

Introducing Infrastructural Model of Human Resource Management Appropriate for Telework in Iranian Public Organizations (quantity perspective)

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ABSTRACT

The present study aimed to identify the infrastructural model of human resources management of telecommuting in state organizations of Iran. Based on the analytical model of study, besides the study of concurrent effects of culture, technical and organizational strategy, the impact of these factors on network organizational plan as (organizational structure, rules and regulations of telecommuting) can be evaluated. Also, the impact of mentioned variables on processes (subsystems) of human resources management can be studied. Finally, the direct and indirect impact of these factors on telecommuting in state organizations can be investigated.

The study population of present study: 320 operational managers and experts of collaboration, labor and social welfare and deputy of development of management and human capital of presidency chief were selected based on Morgan Table as 175 by simple random sampling method. After three times of distribution of questionnaire as face to face and electronic, 144 questionnaires are collected and they are used as the basis of hypothesis test. The validity of measure is supported by experts and its reliability is supported by Cronbach's alpha coefficient 984%. By structural equations modeling (measurement and structural) the relations between the model variables are investigated. The results show that all hypotheses are supported as the significance of test (t coefficients) in all of them is higher than 1.96. Also, there is positive and significant association between telecommuting culture and centralized ICT and combinational strategy and ICT (centralized). Thus, it is proposed to future researchers that based on the views of most of experts, telecommuting wave was a political one and in future studies, this dimension of theory was entered the model and was analyzed. Also, by modeling dynamic system, a part of dynamics of existing relations and complexities of dimensions and components of model is investigated.

KEYWORDS: Infrastructural model, Management of human resources of telecommuters, Structural equations modeling, Confirmatory factor analysis, State organizations

1- INTRODUCTION

Telework, as an important phenomenon in the age of information, has been developed along with the rapid development of technology. In addition to information and communication technologies that have made it possible to do everything at any time and place, expressed interests of various sectors of society – especially women and certain groups such as disabled people in this phenomenon and its human, economic and social consequences- has accelerated its development (Salmasnia, 2010). In other words, teleworking is a useful and effective approach both for employees and employers and organizations. This approach can also be a viable solution for the Iranian nation.

Issues such as the need to increase productivity, reduce costs, and time of providing service, and to increase their quality in the public sector in recent years, have brought the electronic government and along with it teleworking into the attention of academicians and authorities as a tool to achieve competitive advantage and countries' development in an international level (Buessing, 2000; Illegems and Verbeke, 2004; Potter, 2003; Cecily and Janet, 2009). Telework is a relatively new field of study and its effects on organizations are increasing over time. The term "telework" and "telecommuting" and "Virtual work" are often used interchangeably (Gajendran and Harrison, 2007; Siha and Monroe, 2006); and in practice, they became global very quickly (Davis and Polonko, 2003). Focus of these studies, which was initiated by Jack Niles, has been directed towards the work-life balance over the past 30 years.

These days, the hot discussion of telecommuting in state organizations is reduced and it is less followed by authorities namely deputy of human resources of presidency than before. The regulation that was passed and delivered by the Cabinet in 2010, was just being implemented that it was announced that teleworkers have to come

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back as fast as they have gone. Population explosion in Tehran, transfer of agencies and Government departments and increased air pollution are the most important reasons that these regulations are enforced more and with the approval of Article 71 of the fifth development plan by the Cabinet, the need to implement teleworking is emphasized.

Given the importance of electronic management of human resources and along with it teleworking in today's organizations; this study examines a model for the development of human resources management according to telework in government organizations around the above mentioned axes. On this basis, the main research question is: How is the conceptual model of telework human resource management in government agencies?

To answer this question, we need to answer the other two questions;

- What are the consistent dimensions, components and indices of infrastructural models of human resources with telecommuting in state organizations?
- How is the relationship between components, dimensions and indices of infrastructural model of human resources management consistent with telecommuting in state organizations of country?

2- Review of literature (Effective variables on implementation of telecommuting)

After the investigation of review of literature, it was found that various factors are effective on telecommuting in state organizations but various researchers have applied different terms to express these factors in studies. These factors are classified based on their content. These factors are expressed in various researches with different focuses. Based on valid studies, two infrastructural and process factors effective on telecommuting implementation with relevant dimensions can lead to successful implementation in state organizations and are shown in Table 2-25.

Table 1: The factors extracted from theoretical literature and review of literature regarding successful implementation of telecommuting

Infrastructures	
Indices	Dimensions
(Moritz & lengick- Hall, 2003). (Bui et al., 1996). (David Holman, 2005). (Washington state Department of transportation, 2010). (Potter, 2003). (watad&will, 2003). (Hylmo, 2001). (Colbert, 2010). (Guest, 1990). (Standen, 1997). (Holman, 2005). (Smale&Heikkila, 2009; Olivas et al., 2007). (Leda et al., 2007). (Ozeselik, 2010). (Aliei, 2012). (Barkhordar, 2013).	Culture
(Dimartino, wirth, 1990). (David Holman, 2005). (Hinds and Belli, 2003). (Kowalski & swanson, 2005). (Mann et al., 2000, Terembli, 2002) (Fritz et al., 1998). (Wite, 2011). (Neary, 2002). (Ruvell et al., 2004). (Strohmeier, 2009). (Turetken, et al., 2011). (Schermerhorn, 1996). (Alvani and Danayifard, 2000). (Salmasnia, 2010). (Karimi, 2011). (Barkhordar, 2013). (Nategh, 2013).	Technology
(Miles & Snow, 1984). (David Holman, 2005). (Mintsberg, 1989). (Daleri&Duti, 1996). (Mirsepasi, 2005). (Stewart and Brown, 2011). (Sarablom, 2008). (Junaid, 2010). (Edephonc& Lazar, 2010). (Ruel et al., 2004). (yusliza et al., 2011). (Zhang & Lunko, 2007). (Evamle, 2012). (Nategh, 2013).	Strategy
(Rezayian, 2006). (Barkhordar, 2013). (SeyedJavadin, 2011). (Ashkenas et al., 1995). (Daniels et al., 2003). (Holman, 2005). (Reich, 1999). (Lawrence&Lorsch, 1976). (Olivas et al., 2010). (Nah et al., 2002). (Qolipour, 2011). (Rietveld, 2011). (Madsen, 2011). (Pyoria, 2011). (Remuse, 2007). (Nayeri, 2002). (Anna, 2008, Stifan, 2007). (Taskina& Edward, 2007). (Sanchez et al., 2007). (Cheukfang, 2010) (Nategh, 2013).	Organizational plan
Processes (subsystems) of human resources management	
(Holman, 2005). (Lamond, 2000). (Townsend, 1998). (Qanbari, 2011). (Leda et al., 2007). (Galanaki, 2002). (ensher et al., 2002). (Panayotopoulou et al., 2007). (Moorcreft and Bennett, 1995) (Vatsala, 2007). (Sherit et al., 2009). (Abolmajeid, 2009). (Azimian, 2011).	Selection and recruitment
(Shackleton, 1995). (Green & Makandro, 1999). (Salmon et al., 2000). (Haynes et al., 2002). (David Holman, 2005). (Trejasski& Daniels, 2000). (McClelland, 1994). (Hirschman, 2001). (Mumford, 2003; Sambrook, 2003). (Kowalski & Swason, 2005). (nah et al., 2001). (Leda et al., 2007).	Empowering
(Mirsepasi, 2010). (Holman, 2005). (Mann et al., 2000). (Bontis et al., 2003), (Harper, 2000; Walther, 1995). (Kowalski & Swanson, 2005), (Leda et al., 2007). (Ruben et al., 2011). (Morganson, 2010). (Nategh, 2013).	Communications and Motivation
(Sparrow, 2000; Van ommeren, 2000) (Gary et al., 1993). (Hillthroe, 2000). (Holman, 2005). (Kowalski & Swanson, 2005). (Showartz, 1997). (Adamson & Zampitti, 2001). (Tregaskis& Daniels, 2000) (Gomez et al., 2009).	Performance Management
(Mirsepasi, 2010). (Abtin, 2012). (ZareElmi, 2010). (Qanbari, 2011). (Nategh, 2013). (Turetken et al., 2011). (Gomez et al., 2009). (Kim & Vigins, 2011).	Compensation management

3- Research background

Telecommuting is a new concept in Iran and there are a few researches in this regard and they are mostly about basics and different types of telecommuting implementation models. As telecommuting in Iran is new, there are a few studies in this regard in the form of paper and attempted to investigate the view of employees regarding telecommuting issue (e.g. Sohrabi and Rezayian, 2006, Mamduhi, Mojtahedzade, Alimoradi, 2010, Asadi and Karimi, 2011; Alirezayi et al., 2013, RaminMehr et al., 2013).

A survey of the review of literature of telecommuting human resources management shows in abroad shows that some of the studies are performed before implementation of telecommuting and theoretically, the basics of this issue are referred as (Johnson, 2007; Morgan 2004, Atkins et al., 2002). Other researches are performed in the survey of two groups of employees and managers, before and after telecommuting and some results are achieved (Johnson, 2007; Rasmussen and Corbett, 2008; Lavalee, 1993; Miles et al., 2001; Verive and Joice, 2008; Kitsap journal, 2009; Chekfang, 2010; Demas 2011). The studies in Iran and abroad regarding telecommuting is shown in the following Table.

Table 2: Review of literature

Summary	Resource	Year	Title	Writer(s)
In this study, the researchers evaluate key success factors of development of telecommuting plans. They evaluated review of literature and identified key success factors of telecommuting plans and then presented the framework of key success factors of telecommuting. The key success factors of this framework were support, communication and trust.	An International Journal, 12 (3), 236 – 249	2005	Key success factors of development of telecommuting plans	Kowalski, K. Berube. &Swanson, J. Ann
They believe that telecommuting includes re-structuring the work results as affecting the employment relations by various methods and emphasize on control. The evidences of two empirical studies in general section show the necessity of re-definition of control rules and re-design of roles and management methods.	Journal compilation © 2007 Blackwell Publishing Ltd <i>The possibilities and limits of telework in a bureaucratic environment</i> , pp: 195-207	2007	Facilities and limitations of telecommuting in bureaucratic environment (general sector)	Laurent Taskin & Paul Edwards
By the study of 314 managers of the companies in US evaluated the good features of employees for telecommuting and compared old employees with young employees and mentioned that less-experienced managers were disagree about employment of old employees for telecommuting compared to old managers.	Human Factors and Ergonomics in Manufacturing, Vol. 19 (5) 457–477	2009	Employment of employees with high experience for telecommuting	Joseph Sharit Sara J. Czaja Mario A. Hernandez and Sankaran N. Nair
They believe that accepting telecommuting depends upon organizational limitations (age and size of company), transnational composition of labor force and leadership style of top managers. In addition, the companies that have accepted telecommuting emphasize on result-based control system. The findings of study show that telecommuting with small organizational size, high percentage of transnational employees and compensating varied and flexible services are important.	Human Resource Management, November–December 2009, Vol. 48, No. 6, Pp. 917– 939	2009	Why some companies have accepted telecommuting, and others didn't accept it, contingency approach	MARGARITA MAYO, JUAN-CARLOS PASTOR, LUIS GOMEZ-MEJIA, AND CRISTINA CRUZ
They evaluated the relationship between design and physical conditions of home offices and work behaviors of telecommuters. The findings of study regarding working at home and traditional office showed that “telecommuters were inclined to make the quality of work conditions at home similar to the quality of work conditions in common offices. The design of work space at home should fulfill the needs of “telecommuters” at house and family.	Facilities Vol. 28 No. 3/4, 2010pp. 137-155	2010	The work offices of telecommuting people is a symbol of development of great companies	Cheuk Fan Ng

They believe that service compensation policy in long-term can focus on family-based values. The findings show that implementing the policies is associated with the employee's satisfaction. The satisfaction of employees regarding demographic features is different.	Public Administration Review • September October 2011, pp: 728-739	2011	Are family-based human resources policies applied in the general sector?	Jungin Kim & Mary Ellen Wiggins
They raise comprehensive analysis of historical discussions regarding the mutual relations of business and government. In this evaluation, remote management was considered as new futuristic method in digital era. The practical experiences and evidences showed gradual movement to remote management in different mechanisms of electronic family (electronic government, e-commerce, etc.).	Asian Journal of Business Management 4(1), pp: 86-94,	2012	Remote management- Emergence of new style of management	Nail AHK Awamleh
To evaluate four components of job consistency with telecom mutation, technical infrastructures, management and human resources, two questionnaires are evaluated. Based on the results, the existing jobs by achieving highest importance in telecommuting had required consistency to implement telecommuting. The investigated companies in terms of access to technical infrastructures, management and human resources with second, third and fourth importance degree were prepared to implement telecommuting. Totally, the software manufacturing companies in IT industry of Iran can implement telecommuting.	MA thesis of management school of Tehran University	2010	A survey of the preparedness of software manufacture companies in IT industry in Iran to implement telecommuting	Maryam Salmasnia
The results of hypotheses test showed that despite high ICT technology to telecommuters, productivity, performance and satisfaction of them are increased. Thus, for much success of telecommuting plans, it is proposed that: This issue is considered by managers that which technologies should be provided for telecommuters or the features of minimum required equipment for the employee participating in telecommuting plan.	Ma thesis of technical and engineering department of TarbiatModarres University	2011	The investigation of the impact of ICT on success of telecommuting (a survey in cultural heritage organizational, handicrafts and tourism)	PoyaKarimi
In the present study, it is interviewed with the employees and managers of ministry of research and technology sciences in a deep and semi-structure interview. This study attempts to apply data-based method and based on organizational cultural can investigate feasibility of telecommuting for women and finally, a model is presented for effective application of telecommuting for women.	MA thesis of management school of Tehran University	2012	The investigation of the impact of cultural values on feasibility and effectiveness of women telecommuting	NastaranAliie
Telecommuting organization based on six components: structure, employees, technology, duties, environment and culture attempt to improve productivity	Phd thesis of Payam-e Noor University	2013	The design and explanation of	NaserBarkhordar

based on the features of industry and services, effective excellence of companies and state and private institutions. The findings of study show that Payam-e NOOR University except technology component with the minimum score is not consistent with any of five components with telecommuting organization model and it is proposed that managers and authorities can improve required infrastructures for each of components based on the basic contents and extracted codes of this study..			telecommuting organization (Case study of Payam-e Noor University)	
Based on data analysis via coding, it was shown that the framework had six columns and three rows. The best level of framework in which telecommuting is dealt is organization strategic level and is composed of middle, operational and columns indicating motivations, legal documents, processes, IT, information security and structure and formations.	PhD thesis of management school of Tehran University	2013	The design and formulating telecommuting architecture framework in collaboration, labor and social welfare ministry	TahmineNategh

4- METHODOLOGY

The present study is mixed explorative design. At first, by qualitative approach, the dimensions, and components and infrastructural indicates of telecommuting human resources management are identified in state organizations and the initial model of study is designed. In the next step, based on the information in previous stage, the mentioned model is evaluated in ministry of collaboration, labor and social welfare and deputy of management development and human capital of presidency (as study population)(quantitative approach).

In qualitative approach (identification of components), the study population is experts of human resources management and IT as managers and experts of human resources management and IT of state organizations and lecturers and students of post-graduates as 20 in IT and management of human resources with some papers, teaching courses, writing or study design. Of which, 10 faculty members of University and PhD candidate and 10 administrative managers are selected.

In quantitative approach: Queue managers and experts of collaboration, labor and social welfare experts as 320 working in central building of this ministry in Azadi street and deputy of development of management and human capital of presidency in Shahid Beheshti of Tehran. The present study is based on Morgan Table as 175 and the simple sampling method is used. Among the study population, after three times of questionnaire distribution as face to face and electronic forms, 144 questionnaires are collected and are based on study hypotheses test.

Briefly, based on study process, we can say that in terms of study directions, this study is development (evaluation) design. This study is comparative and deduction. A combination of comparison and deductive methods are used to support or reject the study hypotheses (Mirzayi, 2006). The research strategy of content analysis is used and it is one of the qualitative study strategies (Danayifard et al., 2007). It is worth to mention that the aim of this study is explorative. In such researches as explorative building the concepts, models and frameworks, most of final findings are not definite (Baumard, 2001). There is no conceptual model in these studies and it is applied when the aim of study is achieving conceptual model (Ramin Mehr, 2013).

5-Data analysis and collection method

In order to collect data for the identification of dimensions, components and factors affecting formulation of telework human resource management model in this study, the interviews method

(Semi-structured interviews) was used. Generally, in interview method, the validity should be considered for each of stages to have reliable results. In each of seven stages, the researcher performed suitable reliability and it is referred in details in qualitative section of third chapter of study. In the present study, re-test reliability and subject

agreement method are used to calculate the reliability of interviews. In the analysis of data of research interviews, content analysis method is used. Thus, at first the interviews are investigated and coded and the various concepts in this study are extracted. These concepts are presented based on content in the form of various contents and forms. As the outputs of Maxqda software are in the form of tables for analysis of qualitative interviews based on conceptual sets of infrastructures as (environment, public culture and organizational culture, organizational structure, strategy, goals, law of local services management, labor law, methods and procedures of telecommuting, telecommuting regulation, ICT infrastructures (ICT of organization) and conceptual process sets as (human resources planning, selection and deployment, training and development, performance evaluation, wage, compensation of service and reward, communication and motivation) are long and only we can refer to basic content report (239 basic contents) and organizing (10 organizing contents) and repetitive codes are eliminated. It is worth to mention that of qualitative interviews, 379 codes are extracted.

Based on wide application of web-based technologies in administrative and organizational activities as functions of human resources management and telecommuting human resources management in successful pioneer organizations, the present study is aimed to present infrastructural model of telecommuting human resources management in state organizations of Iran. Thus, according to chart 4, acceptance, implementation and successful implementation of telecommuting in organization is a process that starts by identification of cultural, technological and strategic factors and later organizational design is formed based on telecommuting organizational structure, rules, methods and procedures of telecommuting, etc. as infrastructures in organization and planning and finally processes of human resources management are formed based on them.

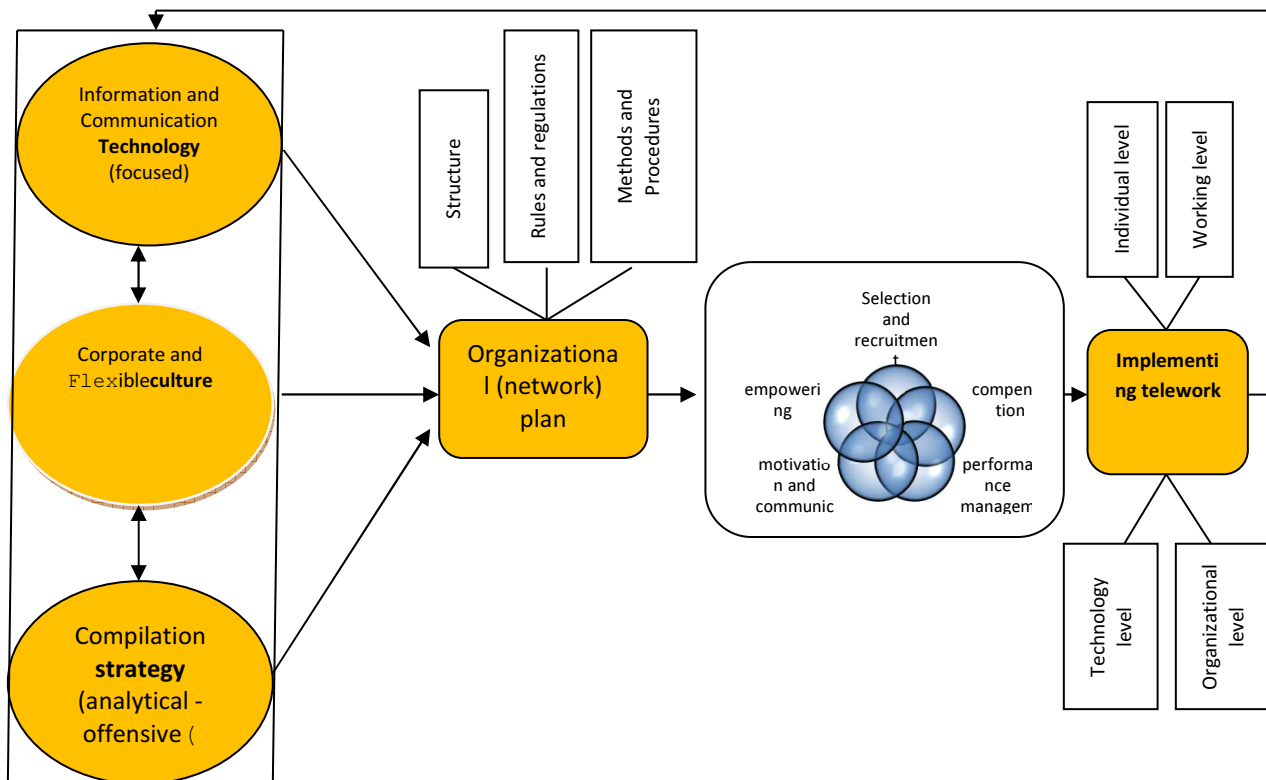


Figure 4: The final model of telework human resource management infrastructure in government agencies

To investigate validity and significance test between observer variable and latent variables and fitness of measured models, Confirmatory factor analysis is used and for reliability evaluation, Cronbach's alpha is used. To evaluate the causal relations of variables and conceptual model test, structural equations model (SEM) is used and covariance approach (Lisrel) method is applied. After achieving analytical infrastructural model of human resources management consistent with telecommuting in state organizations, Chart 1-4 of following hypotheses based on previous results (evaluation of review of literature and qualitative interview) is shown to respond the second sub question of study regarding the relationship between components of mentioned model.

First hypothesis: Organizational culture (telecommuting) has significant effect on organizational design (network) to implement telecommuting in state organizations.

Second hypothesis: ICT (centralized) has significant effect on organizational design (network) to implement telecommuting in state organizations.

Third hypothesis: Combinational strategy has significant impact on organizational design (network) to implement telecommuting in state organizations.

Fourth hypothesis: organizational design (network) has significant impact on processes of human resources management processes to implement telecommuting in state organizations.

Fifth hypothesis: Human resources management processes of telecommuters has significant impact on telecommuting implementation in state organizations.

6- Confirmatory factor analysis

The results of first rank confirmatory factor analysis and infrastructural factors, network organizational design, the structure of human resources management model processes and telecommuting variable show the positive and significant correlation between the dimensions of model. Also, the results of second rank confirmatory factor analysis of above variables show that measurement models are suitable and the values and parameters of model are significant. In other words, it shows that selective indices of researcher to measure these concepts have required accuracy to measure the structures or latent variables and each is important and important sector of these structures is measured.

To measure these concepts, they have accuracy to measure latent structures and they are important and measure great part of these structures.

7- Structural equations model for study hypotheses test

Later, the structural model at standard estimation and significance coefficients can be discussed. The structural models are structural equations modeling or the evaluation of exogenous and endogenous latent variables at the same time. Figure 4-17 and 4-18 show the impact of exogenous latent variable (telecommuting culture, centralized ICT and combinational strategy) on endogenous latent variable (network design, human resources management of telecommuting and implementation of telecommuting).

H0, H1 to support or reject each of study hypotheses are as follows:

H0: There is no significant relation between two variables.

H1: There is a significant relation between two variables

If the significance value of test (T coefficients) in the test of study model is bigger than 1.96 or smaller than -1.96, H0 is rejected and H1, the significant relation is supported (Hypothesis support) and if significant value of test (T coefficients) in the test of study is ranging 1.96, -1.96, H1 is rejected and H1, the lack of significant relation is supported (Hypothesis rejection). Table 4-31 shows the support or rejection of relations between study variables briefly:

Table 3: The support or rejection of hypotheses

Support or rejection	Significance	Impact	Study hypotheses
Supported	2.35	0.31	First: The impact of telecommuting culture on network organizational design
Supported	2.55	0.38	Second: The impact of centralized ICT on network organizational design
Supported	2.48	0.31	Third: The impact of combinational strategy on network organizational design
Supported	3.19	0.74	Fourth: The impact of network organizational design on human resources management of telecommuting
Supported	5.09	0.56	Fifth: The impact of human resources management of telecommuting on telecommuting implementation

As shown in the results, all hypotheses are supported as significance of test (T coefficients) in all of them is above 1.96. Also, there is a positive and significant relation between telecommuting culture and centralized ICT and between combinational strategy and centralized ICT.

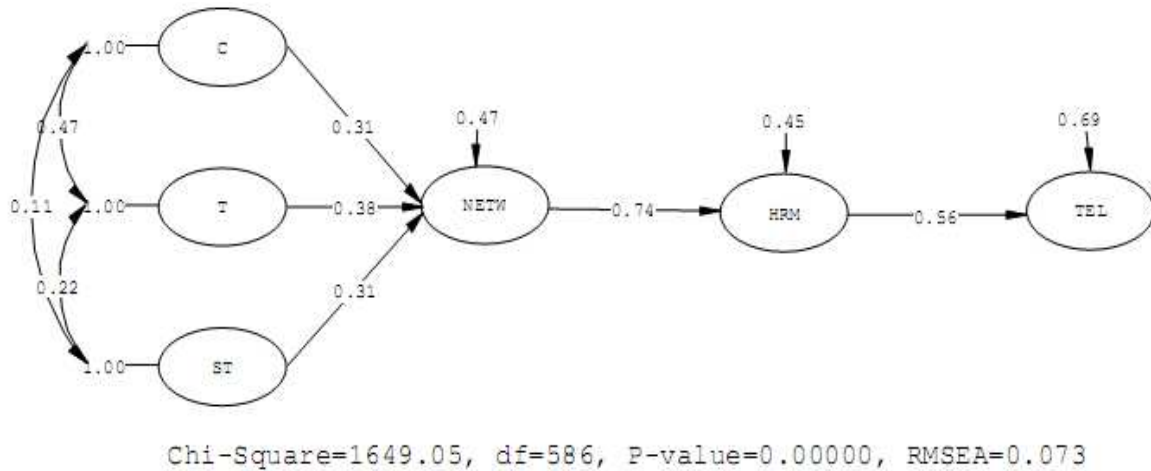


Figure 1. The model at standard estimation coefficients

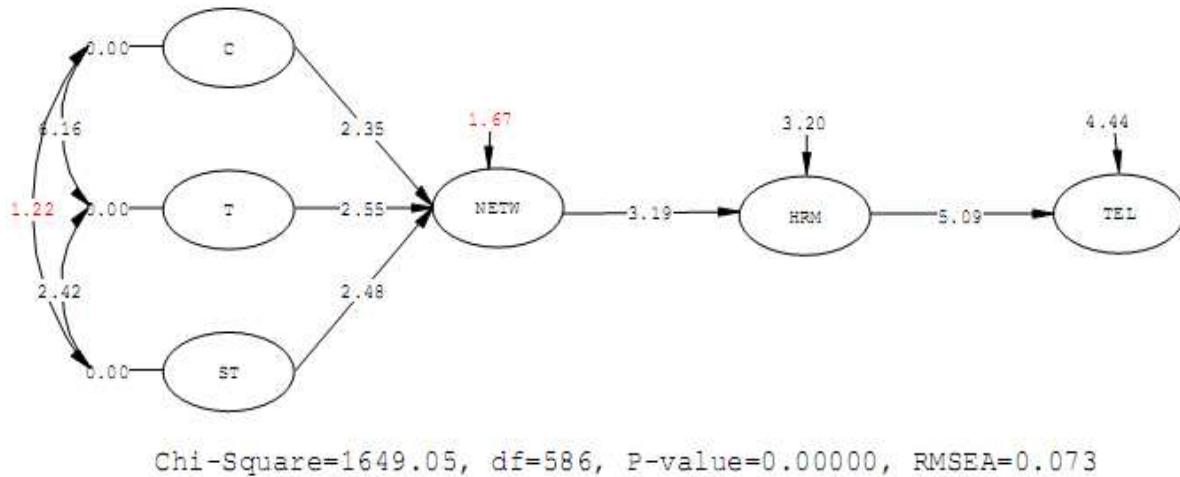


Figure 2- The model at significance coefficients state

In study hypotheses test by structural equations model, at first the software output indicates the suitability of fitted structural model for hypotheses test.

Based on Lisrel output, calculated χ^2 is 1649.05 and to degree of freedom (586) is less than 3 (Chi-square to degree of freedom ratio is 2.81).

RMSEA=0.073 indicates the suitability of fitting of structural model. In other words, the observed data are mostly consistent with conceptual model of study. AGFI, GFI and NFI are 0.82, 0.85, 0.92, respectively indicating relatively suitable fitness of model.

Finally, regression equations are investigated. As shown in the equations, R^2 in network design variables, human resources management of telecommuting and telecommuting implementation is 0.53, 0.55, and 0.31, respectively.

$$\text{NETW} = 0.31 \cdot \text{C} + 0.38 \cdot \text{T} + 0.31 \cdot \text{ST}, R^2 = 0.53$$

$$\text{HRM} = 0.74 \cdot \text{NETW}, R^2 = 0.55$$

$$\text{TEL} = 0.56 \cdot \text{HRM}, R^2 = 0.31$$

Table 4 based on Figure:1, 2 shows the relations between model components.

Table 4: The path coefficients of total constructs and significance of estimated parameters

Test result	Significance value	Path coefficient	Studied path in the model		
Effective	2.35	.31	Network organizational design	←	Telecommuting culture
Effective	2.55	0.38	Network organizational design	←	Centralized ICT
Effective	2.48	0.31	Network organizational design	←	Combinational strategy
Effective	3.19	0.74	Human resources management of telecommuting	←	Network organizational design
Effective	5.09	0.56	Telecommuting implementation	←	Human resources management of telecommuting

8- Conclusion and Recommendation

As shown in the review of literature, accepting and development of telecommuting are based on infrastructural and process factors of organization. Thus, previous studies have considered the infrastructural and process factors of various organizations as effective factors on accepting and successful application of telecommuting. The findings of present study are consistent with the findings of Vatsala et al., 2007; Taskin and Edward, 2007; Sanches et al., 2009; Sherit et al., 2009; Gomes et al., 2009; Abolmajed, 2009; Morganson, 2010, Chekfang, 2010, Ozeslik, 2010; Kim and Viggins, 2011; Evamle, 2012; Salmasnia, 2010; Karimi, 2011; Azimian, 2011; Alie, 2012; Barkhordar 2013; Nategh and one of their problems is the lack of taking a strategic approach to evaluate this issue. In other words, the researches separately consider infrastructural and process organizational issues but strategic approach can investigate these factors and their impacts on each other and it is a comprehensive approach as considered in this study.

Based on the model of study, besides the concurrent impacts of culture, technology and organizational strategy, the impact of these factors on network organizational design as (organizational structure, rules and methods and telecommuting procedures) can be evaluated. Also, the impact of mentioned variables on processes (sub-systems) of human resources management can be studied and finally, the direct and indirect impact of all these factors on telecommuting implementation in state organizations can be investigated.

The management of human resources of telecommuters is one of the important and challenging issues in state organizations and complementary studies can be performed in this field and various studies can be performed. The findings of study present some recommendations for further studies.

- 1- Five important factors (strategy, size, technology, environment and power-control) can determine organizational design, namely special structural form (Seyed Javadian, 2011). Three components (strategy, technology and cultural environment). As we know, size, technology and environment can be combined to lead into 50-60% of variance in structure but power and policies can justify the current structure of organization better than three factors (based on the agreement of most of most of experts, telecommuting was political and due to false implementation is suspended and it is started in close future by changing political system). In this study, due to the lack of measurement of mentioned component by the researcher, this dimension of theory enters model and is analyzed in future studies.
- 2- This study attempted to explain the relations between components and achieve the optimal consistency of various modeling dimensions but in reality, the interactions between dimensions are dynamic and complex than the values in this study. It is proposed to apply modeling dynamic system method and investigate a part of dynamics of relations and complexities among the dimensions and components in future studies.
- 3- The review of literature and qualitative interviews show that one of the challenges of telecommuting plan implementation is the lack of organizational culture based on telecommuting plan. Inconsistency of organizational culture with required flexibility for telecommuting in some organizations avoids implementation of this plan. The findings of study show the relatively weak relation between telecommuting culture and network organizational plan (impact coefficient 0.31 lowest value). Thus, it is proposed to future researchers to consider the reason why this relation is not supported strongly.
- 4- At the beginning of study, the researcher attempted to investigate dependent variable of successful telecommuting implementation but in the mentioned period, acceptance and implementation of telecommuting in state organizations is less emphasized and the mentioned component is not measured and it is proposed to enter this dimension of theory in future studies and analyze it.

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