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UTILIZATION OF SPORTS INFRASTRUCTURE IN POLAND

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Purpose: Analysis of changes in the level of utilization of sports facilities in Poland in 2010, 2014, 2018. The study of the relationship between the degree of use of sports facilities and their number, the number of inhabitants, as well as expenditure on sports and income from this division according to budget classification. Discussion of selected issues related to the degree of utilization of sports facilities in Poland. Drawing attention to the problem of underutilization of sports facilities.
Design/methodology/approach: The level of sports facilities utilization was presented using data from the Central Statistical Office. The canonical analysis method was used to develop detailed analyses.
Findings: The use of canonical analysis allowed for determining the relationship between the level of utilization of sports facilities and selected variables.
Research limitations/implications: The analysis covered the years 2010, 2014 and 2018 due to the availability of information published by the Central Statistical Office. The level of utilization applies to certain types of objects. Further analyses should include the issue of using outdoor gyms or cycle paths, which are not addressed in this paper. This is not possible from the point of view of the definition of the level of utilization of sports facilities, which cannot be applied to the above-mentioned facilities.
Practical implications: Drawing attention to the underutilization of facilities is aimed to optimize their use. Addressing the issues should also stimulate interest in physical activity and raise awareness of deficits in occupancy of sports facilities.
Social implications: A higher level of utilization of sports facilities can have a positive impact on the quality of life of inhabitants. Presented considerations may increase the awareness of the underutilization of specific types of facilities. The conclusions from the research may be used in practice and have an impact on increasing the accessibility to sports facilities for the society.
Originality/value: The added value of the paper results from the specificity of the research topic it raises. Scientific publications seldom refer to the issue of the use of sports infrastructure. It is a rarely discussed topic. Its universality can be analysed in two aspects. The first concerns the recipients. They can be representatives of Local Government Units who face the problem of the functioning of sports facilities, managers of facilities and everyone from the circle of the broadly perceived sports labor market, but also ordinary users of this type of infrastructure. The second aspect concerns the applied research method, i.e., canonical analysis, which is used in many fields, as indicated in the content of the study. Conclusions from the results of the presented research can be used by all people who have impact on decision-making in the sphere of sports facilities management and the promotion of an active lifestyle.

Keywords: canonical analysis, sports facilities.
Category of the paper: Research paper, case study.

1. Introduction

Sports infrastructure shoulds serve a diverse group of recipients. Expectations related to the way it functions and develops are changing. It is similar with the awareness of their potential and actual users. The pressure exerted on the promotion of an active lifestyle means that increasingly often we hear about the need to undertake physical activity and its positive impact on health, as well as on the comfort of human life. Appropriate sports infrastructure should be the element encouraging to do so. It ought to be available and adapted to the needs of different age or social groups. In addition to sports values, modern sports facilities can be an attractive tourist product of the region, which is indicated by Cieślikowski (2018).

The issue of modern sports facilities is a subject area relatively poorly recognized by social sciences. Demographic and health changes accompanying not only Polish society are the reason for analyzing the topic. The need for more frequent use of sports infrastructure arose especially after the pandemic, when there was an increase in doubts among various stakeholders about the usefulness of further sports facilities.

The study compares the level of utilization of sports facilities in Poland in 2010, 2014, and 2018, and evaluates the relationship between the degree of utilization of sports facilities and their number, the number of inhabitants, expenditure on sports a well as income from this division according to budget classification.

The research methods included a review of available data from Central Statistical Office (GUS) and canonical analysis, which enables the study of possible relationships between groups of variables. Statistical calculations were conducted using the Statistica software. A summary with the most important results is presented for each pair of groups. Those for which p (confidence level) < 0.05 are interesting.

Critical analysis of the literature related to the subject is the research method in the review part.

2. Literature review

The literature emphasizes that doing sport brings with it multi-faceted economic and social benefits. Improving the physical and mental well-being of the society contributes to a better quality of life. Active people are more efficient at work, perform better and take sick leaves less frequently. Keeping your workforce healthy can be an investment in the future. It is important

not only to shape social awareness of the role played by physical activity, but also to act to increase motivation to undertake it.

Caring for the shape and appearance is attributed mainly to young people. However, it must be admitted that this stereotype is slowly being changed. Elderly people walking with poles (Nordic walking), women at the swimming pool practicing aqua aerobics or using sports equipment in nearby parks are increasingly common. However, there is still much to be done in this sphere. The availability of sports infrastructure, regardless of individual socio-economic conditions, significantly affects the patterns of sports activity. However, the impact of certain types of sports infrastructure differs by age group. Research results presented by Wicker et al. (2009) are important not only in the context of the approach of the elderly to sport, but also in the management decisions made by managers. Sports infrastructure should be managed in such a way as to contribute to making sport accessible to people of all ages.

Physical activation of seniors is a task that is difficult to implement in practice, but extremely important. Seniors need to understand that regular exercise will improve their physical and mental condition, or independence in everyday life (Marchewka, 2013). For this reason, any programs promoting physical activity among all age groups of the society are important not only from the social point of view (building and strengthening relationships) but also from the economic point of view (lower costs of health and social care).

Sports stadiums are a specific type of sports infrastructure. They perceived in the context of a place where numerous sporting events take place. Several of them are presented in the publication entitled The Stadium: Architecture for the New Global Culture (Sheard et al., 2005). Many of the stadiums presented in this book have hosted some of the most successful sporting events of the last decade, including the Sydney Olympics, the Rugby World Cup, the Superbowl, the FA Cup Final, the Asian Games and the Euro 2004 Football Championship.

Sports facilities are not only an area of competition for players, but also a meeting place for families with children, as well as social and intercultural integration. The subject of changes in the stadium infrastructure is referred to by e.g., T. Szlendak, D. Antonowicz et al. (2014). They indicate the increasing commercialization of the space, where the pitch is the most important, yet it is surrounded by an extensive commercial zone. The implementation of innovative solutions, also in terms of energy consumption in sports facilities (Revel, Arnesano, 2014), is especially important as it supports long-term development and is a source of competitive advantage (Firlej, 2015). The role of local or regional authorities that support physical activity in various forms, cannot be disregarded. Much depends on the decisions of these authorities. It should be remembered that "properly designed and implemented regional policy, the appropriate perception of its mechanisms, the ability to use aid provided by the EU structural funds are a significant challenge and a huge development opportunity for Polish regions" (Firlej, 2016).

The effectiveness of sports facilities is the subject of considerations by Haydarov, N.H., Azimov, B.F., & Halimov, F.E. (2020). Sports facilities also occur in the context of the possibility of using them by people with disabilities (Ping Kung, Taylor, 2014). Kokot (2021) dealt with the accessibility of indoor swimming pools in Poland. Access to sports infrastructure near the workplace increases the likelihood that it will be used by working adults than the infrastructure located close to home (Zasimova, 2020). Müller-Frączek (2021) writes about the correlation between the development of sport and the resources of sports infrastructure. The results of her research showed that a higher number of sports facilities was accompanied by a higher average level of sport development in each year and in each variant considered. The strength of this correlation was at least moderate, but never very strong. It was indicated, however, that further research is needed to find an answer to the question of the impact of the increase in the number of sports facilities on the increase in the level of sports development (Müller-Frączek, 2021).

Emerging economies are increasingly recognizing the importance of the sports industry. As a result, there are growing expenses for building sports infrastructure, creating teams or acquiring new investments (Kutwa, Rafał, 2019). Actions taken in India (Singh, 2018) or China (Yongqi, 2018) can be an example here.

3. Utilization of sports facilities

In order to evaluate a text correctly and fully, intuitive understanding should be supported by scientific explanation, complemented by the point of view of other authors dealing with the subject. Therefore, the meaning of these concepts should be explained. Sport is considered to be any form of physical activity that, through casual or organized participation, affects expressing or improving physical fitness and mental well-being, forming social relationships or obtaining results in competition at all levels. Sport is also competition based on intellectual activity, whose aim is to achieve a sports result. Sport together with physical education and motor rehabilitation form physical culture (Act on Sport, 2010). Information on sports clubs and people exercising in individual sports sections can be found in the Local Data Bank of the Central Statistical Office. Since 2002, this data has been collected every 2 years. On the other hand, information on sports facilities is presented every 4 years. However, it does not include school facilities (BDL-Local Data Bank). The diagram shown in Fig. 1 allows for placing sports facilities among other public facilities.

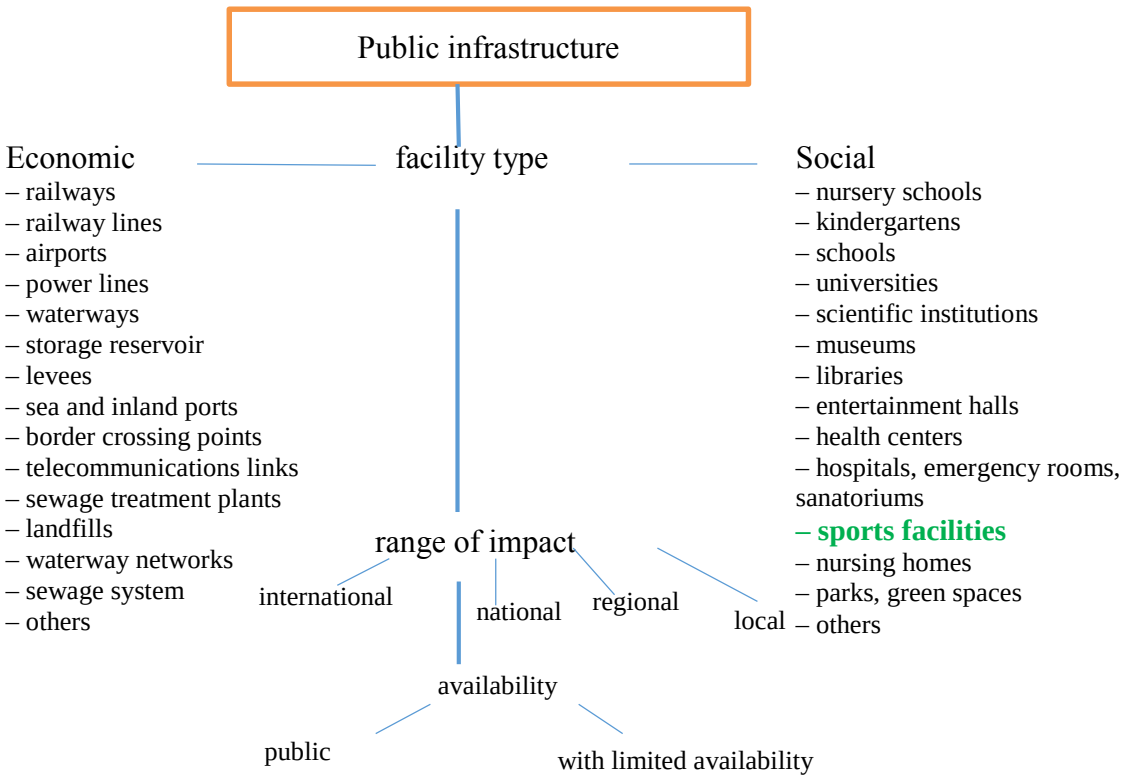

Figure 1. Division of public infrastructure by the type, range and availability of facilities. Adapted from: "Finansowanie inwestycji infrastrukturalnych przez kapitał prywatny na zasadach Project Finance"]"*Financing infrastructure investments by private capital on the basis of Project Finance*"] by K. Brzozowska. Copyright 2005 by Publisher.

As shown in Figure 1, sports facilities are part of the social public infrastructure. When completing the presented classification, it should be noted that a sports facility is considered to be an independent compact set of field facilities and buildings intended for sports purposes (GUS, 2017; Glossary of terms). Therefore, sports infrastructure performs tasks aimed at serving the local, regional, national or international community. It can be available to everyone. Limited access to certain facilities may result, for example, from their use during special events or being intended for specific groups of users (e.g., the facility is closed to the general public while athletes are preparing for an event). Social reception affects the level of utilization of facilities. The degree of occupancy of the facility for sports and recreation purposes results from comparing the number of days in a year when the facility was used for sport and recreation purposes to the number of days in a year when the facility was open. It is expressed as a percentage (Kultura fizyczna w Polsce w latach 2008-2010 [Physical culture in Poland in 2008-2010], p. 24).

Table 1.
Occupancy Rate of Facilities for the Purpose of Sport and Recreation in 2010, 2014, 2018 (in %)

Facility	Year	Total Poland	Facility	Year	Total Poland
Stadiums	2010	72	Tracks	2010	**78**
	2014	74		2014	**82**
	2018	75.5		2018	**84.1**
Sports fields for big games[1]	2010	65	Ice rinks	2010	**94**
	2014	67		2014	**95**
	2018	71		2018	**93.6**
Sports fields for small games[2]	2010	71	Ski jumps	2010	**68**
	2014	73		2014	**79**
	2018	75.3		2018	**45.8**
Universal and multi-purpose sports fields	2010	77	Shooting range	2010	**74**
	2014	83		2014	**78**
	2018	84.3		2018	**81.4**
Tennis courts	2010	87	Golf courses	2010	**93**
	2014	88		2014	**94**
	2018	88		2018	**90.4**
Sports halls and gyms[3]	2010	91	Water parks	2010	**87**
	2014	92		2014	**94**
	2018	**90.6**		2018	**94.4**
Indoor swimming pools	2010	**96**	Skateparks	2010	**90**
	2014	**96**		2014	**91**
	2018	**96.8**		2018	**90.1**
Outdoor swimming pools	2010	**89**			
	2014	**91**			
	2018	**91.6**			

Adapted from: Kultura fizyczna w Polsce w latach 2008-2010 [*Physical education in Poland in the years 2008-2010*], by Główny Urząd Statystyczny (GUS), Statistical Office in Rzeszów, Wraszawa-Rzeszów, 2011, p. 208; Kultura fizyczna w Polsce w latach 2013-2014 [*Physical education in Poland in the years 2013-2014*], by Główny Urząd Statystyczny (GUS), Statistical Office in Rzeszów, Warszawa-Rzeszów, 2015, p. 171; Kultura fizyczna w Polsce w latach 2017-2018 [*Physical education in Poland in the years 2017-2018*], by Główny Urząd Statystyczny (GUS), Statistical Office in Rzeszów, Wraszawa-Rzeszów 2019, tab. 49.

We should also mention outdoor gyms and bicycle paths, which, together with shooting ranges, golf courses, aqua parks and skate parks, are found in the lists of sports facilities among other facilities (GUS, 2019, table 49). Due to the specificity of these facilities, it is not possible to compare the number of days in a year when they were used for sports and recreation purposes to the number of days in a year when they were open. These facilities are open to the public and can be used at any time. Information on the level of use of outdoor gyms and bicycle paths is not available, therefore they are not included in Table 1.

[1] The fields for big games include: football + rugby + field hockey + baseball and softball.
[2] The fields for small games include: basketball, volleyball, handball (2010) + beach volleyball (2014) + beach handball (2018).
[3] Sports halls and gyms include: Multifunctional sports halls with dimensions 44x22 m and larger + Sports halls with dimensions from 36x19m to 44x22m + gyms with dimensions from 24x12m to 36x19m + auxiliary rooms with dimensions under 24x12m.

Presented data indicate that none of the types of facilities from Table 1 was fully used in 2010, 2014, 2018. It should be clear that many factors could have influenced this situation. Certainly, the approach of the local community to the use of facilities, time and financial possibilities of using them is an important determinant. Attention should also be paid to the specificity of the objects. Not every person can use ski jumps. In this case, the question of proper management of facilities arises. The same situation applies to stadiums and all types of pitches, which are often used by sports clubs or national teams in various disciplines.

An interesting observation is the one concerning golf courses. Despite the prevailing opinion that golf is not a cheap sport, which proves to be not entirely true (BogiGolf; Magazyn Golfowy), the degree of utilization of these facilities is at a prominent level. A comparable situation applies to skate parks. Indoor swimming pools, outdoor swimming pools and water parks enjoy the highest level of use. They are places suitable for users of all age groups, as well as with various diseases.

4. Canonical analysis

Canonical analysis is applied to estimate the relationship between two sets of variables (TIBCO Statistica, 2022; UCLA). It is used in pedagogical research, for example, in assessing the simultaneous relationship between three measures of learning ability and five measures of success in learning. In sociology, it can help to identify relationships between two predictors of social mobility obtained in interviews and actual subsequent social mobility. Canonical analysis is also useful in medical science, for example, when looking for relationships between various risk factors and the formation of a certain group of symptoms. All these examples have one common feature. It concerns the interest in the relationship between two sets of variables, for which the appropriate method of analysis is the canonical correlation (Statsoft.pl).

In the literature there are examples of the use of canonical analysis, for example in economics, e.g., Deręgowski, Krzyśko et al. (2017), Malinowski (2016). The research on the impact of a set of variables characterizing households on the consumption of food, beverages and tobacco is also interesting. It has proved that expenditure on food, income per person in the household and the place of its location perform the leading role in food consumption (Piekut, 2006).

Formulating research hypotheses regarding the relationship between two sets of variables is popular in psychology (Prusiński, 2017). Canonical analysis is also applied in the studies of relationships between the ways of coping with stress and disturbed attitudes towards eating (Pawłowska, 2011).

The application of this method already appeared in papers from the 1970s and 1980s Kettenring, 1971; Kuylen, Verhallen, 1981. Examples of studies using canonical analysis, e.g., in biology (Howard, 1992 – soil-biology?), or in hotel tourism (Narangajavana, Hu, 2008) can also be indicated.

In the conducted empirical study on the use of sports infrastructure, the data set (Central Statistical Office) consists of 109 variables, 16 cases each (voivodeship):

- 42 variables - utilization of sports facilities: 14 types of facilities x 3 years (2010, 2014, 2018);
- 42 variables - number of sports facilities: 14 types of facilities x 3 years (2010, 2014, 2018);
- 3 variables - population in voivodeships for 2010, 2014 and 2018;
- 11 variables - expenditure of voivodeships on physical culture and sport (2008-2018);
- 11 variables - income of voivodeships from physical culture and sport for 2008-2018.

First, the data was standardized so that it could be compared, e.g., the use of facilities in % with population (different measurement units). Data transformation consisted in subtracting a certain value from the original data (usually the sample mean) and dividing it by the standard deviation (usually also determined from the sample). As a result of standardization, the transformed values have a distribution with a mean of 0 and a standard deviation of 1 (pogotowiestatyczny.pl). This transformation has many applications, because it allows for comparing the distribution of values for many variables and many groups. In addition, the standardization of input data makes the results of statistical analyzes completely independent of the units of measurement of individual variables. In addition, standardization highlights outliers.

Then it has been checked in which cases p is below 0.05. P represents the probability of making a type I error, i.e., rejecting the true H0, which says that there is a relationship between the degree of utilization of facilities and the number of people; N = 16 represents voivodships. They are cases, not variables, so they do not occur.

In view of the above, four research hypotheses were formulated:

H0: there is a significant relationship between the degree of utilization of sports facilities and the number of people;

H1: there is a significant relationship between the degree of utilization of sports facilities and their number;

H2: there is a significant relationship between the degree of utilization of sports facilities and expenditure on physical culture and sport;

H3: there is a significant relationship between the degree of utilization of sports facilities and the income generated from physical culture and sport.

The research results show that p is always above 0.005, so the probability of making a type I error, i.e., rejecting the true H0, stating that there is a relationship between the degree of utilization of facilities and selected variables, is below 5% for each hypothesis. High canonical R proves a strong correlation between the degree of utilization of sports facilities and selected variables.

Table 2.
Degree of utilization of sports facilities and the number of people[4]

N = 16	**Canonical R: .86389; p = .02806**	
	Left set	**Right set**
Number of variables	3	3
Variables: 1	S.W. Indoor swimming pools 2010	Population 2010
2	S.W. Indoor swimming pools 2014	Population 2014
3	S.W. Indoor swimming pools 2018	Population 2018
N = 16	**Canonical R: .77151 ; p = .04885**	
Number of variables	**Left set**	**Right set**
Variables: 1	S.W. Water parks 2010	Population 2010
2	S.W. Water parks 2014	Population 2014
3	S.W. Water parks 2018	Population 2018

Adapted from: own study.

In the study of the relationship between the degree of utilization of sports facilities and the population (Table 2), a significant relationship was found between the degree of utilization of indoor swimming pools and the population (p = .02806) and between the degree of utilization of water parks and the population (p = .04885). The number of indoor swimming pools was increasing from 433 in 2010, through 521 in 2014 to 579 in 2018. The number of water parks changed from 43 facilities to 83 and 82 in 2018. The population in the studied years decreased from 38,529,866 through 38,478,602 and reached 38,411,148 in 2018 (Demography Database). The degree of utilization of both swimming pools and water parks is high, with a growing trend in the case of the latter. The conducted analyzes show that there is a significant relationship between the variables.

Thus, the H0 hypothesis was partially confirmed, although it must be clearly stated that not for all types of facilities. The confirmation applies to water parks and indoor swimming pools. On the other hand, lack of confirmation is observed in the case of stadiums, all types of pitches, tennis courts, sports halls and gyms, outdoor swimming pools, tracks, ice rinks, ski jumps, shooting ranges, golf courses and skate parks.

[4] S.W. - degree of utilization.

Table 3.
The degree of utilization of sports facilities and their number[5]

N=16	Canonical R: .87546; p=.03823	
	Left set	**Right set**
Number of variables	3	3
Variables: 1	S.W. Indoor swimming pools 2010	L.O. Indoor swimming pools 2010
2	S.W. Indoor swimming pools 2014	L.O. Indoor swimming pools 2014
3	S.W. Indoor swimming pools 2018	L.O. Indoor swimming pools 2018

Adapted from: own study.

In the study of the relationship between the degree of utilization of sports facilities and the number of facilities (Table 3), a significant relationship was found between the degree of utilization of indoor swimming pools and their number (p = .03823). High canonical R proves a strong correlation between the degree of utilization of sports facilities and the number of facilities. Thus, H1 was partially confirmed, although it must be clearly stated that only in the case of indoor swimming pools. In the case of other objects, it was not confirmed. On the one hand, the increasing number of indoor swimming pools from 433 in 2010, through 521 in 2014 to 579 facilities of this type in 2018, may cause the decline in the utilization of the facilities. The greater availability of facilities/a bigger number of them leading to the scattering of potential customers may be the reason for that. On the other hand, greater accessibility of the facilities increases social awareness of the beneficial effects of swimming on physical and mental health. Pęczak-Graczyk, Skalski et al. draw attention to the non-recreational and non-rehabilitative role of swimming, as well as the growing number of swimming pools and increasingly frequent activity in the form of exercising in the swimming pool (2017).

Table 4.
The degree of utilization of sports facilities and expenditure on physical culture and sport in 2008-2018

N=16	Canonical R: .97998; p = .04336	
	Left set	**Right set**
Number of variables	3	3
Variables: 1	S.W. Universal and multi-purpose sports fields 2010	Expenditure 2008
2	S.W. Universal and multi-purpose sports fields 2014	Expenditure 2009
3	S.W. Universal and multi-purpose sports fields 2018	Expenditure 2010
4		Expenditure 2011
5		Expenditure 2012
6		Expenditure 2013
7		Expenditure 2014
8		Expenditure 2015
9		Expenditure 2016
10		Expenditure 2017
11		Expenditure 2018

Adapted from: own study.

[5] L.O. - number of facilities.

Next, the relationship between the degree of utilization of sports facilities and expenditure on physical culture and sport was studied (Table 4). Despite the fact that data on the degree of utilization of facilities concern only the years 2010, 2014 and 2018, a decision was made to extend the set of information to include annual spending. Every year, steps are taken to finance or subsidize the construction or modernization of sports facilities. Appropriate quality and availability of sports infrastructure may encourage potential users to use it. High canonical R proves a strong correlation between the degree of utilization of sports facilities and expenditure on physical culture and sport in 2008-2018.

The results of the research indicate that there is a significant relationship not only between multi-purpose sports fields and expenditure on physical culture and sport ($p = .04336$). It should be remembered that expenditure on physical culture, or income generated in this field, concern not only sports facilities. Within Section 926 of the budget classification, physical culture institutions, tasks in the field of physical culture, or removing the effects of natural disasters among others, are also distinguished (Regulation of the Minister of Finance, 2020). In addition, a significant relationship was observed between expenditure and the degree of occupancy of shooting ranges (Canonical R: .99650; $p = .00219$), and expenditure and the degree of occupancy of water parks (Canonical R: .99858; $p = .00003$).

Thus, the H2 hypothesis was partially confirmed, although it must be clearly indicated that not for all types of facilities. Confirmation of relationships applies only to universal-multi-purpose pitches, shooting ranges and water parks.

The situation is similar with regards to hypothesis H3. High canonical R proves a strong correlation between the degree of utilization of sports facilities and income from physical culture and sport in 2008-2018. A significant relationship was found between the degree of utilization of:

- playing fields for big games and income from physical culture in 2008-2018 ($p = .00010$, Canonical R: .99925),
- pitches for small games and income ($p = .00018$, Canonical R: .99692),
- universal-multi-purpose pitches and income; ($p = .00001$, Canonical R: .99945), tennis courts and income ($p = .00047$, Canonical R: .99818),
- outdoor swimming pools and income ($p = .04845$, Canonical R: .98356),
- shooting ranges and income ($p = .00305$, R: .99582),
- water parks and income ($p = .00003$, R: .99954).

Thus, hypothesis H3 was also partially confirmed. At this point, a question of the reason for such a result can be raised. This time, the relationship was not confirmed only in the case of stadiums, sports halls and gyms, indoor swimming pools, tracks, ice rinks, ski jumps, golf courses and skate parks. One can wonder about the influence of local government policy and actions taken in the field of functioning of sports facilities. Following the European Commission (2018), the Polish Economic Institute (Kutwa, Rafał, 2019) publishes information

about the views of Europeans on the availability of sports infrastructure. Three in four Europeans believe that there are numerous opportunities for physical activity where they live (74%). In Poland, 68 percent of people are of the same opinion. Views on the opportunities to engage in physical activity are most positive in the Netherlands, Denmark, Sweden and Germany, and least positive in Bulgaria, Romania, Croatia and Italy. A similar percentage (73%) believe that local sports clubs and other institutions offer such opportunities (63% in Poland). According to Poles (53%), local authorities do not do enough to provide their citizens with opportunities for physical activity. The opinion of Poles is shared by 39% of the surveyed EU citizens.

5. Conclusions

At the time of preparation of this publication, the Central Statistical Office has not yet provided information on the degree of utilization of sports facilities for 2022. The data is expected all the more that it will cover the time of the pandemic. A lot changed between 2018 and 2022. It should be remembered that the pandemic had impact on all people and all areas of socio-economic life. The introduction of lockdowns resulted in the closure of many clubs, and thus the loss of opportunities for spending time in an active way for people of all ages and with various diseases. The increase in the possibility of using various forms of physical activity through remote programs and applications promoting movement cannot be disregarded. However, sports activity at home is something completely different from the activity in the open air or indoor but with other exercisers.

The four-year cycle of publishing data on the degree of utilization of facilities is a bit of a problem when developing analyses. It seems a good practice to publish this data every 2 years, as is the case with sports clubs and the number of exercising people. The use of such a solution would make it possible to link the degree of utilization of sports facilities with the changing number of sports clubs or exercising people.

The applied research method is used in many fields of science, which proves its universality. High canonical R indicates a strong correlation between the degree of utilization of sports facilities and selected variables. At a further stage of research, these relationships should be explored in detail. Deeper analyzes should also cover the situation in individual voivodeships. It could explain a lot. The national situation is one thing. However, it consists of conditions/circumstances/events taking place in all voivodeships separately.

Effective use is noticed, but there are types of facilities whose utilization requires improvement. Paying attention to the underutilization of facilities should help optimize their use. Addressing these issues aims to stimulate interest in physical activity and to increase awareness of deficits in the occupancy of sports facilities.

The added value of the paper results from the specificity of the research topic it raises. Scientific publications seldom refer to the problem of the utilization of sports infrastructure as generally, it is a rarely discussed topic. Its universality can be considered in two aspects. The first concerns the recipients. They can be representatives of Local Government Units who face the problem of the functioning of sports facilities, managers of facilities and everyone from the circle of the broadly understood sports labor market, but also ordinary users of this type of infrastructure. The second aspect concerns the used research method, i.e., canonical analysis, which is applicable in many fields, as indicated in the content of the study. Conclusions from the results of the presented research can be used by all people who influence decision-making in the field of management of sports facilities and the promotion of an active lifestyle. Appropriate management of sports facilities can be one of the elements stimulating a healthy lifestyle, eliminating social exclusion, or developing the region. Understanding the problem should be the answer to the statement "If the world's population were more active, four to five million deaths could be avoided each year" (WHO, 2021).

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