support's employees of Shatel Company. The research is done by census method. After collecting information through standard questionnaires about the components of the dependent variables, Cronbach's alpha is evaluated in order to assess the reliability of them. Then, t-tests are used for independent samples and Levin test, Multivariate Analysis of Variance (MANOVA) and Box test are also used. After that, research hypotheses are tested by using SPSS Software. According to results, it can be stated that implementing teleworking has had a significant impact on the level of organizational commitment especially on the nominative commitment dimension of employees in Shatel Company.

Key words: Teleworking, organizational commitment, affective commitment, continuance commitment, normative commitment

INTRODUCTION

Experience of developed countries in the field of telework projects have revealed that successful implementation of such projects requires appropriate hardware i.e. infrastructure communication technologies and also proper software, i.e., laws and executive regulations and comprehensive readiness of managers and employees in organizations. The positive results of project will not be based on the extent which it was predicted, if employees were not prepared to begin the implementation of teleworking project in their favorite organizations (Abbasi, 2010). The most important asset of any organization is its human resources and whatever this asset gets higher quality, the probability of survival, success and promotion of organization will be higher. Therefore, we must do great effort to improve its quality because it is in favor of both organization and individuals. This measure includes attitudes improvement and realization of individual's values. Organizational commitment is one of the most important of these attitudes (Alizade, 2003).

Statement of the problem: The concept of teleworking as a working method and a way to do organizational processes in 1970s has found its place in the organizational and social issues. Since then there have been many scientific and practical studies. Teleworking has been proposed not as a working method but also as an exemplar to meet or reduce some problems of society, organization and employees. Therefore, it is paid a special attention to this matter in each of the mentioned areas.

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According to ITAC (International Telework Association and Council), teleworking is a kind of working arrangement during which teleworkers perform the tasks and duties assigned to them in terms of time i.e., part or full time and place, i.e., at home or remote centers or in form of mobile (Qanbari and Baxtjo, 2011).

Teleworking can be assessed through various aspects of employees, managers, organization and society. Experts in organizational behavior and human resources pay a special attention to human resources given that they are considered as the supremacy indices of different organizations in order to take step toward enhancing the efficiency and effectiveness of organization through identifying their characteristics. Organizational commitment is one of these characteristics (Xosravi, 2008). Organizational commitment can be defined as a psychological state that determines the relationship between an employee and the organization and it will reduce the possibility that the employee leaves the organization. Becher defines commitment as a willingness to do continuous activities. This tendency is due to accumulating reserves and assets that by leaving it the activity will destroy. Term of investing is to demonstrate the value that an individual is invested in organization and it may get worthless if individuals leave the organization.

Theoretical framework of research

Emergence philosophy of teleworking: Some social and organizational problems also emerged since arrival to industrial age and formation of large organizations. For example, managing large organizations led to insufficient and inflexible bureaucracy, high costs for support and low level of efficiency at the social level, societies involved in problems like air pollution, high consumption of fuel and energy, reduction of parent's household roles and outbreak of social impersonality in children and adolescents and considering individuals as the gear wheel's indentations of organization machine. Also assigning much time for commuting between office and home, extreme fatigue in employees due to the long time spent for working and commuting and hence low efficiency, stress caused by workplace and job dissatisfaction are problems of the personal level (Qanbari and Baxtjo, 2011). Since, the late 1970s, dream of teleworking in a complete and efficient form realized when micro computers and modems were made available so that it development lead to an impressive leap in the level of efficiency. Experts believe that teleworking has many advantages. In the developed world, teleworking is considered as one of the modern methods of working and it is rapidly expanding through development of information and communication technology and spread of relevant facilities.

Teleworker: In a general definition can state that teleworkers are employees who does all or part of their work away from their employer's location and using information technology.

The nature of commitment: In early 1980s, organizational commitment of employees was as one of the most important issues that have attracted the attention of many researchers and extensive researches were carried on this subject (Amirkabiri *et al*., 2006). Even kleen and reety in their book called "understanding organizational behavior" pointed out the importance of the commitment. They stated that lack of commitment is more dangerous than what is called as "lack of ethics". Lack of commitment is adumbrated on organization and it can decrease the effectiveness almost in all activities. Walton published his famous article entitled "Management Based on the Commitment" in 1985. In this research, he noted the need to move from management based on control to management based on commitment and by his work directed the studies done in this context (Amirkabiri *et al*., 2006). Commitment rooted in identification, common values, belonging, dedication and parallelism (Same). In simple words, commitment means allocating self or part of their ability for a specific purpose.

Common patterns of organizational commitment: "Angel and Perry", "Mayer and Schoorman", "Jaros" and "Allen and Meyer" models are common models of organizational commitment. This study is used "Allen and Meyer" model.

"Allen and meyer" model: Their approach began in 1984 with an article that it argued that Side-bets approach is operationalized disproportionately. This article argued that scales established by followers of Becker do not measure the side-bets but in fact, they measure attitudinal commitment. According to them, the best way of measuring side-bets was using assessment criteria that it can directly assess individual's understanding about the number and magnitude of side-bets they have made. More precisely, it can be said that according to Allen and Meyer, dimensions of commitment are as following.

Affective commitment: It refers to the affective attachment of employees to organization, their sense of oneness with organization and their active participation in the organization. Affective commitment scale was defined as an instrument for assessing commitment which it is

determined based on the positive feelings such as sense of oneness with organization, involvement and participation with it. In other word, it is an attachment that it may be due to the role of the individual regarding the organizational objectives and values or because of the organization.

Continuance commitment: Allen and Meyer offered the continuity dimension as a better representation of Becker's side-bets approach. Continuance commitment was designed to measure the extent to which the employees has a sense of commitment according to the process that they feel that should compensate if they leave the organization. Also, in this kind of commitment, employee's continuance commitment to the employer will become stronger when they have few appropriate strategies.

Normative commitment: This commitment is defined as a sense of belonging to continue working. Employees with high levels of normative commitment feel that they should stay in the organization. Normative commitment influences by commitment or culture at the arrival to an organization. This commitment arises when individual's internalized the organizational norms through the process of socialization.

This study also is used "Allen and Meyer" model to investigate the impact of teleworking on the organizational commitment dimensions.

Investigating the relationship between teleworking and organizational commitment: Under the influence of employees, teleworking may be at three different levels as following: employee-work, employee-supervisor and employee-organization that it would impact on organizational commitment due to reducing the effects of face-to-face relation. The most important reasons that may lead to negative effects on employees and their organizational commitment through implementing teleworking are as following:

Social Isolation: According to an operational definition of social isolation from the teleworkers perspective, it is defined as a lack of perceived social support from supervisors and social support of colleagues at work. And it is defined as the extent to which employees perceived that they lack positive social relationships with others in the organization. Especially, this matter makes sense for teleworkers who have less frequent contact and communication with colleagues and managers and also tangible relationship with the organization.

Mutual compensation for services: Expectation that employees have in relation to mutual compensation of services is as one of the important factors in commitment such as salaries, bonuses, career advancement, etc. Employees who regularly interact with their colleagues and supervisors will have better opportunities for promotion than those who have little social interaction at work and with other people in the organization. Some results which have been registered in connection with teleworking are career concerns that are caused due to spending less time in the office and hence access to promotion and having less job security. On the other hand, the relationship between supervisors and subordinates can be understood from social exchange. In exchanges with higher quality, supervisors gets more sense of commitment from the subordinates and in turn, subordinates also gets more positive performance evaluation and more professional promotion. In addition, it was found that the development of such relations depend on face-to-face contact.

Eventually, researches have shown that teleworkers may be more concerned about the fairness of payments and rewards, career development opportunities in their organizational hierarchy. And thus, it affected their job satisfaction that this matter will have impact on the employee's commitment.

Organizational culture: Organizational culture refers to the common patterns of beliefs assumptions and expectations held by members of the organization and their specified method. It also depends on their perception of the organization and its environment, its norms, rules and values that are beyond the scope of individuals. Organizational culture evolves over time, because employees interact with each other, they also develop and share common values and beliefs, common uncertainty and coping strategies with them.

Perceived organizational support: Perceived organizational support refers to the employee's perception of organization commitment to them. These perceptions among employees based on their general beliefs are about this matter that to what extent the organization values their role and care for their existence in the organization. Eisenberger suggest that perceived organizational support is a way in which shows the behavior of organization with the employee such as the possible reaction of organization to mistakes, performance, suggestions and disease of employee. Since such a reaction is most likely from the direct supervisor of employee (organization factor), perceived organizational support is a function of the relationship between

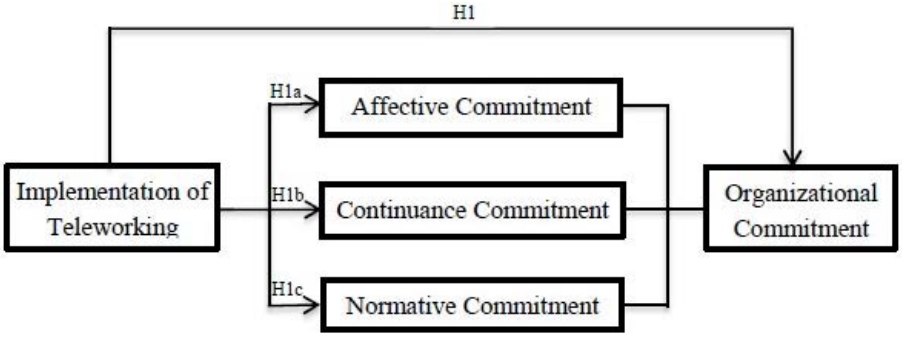

Fig. 1: The conceptual model derived from the theoretical model of Allen and Meyer

employees and their supervisor. So, managers who have fewer links with their employees are more likely to react negatively against the employee's mistakes and their evaluating will be less desirable and vice versa.

Preconditions for organization commitment of allen and meyer model

Preconditions for affective commitment

Personal characteristics: These characteristics include age, years of service, expertise and education level, gender, race, marital status and other personal factors.

Characteristics associated with the role: Strengthened and enriched job increases job challenges and leads to increasing the commitment. Also, commitment has reverse relation with role conflict and role ambiguity.

Structural characteristics: Studies show that formalization, job affiliation and concentration are associated with commitment.

Preconditions for continuance commitment: The size and amount of investment and energy which it is spent in the organization. The lack of employment opportunities outside the organization.

Preconditions for normative commitment: Family impressionability such as family environment and problem in drawing a line between work and life. Organizational impressionability such as impressionability from organizational culture, organizational communication, organizational factors like perceived organizational support, mutual compensation of service for example salaries, bonuses and career development.

Theoretical framework: Researcher is used Allen and Meyer model to study the impact of implementing teleworking on organizational commitment. According to this model, organizational commitment has three dimensions: affective, continuance and normative. In 1984, approach considers using assessment criteria as the best way that it can directly assess individual's understanding about the number and magnitude of side bets they have made. Affective commitment scale is an attachment that it may be due to the role of the individual regarding the organizational objectives and values or because of the organization. Allen and Meyer proposed the continuity dimension as a better representation of Becker's side-bets approach. Continuance commitment was designed to measure the extent to which the employees has a sense of commitment according to the process that they feel that should compensate if they leave the organization. Also, in this kind of commitment, employee's continuance commitment to the employer will become stronger when they have few appropriate strategies. A few years later a third dimension entitled the normative commitment was also added. Normative commitment is defined as a sense of belonging to continue working. Employees with high levels of normative commitment feel that they should stay in the organization. Normative commitment influences by commitment or culture at the arrival to an organization. According to the mentioned matters, the conceptual model which it is used in this research is as following (Fig. 1). According to the model, implementing teleworking in organization could ultimately influence on the employee's organizational commitment of company.

Review of literature: An study entitled "Investigating the relationship between teleworking and organizational commitment according to Allen and Meyer Model" by Amirkabiri (2006) was conducted on the assessors of Maskan Bank. Results of this research showed that there is a positive and significant relationship between teleworking and all three dimensions of commitment, i.e., affective, continuance and normative.

Hunton in his research entitled "Impact of teleworking on organizational commitment" analyzed the condition of teleworking and organizational commitment among teleworkers and their individual performance. The aim of this study was to evaluate the impact of teleworking on employee's organizational commitment. Results showed that level of organizational commitment

significantly increases when the employees were allowed to choose between working in the central office or home. Also, the results showed that performance is positively associated with organizational commitment.

Studies conducted by Smith has shown that teleworking influenced by face-to-face interaction and communication and reduction of interpersonal communication can impress the job satisfaction. Studies also show that implementing teleworking can influence on the organizational culture as well. Since, face-to-face communication and interaction which is an important aspect of organizational structure is not observed in teleworking.

Objectives of the study

The main objective: Determining the impact of implementing teleworking on organizational commitment

Secondary objectives: Determining the impact of implementing teleworking on affective commitment determining the impact of implementing teleworking on continuance commitment determining the impact of implementing teleworking on normative commitment

MATERIALS AND METHODS

This study is done by cross-sectional and practical method. Population of this research was selected among one-hundred technical support's and sales support's employees of Shatel Company and it is done through census method. After collecting information through standard questionnaires about the components of the dependent variables, Cronbach's alpha is evaluated in order to assess the reliability of them. Then, T-tests are used for independent samples and Levin test, multivariate analysis of variance (ANOVA) and Box test are also used and research hypotheses are tested by using SPSS Software (Table 1-3).

RESULTS AND DISCUSSION

Data description: Table 1-3 shows the data description of employess gender, education and work experrience.

Inferential findings

Review of research hypotheses: Main Hypothesis: Implementation of teleworking has a significant impact on organizational commitment of personnel (Table 4).

Pearson correlation was significant for all three variables of affective, continuance and normative commitment ($p<0.05$). Therefore, because of several continues dependent variables, Multivariate Analysis of Variance (MANOVA) is used to evaluate the difference in linear combination of organizational commitment's components-affective, continuance, normative-in teleworkers and non-teleworkers.

Table 1: Frequency distribution of employee's gender

Gender	Frequency	Percent
Man	35	0.35
Woman	65	0.65
Total	100	0.100

Table 2: Frequency distribution of respondents' education levels

Education level	Frequency	Percent
BA	71	0.710
BA and higher	29	0.290
Total	100	0.100

Table 3: Frequency distribution of respondent's work experience

Work experience	Frequency	Percent
>12 month	10	0.100
1-2 year	40	0.400
2-3 year	19	0.190
<3 year	31	0.310
Total	100	0.100

Table 4: Pearson correlation for the relationship between affective, continuance and normative commitment

Variables	Affective	Continuance	Normative
Affective	1	0.540**	0.205*
Continuance	-	1	0.197*
Normative	-	-	1

Table 5: Summary of similarity of variance-covariance matrix for Box test

Box	F-vlaue	df1	df2	Sig.
5.787	0.932	6	62487.952	0.470

After analyzing the correlation coefficient between variables, we should examine whether the variance covariance of these three variable in both groups are the same or not. For this reason, Box test is used to examine the similarity of variance-covariance matrix for organizational commitment's components in both groups in which statistical significance is the indicator of heterogeneity or inequality (Table 5).

According to the obtained value of F which equals to 0.932 and the significant level of 0.470, it can be concluded that difference of variances was not significant and homogeneity hypothesis of variance-covariance matrix in data is accepted.

Now, with respect to similarity of variance covariance, through the next test want to examine whether the average combination of three variables-affective, continuance and normative-are different or not (Table 6). According to the values of multivariate tests especially value of Pillay effect which it is equal to 0.085 and the obtained value of F which equals to 2.68 and the degree of freedom of 3 and 96, the null hypothesis can be rejected ($p<0.05$). In other words, the average linear combination of organizational commitment components affective, continuance, normative is simultaneously different among teleworkers and non-teleworkers. Thus, the null hypothesis rejected and the research hypothesis accepted. It means that there is a significant difference between linear combination of organizational commitment components affective, continuance, normative-among teleworkers and non-teleworkers, simultaneously.

Table 6: Summary of multivariate tests

Impacts/tests	Values	F-value	df	df error	p-value	ITA square
Groups						
Pillay effect	0.085	2.68	3	96	0.049	0.085
Wilks's lambda	0.925	2.68	3	96	0.049	0.085
Hotelling effect	0.091	2.68	3	96	0.049	0.085
Roy,s largest root	0.091	2.68	3	96	0.049	0.085

Table 7: T-test for independent groups- variable: affective commitment

Variable	Non-teleworker	Teleworker	F-value	Sig.	t-value	df	Sig.
Affective Commitment	4.74	4.58	0.666	0.416	0.780	98	0.437

Sub-hypotheses

Hypothesis one: Implementation of teleworking has a significant impact on affective commitment (Table 7).

- Results of Levin test (F) in the above table indicated that there was no significant difference in variance of affective commitment between teleworkers and non teleworkers
- Results of t-test for independent groups suggested that there was no significant difference in average of affective commitment between teleworkers and non-teleworkers. Thus, the null hypothesis accepted and the research hypothesis rejected. It means that there is no significant difference between affective commitment of teleworkers and non-teleworkers

Hypothesis two: Implementation of teleworking has a significant impact on continuance commitment results of Levin test (F) in the above table indicated that there was no significant difference in variance of continuance commitment between teleworkers and non-teleworkers. Results of t-test for independent groups suggested that there was no significant difference in average of continuance commitment between teleworkers and non teleworkers. Thus, the null hypothesis accepted and the research hypothesis rejected. It means that there is no significant difference between continuance commitment of teleworkers and non-teleworkers.

Hypothesis three: Implementation of teleworking has a significant impact on normative commitment. Results of Levin test (F) in the above Table 8-9 indicated that there was no significant difference in variance of normative commitment between teleworkers and non-teleworkers.

Results of T-test for independent groups suggested that the average of normative commitment in teleworkers was significantly lower than the non-teleworkers ($t=2.767$, $P<0.05$). Thus, the null hypothesis rejected and the research hypothesis accepted. It means that there is a significant difference between normative commitment of teleworkers and non-teleworkers. And normative commitment among non-teleworkers is more than teleworkers.

Table 8: The t-test for independent groups- variable: continuance commitment

Variable	Non-teleworker	Teleworker	F-value	Sig.	t-value	df	Sig.
Continuance commitment	4.35	4.36	0.030	0.862	-0.084	98	0.933

Table 9: The t-test for independent groups-variable: normative commitment

Variable	Non-teleworker	Teleworker	F-value	Sig.	t-value	df	Sig.
Normative commitment	4.49	4.05	1.487	0.226	2.767	98	0.007

Main hypothesis: Based on results from the main hypothesis in this research, it was found that implementation of teleworking has an impact on organizational commitment and the level of organizational commitment is different between teleworkers and non teleworkers. With regard to the results of main hypothesis and sub-hypotheses-it was noted that there is no difference between affective and continuance commitment of teleworkers and non-teleworkers but there is significant difference between normative commitment of two groups-it can be said that whatever in this organization have greater focus on strengthening pre conditions and factors affecting the normative commitment increasing, the level of normative commitment among teleworkers will increase and thus the negative effects resulted from implementation of teleworking on organizational commitment will decrease.

Sub-hypothesis one: According to the results obtained from first sub-hypothesis, it was found that teleworking has been ineffective on the affective commitment and the level of this dimension of commitment has no significant difference among teleworkers and non-teleworkers. This means that factors and pre-conditions that lead to formation of affective commitment are same in both groups.

Sub-hypothesis two: According to the results obtained from second sub-hypothesis, it was found that teleworking has been ineffective on the second dimension of organizational commitment i.e. continuance commitment and the level of this dimension of commitment has no significant difference among teleworkers and non teleworkers. This means that factors and pre-conditions that lead to formation of affective commitment are same in both groups.

Sub-hypothesis three: According to the results obtained from third sub-hypothesis, it was found that teleworking has a significant effect on the third dimension of organizational commitment, i.e., normative commitment and the level of this dimension of commitment is different among teleworkers and non-teleworkers of organization.

CONCLUSION

Regarding the significance of organizational commitment level and the impact of teleworking on it, successful implementation of teleworking requires managers that are able to identify reasons of concerns resulted from its implementation such as physical and career isolation in employees and so on and they attempt to solve the mentioned items if there is. So, this study investigates the impact of implementing teleworking on the level of organizational commitment.

SUGGESTIONS

Regarding the pre-conditions of organizational commitment dimensions which mentioned before, it is recommended that organization reinforces commitment dimensions especially normative commitment according to the following suggestions through which the impact of implementing teleworking on the employee's organizational commitment will reduce. It is recommended that: Some recommendations on strengthening dimension of affective commitment:

- Organizing teleworker's tasks and precise definition of job description aimed at the absence of ambiguity in role and job
- Implementing measures such as job enrichment and job rotation to avoid the feeling of job regression in employees and increasing the job challenge

Some recommendations on strengthening dimension of continuance commitment:

- To study similar jobs in contributing companies periodically and awareness of working conditions and benefits intended for employees in order to prevent job comparisons by employees
- To create incentive conditions and points for the presence of employees in useful training courses to develop their skills

Some recommendations on strengthening dimension of normative commitment:

Defining an accurate and real roadmap (career progress path) along with mentioning the factors and authentication conditions required for organizational growth and career advancement even for teleworker. Creating reliable and integrated methods for evaluating the performance in relation with teleworker and non-teleworkers and justifying teleworkers with regard to grounding the evaluating methods to pay bonuses or promotion and career development organization movement to reduce the impact of face-to-face communications in payments and job progresses. Holding periodic and regular meeting and gatherings such as working breakfasts, entertainment, sports and cultural programs with the presence of teleworkers and non-teleworkers to increase interaction and communication among employees, supervisors and managers.

Holding justifying and training courses for managers and supervisors in relation with concerns, sensibilities and problems of teleworkers and realization of the need for supporting teleworkers and strengthening the confidence of supervisors and managers toward these employees.

Holding regular and periodic meetings in person and by phone between supervisor or manager and teleworkers and providing feedback in conjunction with the results of performance evaluation of employees and their possible problems. In fact, teleworkers should get social support perception from colleagues and managers.

Providing appropriate hardware and software facilities, faster internet connections and auxiliary equipment required for teleworkers to prevent from negative effect on performance and efficiency of employees. It also prevents the occurrence of stress resulted from inappropriateness of facilities.

Appreciating teleworkers based on their performance thorough different methods such as organizational presses aimed at highlighting the role of teleworkers in organization and conveying the sense of unforgettably to these employees. Reviewing the organizational objectives, values and norms for teleworkers to strengthen the organizational culture.

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