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INCREASING THE EFFICIENCY OF USING SPORTS FACILITIES OF EDUCATIONAL INSTITUTIONS OF SPORTS

N. H. Haydarov (a), B. F. Azimov (b)*, F. E. Halimov (c)
*Corresponding author

(a) Institute of personnel training and professional development and statistical research under the State statistics committee of Republic of Uzbekistan, Tashkent, Uzbekistan
(b) Bukhara Engineering-Technological Institute, K. Murtazoev str., 15, Bukhara, Uzbekistan, bobir-azimov@mail.ru
(c) Tashkent institute of finance, Tashkent, Uzbekistan

Abstract

The article covers the relevance of attracting the population in physical culture and sports through educational institutions of sports in modern conditions in Uzbekistan, describes large-scale events held in the public and private sectors for the high-quality and full use of capacities of sports facilities owned by educational institutions of sports. Research work over the past five years have shown that dynamic increase in the carrying capacity of sports facilities have not guaranteed the rational use of facilities, with long-term transfers of sports facilities to the location of other departments, with decrease in the quality categories of sports facilities. The authors developed a brand new method to assess the effective use of sports facilities, and this method was in the form of indicator of weekly capacity of sports facilities and indicator of weekly capacity of sports facilities recalculated by rhythm coefficient, which can detail show the hourly loading of capacity of sports facilities within a week. Analysis of the performance of sports facilities shows that the capacity of sports facilities, which use the new methodology, ranges from 50 to 53 percent, and this is significantly low from the expected priorities. Moreover, the main reasons for the underutilization of the capacities of sports facilities of educational institutions of sports were identified, main tendencies and mechanisms for the effective use of the capacities of sports facilities of educational institutions of sports were developed.

Keywords: Sports facilities, educational institutions of sports, efficiency of sports facilities.

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1. Introduction

Uzbekistan pays great attention to such issues as active development of physical training and sports, involvement of all the levels of the population, especially youth in regular physical training and mass sports, widespread promotion of the benefits and advantages of the health life in society, ensuring full and effective use of infrastructures and facilities of physical training and sports, as well as to further improve the quality, diversity and targeting of physical education and sports services provided in the country. During the years of independence many, sometimes even contradictory actions, programs, measures in the field of development of physical training and sports, involvement of all the levels of the population in regular physical culture and mass sports has developed and implemented, so in reality has become little complicated to analyze which of them had more positive or negative impact to this field (Emese, 2006; Propheter, 2020; Zolotov et al., 2004).

2. Problem Statement

Introduction of modern energy and resource-saving innovative construction technologies; construction of buildings and sports facilities of general education and sports institutions based on equipping and fully providing sports facilities and infrastructure; expansion of reconstruction and capital repairs, as well as the establishment of a national integrated information system of physical culture and sports, including information systems “Skm-sportinshoot” providing the passport system of all physical training and sports facilities of the republic have been emphasized in the concept of development of physical culture and mass sports in the Republic of Uzbekistan for 2019-2023. Scientific research on sports facilities, which is one of the key issues in increasing the popularity of physical culture and sports, shows that the number of sports facilities, their capacity is increasing (Resolution of the Cabinet of Ministers of Republic of Uzbekistan, 2019). The data for the last five years show that the number of sports facilities and their capacity is steadily increasing. In 2015, the total number of sports facilities in the Republic was 50.934, in the first 9 months of 2019 – 51.604, in the corresponding years, the daily capacity of sports facilities increased from 70.811 thousand to 76.292 thousand people. However, the issue of rational use of these capacities is still relevant (Valdis, 2004).

3. Research Questions

In analysis of number of sports facilities on their types in educational institutions of sports, it was found that sports fields and grounds have the largest share (77-78%). The least number of sports facilities are shooting ranges, racecourses, riding halls, shooting range and stand shooting places. The share of sports facilities at the disposal of the studied physical culture and sports education institutions increased significantly compared to the total, from 4.2% in 2015 to 4.5% in 2019. Sports and educational institutions own more than half of the stadiums, however they own only 6% of gyms, 1/3 of swimming pools and racecourses, shooting ranges are less than 1%, the share of sports grounds is around 3%, and riding halls for about 1% (Table 1).

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Table 01. Number of sports facilities on types under educational institutions of sports during 2015-2019 years, units

Years	Sports facilities	Total	Including:							
			Stadiums	Gyms	Swimming pools	Shooting ranges	Sports grounds and pitches	Racecourses	Riding halls	Shooting range and stand shooting places
2015	Total	50934	406	10022	285	130	40048	9	15	19
	Sports facilities at the disposal of educational institutions	2132	231	630	98	1	1155	3	13	1
2016	Total	50853	399	10397	295	131	39574	11	17	29
	Sports facilities at the disposal of educational institutions	2289	242	713	126	1	1192	3	12	
2017	Total	51306	410	10699	307	133	39699	9	19	30
	Sports facilities at the disposal of educational institutions	2269	248	691	136		1176	4	14	
2018	Total	51583	411	10843	308	142	39807	8	24	40
	Sports facilities at the disposal of educational institutions	2331	271	730	149	1	1163	4	13	-
9 months of	Total	51604	411	10852	309	143	39817	8	24	40
	Sports facilities at the disposal of educational institutions	2344	271	738	149	1	1168	4	13	-

Some sports facilities, such as shooting range and stand shooting places, due to the difficulty of self-sufficiency, have started to be transferred from educational institutions of sports to institutions of other ministries.

The quality of sports facilities in Uzbekistan has also decreased. For example, in 2015, there were 33 high-class sports facilities, while in 2018 their number was only two. It can be observed that both the number and the share of sports facilities of the first category have decreased. The number of fourth and fifth category sports facilities has grown rapidly. Such changes were influenced by the decrease in funding for current repairs and capital repairs. In 2017-2018, only two newly built sports facilities were maintained at the high level (Table 2).

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Table 02. Categories of sports facilities in 2015-2019

Years	Total	Including categories:						
		Higher	First	Second	Third	Fourth	Fifth	Universal Category
2015	50934	33	31	44	50	3063	29	47684
2016	50853	13	20	38	41	2859	13	47869
2017	51306	1	22	41	69	3688	15	47470
2018	51583	2	18	46	73	3851	81	47512
9 months of 2019	51604	2	17	46	74	3851	86	47528

4. Purpose of the Study

The main purpose of the article is to analyze effective use of sports facilities owned by educational institutions of sports, as well as to develop the main methods and mechanisms of improvement the use of sports facilities specific to the conditions of modernization and diversification of social-economic life of Uzbekistan.

5. Research Methods

The authors tried to use dialectical, statistical, mathematical, grouping, comparative and systematic analysis, induction and deduction, logical coherence and other scientific approaches and methods in studying and analyzing the problem (Asefi & Nosrati, 2020; Elmose-Osterlund & Iversen, 2020). In addition, were developed indicators such as Weekly load rate of sports facilities, Weekly capacity recalculated by rhythm coefficient to study the problem in more depth (Heredia, 2020; Szczepaniak, 2020; Waters, 1996).

Research of foreign and Uzbek scientists in the field of study the utilization of sports facilities shows that the main focus in the calculation of this indicator is on the overall level of loading of sports facilities, i.e. the ability of sports facilities to serve many people at once. For example, a group of foreign (Mustafina et al., 2018; Sun, 2015) and Uzbek (Gulyamov et al., 2016) scientists determined the number of athletes who can train at the same time for each category of physical education facilities, i.e. the capacity of the facility, the appropriate normative number of population groups divided by the average size of sports facilities and multiplied by the number of athletes cited. However, these methodologies still show the overall load rate, so we think that the calculation of the specialized load rate of the individual sports facilities reveals the real picture, therefore we offer a weekly load rate indicator calculated by the weekly rhythm coefficient rather than the daily load rate. This is because the schedule of intensive physical education and sports training reflects the regularity of repetition during the week. The following formula is proposed:

$$\text{Weekly load rate of sports facilities} = \frac{PCWC}{\text{WCP}}$$

where WCP – weekly capacity in the project; PCWC - weekly capacity recalculated by rhythm coefficient,

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$$\text{Weekly capacity recalculated by rhythm coefficient} = \sum_{k=1/6}^{3} \text{RC} * \text{NT}$$

where: PC – rhythm coefficient, multiplied by the number of trainees: if k =1\6, i.e., training 1 hour per week, k =1\3, i.e., training 2 hour per week, k =1\2, i.e., training 3 hour per week, k =1, i.e., training 6 hour per week, k =2, i.e., training 12 hour per week, k =3, i.e., training 24 hour per week.

NT – number of trainees

The table 03 shows as example the number of intensive trainees in sports in 2018 based on the weekly rhythm.

Table 03. The component of the trainers corresponding to the weekly rhythm coefficient in 2018

Number of intensive physical training and sports activities trainees	**Trainers corresponding to the weekly rhythm coefficient, man per hour**						**load rate recalculated by the weekly rhythm coefficient, man per hour**
	k =1\6, , i.e., training 1 hour per week	k =1\3, i.e., training 2 hour per week	k =1\2, i.e., training 3 hour per week	k =1, i.e., training 6 hour per week	k =2, i.e., training 12 hour per week	k =3, i.e., training 24 hour per week	
9941628	2733947.7	2214994.7	1908792.6	2207041.4	397665.1	477198.1	6582351.9

In the overall picture, the existing facilities seem to be being used effectively, but the hourly busy schedule of the sports facilities during the week shows all the issues detailed (Siemińska, 2020).

The table 04 shows that level of capacity of use of sports facilities was 53.0% for the years under study (in 2017), mainly due to the relatively small number of regular sport practitioners, inflexible work schedule of sports facilities, lack of training of sports coaches and fitness instructors, the geographical location of sports facilities, and the relatively low confidence in the level of sports coaches. Data is particularly low in rural areas.

Table 04. Level of capacity of use of sports facilities during 2015-2019 years

Weekly load of total sports facilities in the project (capacity), man per hour				**Load rate calculated by weekly rhythm coefficient, man per hour**				**Level of capacity of use of sports facilities, percent**			
2016	2017	2018	9 months of 2019	2016	2017	2018	9 months of 2019	2016	2017	2018	9 months of 2019
11999076	12367698	12457614	12715421	6084763.1	6557545.7	6582351.9	6688831.1	50.7	53.0	52.8	52.6

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6. Findings

Analysis of the performance of sports facilities shows that the capacity of sports facilities barely riches 50-53 percent, and this is significantly low from the expected priorities. Low capacity of sports facilities due to relatively low number of regular physical training and sports, inflexible work schedule of sports facilities, lack of sports coaches and fitness instructors, geographical location of sports facilities, low level of confidence in the level of bodybuilding and fitness instructors and many other factors can be explained. Data is particularly low in rural areas (Jones et al., 2020).

7. Conclusion

We believe that the main directions of improving the efficient use of sports facilities in Uzbekistan are as follows.

First, the introduction of mechanisms to adapt to changes in operational and market demand and supply of existing capacities of sports facilities. In our opinion, this problem can be solved by completing the electronic inventory of all sports facilities, creating a single register of lease of sports infrastructure, allowing sublease issues in addition to the lease of sports facilities, launching a full-day lease of sports facilities for volunteers. In the electronic inventory, it is necessary to determine in web the rent depending on the density and emptiness of the daily schedule of the sports facility.

Second, the introduction of model projects of low budget and relatively universal sports facilities. Taking into account the demand and supply of physical culture and sports services, citizens will be able to achieve their physical activity by providing access to facilities close to their homes (educational, medical, sports and recreation facilities). In order to increase the load level of sports facilities, it is necessary to pay attention to the construction of universal sports complexes in densely populated areas and to avoid over-specialization of sports facilities.

Third, the inclusion of the construction, overhaul and reconstruction of sports facilities in the Republican and local government programs, taking into account the financial efficiency of sports and certain types of physical culture and sports education institutions. In building of new sports facilities, the focus should be on the level of financial efficiency. Studies show that in the years under research, the quality categories of sports facilities have declined, and the number and quality of both high-end and first-class sports facilities have declined sharply. In order to maintain sports facilities in sufficient quality categories, it is necessary to carry out quality capital and current repairs. Fourth, to provide physical culture and sports educational institutions with sports equipment and facilities necessary for the organization and conduct of sporting events and training. Fifth, turn large sports complexes into a joint-stock company, the introduction of a corporate governance model. Because of the implementation of this measure in practice, it is possible to involve certain groups of society in physical culture and sports, to intensify the activities of sports facilities, in particular:

- taking into account real incomes in the face of high inflation, favorable prices for sports and health services for children, pensioners, disabled persons and other groups in need of social protection will be maintained;

- co-financing of foreign investment and construction of large sports complexes with state participation;
- active support of children, pensioners and disabled disabled persons with physical training and sports services;
- promoting healt life among various groups in need of protection, ensuring unimpeded access to the privileged services of socially vulnerable groups, educational institutions, social security institutions, the disabled persons and pensioners in the media;
- private and public support of financial resources of the sports complex for preferential services for low-income levels of the population.

References

Asefi, A., & Nosrati, A. (2020). The spatial justice in the distribution of built outdoor sports facilities. *Journal of Facilities Management, 18*(2), 159-178. https://doi.org/10.1108/JFM-09-2019-0051

Emese, I. (2006). *Hungarian sports governance in transition: from totalitarian past towards Europeanized future*. Ontario, Canada.

Elmose-Osterlund, K., & Iversen, E. B. (2020). Do public subsidies and facility coverage matter for voluntary sports clubs? *Sport Management Review, 23*(2), 315-329. https://doi.org/10.1016/j.smr.2019.03.007

Gulyamov, Z. T., Istomin, A. A., Komilova, G. Z., Nabiullin, R. X., Matkarimov, R. M., & Azizov, N. N. (2016) *Management of sports.* Scientific-Technical Information-Press Publishing House.

Heredia, N. I., Fernandez, M. E., Durand, C. P., Kohl III, H. W., Ranjit, N., & van den Berg, A. E. (2020). Factors associated with use of recreational facilities and physical activity among low-income Latino adults. *Journal of Immigrant and Minority Health, 22*(3), 555-562. https://doi.org/10.1007/s10903-019-00920-7

Jones, G. J., Carlton, T., Hyun, M., Kanters, M., & Bocarro, J. (2020). Assessing the contribution of informal sport to leisure-time physical activity: A new perspective on social innovation. *Managing Sport and Leisure, 25*(3), 161-174. 10.1080/23750472.2019.1620627

Mustafina, A. A., Kaigorodova, G. N., Pyrkova, G. K., Alyakina, D. P., & Bagautdinova, G. R. (2018). Development of the program of effective use of objects of sports infrastructure of the city. *Journal of Social Sciences Research, 5*, 94-98.

Propheter, G. (2020). Does proximity to a new sports facility affect existing businesses' survival time? *Journal of Sports Economics, 21*(5), 451-476. https://doi.org/10.1177/1527002520917197

Nottingham, C. (2004). *Public and private financing of high school athletic programs: the case of football.* California.

Resolution of the Cabinet of Ministers of Republic of Uzbekistan (2019). "*On approval of Concept of development of physical training and mass sports in the Republic of Uzbekistan for the period 2019-2023*" No.118 dated February 13, 2019.

Siemińska, E. W. A. (2020). Specificity of sport real estate management. *Journal of Physical Education and Sport, 20*, 1165-1171. https://doi.org/10.7752/jpes.2020.s2162

Sun, Z. (2015). A brief analysis of sports venues in colleges and universities. *Asian Social Science, 11*(16), 114-117. https://doi.org/10.5539/ass.v11n16p114

Szczepaniak, M. (2020). Public sport policies and health: Comparative analysis across European union countries. *Journal of Physical Education and Sport, 20,* 1022-1030. https://doi.org/10.7752/jpes.2020.s2142

Valdis, A. T. (2004). *The benefits of sport sponsorship from the corporate perspective.* Lander University.

Waters, D. J. (1996). *A comparative study of the role of sport in nation building in developed and developing countries.* University of Minnesota.

Zolotov, M. I., Kuzin, V. V., & Kutepov, M. E. (2004). *Management and economics of physical culture and sports: manual under editorship of S.G. Seyranov.* Academy.