INTRODUCTION

The role of facility management became more important due to rapidly changing technical conditions, and economic regulations. (BÁCSNÉ BÁBA, 2015) BRAUER, 1992 indicated that facility managers are playing increasingly crucial roles in many organizations:

- „Facilities are to be managed like any other resource.
- Facilities management recognizes that facilities consume large amounts of capital, but by themselves produce nothing. They must be combined and adjusted to work with humans to produce output in support of an organization’s goals and objectives.
- A facility manager is not just a caretaker, but an agent of change who brings together fragmented specialties related to facilities in a coordinated effort to make facilities support workers and operations.”

Sports teams and events are business investments both for the individual entrepreneur or sport institution that organizes and promotes them and for the communities that subsidize them. “Communities may invest public tax money into facilities or events for sporting entities for a variety of reasons, but economic benefits are likely to rank high among them. They anticipate that the sport events will attract visitors from outside the community whose expenditures while they are there represent an infusion of new wealth into the community. The conceptual thinking that underlies the investment of public funds in sporting events and facilities for economic purposes is described by the following sequence of actions. Residents of a community “give” funds to their city council in the form of taxes. The city council uses a proportion of these funds to subsidize the production of an event or the development of a facility. The facility or event attracts out-of-town visitors, who spend money in the local community both inside and outside the facility they visit. This “new money” from outside the community creates income and jobs in the community for residents. This completes the cycle—community residents are responsible for creating the funds, and they receive a return on their investment in the form of new jobs and more household income.” (CROMPTON, 1995)

Effects of infrastructural investments can be very long-run and diverse. These developments can impact on the society as well within the framework of social effects. (NAGY – TOBAK – FENYVES, 2014)

Debrecen can be a good example for strategic concept of sports “mega-events”, because this city has realised significant urban development in the past 10 years by sports infrastructure development and international events (Főnix Hall: inauguration 2002, construction cost 4,5 Mrd HUF, Debrecen Swimming-pool: inauguration 2006, construction cost 4,1 Mrd HUF, Debrecen Ice Hall: inauguration 2004, operating cost 40 million HUF for 20 years). (DANYI – KOZMA, 2010). Facility management is very significant in the field of operating these increasing and numerous sports institutions of Debrecen.
1. Investors’ and Government’s role in development of sports infrastructure

Many sports events, facilities, and franchises are subsidized either directly or indirectly by investments from public sector funds. (CROMPTON, 1995)

Structure of subsidies:
Typically, we can distinguish two kinds of sport subsidies arising from local government. In the sport concept or sport regulation of the cities or states that’s direct financial subsidies, but in the international practice we can see many forms of indirect subsidies as well. Their viewpoints are the following: (SIEGFRIED – ZIMBALIST, 2000, FORT, 2006):
- Political support can be widely obtained by governmental or local governmental infrastructure development project from the entrepreneurs and property owners interested in building and operating sports facilities.
- Subsidies provided by lease contracts of sport facilities can obligate the team to the city for a long time, or the town can claim back these kinds of subsidies if the team decides to move its site to an other city.
- Compared with individual subvention, the indirect subsidies can motivate the owners for a long time (not just in short-time sport success) for qualitative economic management beside obtaining the sports effectiveness of the team.
- System of indirect subsidies is more acceptable mean for the public than direct cash payments.

Government plays a significant role in financing sport or sport facilities, but its measure, the source for current year depends on state budget. Background of sport financing is known from many aspects (Becsky-Nagy, 2015) following part of the paper tries to present methods of sports infrastructure (direct - indirect) via three practical examples.

1.1. Direct financing

1.1.1. Nagyerdei Stadium reconstruction

The Nagyerdei Stadium (currently used by Debreceni VSC football team) was inaugurated in May 2014, but the government had been made the decision for its construction at the end of 2010. First step was to create –together with three state organisations (who deal with football, handball, basketball, waterpolo, ice hockey) in the field of the development and restoration of sport facilities

Along with the direct sport facilities investments a new indirect financing form has appeared in the past few years, which has given opportunity for sport associations and business organisations (who deal with football, handball, basketball, waterpolo, ice hockey) in the field of the development and restoration of sport facilities

The Hungarian Parliament (1996 évi LXXXI., 2010. évi CXXII. 2014. évi LXXXIV.) modified the legal circumstances many times in order to facilitate taxpayers to support the above mentioned sports with paying corporate tax (TAO subsidies). (HERCZEG et al, 2015) Among the supported titles were tangible assets, sport real estate investments, and restoration. Professional sport association evaluates the amount of the claimed support, the reason for the request, and decides to authorize the support certificate.

15 years after the activation of TAO investment, this supported sport real estate have to be utilised for student, university and college sports events, leisure sport events, and other cultural, touristic events for free or on discount price.

Within these circumstances at the end of September 2014 new Ice Hall was inaugurated, as investment of Debreceni Sportcentre Nonprofit Ltd. Contributor was the Hungarian Ice-hockey Federation. The Ice Hall has an 60x30 standard ice surface, player and coach dressing room. The Ice Hall ensures racing opportunities for the ice hockey aftergrowth of Debrecen.

1.2. Indirect financing

1.2.1. Expansion of Debrecen Ice Hall

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2. IT support and measurement of facility management on the field of sport infrastructure operation

Nowadays facility management areas and the wide range related tasks, processes cannot feasible with the proper IT background support.

Due to the massive amount of data and the high-level operational costs related to the facility, requires such analysing and suitable software, that ensures the up-to-date information, the management of the facility operational processes and the communications with other business processes in the facility management field.
Many integrated facility management software known (CAFM systems – Computer Aided Facility Management (computer operated Facility Management) which typically offer two basic functions: area management and maintenance (Czerny, 2005).

The area management handles the key data and the main portfolio register of the facility (area data, number and size of premises), the assets (equipment, inventory, appliance), the rental structure and contract portfolio, major costs centres; while the maintenance management deals with the required regular and occasional maintenance processes, the necessary assets, the occasional failures, improvements.

For all those entities that manage facilities are indispensable necessary to use the proper documentation and filing system, which is linked – and communicate – to the IT processes. The most important from all of these: electronic recording of digital plans, technical specifications and manuals, contracts, invoices and certificates of completion, the manufacturer / distributor contracts, letters of guarantee, etc.

On the field of managing sport facilities, the IT supported FM processes supplemented with the various aspects of utilization of the infrastructure, which includes the timing of tracks, rooms and fields, the booking options, training and match dates, records of the individuals and teams who uses the units.

One of the main tasks regarding the IT controlled facility management is to handle the resources efficiently, and optimize the maintenance costs. This is particularly true in the case of facilities with significant energy consumption.

Debrecen Sportcentre Ltd. owns to ice halls, which are home for ice sports (figure skating, ice-hockey, short-track skating, curling), physical education classes and leisure activities (public skating). The annual power consumption of the ice rinks – which is needed for ice making and ice-resurfacing – is more than 1 million KW/year per rink.

There are a various factors that affect the ice conditions and indirectly the energy consumption. It’s necessary to coordinate these factors to get a cost-effective operation. The external temperature, the humidity inside the hall, the interior air temperature, the ice surface, the core temperature the thickness of the ices the type of water that are used for ice-resurfacing are all affects the ice conditions.

The standard size of the rink is 30 x 60 meters, though all together 1800 m² ice-surface needs to be controlled together with the internal and external factors, parallel with the technical requirements which must meet the users side.

An adult ice-hockey team needs at least 5 cm thick, and -8 °C core temperature ice, while for figure skaters 4 cm thick and -6 °C core temperature ice is appropriate.

All above the curling requires special water, as the more “cleaner” water is used the better slip we get for the special granite stones. The upper part of the curling sheets are made from distilled, deionised water, which contains fewer minerals than municipal water, thus the friction coefficient between the curling stones and the ice surface is further improved.

The cooling system of the Debrecen Sport Centre Ice Hall is shown in Figure 1. The system contains all the relevant information (temperature data, refrigerators) that affect the energy efficiency and energy costs. In case of deviation from the set of data, the system automatically informs the operators, who can carry out the necessary interventions and – if necessary – to troubleshoot.

CONCLUSION

The aim of this paper was to present financing and operating questions of sports facilities, based on practical examples. Many sport events, facilities are subsidized either directly or indirectly by investments from public sector funds, we’ve tried to show how does it work in the practice.

The proper controlling of the facility management areas – like other business areas – can not be managed and monitored without a proper software, that helps collecting, evaluating the relevant data for the decision makers. This is especially true in such cases, where the facility management area handle high operational costs, such as energy management. Proper software gives a good visual appearance, contains all the adequate information, communicates with other facility management fields and helps the cost-effective operation.

REFERENCES


