

Order in the chaos in sports organizations

Mehran Azarian¹, Robab Yadollahzadeh¹, Mehrdad Hefzolllesan¹, Mehrdad Moharramzadeh², Sohrab Ghalehgir¹

Sahand University of Technology, Tabriz, Iran¹

Urmia University of Iran²

Annotations:

Purpose: Nowadays, scientists consider the world as a combination of some systems that work in a self-organizing way and the result of such a way is unpredictable and accidental states. Compulsory Natural rules are affective in such circumstances. Also it is known that systems work in a circular form in which order ends in disorder and vice versa. The idea of world as something simple has already replaced by a complicated and contradictory world. The study aim is to survey chaordic organizations characters of sport organizations. **Materials and methods:** For this purpose we used a standard questionnaire with appropriate reliability and validity. The statistical population of the study are whole staff of sport and youth head-quarter of west Azarbaijan province that are 89 (sample number is equal to the population's). We used Kolmogorov-Smirnov test to study data normal distribution, and in respect of normal distribution of data to test hypothesis we used sample t test and also descriptive statistical methods like mean and standard deviation, through SPSS 18. Questionnaires were filled out by whole staff of sport and youth head-quarters of west Azarbaijan province. **Results:** Results of this study, which have got through a single-sample t-test, show that sport organizations have six characteristics of welcoming to innovation, coherence, uncertainty, non-linearity, unpredictability, and ugly structure. It's just the grade of the characteristic of recruiting competent staffs that is low in sport organizations; in fact they don't enjoy it. But, within assessing the main hypothesis of the research that was around the feature of chaos-order, it was resulted that sport organizations have characteristics of a chaos-order organization and they can be considered as a chaos-order organization. **Conclusions:** According to the results of this study and t-table we can deduce that sport organizations are chaordic organization.

Мехран Азарян, Робаб Ядоллахзаде, Мехрдад Хефзоллесан, Мехрдад Мохаррамзаде, Сохраб Гхалехгір. Порядок в умовах хаосу в спортивних організаціях. Мета: В даний час учені вважають світ як сукупність деяких систем, які працюють як самоорганізуюча система і таким чином результат є непередбачуваним від випадкового стану. Обов'язкові природні правила афективні за таких умов. Також відомо, що системи працюють в кругообігу і в якій послідовності закінчується безлад і в такий він починається. Ідея світу як чогось простого вже замінена складним і суперечливим світом. Мета дослідження полягає в обстеженні хаордичної організації символів спортивних організаціях. **Матеріали і методи:** Для цієї мети ми використовували стандартну анкету з відповідною надійністю і валідністю. Статистичною вибіркою дослідження є весь персонал спортивних та молодіжних штаб-квартир в провінції Азейбарджан, всього 89 осіб. Ми використовували тест Холмогорова-Смирнова для вивчення нормальності розподілу даних. Відносно нормального розподілу даних в тестовій гіпотезі ми використовували t-тест. Також використовували описові статистичні методи, такі як середнє і стандартне відхилення. Обробку проводили через SPSS 18. Анкети були заповнені на весь персонал спортивних та молодіжних штаб-квартир західної Азербайджанської провінції. **Результати:** Результати цього дослідження, які отримані через T-тест, показують, що спортивні організації мають шість характеристик: прихильність до інновацій, узгодженості, невпевненості, нелінійності, непередбачуваності і потворні структури. Це свого роду ступінь характеристик підбору компетентних штатів спортивних організацій, які багатьом не сподобаються. **Висновки:** За результатами цього дослідження і t-таблиці можна зробити висновок, що спортивні організації є хаордичними організаціями.

Мехран Азарян, Робаб Ядоллахзаде, Мехрдад Хефзоллесан, Мехрдад Мохаррамзаде, Сохраб Гхалехгір. Порядок в условиях хаоса в спортивных организациях. Цель: В настоящее время ученые считают мир как совокупность некоторых систем, которые работают самоорганизующимся образом и результат, таким образом, непредсказуем от случайного состояния. Обязательные природные правила афективны в таких условиях. Также известно, что системы работают в кругообороте и в какой последовательности заканчивается беспорядок и в такой он начинается. Идея мира как чего-то простого уже заменена сложным и противоречивым миром. Цель исследования состоит в обследовании хаордической организации символов спортивных организациях. **Материалы и методы:** Для этой цели мы использовали стандартную анкету с соответствующей надежностью и валидностью. Статистической выборкой исследования является весь персонал спортивных и молодежных штаб-квартир в провинции Азейбарджан, всего 89 человек. Мы использовали тест Холмогорова-Смирнова для изучения нормальности распределения данных. В отношении нормального распределения данных в тестовой гипотезе мы использовали t-тест. Также использовали описательные статистические методы, такие как среднее и стандартное отклонение. Обработку проводили через SPSS 18. Анкеты были заполнены на весь персонал спортивных и молодежных штаб-квартир западной Азербайджанской провинции. **Результаты:** Результаты этого исследования, которые получены через T-тест, показывают, что спортивные организации имеют шесть характеристик: приверженность к инновациям, согласованности, неуверенности, нелінійності, непредсказуемости и уродливые структуры. Это своего рода степень характеристик подбора компетентных штатов спортивных организаций, которые многим не понравятся. **Выводы:** По результатам этого исследования и t-таблицы можно сделать вывод, что спортивные организации являются хаордическими организациями.

Key words:

anarchy, edge, chaos, chaordic, organization, sport.

анархія, межа, хаос, хаордичний, організація, спорт.

анархия, предел, хаос, хаордический, организация, спорт.

Introduction

Scientists of management have used some metaphors like recycle bin, creative, disharmonic, etc. for a complex organization. But today examining an organization through approaches such as chaos, complication, complicated and chaos-order organization provides us with a new attitude named "the theory of chaos-order organizations" that considers an organization as a system of holon structure. This word is derived from a chaos theory and complexity. The word chaotic refers to anything presents order and disorder, simultaneously. That is being between order and disorder. A chaotic organization not also is a system in

which no action is done like the way before (two different ways of doing a same action), but also there is enough order to prevent complete disorder and anarchy (11). In other words a chaotic organization is a combination of numerous elements that create the general existence, and its behavior is unpredictable, and yet it has a pattern (order), too (3). Chaordic demonstrated the fact that all of behaviors and actions of various phenomena such as physical and physic phenomena in an organization, which seem to be erratic, have final order themselves. In fact it is an order inside disorder or a norm inside abnormally (1). Organizations work in competitive and turbulent environments have to match with chaotic organizations characteristics, to save their lives. It means to achieve

chaotic characteristics, like being non-linear, must act consciously, if an organization wants to benefit from a chaotic organization.

Organizations working in competitive and turbulent environments should put themselves in an area of limited instability, in place of trying to maintain a stable situation. They should try to find a turbulent axis so that by using it as a lever, despite some financial and time expenses, bring company a big success. An organization should welcome disorder as a trusted partner (3). In other words, it should take the characteristics of a chaos-order organization to be able to maintain its presence in competition with rival organizations (5). Coherence, uncertainty, organizational awareness, diversity of statuses, and novelty are some Characteristics of a chaos-order organization of which managers should use in a reasonable and resourceful way.

Few researches have been done on the characteristics of a chaos-order organization among Iranian organizations. The only works have been done by Ghorbanizadeh and Arab in 2010 according to them; there are 7 signs of chaos-order in Iranian organizations naming: acceptance of innovation, coherence, uncertainty, non-linearity, unpredictability, ugly structure, and recruiting competent staff.

This article reviews the 7 features among sports organizations.

In chaotic systems any prolonged methods can't support the expected results, and managers should emphasize on a self-regulating process which is a result of organizational linearity and includes the unpredictable future and without any common initial purpose. The future will not be managed with planning and presupposed goals, but with developing and little by little behavior (13).

In chaotic systems one effect can have different causes, and thus the selection right is completely probable. Similarly a chaotic system may be much more than its total components (like the fact that a group behavior is bigger than a simple sum of complex individual behaviors) (13).

Organizations managers face numerous problems which have to make decision about them. Degree of importance for any problem the complexity and efficiency it has on organization, and every problem has its own degree of complexity and efficiency, naturally. According to Ralph Stacey there are 5 regions in which problems are created and we can recognize organizational problems and do proper actions in such regions, and the two main scales of them are "degree of creativity" and "level of agreement". Stacey has called the 5th region, the complexity region or disorder edge, this region is placed between the region of anarchy (4th region) and the regions related to traditional management approaches (1st, 2nd, 3rd regions). There is no level of importance for traditional management approaches in the region of complexity, rather this is the region for creativity, innovation and being separated from the past and create something new. In this zone, methods like Garbage-can decision-making, brain storming, usage of internal insight in fault detection,

unscheduled decision-making identification, creating and choosing solutions, and creating innovative routines are into action (15).

Non-linear organizations refer to such complicated systems as self-organizing and adaptive organizations, within which the complicated nature of relation among system components, increase the involuntary order, and resulted features of it are far away from it's individual components, and there is no allegiance for causal linear rules (8). Within such systems there is a peaceful symbiosis between order and chaos, and system is always in move between order and disorder. Managers of these organizations may adopt such semi-solid strategies, that is not very fixed not so fluid.

Dee Hock argued organizations at disorder edge, as chaotic organizations. The word "chaotic" is a combination of two words: chaos and order, and it means being ordered and turbulent at the same time. This method is neither under dominance of order nor disorder. Chaotic organization is a dynamic, complicated, non-linear, creative, imbalanced, independent, and self-reliable system (3), which is placed at the edge of disorder and requires an innovative management style.

Complexity zone (the edge of disorder)

There is complexity all around the nature. Main principles of characteristics, which have to be noticed are: 1-goal and performance, 2-size and form 3- structure (with all contents) and 4-dynamism type. These factors must be available in all of complexities. In most cases organs dynamism is high. Severity weakness transmission of this dynamism is related to environment. Structural complexity is one of most important characters. But we can not identify complexity directly and clearly (12). It can be said that complexity must not be eliminated and it has to be grown (5). In fact complexity zone is between distinction zone, which shows chaos, connection zone which demonstrates order. We called this zone the edge of complexity or disorder, in which order and disorder, and separation and dependence are involved simultaneously (4). According to Langton in complicated systems located at the edge of complexity, there is a kind of peaceful symbiosis between order and chaos behaviors, and system is permanently moving between order and disorder, in other words there is another type behavior called disorder edge and if organization structures placed in this zone can benefit its advantages (6). At the edge of disorder, occurrence of real behavior has an interesting complexity and systems in these points have attraction power that increase probability of complicated behaviors. In other words the edge of disorder is where butterfly effect happens. Although we think most of living systems act in such structures (10). The challenge a head of managers at the edge of disorder or complexity zone is how to interpret subjects innovatively and choose a solution among countless solutions, which by transmissions to a new condition can coordinate the organization effectively with other organizations and environment. Kyle says about this subject: in severe instabilities like crisis

or special opportunities in which related activities of compulsive services are high, recognition of this point is vital that stabilization again can be achieved only by usage of progressive strategies that are naturally unstable. Finally we have to combine instability of such environment with managers' performances and organizational dynamic strategies (10).

Sport Organization Management

In recent decades the managers of sport organizations have much difficulty to deal with in managing their organization. Commercialization of sport, important in society's knowledge levels, high levels of athletes and participants in sporting events expectations, universal changes, increase in sporting expenses, loss of adequate budget, and also encumbering governmental rules have made managers to be consistent with new conditions and try harder to reach their organization's goals. The aim of this study is to investigate to investigate to chaotic of sport organizations according to present circumstances in sport organizations and the way their managers deal with these circumstances.

Chaordic Organization Characters

As already mentioned, there are seven characteristics of "acceptance of innovation, coherence, uncertainty, non-linearity, unpredictability, ugly structure, and recruiting competent staff" known in Iranian organizations as chaos-order characteristics. Some other researchers like Eijentin (2004) enumerate organizational awareness, coherence, uncertainty, embracing change, and unexpectedness as characteristics of a chaos-order organization (11). Furthermore, discontinuous growth, organizational awareness, coherence, flexibility, continuous evolution and self-organizing (16) are some other characteristics listed for such organizations. The following text outlines the seven chaotic characteristics mentioned as those of Iranian organizations.

Acceptance of innovation: this element indicates despite the fact that the route of professional promotion in this kind of organization is unclear and unpredictable; the possibility of remaining and making progressions on behalf of innovative staffs is more probable.

Coherence: In chaotic organizations an organization is a part of a larger system yet a whole by itself. No component can exist without dependence to the whole, while no whole can exist without its components. Any component is a whole by itself, while belonging to a larger whole (11). In other words, staff and

Components of an organization, through using suitable methods and tools, are related and make a whole, while they are a whole separately.

Uncertainty: according to this feature, any event is both cause and effect simultaneously. That's why the future is not predictable and the role of the past is like a memory. So, the restructuring of an organization should increase flexibility in all aspects. In such circumstances, the concentration is on "willingness to change" instead of "planning to make wonder" (11). In chaos-order organizations, due to unpredictability of future, no long-

term plan could cover expected results (9). Hence, the organization should concentrate on willingness to change in place of planning to change (16).

Non-linearity: being non-linear means that an effect can have diverse causes, so the right to choose is probable. A non-linear system can be much more than its components. Its behaviors are neither stable nor unstable (stability along with instability). They are constantly getting new and creative (9). This element demonstrates the aspect of clutter and transgression of past methods and shows that there is no much coordination between staff's duty and freedom in chaos-order organizations; there is freedom in doing duties, salaries are not compatible to function, the unity of management and command- that is a feature of traditional organizations- is less here, and the managers should spend lots of time to study technical texts in order to control the different situations (5).

Unpredictability: unpredictability refers to those kind of unusual problems that may occur to an organization. Drastic changes, erratic behaviors, unpredictable alterations, critical movements, all ultimately lead in a pattern that the manager should find it by his/her art (2). Because of unpredictability and unusualness in this kind of organizations, managers should spend lots of time to coordinate between people and solve problems.

Ugly structure: ugly structure denied the traditional organizations in which every staff is charged with responding to just one manager. In this kind of coworking one staff may be charged with responding to more than one manager. The managers should spend a lot of their time in meeting to coordinate between different units (5).

Recruiting competent staff: Due to characteristics like coherence, environmental turbulences, non-linearity, and welcoming to innovation, the organizational structure are continuously subject to change; some jobs are omitted and other jobs replace them. Recruitment of new employees are based on capabilities and merits needed by the organization. The applicants are equally considered in order to the competent ones get chosen (5).

Methodology

This paper is the result of an expanding research and is done with a descriptive method. This is a field study and for collecting data we used a standard questionnaire, with contextual validity method for evaluating the validity, and to calculate the reliability we enlisted the help of Cronbach's α , which its value was acceptable ($\alpha = 0.76$).

The statistical population of this study were whole staff of W. Azarbaijan province sport and youth headquarter that were 89 (the sample number is equal to the population's, $N = n = 89$). We used Kolmogorov-Smirnov test to study data normal distribution, and in respect of normal distribution of data to test hypothesis we used sample t test and also descriptive statistical methods like mean and standard deviation, through SPSS 18. questionnaires were filled out by whole staff of sport and youth head-quarters of west Azarbaijan province.

Findings

The Kolmogorov-Smirnov test has been used to

Table 1

The results of Kolmogrov- Smirnov test

	Chaordic organization characters	Recruiting competent staff	Ugly structure	Unpredictability	Non-linearity	Uncertainty	Coherence	innovation
Z Kolmogrov-Smirnov	1/01	1/87	0/931	0/725	1/06	1/13	0/874	0/846
Sig	0/288	0/107	0/364	0/532	0/209	0/156	0/430	0/471

Table 2

The descriptive statistics parameters of hypothesizes

variable index	frequency	mean	Standard deviation	Deviation from mean error
innovation	89	3/11	1/23	0/13
Coherence	89	3/42	0/56	0/06
Uncertainty	89	3/08	1/33	0/14
Non-linearity	89	3/06	1/01	0/11
Unpredictability	89	3/16	0/99	0/11
Ugly structure	89	3/54	0/80	0/09
Recruiting competent staff	89	2/95	0/89	0/09

Table 3

The results of one-sample t test of hypothesises in sport organizations

Population mean	Level of confidence95%		Mean difference	significance	Degree of freedom	t	
	Up limit	Down limit					
3	0/38	-0/14	0/12	0/363	88	0/91	Innovation
3	0/53	0/30	0/42	0/000	88	7/01	Coherence
3	0/36	-0/20	0/08	0/579	88	0/56	Uncertainty
3	0/28	-0/16	0/06	0/56	88	0/59	Non-linearity
3	0/37	-0/05	0/16	0/14	88	1/49	Unpredictability
3	0/71	0/38	0/54	0/000	88	6/40	Ugly structure
3	0/14	0/24	-0/05	0/59	88	-0/54	Recruiting competent staff

Table4

The descriptive statistics parameters of main hypothesis

variable index	frequency	mean	Standard deviation	Deviation from mean error
Characters of chaordic organization	89	3/19	0/47	0/05

Table 5

The results of one-sample t test of main hypothesis in sport organizations

Population mean	Level of confidence95%		Mean difference	significance	Degree of freedom	t
	Up limit	Down limit				
3	0/29	0/09	0/19	0/000	88	83/3

examine the usualness of the data. the distribution was normal, so we described the data first and then analyzed them and proved the hypothesis.

As it can be seen in Table 4-4, the level of significance is more than 0/05 in variables studied, and then the assumption of normality of the data is rejected. Hence the data's distribution is normal. In order to assess hypothesis separately, the degree of fulfillment of each of the features of the chaos-order organization has assessed by means of the single sample of t-test.

On account of the Table's "t" s and present themes the result is:

1. In sport organizations the characteristic of innovation is pleasing, but it's not so much different from the society's average on it. Hence, the first hypothesis is confirmed.
2. The characteristic of coherence in sport organizations is pleasing and it differs from the society's average on it, hence this hypothesis is confirmed too.
3. The characteristic of uncertainty in sport organizations is pleasing, but statistically there is no sharp difference between them and the society's. The third hypothesis is confirmed too.
4. The degree of fulfillment of the characteristic of non-linearity in sport Organizations are pleasing, but it is not so much different from the society's statistical average. The forth hypothesis is confirmed too.
5. The degree of fulfillment for the characteristic of unpredictability in western organizations is pleasing, but it doesn't much differ from the society's statistical average. Hence, the fifth hypothesis is confirmed.
6. The degree of fulfillment for the characteristic of "ugly structure" in sport organizations is pleasing, and it differs much from the society's statistical average.
7. Recruitment of the competent staff in sport organizations is less than the society's average, but there is no sharp difference. Hence the seventh hypothesis is rejected.

The Test of main hypothesis: Sports organizations have the character of chaordic organizations.

As for the "t" in the Table4 and the present themes it can be concluded that the degree of fulfillment of a chaos-order organization's characteristics is pleasing in sport organizations, it is higher than the society's average on it, and it differs much from the society's statistical average.

Discussion and conclusion

According to characteristics noted on a chaos-order organization, events are so complex and dynamic that they look chaotic. But the truth is, a chaos-order organization has a sort of infrastructural and concealed order, and explanation of such an order is difficult, though not impossible. Because there are lots of ingredients and parameters important in formation of unpredictable and

Dynamic behavior of phenomenon and production of their future behavioral pattern (7).

For as much as structures are different in in chaos-order organizations, problems happening are not compatible

to previous experiences, there are lots of behavioral changes needed, and the speed of changes is very high. Metaphorically the metaphor of "the organization as a brain" is suitable for this sort of organizations (10).

This article tries to assess an approximately new concept in sport organization's management naming chaos-order organizations. Sport organization is always in turbulent and competitive environments .their managers should distinguish their organizational characteristics right and decide sagaciously so that maintain their competitive prominence. The season of managements dependent to budget has now ended. Those that were petitioning for money proportionate to the project they wanted to make progress in. Nowadays there are few managers in the area of competitions and lacks and infrequencies who know the secret of getting from little too much (2).

Managers should know that a successful organization is the one that enjoys a non-linear dynamic feedback system that acts on the area of turbulent boundaries and creatively correlates the organization's functions, inner sub-systems, and outer activities through self-organization – that is a quality of chaordic organizations.

According to above subjects managers must provide organization preparation to self-organizing, creativity, frequent and broad learning of process-oriented team work, innovative interaction with environment, and recognition of sensitive points, through characterizing more aspects of non-linear systems culture in organization(7).

Various characteristics have been distinguished during a research on the language of chordic organizations .according to Ijintin (2004) awareness, coherence, uncertainty, versatility of states, and innovation are some characteristics of a chaos-order organization (10). There is another category to which we come across while considering the language. It is the category of Rid &Denty (2006) of characteristics of a chaos-order organization in which characteristics such as discontinuous growth, organizational awareness, corelatedness, flexibility, continuous evolution, and self-organizing(16) are mentioned.

Results of this study, which have got through a single-sample t-test, show that sport organizations have six characteristics of welcoming to innovation, coherence, uncertainty, non-linearity, unpredictability, and ugly structure. It's just the grade of the characteristic of recruiting competent staffs that is low in sport organizations; in fact they don't enjoy it. But, within assessing the main hypothesis of the research that was around the feature of chaos-order, it was resulted that sport organizations have characteristics of a chaos-order organization and they can be considered as a chaos-order organization. It should be noted that the results of this study are strongly compatible with Ijentin (2004), Rid &Denty (2006) and Ghorbanizadeh (2010).

References:

1. Alvani M. Reflect effects of chaos theory in management. *Management Studies*, 2000, vol.21, pp. 38-53.
2. Danaifar H. Search the philosophical foundations of the theory of Complexity. *Journal of Human Sciences*, 2007, vol.46, pp. 171-210.
3. Dealtry R. The corporate university's role in managing an epoch in learning organization innovation. *Journal of Workplace Learning*. 2006, vol.18(5), pp. 313-320.
4. Eijnatten M.V. Chaordic systems thinking; some suggestions for a complexity framework to inform a learning organization. *The Learning Organization*, 2004, vol.11(6), pp. 430- 449.
5. Eijnatten M.V., Putnik G. D. Chaos, complexity, learning, and the learning organization. *The Learning Organization*, 2004, vol.11(6), pp. 418-429.
6. Eijnatten M.V., Putnik G. D., Sluga A. Chaordic systems thinking for novelty in contemporary manufacturing. *Annals of the CIRP*. 2007, vol.56/1, pp. 447- 450.
7. Etebarian A. Organizational change from the perspective of chaos theory, order in the chaos. *Journal of Tadbir*, 2000, vol.190, pp. 36-40.
8. Faghih N. Chaos indynamic systems and change management systems. *Knowledge Management Journal*, 1996, vol.35, pp. 80-96.
9. Geraldi J.G. The balance between order and chaos in multi projec firms: A conceptual model. *International Journal of Project Management*, 2008, vol.26, pp. 348- 356.
10. Gorbanizadeh V. Arab A. characteristics of chaordic organizations. *Management Studies*, 2010, vol.62, pp. 91-114.
11. Hock D. *One from Many; VISA and the Rise of Chaordic Organization*, San Francisco: Berrett-Koehler Publishers, 2008, 200 p.
12. Mehdi A. Application chaos theory in organizations. *Journal of Tadbir*. 2003, vol.129, pp. 22-27.
13. Nikookar G.H., Gorbanizadeh V. Management of disorder organization. *Journal of Tadbir*. 2005, vol.60, pp. 13-32.
14. Raiden A.B., Dainty R.J. Human resource development in construction organizations; An example of a "chaordic" learning organisation? *The Learning Organization*. 2006, vol.13(1), pp. 63- 79.
15. Rahman Seresht H., Nobari N. Complexity in organization. *Management Studies*, 2008, vol.49, pp. 1-22.
16. Wiggins S. *Chaos, chaotic behavior in system*, numerical solutions, translation by Haghighi, M.A & Afshaariyade: Termeh publishers. 2007. 210 p.
17. Xiaoshu L., Croome D.C., Viljanen M. , Integration of chaos theory and mathematical models in building simulation Part I: Literature review , *Automation in Construction*, in press article, available on: 2010
18. Lu X., Clements-Croome D., Viljanen M. Integration of chaos theory and mathematical models in building simulation. *Automation in Construction*. 2010, vol.19(4), pp. 447-451. doi:10.1016/j.autcon.2010.01.002.
19. Zimmerman B. *Ralph Stacey's Agreement & Certainty Matrix*. Schulich School of Business, York University, Toronto, Canada. 2001, 212 p.

Information about the authors

Mehran Azarian: ORCID: 0000-0002-3907-4707; m.azarian32@yahoo.com; Sahand University of Technology; PO.BOX 51335/1996 New Sahand Town, Tabriz, Iran

Robab Yadollahzadeh: ORCID: 0000-0001-9220-223X; n_yadollahzade@yahoo.com; Sahand University of Technology; PO.BOX 51335/1996 New Sahand Town, Tabriz, Iran

Mehrdad Hefzolesan: ORCID: 0000-0002-6022-3930; hefzolesan@sut.ac.ir; Sahand University of Technology; PO.BOX 51335/1996 New Sahand Town, Tabriz, Iran

Mehrdad Moharramzadeh: ORCID: 0000-0001-7769-4344; mmoharramzadeh@yahoo.com; University of Urmia; PO.BOX 51335/1996 Urmia, Iran

Sohrab Ghalehgir: ORCID: 0000-0002-9739-6464; ghalehgir@sut.ac.ir; Sahand University of Technology; PO.BOX 51335/1996 New Sahand Town, Tabriz, Iran

Cite this article as: Mehran Azarian1, Robab Yadollahzadeh1, Mehrdad Hefzolesan1, Mehrdad Moharramzadeh2, Sohrab Ghalehgir. Order in the chaos in sports organizations. *Physical education of students*, 2014, vol.3, pp. 49-54. doi:10.6084/m9.figshare.978672

The electronic version of this article is the complete one and can be found online at: <http://www.sportpedagogy.org.ua/html/arhive-e.html>

This is an Open Access article distributed under the terms of the Creative Commons Attribution License, which permits unrestricted use, distribution, and reproduction in any medium, provided the original work is properly cited (<http://creativecommons.org/licenses/by/3.0/deed.en>).

Received: 13.02.2014
Published: 27.02.2014

Информация об авторах

Мехран Азарян: ORCID: 0000-0002-3907-4707; m.azarian32@yahoo.com; Саханд Университет технологий; п/я 51335/1996, Новый Саханд Город, Табриз, Иран

Робаб Ядоллахзаде: ORCID: 0000-0001-9220-223X; n_yadollahzade@yahoo.com; Саханд Университет технологий; п/я 51335/1996, Новый Саханд Город, Табриз, Иран

Мехрдад Хефзоллесан: ORCID: 0000-0002-6022-3930; hefzolesan@sut.ac.ir; Саханд Университет технологий; п/я 51335/1996, Новый Саханд Город, Табриз, Иран

Мехрдад Мохаррамзаде: ORCID: 0000-0001-7769-4344; mmoharramzadeh@yahoo.com; Университет Урмия; п/я 51335/1996, г. Урмия; п/я 51335/1996, Новый Саханд Город, Табриз, Иран

Сохраб Гхалехгир: ORCID: 0000-0002-9739-6464; ghalehgir@sut.ac.ir; Саханд Университет технологий; п/я 51335/1996, Новый Саханд Город, Табриз, Иран

Цитируйте эту статью как: Мехран Азарян, Робаб Ядоллахзаде, Мехрдад Хефзоллесан, Мехрдад Мохаррамзаде, Сохраб Гхалехгир. Порядок в условиях хаоса в спортивных организациях // *Физическое воспитание студентов*. – 2014. – № 3 – С. 49-54. doi:10.6084/m9.figshare.978672

Электронная версия этой статьи является полной и может быть найдена на сайте: <http://www.sportpedagogy.org.ua/html/arhive.html>

Эта статья Открытого Доступа распространяется под терминами Creative Commons Attribution License, которая разрешает неограниченное использование, распространение и копирование любыми средствами, обеспечивающими должное цитирование этой оригинальной статьи (<http://creativecommons.org/licenses/by/3.0/deed.ru>).

Дата поступления в редакцию: 13.02.2014 г.
Опубликовано: 27.02.2014 г.