

**Gabriel Pawlak**

University School of Physical Education in Wrocław

e-mail: gabriel.pawlak@awf.wroc.pl

---

**INTEGRATED SYSTEM FOR SPORTS –  
A CONCEPT EMBEDDED IN AN INTERSECTORAL  
CSR IMPLEMENTATION**

---

**Summary:** The article presents theoretical possibilities regarding the creation of an integrated system for sports organisations. The intersectoral cooperation model in the creation of this integrated system has been embedded in the concept of corporate social responsibility (CSR). The goal of this paper is to indicate the possibilities afforded in establishing an integrated system for sports clubs with the involvement of the public sector. Significant barriers, possibilities and development perspectives for the creation of such an IT system have been identified. Furthermore, an opportunity for shifting from theoretical assumptions (identification and design of needs) to a process based embedding of practical tasks through the creation of a so-called IT platform for sports organisations has been presented.

**Keywords:** ERP, CRM, sport, IT platform, CSR.

DOI: 10.15611/ie.2014.4.08

## **1. Introduction**

A dynamic development of the IT sector introduces new possibilities for many entities in the public sphere. Sometimes this kind of progress can take the form of an unintentional action, affecting other organisations, or unnoticeably influence the budding of some industry, e.g. sports. A more accessible and unhampered access to data, analyses and competitive comparisons affects the awareness of all entities interested in the subject matter. Today, the ever expanding branch of IT systems enhances innovation of companies, public sector organisations and many other organisations interested in the subject matter.

The ever reforming part of the non-governmental sector may, due to its involvement in the implementation of CSR concepts, enter a brand new field of activity. It may become the venue for implementing Corporate Social Responsibility concepts for companies and all types of associations, such as sports clubs. Such actions undertaken by these sectors, under a common denominator of CSR, result in a classical and desired win – win situation.

Establishing and adapting an integrated system for sport in a broad sense may occur on the basis of existing Enterprise Resource Planning (ERP) integrated systems, such as ERP Comarch<sup>1</sup> or TETA<sup>2</sup> systems. Such cooperation may assume the form of a tripartite social project, where each of the partners, i.e. sport, the public sector and business, will follow its own strategic goals and CSR concepts [Rudnicka, Reichel 2011]. It does not even entail the implementation of high technologies, but tried and tested solutions constituting the core of the IT activity.

Even the aggregation of information<sup>3</sup> alone, technological possibilities of such a system, would constitute a serious challenge in e.g. defining a user's profile, differentiating between sports disciplines, standardised data acquisition system or the definition of the primary programming objectives (e.g. the selection of an adequate data management system and possible further system development. Under a theoretical assumption such an IT system would on the one hand (module) integrate local sports structures (e.g. affiliated in regional sports federations), constitute a set of parametrisable information in the form of e.g. collecting various types of data from every club, and, on the other hand, would assist in everyday resource management at a club.

## **2. An integrated sports system in the Corporate Social Responsibility sphere**

The creation of such a system would allow, in a certain manner, to change the dimension of sport, improve its functioning and its dynamic growth. The need refers to both the structures and sports organisation processes as well as behaviours of those performing sports activities. For IT companies, the development of such a system could constitute a manifestation of social commitment, as one of the characteristic spheres of social responsibility concepts, while also being e.g. a form of testing whether such a system could take in the social and economic sphere.

The creation of a system could also entail CSR implementation within the area of e.g. voluntary workers. An increase in the involvement of staff for the performance of such a task could also help them pursue their passions, as an increasing number of them participate in sports and get involved in sports initiatives (events, sports competitions); consequently, in a certain sense they would help themselves and their surroundings. The public sector, which is more and more involved in the promotion of the social responsibility concept<sup>4</sup>, could employ its own good practice for the

---

<sup>1</sup> Comarch specializes in ERP enterprise management systems, IT safety, CRM systems and sales support, electronic communication and Business Intelligence.

<sup>2</sup> The TETA Constellation ERP system is an integrated system supporting management of internal and external resources and processes within a company or an institution.

<sup>3</sup> Typical examples of information transformation procedures are: information aggregation, disaggregation, searches, arithmetic operations.

<sup>4</sup> The corporate social responsibility team by the Ministry of Economy, <http://www.mg.gov.pl/Wspieranie+przedsiębiorczosci/Zrownowazony+rozwoj/Spoleczna+Odpowiedzialnosc+Przedsiębiorstw+CSR/Aktualnosc>.

intersectoral cooperation and indicate and promote systemic solutions for sport. In practice this would mean that e.g. the Ministry of Sport and Tourism (MSiT), as the public sector representing sport, would impart a certain rank<sup>5</sup> to such undertakings. The involvement of MSiT in intersectoral projects would focus primarily on making practices of this type more commonplace and on supporting those initiatives (organising subject related training sessions and conferences entitled sport and CSR for business). This could allow for exchange of good practices in the form of a search engine activated on its website for practices on the boundary of three sectors (business, government, association). There are increasingly more companies functioning within the scope of implementing CSR concepts: the aforementioned Kraków based Comarch<sup>6</sup> links business goals with social commitment and as such becomes an example of a good CSR practice. Their core business is IT and social commitment of that concept is implemented, inter alia, through sport.

### 3. Identification of the needs for an IT system dedicated to sports

The current state of knowledge does not indicate the existence of typical and dedicated integrated systems in the field of sports. Even though IT companies in Poland have extensive experience and enjoy the prestige and recognition of international markets, not one of them has implemented such a solution. Perhaps the reason behind this is that, in accordance with the law of economics, supply and demand, analyses conducted in IT companies have not indicated such a need.

A certain kind of a paradox may be noted, based on the fact that sport is treated, in sociological and social contexts, as very prestigious – it integrates people and enjoys significant social interest (Olympics, sports events). On the other hand, a shortage of modern technological (IT) solutions is evident. Health and activity improving our fitness are cited as priorities, and at the same time only a small amount of projects and partnerships for the growth of this sphere are established. The project “The sporting way academy” describes the lack of integrity and cooperation problem very well, with the authors arguing that an analysis of the writings and studying biographies of top Polish competitors has indicated that to date we did not have a correctly functioning system for selecting candidates for sport. Many individuals talented in sport have not been discovered at the right time or have not come across their sport discipline. The model for selecting for sports used in many countries to date contains an erroneous organisational-methodological principle within the scope of which representatives of particular disciplines search out for their candidates. As a result, among the rejects in one discipline one may find individuals who might have

---

<sup>5</sup> The programme for popularising sport in volleyball, executed jointly by PZPS and the Ministry of Sports and Tourism, which was implemented in the 14<sup>th</sup> edition of the CSR Report.

<sup>6</sup> Right from the outset of its operations, the Comarch Group gets widely involved in social activities. CSR objectives are defined in Chapter X of *Comarch Code of Ethics* entitled “Socially responsible business”, <http://www.comarch.pl/o-firmie/zrownowazony-biznes/sponsoring-i-csr/>.

been successful in other disciplines [<http://www.akademiadrogisportowej.pl/cele/akademia-drogi-sportowej-wprowadzenie>]. As described by the authors of this project, every sports discipline requires an optimal level of the primary motor abilities, which is a characteristic feature of top competitors in particular disciplines. Such abilities are included in the so-called “Model of a master”.

If a system were established (IT platform) that would allow regional sports authorities (clubs and sports associations) to communicate with one another, exchange information and manage their resources, this would undoubtedly constitute a development for those organisations.

#### **4. Theoretical projection of a model information integration for sports organisation**

Economic IT is a scientific discipline which deals with IT systems in an organisation [Wrycza 2010]. Economic IT tools are applied in order to improve the functioning of organisations, increase effectiveness of management processes and the overall effectiveness of its actions.

Among the developmental tendencies for integrated systems, a broader scope of business services should be pointed out (e.g. ERP, CRM, ERM, PRM, SCM) [<http://askajam.wordpress.com/systemy-zarzadzania/zintegrowany-system-informacyjny/>]:

- fuller use of internet technologies in the implementation of the e-business idea,
- development of mobile platform applications,
- systems supporting management of knowledge.

ERP system modules cover the following functional areas:

- warehousing,
- stocks management,
- following deliveries in progress,
- production planning,
- purchasing,
- sales,
- customer contacts,
- HR management (payroll and HR),
- finance and accounting.

In the deliberations over the theoretical and practical aspects of the creation of such a system one should consider which of the available possibilities to opt for. If ERP systems constitute a modular structure (e.g. the possibility to use different modules for different sports disciplines), then would it not be worthwhile to take advantage of this option considering the specifics of the sports industry? Or perhaps a better solution for sports disciplines and organisations would be to implement

certain more developmental systems, platforms and tools, e.g. Business Intelligence<sup>7</sup> [Lech 2003], which do not require additional integration and data exchange

Knowing that an ERP system provides the possibility to adapt to the specifics of given entities, primarily because individual modules may operate independently from one another (i.e. can function without the presence of other modules), one should consider whether, for the needs of sport, this management system will not be the most universal one? If the beneficiaries, the customers of an integrated system are to be the competitors, trainers, and sports organisations, then, using the IT language and the possibilities of software, they should be managed and serviced by a system which will allow for that, e.g. CRM (Customer Relationship Management).

Methodological assumptions as well as the technical specification of such an integrated system may, in the pilot phase, be based on working models (e.g. one would pertain to organisations affiliating clubs across different disciplines, i.e. regional sports federation. The module would be based on a common database, the task of which would be to collect information on competitor resources in order to search out the so called “sports talent gene”. The point is for trainers from other disciplines to be able, based on that information, to look for sports talents, but not necessarily within their own discipline. The name of the programme would be a way to an end – which is the creation of an integrated system for sports federations. Searching by the use of the system – “e-sports talent” would be an experimental ground, an *ex ante* evaluation of the training system. Furthermore, it would be an area for the exchange of statistical data, such as sports results and other competitor achievements. It would be used to identify the competitor potential and, possibly, to direct such a competitor towards another discipline.

Another area for modelling of such a system (module) would pertain to managing a sports club. A module would pertain to managerial, organisational and administrative as well as financial matters. A managerial module would be a typical place for the management of material and administrative – organizational resources.

A tool in the form of a module or application would parameterize and quantify sports achievements for some disciplines, such as endurance sports. It would constitute a scanner of abilities and aptitudes for selected endurance sports (e.g. skiing, rowing, cycling, long-distance running, etc.). Another module of such a system would facilitate speed, coordination, and strength (for different disciplines). Such a set would be a set of attributes or properties understandable to a programming language.

Public sector involvement would constitute the creation of a social action in which everyone would participate in the search for “sports talent”. The government would recommend such an action. It would be a conscious and transparent building of our “national sports welfare” and the joint creation of space for searching for talents and targeting them for sports disciplines.

---

<sup>7</sup> These systems are adapted for group data in different cross sections and their synthetic presentation. Business Intelligence systems mainly draw from transactions of integrated systems.

## **5. Limitations and barriers of an integrated system for sports organisation**

The area for theoretical considerations as to whether such a system should be created is firmly rooted in reality and the functioning of sports organizations. A large part of the problems and limitations would come from the sports environment, and in particular apply to the little knowledge of information technology and tools that it offers. Habits would also present a major limitation as well as stereotypes and prejudices to new technologies, especially in the older generation groups, trainers and managers of sports organizations.

The adaptation and transformation process for the organizers of sport (coaches, presidents of clubs) is still slow and not very dynamic. Resistance to change is the most basic of the barriers [Łasiński 2007]. A contemporary participant in sporting life, a young player, will expect from their sports environment (club, sports federation) proposals which would not deviate from the contemporary realities of socio-economic development proposals; an offers tailored for the 21st century, bringing together and integrating new media and technologies. If the resistance and uncertainty as to the new technology turn into a coaching and organisational curiosity, one can count on significant success in the system becoming widespread and utilized as a working instrument for coaching and organizational work.

Undoubtedly, a lot of problems with the creation of such a system would concern the areas of developing applications and modules, such as a standardized way to input data, a common database divided into different disciplines and sources of data collection. The system should aggregate the data and provide a sort of reference point for the current state (realization stage) and a certain perspective (planning stage). The process orientation of enterprises is very useful here [Cieśliński 2009]. All filters, algorithms and modules should collect and process only hard data so as not to create the impression and give the user the feeling that the mere gathering (performance) of sports activities and the introduction of the system (computer platform) will mean the end of the process. It should be strongly emphasised that the integrated system is a road map, a topography of the site, however, it cannot guarantee reaching the goal in 100% (e.g. sports results). Certainly it will contribute to improving the chances of success and help put it in a compact and transparent manner, so that one can manage the data and draw conclusions. Discipline and consistency in data input would be an important regulator in this regard.

Certain design and educational features in overcoming these barriers could be taken on by the public sector. It could coordinate and disseminate the educational aspect in the sporting world in the form of conferences, training and targeted subsidies, and create preferential programs for cross-sectoral cooperation (e.g. the above bulleted applications for clubs competing for grants in the MSiT competitions).

## 6. Summary

The process of adaptive changes within the sports environments in the IT area and changes in the approach to technological capabilities in the management of organizations is not as dynamic as in other industries. The trend is upward yet slow. It can be assumed that this process has definitely began and the favourable conditions for the operational programmes of the EU projects and European good practices of CSR [Komisja Europejska 2004] may further accelerate it. The promotion of such innovative projects, which by their methods streamline management processes or facilitate building cross-sector partnerships, is a good trend. The business environment and favourable regulations contained in the European documents are conducive to the development of sports organizations, and the open question is whether sport will use it. The paradigm of changes is clearly visible here.

Modern solutions in a sports organization include not only the new services and products, but also new technologies that accelerate functioning under the growing competition within the area of sports clubs. A dedicated integrated system for sports industry solutions may well prove to be a real market niche. It will certainly allow for an efficient management of a sports organization.

An ERP, CRM, Business Intelligence system or an IT platform, well-designed and responsive to the needs of the sports market, directly contribute to better communication with the market beneficiaries of sports clubs and organizations, and this may translate into better financial results. The organizations which make this change will achieve a competitive edge, so desired nowadays.

## References

- Cieśliński W., 2009, *Procesowa orientacja przedsiębiorstwa*, Prace Naukowe Uniwersytetu Ekonomicznego we Wrocławiu, nr 52.
- Komisja Europejska, Dyrekcja Generalna ds. Przedsiębiorstw, 2004, *Zbiór przykładów dobrych praktyk wśród małych i średnich przedsiębiorstw z całej Europy*, Wspólnoty Europejskie, Bruksela.
- Lech P., 2003, *Zintegrowane systemy zarządzania ERP/ERP II. Wykorzystanie w biznesie, wdrażanie*, Difin, Warszawa.
- Łasiński G., 2007, *Rozwiązywanie problemów w organizacji*, PWE, Warszawa.
- Rudnicka A., Reichel J., 2011, *Jak przygotować program współpracy organizacji pozarządowej z przedsiębiorcami*, Centrum Strategii i Rozwoju, Łódź.
- Wrycza S., 2010, *Informatyka ekonomiczna. Podręcznik akademicki*, PWE, Warszawa.

## Websites

- <http://askajam.wordpress.com/systemy-zarzadzania/zintegrowany-system-informatyczny/>.
- <http://www.akademiodrogisportowej.pl/cele/akademia-drogi-sportowej-wprowadzenie>.
- <http://www.comarch.pl/o-firmie/zrownowazony-biznes/sponsoring-i-csr/>.
- <http://www.mg.gov.pl/Wspieranie+przedsiębiorczosci/Zrownowazony+rozwoj/Spoeczna+Odpowiedzialnosc+Przedsiębiorstw+CSR/Aktualnosc>.

## ZINTEGROWANY SYSTEM INFORMATYCZNY DLA SPORTU – TEORIA OSADZONA W MIĘDZYSEKTOROWEJ REALIZACJI KONCEPCJI CSR

**Streszczenie:** W artykule przedstawiono teoretyczne możliwości stworzenia zintegrowanego systemu informatycznego (*Integrated System*) na potrzeby organizacji sportowych. Model współpracy międzysektorowej przy tworzeniu tego systemu informatycznego osadzony został w koncepcji społecznej odpowiedzialności biznesu (*Corporate Social Responsibility*). Celem opracowania jest wskazanie na możliwości, jakie daje powstanie zintegrowanego systemu informatycznego dla klubów sportowych, z zaangażowaniem do tego firm informatycznych oraz sektora publicznego. Dokonano identyfikacji istotnych barier, możliwości, perspektyw rozwojowych dla powstania takiego systemu informatycznego. Przedstawiono możliwość przejścia z teoretycznych założeń (identyfikacja i projektowanie potrzeb) do procesowego osadzenia praktycznych działań poprzez stworzenie tzw. platformy informatycznej dla organizacji sportowych.

**Słowa kluczowe:** ERP, CRM, sport, platforma informatyczna, CSR.