

Comparison between Iranian Red Crescent Society (IRCS) and Other Red Cross & Red Crescent National Societies in Terms of Income and the Number of Volunteers

Mahtab Yazdani¹, Hamideh Addelyan Rasi²

Date of submission: 09 May, 2023 Date of acceptance: 14 Oct. 2023

Original Article

Abstract

INTRODUCTION: The present study was conducted in order to compare the organizational indicators of the Iranian Red Crescent Society (IRCS) with other National Societies. To this end, the number of volunteers, income and costs of the IRCS were compared with other National Societies in Africa, America, Asia, Europe, Central Asia, and Middle East & North Africa (MENA).

METHODS: In this descriptive-comparative study, data were collected from the data bank and online reporting system of the International Federation of Red Cross and Red Crescent Societies (IFRC). Finally, data were analyzed in Excel- 2016 and SPSS -24 software.

FINDINGS: Based on the findings, from 2016 to 2020, compared to other National Societies, the average of IRCS volunteers has always been higher. The income of the IRCS is higher compared to that of National Societies in Africa, Asia, the Pacific, and MENA and lower compared to the National Societies in America, Europe, and Central Asia. In terms of cost, IRCS incurred higher costs than African and MENA National Societies and lower costs compared to National Societies of America, Asia and the Pacific, Europe, and Central Asia.

CONCLUSION: According to the results, it can be concluded that although the income and costs of the IRCS are lower compared to most of the National Societies, the number of volunteers is more, which shows the human capital of IRCS and is necessary to use this potential appropriately.

Keywords: Cost; Income; Red Crescent; Red Cross; Volunteers

How to cite this article: Yazdani M, Addelyan Rasi H. Comparison between Iranian Red Crescent Society (IRCS) and Other Red Cross & Red Crescent National Societies in Terms of Income and the Number of Volunteers. Sci J Rescue Relief 2023; 253-259.

Introduction

Relief organizations, as institutions that provide relief services in urgent and critical situations, assume critical importance for communities. These organizations are responsible for responding to people's basic needs in natural and man-made disasters, including earthquakes, floods, fires, accidents, and bombardment (1). One of the main responsibilities of relief organizations is the provision of emergency medical services, firefighting, and response to natural disasters (2). Furthermore, these organizations have a role to play in managing health crises, preventing diseases and controlling their spread, supporting search and rescue in nature, and mitigating the effects of industrial accidents (3).

Therefore, relief organizations, as a basic institution in society, play a critical role in health in society. Iranian Red Crescent Society (IRCS) is an Iranian non-governmental organization and a member of the International Red Cross and Red Crescent Movement, which is active and involved in relief and humanitarian activities inside the country and in some cases, in other parts of the world. According to its international duties, the Red Crescent Society should help to provide relief and evacuate the injured and victims of these incidents in times of crises such as flood, earthquake, wars, etc. inside and outside the borders (4). IRCS has several sub-organizations that cover a wide range of medical, health, educational and relief services. As one of the most

1. Master of Social Services Administration, Allameh Tabataba'i University, Tehran, Iran

2. Assistant Professor of Social Work, Allameh Tabataba'i University, Tehran, Iran

Correspondence to: Hamideh Addelyan Rasi, Email: hadelyan@yahoo.com

important institutions in community, the Red Crescent Society plays an effective role in promoting a safety culture, helping the injured and refugees against various crises (5). Therefore, it is urgently needed to support and strengthen this organization and the survival and development of the organization depends on the improvement of human indicators, income, and expenses of the organization (6).

Playing an effective role in unusual and critical situations is closely linked to the number of human resources. The greater the access of relief organizations to human resources (volunteer and official), the more easily it will be possible to deal with, control, and recovery and return to normal situation. It is important to take care of this fact that human resources, along with other resources of aid organizations, always increase the productivity, efficiency and effectiveness of the organization. For this reason, in many leading countries, creating motivation to increase public participation for crisis control has become an important part of organizational policies and executive instructions. Therefore, the concept of "social marketing" has been invented as a development strategy of humanitarian organizations in the activities of non-governmental and charitable organizations in order to attract voluntary and active participation of people. The importance of this issue lies in the fact that voluntary activities in relief organizations create values, such as solidarity, interaction, mutual trust, belonging, and empowerment at the community level, all of which can contribute greatly to the well-being of individuals and communities. Voluntary activities form the backbone of many national and international non-governmental organizations and other civil society organizations, as well as social and political movements (7). Thus, the number of volunteers is an important and decisive factor in the provision of Red Crescent services since the Red Crescent Society, as a nonprofit organization, is looking for people who are willing to help others and provide services to the community. Therefore, the number of volunteers directly affects the ability of the Red Crescent to provide services, and the more the number of volunteers, the better this organization can provide to the community. For this reason, recruiting and retaining of volunteers are very important for the Red Crescent Society (8). In addition, the presence of volunteers in the Red

Crescent Society is used as an opportunity to train and prepare them to respond to critical and emergency situations (9). Moreover, volunteers can play an important role in the development and improvement of Red Crescent systems and processes. Therefore, recruiting and retaining volunteers is very important for the Red Crescent and has a great impact on providing services to the community (10). Financial resources and income levels have a vital role in advancing goals and carrying out organizational missions. One of the main issues of planning and defining the vision of organizations has a deep and comprehensive connection with the amount and level of their actual incomes. In other words, the income of organizations rationalizes the processes governing how to carry out their missions and affects the quality and quantity of goals and procedures. In addition, the income of the organization plays a very important role in providing services to the society (11).

Red Crescent Society, as a nonprofit organization, seeks to maintain and increase financial resources to provide services to the community. Considering that many of the services provided by organizations require financial resources, the income of the organization is very important as a source for providing the required expenses (12). The income of service organizations can be provided from various sources, such as government stocks, voluntary contributions, providing services to companies and organizations, as well as selling the products of this organization (13). By providing sufficient financial resources, the Red Crescent Society can provide better services to society and respond more to the needs of society. Therefore, trying to maintain and increase the income of the organization is considered a very important and necessary issue (14). Another indicator of the growth of service organizations is the cost since the growth and expansion of the activities of these organizations will require larger budgets and financial resources (15). An increased number of volunteers, improved quality of services, as well as the use of new and modern technologies, can bring about a marked increase in organizational costs. Nonetheless, in general, these types of expenses indicate the growth and progress of service organizations (16). It should be noted that although organizational costs can be indicative of growth, it is only one of the indicators used to

evaluate the performance of an organization, and it is necessary to judge the amount of costs according to the quantity and quality of services provided (17). Considering that one of the ways to evaluate the rate of growth and development of the IRCS is to compare the current situation with other National Societies, the present study aimed to assess the number of volunteers, income, and the cost of the organization, which are important indicators of organizational development. Therefore, the current research aims to compare the organizational indicators of the IRCS with other National Societies.

Methods

The present research was conducted based on a descriptive-comparative method. The data were collected from the data bank and online reporting system of the International Federation of Red Cross & Red Crescent Societies (IFRC). Considering that in this system, the information and reports of the member countries have been completed until 2020, and the data pertaining to numerous countries have not been reported from 2021-2023. The number of volunteers, cost, and income from 2016 to 2020 were investigated. The selection of geographic regions was based on the IFRC classification of geographical regions of the world. It is worth noting that IFRC divides the countries in the world into five groups: "Africa," "America," "Asia and the Pacific," "Europe and Central Asia," and "Middle-East and North Africa (MENA)". Considering that any comparison between countries requires taking into account many indicators, such as per capita income, gross

domestic product, and etc., the countries were not separately compared, and the information of our country was compared with the geographic regions suggested by the IFRC. It must be said that for this comparison, the average of these countries was compared with Iran. To calculate the proportion of volunteers, the number of volunteers was divided by the population. This process was performed both for Iran and countries around the world. For data analysis, Excel-2016 and SPSS-24 were used.

Findings

In this section, before making a comparison between the organizational indicators of the IRCS and those of National Societies, the number of volunteers and employees of IRCS from 2016 to 2020 was presented. (Table 1)

As illustrated in Figure 1, the number of volunteers of the IRCS had a descending trend from 2016 to 2018 such that the number of volunteers has increased from 2,100,000 in 2016 to 1,386,912 cases in 2018. The number of volunteers increased in 2019 and 2020; however, this upward trend is still far below the number of volunteers in 2016. Moreover, based on Figure 2, the number of employees of IRCS, after increasing in 2017 and 2018, had a descending trend in 2019 and 2020. Nonetheless, there were no noticeable changes, and the average number of employees of the Red Crescent Society of the Islamic Republic of Iran from 2016 to 2020 was around 8272. The volunteers in 2016, 2017, 2018, 2019, and 2020 reached 8000, 8567, 8565, 8210, and 8019 cases, respectively.

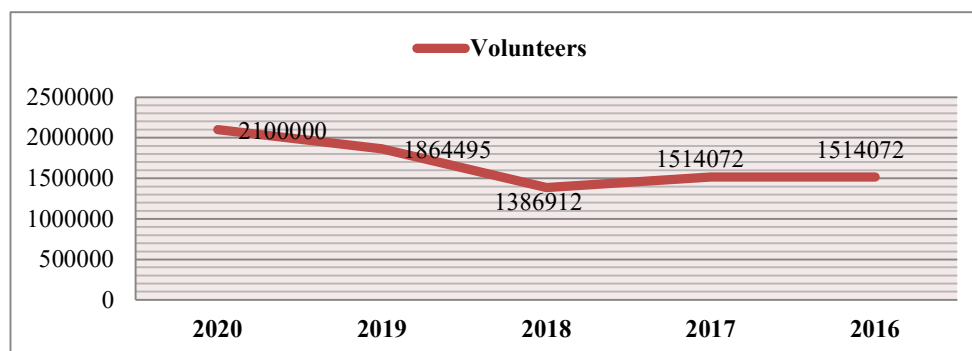


Figure1. Number of IRCS volunteers in 2016 to 2020 (21)

Table1. Description of population indicators and number of volunteers from Iran and other countries NS across the globe from 2016 to 2020 (21)

Year	Indicator	Iran	Africa	America	Asia and Pacific	Europe and Central Asia	MENA
2020	Population	83,992,953	679,122,117	1,004,957,903	3,828,439,586	689,784,173	331,772,992
	Volunteers	2,100,000	1,255,801	577,542	5,969,434	1,579,643	91,511
	Ratio	2/5	0/18	0/06	0/16	0/23	0/03
2019	Population	82,913,893	706,985,281	997,839,142	3,868,726,619	687,702,421	332,616,668
	Volunteers	1,864,495	1,336,661	577,753	5,995,520	1,579,760	111,613
	Ratio	1/83	0/19	0/06	0/15	0/23	0/03
2018	Population	81,800,204	1,075,825,638	985,867,641	4,108,901,179	852,093,490	300,158,818
	Volunteers	1,386,912	1,421,473	571,872	7,661,209	1,579,813	125,774
	Ratio	1/70	0/13	0/06	0/19	0/19	0/04
2017	Population	80,673,888	1,020,654,411	991,465,834	4,073,792,512	910,303,865	294,957,384
	Volunteers	1,514,072	1,380,744	521,923	8,084,676	1,726,730	115,442
	Ratio	2/31	0/14	0/05	0/20	0/19	0/04
2016	Population	79,563,991	997,511,581	777,528,556	4,029,637,066	917,746,384	289,729,988
	Volunteers	1,514,072	1,618,340	523,927	5,615,096	1,678,670	136,956
	Ratio	1.9	0.16	0.07	0.14	0/18	0/04

Table3. Comparison of the income of the IRCS compared to the average income of other countries NS across the globe from 2016-2020 (21)

Year	Indicator	Iran	Africa	America	Asia and Pacific	Europe and Central Asia	MENA
2020	Income	83,035,522	3,699,153	114,997,414	615,814,410	331,146,411	22,772,612
	Population	83,992,953	679,122,117	1,004,957,903	3,828,439,586	689,784,173	331,772,992
	Ratio	0.99	0.1	0.11	0.16	0.48	0.7
2019	Income	83,035,522	3,699,153	111,164,167	615,814,410	331,146,411	22,772,612
	Population	82,913,893	706,985,281	997,839,142	3,868,726,619	687,702,421	332,616,668
	Ratio	1.00	0.1	0.11	0.16	0.48	0.7
2018	Income	57,400,723	44,875,556	170,704,341	523,537,999	334,413,479	9,046,326
	Population	81,800,204	1,075,825,638	985,867,641	4,108,901,179	852,093,490	300,158,818
	Ratio	0.70	0.4	0.17	0.13	0.39	0.3
2017	Income	47,613,577	16,276,988	120,904,217	520,632,332	295,962,254	65,374,451
	Population	80,673,888	1,020,654,411	991,465,834	4,073,792,512	910,303,865	294,957,384
	Ratio	0.59	0.2	0.12	0.13	0.33	0.22
2016	Income	47,680,000	5,259,253	116,113,336	449,608,311	111,770,244	18,021,462
	Population	79,563,991	997,511,581	777,528,556	4,029,637,066	917,746,384	289,729,988
	Ratio	0.60	0.1	0.15	0.11	0.11	0.6

The obtained results demonstrated that from 2016 to 2020, the average of Iranian volunteers was always higher compared to other regions in the world. The examination of the trends also illustrated that the ratio of volunteers to the population of Iran in 2016 and 2017 was higher than that in the following years, and until 2018, it started a downward trend; nonetheless, in 2019 and 2020, there was a slight increase in volunteers. However, this trend seems to have increased in African countries in recent years, and the ratio of volunteers to the population increased from 0.16% in 2016 to 0.18% in 2020.

In American countries, this trend has been downward in recent years, and the ratio of volunteers to the population reached from 0.07% in 2016 to 0.06% in 2020. In addition, the calculated results indicated that from 2016 to

2020, the average of Iranian volunteers was higher than that in Asia and the Pacific. For example, the ratio of volunteers to the population of Iran in 2020 was 2.5%, while this ratio was calculated at 0.16% for Asian and Pacific countries. In these countries, the ratio of volunteers to the population was sinusoidal such that the increase and decrease in this ratio can be observed alternately in the figure.

In European and Central Asian countries, the ratio of volunteers to the population was increasing such that the ratio of volunteers to the population reached 0.23% in 2020 from 0.18% in 2016. In MENA region countries, the ratio of volunteers to the population was decreasing so that the ratio of volunteers to the population reached to 0.03% in 2020 from 0.04% in 2016. In order to compare the income of the IRCS with the countries across the globe, the average income of

the member countries of the IFRC was calculated from 2016 to 2020 and compared with the income of the IRCS in the same year.

The comparison of incomes demonstrates that from 2016 to 2020, the income of the IRCS was always higher than the average income of the other National Societies in African countries. In addition, the income trend of the IRCS was always upward during these five years, while the income of the National Societies in African countries is bell-shaped; that is, after the upward trend until 2018, income decreased in 2019 and 2020. From 2016 to 2020, the average income of American National Societies was always higher than the income of the IRCS. Although the income trend of the IRCS was always upward during these five years, the income of National Societies in American countries is bell-shaped; that is, after the upward trend until 2018, income decreased in 2019 and 2020.

From 2016 to 2020, the average income of National Societies in Asia and Pacific countries was always higher than that of the IRCS. Like the IRCS, the income trend of the National Societies in Asian and Pacific countries was always upward during these five years. From 2016 to 2020, the average income of National Societies in European and Central Asian countries was always higher than the income of the IRCS. Like the IRCS, the income trend of the National Societies in Asian and Pacific countries was always upward during these five years. In addition, the comparison of incomes demonstrates that, except for 2017, in the rest of the years under study, the income of the IRCS was always higher than the average income of the National Societies in MENA region countries.

In order to compare the cost of the IRCS with

other National societies, the average cost of the member countries of the IFRC from 2016 to 2020 was calculated and compared with the cost of the IRCS in the same year. The comparison of costs indicates that from 2016 to 2020, the cost of the IRCS was always higher than the average cost of the National Societies in African countries. In addition, the cost trend of the IRCS was almost upward during these five years, while the cost of the National Societies in African countries is bell-shaped; that is, after the upward trend until 2018, the cost decreased in 2019 and 2020.

The comparison of costs illustrates that from 2016 to 2020, the average cost of National Societies in American countries was always higher than that of the IRCS. Although the cost trend of the IRCS was always upward during these five years, the cost of American National Societies is bell-shaped; that is, after the upward trend until 2017, the cost decreased from 2018 to 2020. The comparison of costs shows that from 2016-2020; the average cost of the National Societies of Asian and Pacific countries was always higher than the cost of the IRCS. Like the IRCS, the cost trend of the National Societies in Asian and Pacific countries was always upward during these five years.

The comparison of costs demonstrates that from 2016 to 2020, the average cost of National Societies in European and Central Asian countries was always higher than the cost of the IRCS. Like the IRCS, the cost trend of the National Societies in Asian and Pacific countries was always upward during these five years. The comparison of the costs pinpoints that, except for 2017, in the rest of the examined years, the cost of the IRCS was always higher than the average cost of the other National Societies in the MENA.

Table 4. Comparison of the cost of the IRCS compared to the average cost of other countries NS across the globe in 2016-2020

Year	Indicator	Iran	Africa	America	Asia and Pacific	Europe and Central Asia	MENA
2020	Cost	82.197.324	3.352.301	105.114.312	569.114.652	334.429.073	11.689.036
	Population	83.992.953	679.122.117	1.004.957.903	3.828.439.586	689.784.173	331.772.992
	Ratio	0.98	0.0049	0.10	0.15	0.48	0.4
2019	Cost	47.673.006	5.293.357	143.618.188	541.375.377	352.896.739	16.658.219
	Population	82.913.893	706.985.281	997.839.142	3.868.726.619	687.702.421	332.616.668
	Ratio	0.57	0.0047	0.14	0.14	0.51	0.5
2018	Cost	47.673.006	5.293.357	143.618.188	541.375.377	352.896.739	16.658.219
	Population	81.800.204	1.075.825.638	985.867.641	4.108.901.179	852.093.490	300.158.818
	Ratio	0.58	0.0049	0.15	0.13	0.41	0.6
2017	Cost	57.400.723	4.245.055	150.983.413	518.075.108	340.650.380	9.150.003
	Population	80.673.888	1.020.654.411	991.465.834	4.073.792.512	910.303.865	294.957.384
	Ratio	0.71	0.0041	0.15	0.13	0.37	0.3
2016	Cost	47.680.000	4.398.644	117.831.787	443.791.598	109.625.175	16.459.200
	Population	79.563.991	997.511.581	777.528.556	4.029.637.066	917.746.384	289.729.988
	Ratio	0.60	0.0044	0.15	0.11	0.12	0.6

Discussion and Conclusion

This study aimed to compare income indicators and the number of volunteers in the IRCS with other National Societies. The results pointed out that from 2016 to 2020; the average of IRCS volunteers was always higher compared to other regions in the world. The income of the IRCS is higher compared to countries in Africa, Asia, the Pacific, the Middle East, and North Africa, and lower compared to the countries in America, Europe, and Central Asia. In terms of cost, Iran incurs higher costs compared to Africa, the Middle East, and North Africa. On the other hand, it incurs lower costs compared to America, Asia, the Pacific, Europe, and Central Asia.

According to these findings, it can be concluded that although the income and costs of the IRCS are lower compared to most countries in the world, the number of volunteers is more, demonstrating the human capital of this organization, and it is necessary to use this potential appropriately. The literature review yielded no study in line with the objectives of the present research; however, some documents emphasize on the role of human resources in the organization beyond income and cost. For example, Pasban and Nojehdeh (18) found that human capital is far beyond a macroeconomic abstraction, and when human capital increases in such fields as science, education, and management, it leads to increased innovation, social welfare, equality, as well as economic and social development indicators.

The number of volunteers in service organizations plays an important role in sustainable development since it increases the coverage of the organization's services and expands the range of public services to the most deprived areas (19). The greater number of volunteers improves social innovation through the formation of new forms of cooperation (8). Nonetheless, maintaining the volunteer force requires investment, and it is necessary for organizations to effectively invest in order to strengthen human capital (20).

The interpretation of the results of this study has some limitations. For example, in comparing the cost and income of IRCS and other countries national societies (NS) of the world, economic indicators, such as gross domestic product (GDP), the cost in other social sectors, and the annual budget of countries for social sectors should be

taken into account; nonetheless, obtaining this information is a challenging issue.

In addition, the cost of IRCS is not the only effective factor in the growth and development of this organization. Apart from the costs, such indicators as the number of volunteers, the number of services provided, the quality of services, customer and community satisfaction, the degree of influence in solving problems and improving conditions, providing training and development opportunities for volunteers, and the use of new technologies should also be considered in the growth and progress of the Red Crescent Society. As a nonprofit organization, the Red Crescent Society aims to provide services to community and improve people's living conditions. Therefore, the costs of this organization should be determined according to its goals and mission (21).

In fact, the cost of the IRCS is not the only criterion for evaluating the growth and progress of this organization, but it should also be evaluated according to other indicators such as the number of volunteers, the number of services provided, the quality of services, etc. Therefore, the increase in the costs of the IRCS does not indicate its more powerful financial resources; nonetheless, in some cases, it signifies a need for stronger financial management and improving the financial methods of the Red Crescent Society. However, if the IRCS is able to provide better services to the community with increased costs and continue to develop and grow, this is a strong indicator of the organization's performance.

Since the results of this research showed that despite the low income and expenses of the Iranian IRCS compared to many national populations, the number of volunteers is very significant. The results of this research can be considered in other studies and management planning to improve the level of volunteer activities.

Acknowledgments

None

Conflict of Interests

The authors have no conflict of interests.

References

1. Stępień M. Qualified first aid provided by rescuers of selected non-governmental organizations from

- the Silesian Voivodeship during the securities of artistic, entertainment and sports events [Doctoral dissertation]. Katedra i Zakład Medycyny Ratunkowej; 2022.
2. Alsaeed SA, Alkarani AS. Factors affects the performance of red crescent paramedics, Bisha, Saudi Arabia. *Fam Med Prim Care*. 2022; 11(2): 715. https://doi.org/10.4103/jfmpc.jfmpc_2060_21
 3. Dereli T, Eligüzel N, Çetinkaya C. Content analyses of the IFRC based on machine learning techniques through twitter. *Nat Hazards*. 2021; 106: 2025-45. <https://doi.org/10.1007/s11069-021-04527-w>
 4. Petrudi SHH, Tavana M, Abdi M. A comprehensive framework for analyzing challenges in humanitarian supply chain management: A case study: the IRCS. *Int J Disaster Risk Reduct*. 2020; 42: 101340. (In Persian) <https://doi.org/10.1016/j.ijdrr.2019.101340>
 5. Seddighi H. The performance of the IRCS by launching testing centers for the coronavirus disease. *Disaster Med Public Health Prep*. 2020; 14(6): 45-6. (In Persian) <https://doi.org/10.1017/dmp.2020.167>
 6. Wetzel R, Tint B. Using applied improvisation for organizational learning in the Red Cross Red Crescent climate center. *Sensuous Learning for Practical Judgment in Professional Practice: Arts-based Interventions*. 2019. https://doi.org/10.1007/978-3-319-99049-1_3
 7. Özbek A. Efficiency analysis of the Turkish Red Crescent between 2012 and 2014. *IJEFS*. 2015; 7(9): 322-34. <https://doi.org/10.5539/ijef.v7n9p322>
 8. De Wit A, Mensink W, Einarsson T, Bekkers R. Beyond service production: Volunteering for social innovation. *Nonprofit Volunt Sect Q*. 2019; 48(2): 52-71. <https://doi.org/10.1177/0899764017734651>
 9. Talaei Shams S, Gholamzadeh Alam K, Sharepour M, Mahdavi L. The role of intergenerational interpersonal communication in the performance of Red Crescent Society staff in Tehran Province. *JORAR*. 2021; 13(2): 95-104. (In Persian) <https://doi.org/10.32592/jorar.2021.13.2.2>
 10. Ainsworth J. Feelings of ownership and volunteering: Examining psychological ownership as a volunteering motivation for nonprofit service organisations. *J Retail Consum Serv*. 2020; 52: 101931. <https://doi.org/10.1016/j.jretconser.2019.101931>
 11. Bapuji H, Neville L. Income inequality ignored? An agenda for business and strategic organization. *Strateg Organ*. 2015; 13(3): 233-46. <https://doi.org/10.1177/1476127015589902>
 12. Dupuy K, Ron J, Prakash A. Hands off my regime! Governments' restrictions on foreign aid to non-governmental organizations in poor and middle-income countries. *World Devel*. 2016; 84: 299-311. <https://doi.org/10.1016/j.worlddev.2016.02.001>
 13. Al-kalouti J, Kumar V, Kumar N, Garza-Reyes JA, Upadhyay A, Zwieglelaar JB. Investigating innovation capability and organizational performance in service firms. *Strateg Chang*. 2020; 29(1): 103-13. <https://doi.org/10.1002/jsc.2314>
 14. Levin-Waldman OM. Income, civic participation and achieving greater democracy. *Socio-Econ Plan*. 2013; 43: 83-92. <https://doi.org/10.1016/j.soc.2013.01.004>
 15. Van Ingen E, Van der Meer T. Welfare state expenditure and inequalities in voluntary association participation. *J Eur Public Policy*. 2011; 21(4): 302-22. <https://doi.org/10.1177/0958928711412219>
 16. Nyweide DJ, Lee W, Cuerdon TT, Pham HH, Cox M, Rajkumar R, et al. Association of pioneer accountable care organizations vs traditional medicare fee for service with spending, utilization, and patient experience. *JAMA*. 2015; 313(21): 2152-61. <https://doi.org/10.1001/jama.2015.4930>
 17. Sasmal R, Sasmal J. Public expenditure, economic growth and poverty alleviation. *Int J Soc Econ*. 2016; 43(6): 604-18. <https://doi.org/10.1108/IJSE-08-2014-0161>
 18. Pasban M, Nojehdeh SH. A Review of the role of human capital in the organization. *Procedia Soc Behav Sci* 2016; 230: 249-53. (In Persian) <https://doi.org/10.1016/j.sbspro.2016.09.032>
 19. Briggs E, Peterson M, Gregory G. Toward a better understanding of volunteering for nonprofit organizations: Explaining volunteers' pro-social attitudes. *J Macromarketing*. 2010; 30(1): 61-76. <https://doi.org/10.1177/0276146709352220>
 20. Muthuri JN, Matten D, Moon J. Employee volunteering and social capital: Contributions to corporate social responsibility. *Br J Manag*. 2009; 20(1): 75-89. <https://doi.org/10.1111/j.1467-8551.2007.00551.x>
 21. <https://data.ifrc.org/fdrs/fdrs>