

Telework in social entrepreneurial organizations

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ABSTRACT

Advances in information technology have made it easier to work remotely. In this way, doing work has been welcomed because it has many benefits for organizations active in the field of social entrepreneurship. The purpose of this study is to identify and classify the factors affecting telework in social entrepreneurial organizations using exploratory factor analysis. The research has been quantitative in terms of implementation method and applied in terms of purpose and descriptive survey. The data collection tool is a researcher-made questionnaire. The validity of the questionnaire was checked by the appearance/content method by the two experts and its reliability was confirmed by Cronbach's alpha coefficient of 0.83. The sample size was determined by Cochran's formula of 384 people. The questionnaire was distributed randomly among the employees of social entrepreneurship organizations, 20 variables were analyzed using KMO, Bartlett, Scree, and correlation matrix tests in SPSS software. The results of the analysis of the factors affecting teleworking in social entrepreneurship organizations have been identified and classified into 7 categories or effective factors. These factors are in order of importance: attitude, senior management support, trust and security, economic benefits, technology resources, cost reduction, environmental issues that affect teleworking in social entrepreneurial organizations.

Keywords: Teleworking, social entrepreneurship, identification, and classification.

Introduction

The nature of doing work is changing. Communities are moving from the industrial phase to the information-based society. This transfer involves a change in time, place, and how things are done. Changing new working conditions for individuals and organizations may be accompanied by initial resistance or welcome.

In the industrial age, employees must be present at work on a daily basis. Work tools and production equipment were available in the factory or office and were non-transferable. Therefore, the physical presence of all employees is mandatory. But in the new age of technology and communication, the production and supply process is done completely electronically with the least presence of people. The spread of informatics has reduced the physical presence of individuals and created thousands of job opportunities.

Teleworking is a new way of doing things. Doing work remotely is based on needs and shortcomings. Although this is done in a discrete and regular way, it undoubtedly pursues important goals as well. And meets need faster.

In teleworking, employees will spend more time with their families. From the late 1970s, when computers were introduced and made available to the public, the dream of teleworking also came true. Perhaps teleworking was not conceivable at the time due to the nature of the work and the poor IT infrastructure. But now, with the advancement of technology and new technologies, the professional duties of managers and employees are performed with more flexibility.

Social entrepreneurial organizations are formed to develop economic activity and investment in business areas in order to solve social, cultural and environmental problems. These organizations are usually not just looking for profit, and social responsibility at work is the basis of the organization. In fact, social issues have a special priority. And the success of these organizations depends on social and economic activity. Choosing creative solutions to social problems is a practical strategy. To create and maintain social values in these organizations, it is necessary to choose effective methods and expand social activities. The choice of teleworking method in these organizations has expanded the field of economic and social activities. In recent years, social entrepreneurial organizations have been able to meet the social needs of customers by sharing assets and services of others. In fact, they have facilitated part of teleworking by sharing.

In the new age, social entrepreneurial organizations seek to reduce costs, flexibility in work, and reduce staff turnover. Away from traditional bureaucracies, significant progress has been made in reducing air pollution. This advantage has been created due to the reduction of vehicle traffic and the reduction of fossil fuel combustion. Teleworking strengthens the foundation of the family. And reduces the amount of depression caused by the unfavourable environment. In the days of teleworking, organizations can access their employees either at home or anywhere else. In teleworking, employees perform their duties with complete independence. Of course, this approach is also critical. Axis bosses include fears of redundancies, weak infrastructure, and sometimes reduced performance. Overall, all research has confirmed the benefits of teleworking, and it is an undeniable fact that employee productivity is higher at home than at the office. But is more productivity felt in the workload of social entrepreneurial organizations? If the answers are yes and teleworking really increases work productivity. What factors affect working hours? To find the answer, it is necessary to identify and explain the category of teleworking in social entrepreneurial organizations, so the main question of this research is: What are the factors affecting the teleworking of social entrepreneurial organizations?

Teleworking is based on increasing the efficiency of the workforce and effectiveness in organizations. The prevalence of unemployment due to economic problems in recent years has encouraged government and non-governmental organizations to outsource. In the next few years, teleworking is expected to be introduced as part of the goals of organizational development and the expansion of the global economy. At

present, businesses based on shared economics and network marketing are a kind of teleworking. And in the future, there will be a wider horizon of teleworking growth in organizations. Many companies and large economic organizations around the world now have teleworking, outsourcing and sharing in addition to direct sales and retail. The development of the global Internet is a prelude to the success of teleworking in all parts of the world. Teleworking is taking place in many countries around the world. It is successful in the United States, Finland, and many European countries, reducing costs and welcoming staff. Teleworking is not just about working from home. Employees may be at work a few days a week, or they may have administrative missions outside their place of residence, travel to other cities, and do the work assigned to them. Or in a critical situation such as an outbreak, it may be the only option for the organization to survive and maintain public health. Teleworking is. Therefore, teleworking is a necessity, and identifying the factors that affect it is also a priority.

literature Review

Teleworking, meaning the use of communications and computers to change the location of the workplace and perform work tasks, is actually a type of work organization in which people are flexible, in the field of time (part-time or full-time) and in the field of place (home, office,) perform their duties and respond to assigned tasks. The first person to formally research teleworking was Jack Nilles. He has been mentioned in various books as "The Godfather of Teleworking". He proposed Teleworking 48 years ago. he led an interdisciplinary team whose goal was to create compatibility between

After Jack Nilles, futurist Alvin Tafer in *The Third Wave*, referring to the first wave (agriculture) predicted the shift of the industrial period of civilization (second wave) to the post-industrial and information age (third wave) and presented the view of "electronic cottage", That an increasing number of people will work teleworking. In 1987, Kinsman published his first book, *Teleworkers*, in the United Kingdom, which predicted teleworking and the flexible labor revolution.

With the advancement of information and communication technology, the costs of providing teleworking equipment were reduced and teleworking was gradually provided.

Some conditions and changes, including; The oil crisis (the big jump in oil prices) in 1973, rising unemployment, rising IT-related jobs, shrinking organizations and re-engineering of organizations in the 1980s, new thinking about work and life patterns, sparked interest in teleworking. Throughout this period, computer and telecommunications capabilities increased and costs fell; In this way, the possibility of teleworking was provided more than before. Teleworking has many environmental benefits. Teleworking is suitable for employees who are more than 30 km away from their place of work (Guerin, 2021). Teleworking reduces greenhouse gases and prevents the release of harmful gases (Tenailleau et al., 2021). Teleworking requires digital tools (Cuerdo-Vilches et al, 2021).

Teleworking was welcomed by families with children (Zhang et al, 2020). US support for teleworking is due to economic and environmental prospects (Stiles, J., 2020).

Teleworking requires the improvement of information systems and the positive attitude of managers (Silva-C, A., 2019). Joining Teleworking requires coordination (Bajzikova et al.2016). Workplace change on employee experience and retention requires organizational commitment (Albro et al, 2021).

The synergistic effects of working time are achieved through teleworking (Wang, K. and Ozbilen, 2020). Home teleworking requires more motivation (Aguilera et al., 2016).

Teleworking has reduced traffic and has been welcomed in large cities (Elldér, E., 2020). Reduces business travel (Moeckel, R., 2017). Teleworking eliminates burnout (Chi, 2021). Organizations work hard to be flexible in terms of space and time. (Wojcak et al., 2016).

Research methodology

This research is a survey in terms of practical purpose and in terms of method of implementation and collection of data and descriptive information. In this method, data were collected through library studies and field methods using a questionnaire. Using the research literature, 20 factors were identified as factors affecting teleworking. The Likert scale was used to assess the respondents' views. (5: Strongly agree and 1: Strongly disagree) In designing the questionnaire, in addition to research variables, demographic information was also used. (Table1) shows the factors affecting teleworking.

Table 1. Factors affecting telework in social entrepreneurial organizations

Number	Variables	Researcher / Year of publication
1.	Attitude	(Silva-C, A., 2019)
2.	Technological resources	(Silva-C, A., 2019), (Cuerdo-Vilches et al,2021).
3.	The nature and characteristics of the job	(Lebopo et al, 2020)
4.	Environmental factors	(Stiles, J., 2020)
5.	Organizational factors	(Wang, K. and Ozbilen, 2020), Jones, A., 2013
6.	human resources	(alvani et al, 2014)
7.	Understand usefulness	(Eldér, 2020)
8.	reduction in costs	(Moeckel., 2017)
9.	Social Issues	(Zhang et al, 2020)
10.	Economic interests	(Stiles, J., 2020)
11.	Trust and security	(Lebopo et al, 2020)
12.	Individual factors	(alvani et al, 2014)
13.	Ease and compatibility	(Lebopo et al, 2020), Wojcak et al, 2016).
14.	Communication tools	(Lebopo et al, 2020)
15.	cultural factors	(alvani et al, 2014)
16.	Management and control	(Jones, A., 2013), (Lebopo et al, 2020)
17.	Organizational Culture	(Lebopo et al, 2020)
18.	Senior management support	(Lebopo et al, 2020)
19.	Motivation	(Aguilera et al, 2016)
20.	environmental issues	(Tenailleau et al,2021), (Guerin, 2021).

Population

In this study, the population is all employees active in social entrepreneurial organizations in Tehran, who used teleworking last year. 384 respondents were determined randomly through Cochran's formula.

Data gathering

The tool of this research is a researcher-made questionnaire and the validity of the tool has been checked by two experts. And its reliability was determined to be 0.83 by Cronbach's alpha method.

Data analysis

The questionnaire consists of two general and main parts. In the main part of the questionnaire for 20 extractive components, a 60-item questionnaire with 5-points Likert response spectrum was designed. Due to the multiplicity of variables and the lack of previous and basic relationships, to summarize the factors and classify them, Kaiser-Meyer-Olkin Measure test, Bartlett's Test, Chi-Square, scree test in exploratory factor analysis in SPSS19 software at the level Significance of 0.05 was used.

Stages of exploratory factor analysis

The exploratory factor analysis method is a solution to discover the dimensions affecting a large set of studies. Using this method, many factors can be reduced to several main factors. Since there is no relationship between features, heuristic factor analysis is used. Taherdoost (2014). There are five main steps for heuristic factor analysis. (Figure 1) shows the five steps.

• Proper evaluation of data
• Primary factor extraction method
• Select the number of factors in factor analysis
• Select the method of rotation of agents
• Interpret and select agents

Figure 1. The Five Steps to Exploratory Factor Analysis (Taherdoost, 2014)

Results and discussion

In the first stage: considering that the basis of exploratory factor analysis is to examine the correlations between the measured variables, the KMO test for data adequacy and the Bartlett test were used to examine the correlation between features.

In the second stage: the number of effective factors needed to explain the data is determined. To do this, the principal components method was used in SPSS software.

In the third stage of selecting the number of factors in factor analysis, two criteria of special values (variance explained by factors) and the Scree test were used.

In the fourth step, in the SPSS software, the varimax method is used to preserve factors. Cattell (1945) believes that in exploratory factor analysis, without proper rotation of the initial values, appropriate analysis results cannot be achieved.

In the fifth stage, the interpretation and selection of agents is done mentally and inductively with the help of experts (Henson, 2006)

The KMO test indicates the appropriate amount of data for factor analysis. The value of this index varies between zero and one. If the index value is closer to one. The data used are suitable for factor analysis. And if the values are less than 0.6, the results of factor analysis are not appropriate. And there is no slight correlation. The KMO index calculated in (Table 2) shows 0.733 and confirms the adequacy of sampling.

Table 2. KMO and Bartlett test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy		0.733
Bartlett's Test of Sphericity	Approx. Chi-Square	2325.611
	df	383
	sig	0.000

Extraction method and selection of number of agents

Principal component methods are the most common method of estimating internal commonalities and external differences to extract factors. The questions were divided into seven categories, which explain 62.795% of the total variance of the questions. The results are as follows. In (Table 3), factors with initial eigenvalues and a percentage of variance equal to or greater than 1 are examined for significance, and all other factors with eigenvalues less than 1 are ignored.

Table 3. Total Variance Explained

	Initial Eigenvalue			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Ttotal	% of Variance	Cumulative %
1	16.879	25.163	25.163	16.879	25.163	25.163	8.815	14.122	14.122
2	7.739	10.089	35.252	7.739	10.089	35.252	6.631	10.328	24.45
3	4.313	8.919	44.171	4.313	8.919	44.171	5.474	9.197	33.647
4	3.908	7.323	51.494	3.908	7.323	51.494	3.389	9.001	42.648
5	3.01	5.102	56.596	3.01	5.102	56.596	3.932	7.846	50.494
6	1.381	3.225	59.821	1.381	3.225	59.821	3.569	6.866	57.36
7	1.31	2.974	62.795	1.31	2.974	62.795	2.344	5.435	62.795

Scree Test

In (Figure 2), is for the Cattell Scree test. It always has a downward slope. Seven factors have eigenvalues greater than 1 and an eighth factor less than 1, causing the curve to fail

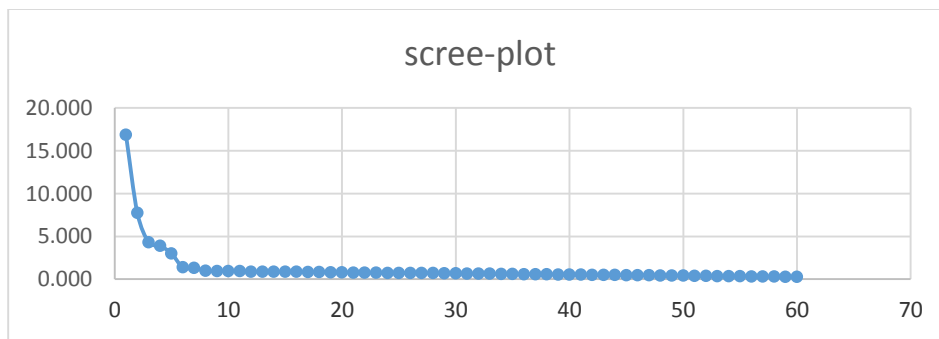


Figure 2. Scree plot

Rotate the data

Using the Varimax command in SPSS software, the factors are rotated in such a way that the correlation relationship between the variables and the factors is maximized and the analysis is performed easily. In (Table 4) shows the rotating components according to the relationship of the related questions.

Table 4. Rotation results

Related agent name	number	questions	variance Explain	Factors
Attitude	3	13-15	16.879	The fourth factor
Senior management support	3	22-23	7.739	The first factor
Trust and security	3	25-27	4.313	The third factor
Economic interests	3	10-12	3.908	The sixth factor
Technology resources	3	28-30	3.01	The second factor
reduction in costs	3	17-19	1.381	The seventh factor
environmental issues	3	1-3	1.31	The fifth factor

Interpretation and selection of factors

To name the agents, based on the information obtained, the items that have a higher factor load and correlation with each other were placed in a group. In general, these seven groups have 62.795% of the features of teleworking required by the entrepreneurial organization. In (table no. 4), all features were generalized to the relevant factor based on inductive reasoning. Inductive reasoning, if used correctly, can be the most powerful method of naming (Henson, 2006). For example, the feature of privacy in the organization has the most semantic and conceptual relationship with the trust factor compared to other factors. Using inductive reasoning, 7 factors were identified. From the nature of characteristics and the opinion of expert professors, these seven factors are: attitude, support of senior management, trust and security, economic benefits, technology resources, cost reduction, environmental issues. In (Table 5), the properties of the agents are classified based on the variance of the explanation of the agents.

Table 5. Seven classifications of factors affecting telework

factor	Attributes	Explanatory variance
Attitude	In fact, attitude is related to managers' belief in the abilities, skills and expertise of employees.	16.879
Senior management support	Improving the methods of the organization, discovering opportunities, proper use of resources and providing new ways of doing things	7.739
Trust and security	Security, privacy, authentication, symbol of electronic trust, quality assurance, compliance are included.	4.313
Economic interests	Profitability and usefulness for the organization and employees.	3.908
Technological resources	Agility, ease of work and communication, availability of facilities are the characteristics of technological resources in working hours.	3.01
reduction in costs	Reduce purchase costs, increase productivity, and return on financial resources based on the use of resources within the organization	1.381
environmental issues	Provide green and environmentally friendly products, reduce the supply of harmful substances to the environment, provide support programs to protect the environment	1.31
total		62.795

Conclusions

The present study was conducted to identify and classify the factors affecting telework in social entrepreneurial organizations using exploratory factor analysis in Tehran. Tehran has been the political, social, and commercial capital of Iran for more than 200 years. Today, Tehran has a population of more than 10 million and is the second-most populous city in the Middle East.

Teleworking has been welcomed due to the prevalence of COVID 19 in social entrepreneurial organizations, due to the training of field managers and supervisors, staff, and culture building in offices; Teleworking is possible. The necessary infrastructure for the continuation of business processes is provided in the form of teleworking, but since the common thinking in social entrepreneurial organizations is not organized on the culture of teleworking, teleworking in social entrepreneurial organizations also has limitations. In today's advanced world, teleworking is one of the modern ways of working. Teleworking is rapidly evolving with the development of information and communication technology and the ubiquity of facilities, including high-speed and low-cost Internet, mobile phones, teleconferencing, high-powered personal computers, and wireless networks. And it doubles the importance of research, and identifying the factors influencing teleworking will be a priority for entrepreneurial organizations.

According to experts, increasing travel within the city, heavy traffic in the morning and evening, increasing travel costs from work to home, pollution in particularly large cities, wasting people's time to get to work, energy loss from Among the factors affecting the acceleration of the teleworking process. According to what has been said, teleworking can be designed as a powerful work tool for managing social entrepreneurship, and as a result, meeting the prerequisites for creating a telework system should be considered.

The results of studies, summarizing variables and identifying the factors affecting telework in social entrepreneurial organizations are: attitude, senior management support, trust and security, economic benefits, technology resources, cost reduction and environmental issues. The results of the studies of the following researchers are confirmed: Tenailleau, QM, Tannier, C., Vuidel, G., Tissandier, P. and Bernard, N (2021), Stiles, J., (2020), Silva-C, A., (2019), Lebopo, CM, Seymour, LF and Knoesen, H., (2020) and research results show that a large part of the work in entrepreneurial organizations in the future will be teleworking.

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