

ECONOMIC IMPACTS AND CHALLENGES IN THE SPORTS SECTOR DURING THE ENERGY CRISIS

István Attila Kovács ^{1 0000-0003-2427-5124*}, Zsuzsanna Gósi ^{1 0000-0002-0603-5234}

¹Eötvös Loránd University, Faculty of Pedagogy and Psychology, Institute of Health Development and Sports Science – Budapest, Hungary

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Abstract

The emergence of the energy crisis and its impact has severely affected sport and its closely associated facilities. The breakdown of the economic equilibrium and the market changes in energy prices have created a significant gap in funding, which sport managers have had to manage promptly. In our research we examined reactions within the handball sport. The aim was to determine size of the problem. Through the questionnaire survey, we identified challenges related to facility operations. We reached out to all sports organizations using the reporting platform. Based on this, it is possible to propose solutions in the handball.

1. Introduction

The economic situation of the sports sector has clearly improved recently. There has been an increase both in the number of organisations, total revenue and revenue per organisation. [8] [9] The globalisation of sport has led to the emergence of new economic trends. [5] The economic operation of sports facilities and the socio-economic benefits of sports investments are also becoming increasingly important. Social profitability can be primarily expected where recreational sports functions are also available. [18] Handball is one of the team sports that requires indoor sports facilities. The operation of these facilities is regulated by national and international laws and regulations. [2]

Sports organisations have had to adapt their operations in response to the epidemic. It was a challenge to keep training sessions going, to run the competition system and to organise events. Different solutions have been proposed in different sports. [6] [10] These problems have been overcome for 2022. After that, the managers of the sports organizations had to face another difficulty: the energy crisis. In this study, we set out to determine the scale of the problem in handball and to propose solutions on this basis.

2. The energy market before the crisis

Contrary to popular belief, the energy crisis did not originate from the military conflict, as this period only marked the culmination of the crisis, i.e. the problem escalated to a level that was palpable for everyone. [4] The roots of the problem go back 5 to 10 years, and are related to the green transition from fossil fuels to renewable solutions (increased use of wind, water, solar energy), which were not always available (cloudy weather, no wind, etc.) when the energy market was in need of them. Of the European countries, Germany has shut down its nuclear power plants one by one over the years. The last ones of these have only avoided being shut down because of the recent energy crisis and the uncertainty it has created. The missing energy has therefore been replaced by

* Corresponding author. E-mail address: kovacs.istvan@ppk.elte.hu

gas-fuelled power plants. As a result of this, once the current electricity consumption - i.e. the market demand - increases, less efficient power plants, with higher production costs, have to be brought into production. The actual price of electricity is always set by the short-term operating costs of the most expensive power plant that is still needed to meet demand. [16] Several effects have made energy supply more complicated. In the summer of 2021, the weather in Western Europe changed, so that Danish wind farms were unable to produce enough electricity to meet the average capacity, while the deployment of the newly built Nord Stream 2 pipeline also generated some political turmoil. The graph in Figure 1 clearly shows the rise in gas prices. This, combined with the transformation of the European energy market (depletion of fossil fuels, emergence of green energy) and the increasing demand for energy, has already pushed gas prices to a new historical peak in mid-2021. These impacts have also affected the possibilities associated with the operation of sports facilities.



Figure 1. Transformation trends in continental gas prices; source: <https://tradingeconomics.com/commodity/eu-natural-gas>

The political and military conflict in the region, which also had an impact on the neighbouring countries, and the EU measures and sanctions taken and approved to contain it, created an unexpected and sudden increase in energy prices as well as an uncertain market situation. [3] The impact of these changes prompted domestic sports facility owners and operators, most of whom were not only involved in the sports real estate market - enterprises, municipal-, or educational institutions - to make rapid decisions. In many cases, the lack of financial coverage for the newly introduced upfront payments and the uncertain market price formation, as well as the lack of specific expertise and/or the short-term perspective of the decision-making management, led to decisions to downsize or close facilities in the early period of the crisis.

In the past, the energy crisis has already had a severe impact on the utilities sector in Hungary. [14] The primary reason for this in the recent period was the high level of dependence of the country on Russian fossil fuels in the energy sector (natural gas, oil). In addition, the government's energy rebate programme has failed to encourage the population and enterprises towards energy saving, as the low energy prices could not, or only after a very long time, bring a return on investments.

The organisations subsequently faced further problems in the second half of 2022 and early 2023. They purchased energy from the merchant network, which was also subject to a high degree of uncertainty during this period. This was further exacerbated by the decision-making mechanisms of sports organisations, which coupled with bureaucratic management and risk-averse reactions, as well as with a mindset lacking traditional business models. This also underlined the need for embedding business models in strategic thinking in this area as well. [1] The lack of these is continuously noticeable in the sports sector

The increase in the price of gas, oil and electricity on the global market has had an impact on the economy as a whole, as the production of any products/services requires energy either in a greater or lesser extent. Businesses incorporate their escalating costs into the price of their products, thus generating significant increase in prices and high inflation rates. As a consequence of this process,

inflation in Hungary was 16.4% in October 2023. By the beginning of 2024, it is expected to fall back to even below 10.0%, which, owing to the measures affecting the market and the stakeholders' decisions, could bring energy prices down to pre-crisis levels. One of the long term messages for achieving sustainable and economic development could be the greening of the economy. [17] On the one hand, this means advancing the ecological footprint of sustainability, and on the other hand, it means economic resilience, promoting future returns and predictability. The requirements of sustainability are also gradually emerging in the sports sector [15] and the aforementioned factors will have an impact on the long-term economic and efficient operation of sports facilities.

3. Methodology and Sample

In our research, we investigate a new challenge following the Covid-19 epidemic, namely the energy crisis and its impact on the sports sector, and in particular on handball. We analysed the management, opportunities and constraints of the sports facilities related to Hungary's most popular indoor sport in the context of the energy crisis between autumn 2022 and spring 2023. The analyses and research used in the studies followed the energy crisis both through its development and its aftermath. We looked for answers to the question of how the knowledge and skills of managers, sports professionals and facility operators contributed to the situation. After discussing one possible development of the energy crisis, we trace its causal relations and present the interactions in the energy sector through the example of sports facility management.

During our research, we conducted three questionnaire surveys at different levels, for which we processed and analysed the responses and written additions received at the selected time periods in September 2022 (N=53), January 2023 (N=195) and May 2023 (N=89).

In order to conduct a complete and comprehensive study in our research, it was necessary to use multi-method methodologies, in the course of which we carried out both primary and secondary research. In this case, several types of methodologies are being intermixed, which means that it includes both qualitative and quantitative elements. [13] Based on the available data, the crisis and uncertainty perceived in the energy markets, and the outcomes similar to the previous managerial responses during the Covid-19 epidemic, we formulated our hypotheses as follows:

H1: Managers who operate their own facilities can adapt successfully to the economic challenges associated with the energy crisis.

H2: Sports organizations that do not own a sports facility, experience greater negative impacts and more challenges during the energy crisis.

H3: In terms of sustainability and energy efficiency, facility operators have not been proactive and prepared for the challenges associated with older installations.

Prior to sending out the primary questionnaires to test the hypotheses, we conducted a professional consultation with the Monitoring and Strategy Directorate of the Hungarian Handball Federation, after which we endeavoured to formulate our questions in a specific way, in order to provide them with appropriate feedback following the research, regarding the impacts and suggestions affecting this sport. In the first phase of our research, questionnaires were sent out to the male and female divisions of the NBI/B (second division) league of the Hungarian Handball Federation in autumn 2022, in which we investigated the expected impacts of the energy crisis. The number of respondents (N=53) represents a response rate of 88% relative to the newly formed 60-team League, which can be considered representative. In the second half of the research (winter 2022), we created a reporting platform in cooperation with the Hungarian Handball Federation, in which we expected to register any actual negative impacts on sports facilities across the entire sport. The high number of responses and reports (N=195) reflects the inherent risks and market uncertainty at the time. This platform has been accessed and used by every handball organisation in the country. In the third phase, intended as a follow-up study, the sports organisations of the professional leagues and those affiliated to the Amateur Council were invited to respond via a questionnaire (N=89). The main distribution of responses received here was based on the regional principle and the capacity of the facilities, followed by an in-depth research during the formulation of the questions.

The subsequent theoretical phase of the research involved the analysis of the further Regulations which are supervised by and closely related to the Monitoring and Strategy Directorate of the Hungarian Handball Federation, in order to examine and analyse the regulations concerning the

facilities and their operation. The results were used and supplemented in order to prepare the questionnaire-based interviews, which also shed light on specific "extreme" situations and the questionnaire indicators by highlighting the specific responses received and investigating their background.

4. Outcomes of the Research

Based on the research carried out, we can conclude that a significant proportion of the sports organisations (n=53) included in the first study rent their premises as opposed to using their own property, which is illustrated in Figure 1. In terms of providers, the dominant players are municipalities, while other organisations include churches, vocational training centres, universities and other educational institutions. Thus, in terms of infrastructure, sports clubs were exposed to the extreme pricing strategies of other market players, namely the actual property owners.

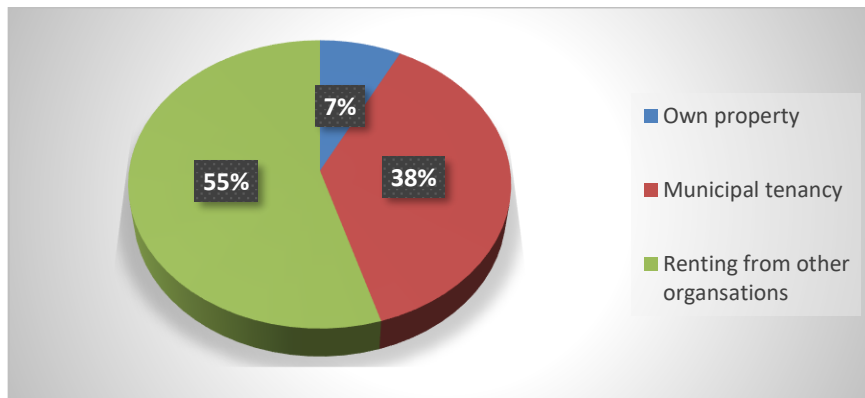


Figure 1 Ownership of sports facilities, Source: questionnaire survey

Based on the preliminary figures provided, the average cost increase was estimated to be between 21% and 40%, which was confirmed by the answers to the interview questions. A significant proportion of respondents had medium-term contracts with electricity and gas suppliers until 31 December 2022, so the predicted price increases of up to several hundred % and/or the possible shutdown of sports facilities in the periods before that date were unjustified.

47% of respondents did not anticipate any closures, while 33% expected partial closures and 20% complete shutdowns. Almost half of the respondents were using very old, outdated sports facilities with no or only partial energetic and technological installations, which explained a share of the cost increase due to unnecessary overconsumption.

During the second phase of the research, the sports organisations were obliged to report any significant changes in the use and operation of the facilities on the online interface available during the winter of 2022. This involved registered reports (N=195) at national level, covering all league divisions. The reasons for the reports are presented in Figure 2.

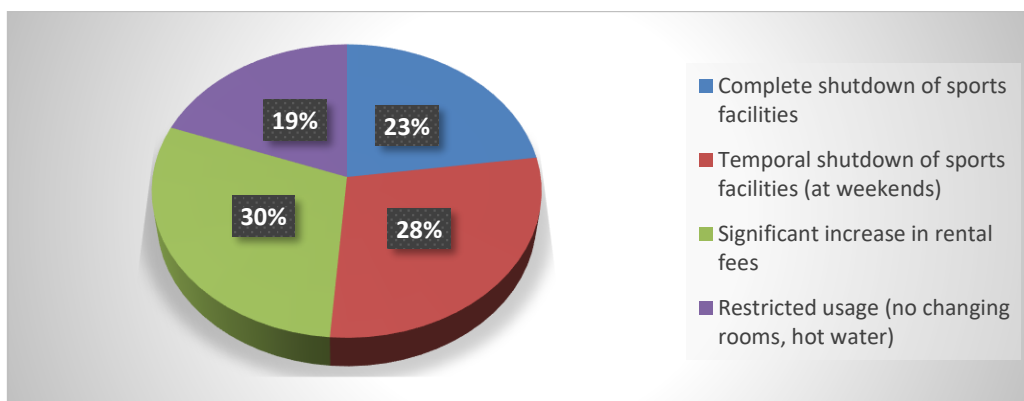


Figure 2: Outcomes of Phase II of the survey - reasons of reports

According to the outcomes obtained from the database, the partial closure of 41.5% of the reported establishments was followed by a total closure of 33.3% of them. This actually means that out of more than 1000 registered sports facilities nationwide, 1.7% were closed. In terms of games, 12 events of any league class in the sport of handball were cancelled during the 2022/23 championship. In terms of significant cost increases, according to the reports it was only 14.1%, which was also below the preliminary expectations. The highest number of online reports (N=99) was for sports halls with less than 500 seats, while 42 reports were received for gyms and 28 regarding the operation and usage of sports halls with more than 500 seats due to the negative impact of the energy crisis.

In the third follow-up study, we highlighted the measurable changes in outcomes related to spatial location and capacity in the questionnaire responses. Based on the responses to our survey in spring 2023 (N=89), there were no significant differences in terms of spatial distribution, as similar levels and characteristics of difficulties emerged in all areas of the country. Minor differences were observed in terms of the capacity of facilities. Of the 89 reports of use, 49 facilities had a capacity of under 500 seats and a further 21 facilities had a capacity of between 501 and 1000 seats. There were only a small number of reports for halls with a capacity greater than this. We also surveyed how the current use of facilities had changed in comparison to the period prior to the energy crisis, with half of the facilities reporting no change and the other half reporting deterioration (Figure 3).

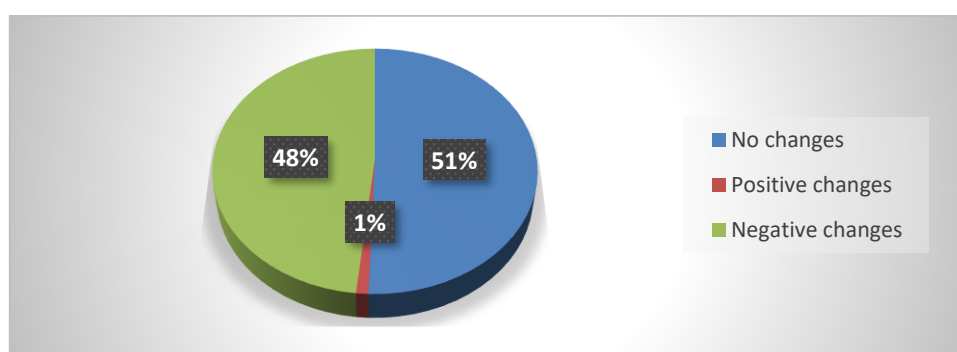


Figure 3: Phase III survey outcomes - changes in facility status

In response to the question "What has had the most impact on sports facilities?", the respondents cited rising gas (29%) and electricity (34%) costs as primary factors, while panic (14%) and misguided management decisions (6%) had only a minor impact on operational conditions. 51% of the respondents claimed that conditions had not actually changed, in contrast to those giving negative reports (49%). When asked about future prospects as to whether the energy crisis will have an impact on the 2023/24 championship, 73% of respondents gave positive answers, while only 18% said no, with 9% predicting a partial impact.

The surveys confirmed both the first and second hypotheses as those managers who operated their own facilities were able to respond well to the economic challenges. Those using rental property had to deal with many more problems. The responses confirmed that little attention was paid to renewable energy sources until energy prices started to escalate. The sustainability of sports facilities was not a key issue.

5. Conclusions

Fears arising from the uncertainty factor and from the unknown economic circumstances of the war were well below the expectations of "crying wolf". The domestic sporting federation, although significantly behind football in terms of timing, still met modern expectations by establishing a solid and effective, enforceable Infrastructure and Club Licensing [11] [12] regulatory environment to promote professional and facility development as well as control, along with strict monitoring of the

use of other subsidies. Along with the continuous monitoring at the Federation level, the negative impacts of the economic and energy crisis can also be detected in time, whereby the involved parties, professional athletes, sports staff, sports personnel and contractors in the field of sports services are protected by the central system. As a further solution, the reallocation of spectator sport subsidies by the sports federation and the opening of top-up facilities offered an alternative for sports organisations in the short term, although its periodic accounting created further complications. The increase of federal subsidies and the reduction of costs were considered as a preliminary solution during the survey, which, given the economic environment at the time, did not seem realistic and could not be implemented in this format. Responsible management and cost reduction were the expectations towards the sports organisations, which they tried to deliver. The current condition of the facilities is not always satisfactory and the percentage of the use of renewable energy is low. Due to these two factors, the energy demand of the facilities is high, which is coupled with an increase in expenditure. Contrary to our preliminary expectations, the survey did not reveal any significant variation in the issue of spatial disparities.

The stakeholders in the sports market have faced a significant price increase, the impact of which they can cover by reducing labour market and other expenditure and by the reallocation of operating costs. Overall, the majority of club managers assessed the impact of the energy crisis and future prospects as rather negative. This is partly due to the fact that every change brings new challenges and old routines may not work anymore. Some club leaders' positive views, namely that regulated functioning and sustainability can ensure the development of markets related to the sport, provide grounds for optimism. Sport is not an industry, argues Gammelsæter [7] in his article in 2021, in which he explains the significance of the extent and depth to which the challenges of business world impact on the management of sport organisations, as well as on sports and its participants. Our research has also highlighted that modern-day challenges, in terms of dealing with the epidemic and other crises, require specific and at the same time specific values from sports leaders and sports managers, which are qualities that traditional industry players do not always possess in their decision-making.

Our research focused on the analysis of a specific situation. The main constraint is that there is more than one challenge in running a facility. In the future, it is recommended to look at the difficulties of operation in a more complex way.

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