

## ORIGINAL SCIENTIFIC PAPER

# Using the Concept of Sports Business Intelligence in Evaluating Sport Policies

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## Abstract

In 2017 the author conducted an audit of the relevant policy documents on sport and physical activity in 14 Czech regions and cities with the number of inhabitants above 50 thousand. Furthermore, the data was collected from the phone survey conducted on the topic of monitoring physical activity and the well-being of the population. Respondents/sample file in this survey were heads of the sports departments in cities with 50 000 or more inhabitants and heads of the sports departments in Czech regions. The results from this qualitative and quantitative study focus on the utilization of programme budgeting principles and Sports Business Intelligence in a national context, providing the base for a comparison with other countries and proposing the way towards effective and efficient usage of the key performance indicators for sports policies evaluation.

**Key words:** *sports policy, programme budgeting, sports business intelligence, key performance indicators*

## Introduction

Sports policies play an important role in achieving the recommended levels of physical activity for health and physical fitness. Sport policy documents reflect political commitment to take action and are important measures of accountability (Bull, Bellew, Schöppe, & Bauman, 2004; Schmid, Pratt, & Witmer, 2006). But there is a lack of research on how these sports policies are addressing the issue of physical fitness using the performance indicators based on real and available data. So far there have been conducted analyses of policies promoting physical activity at European Union and national level (Bull et al., 2004; Daugbjerg et al., 2009, Christiansen, Kahlmeier, & Racioppi, 2014). Therefore this paper aimed at reviewing and analyzing of recent regional and local sports policies in the Czech Republic with a focus on the performance measures that are suggested to support the fitness -enhancing physical activities. In this sense the concept of SportsBusiness Intelligence (Rasku, Puronaho, & Turco, 2015) - that means relevant, systematic, and continuous data collection to develop sports organizations, sports events and/or sports activities - seems to be the most suitable tool for assessing the performance focus of the sports policies. Moreover, The Strategy for

Sport up to 2025 in the Czech Republic envisages joint efforts of the public sector to gradually eliminate the problems and barriers to the sport to enhance the physical activities and thus physical fitness of the population. In tune with this principle our research focuses on the analysis of the current state of sports policy documents at regional and local level. The aim is to define recommendations of how to elaborate the regional and local sports policies that would be linked to the allocation of finances based on the indicators for measuring and assessing the effects of financing in the area of physical fitness. The research results are important to objectify some official decisions affecting sport and physical activity at the municipality level. The absence of evidence - based approach in decision making that envisages gathering, using and elaborating data significantly weakens the effectiveness of the public resources spent on sports activities and development. Coordination and synergy between the public administration and the sports organizations and associations should be established as well. The issues that this article and research address are crucial as far as when it comes to the sport sector funding in Czech Republic, the highest revenues come from the regional and local public budgets. Thus our qualitative and quantita-



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tive study focuses on the utilization of data, Sports Business Intelligence, and programme budgeting in a country context, providing the base for a comparison with other countries and proposing the way towards effective and efficient usage of the key performance indicators for sports policies evaluation. One of the goals of modernizing the regional administration is its economization with the emphasis on the quality of its performance so that it is efficient, transparent and flexible. Regular costs overview and comparison of the services provided are the prerequisites to fulfill this goal. To achieve this goal the programme budgeting as a system of planning, budgeting and evaluating (Young, 2003; Robinson, 2007) allows the subjects of the regional and local administration to pass the qualified decisions in sports development by given priorities. The regional and local governments are highly autonomous, their processes in sports development are not unified and the use of the programme budgeting is not obligatory in the Czech Republic which results in the insufficient use of the possibility to link the indicators of the programme budget with the regional strategic objectives in the sport. Thus the goals of our research are the analysis of the existing approaches towards the creation of goals and indicators of the sport strategies at the regional and local level and examination that would assure the interconnectivity of the strategic goals in sports with the goals and indicators set by programme budgets. Based on this we will propose the realization of the measures that would help the regional and local administration to design the indicators for sport by using and processing the relevant data and the programme budgeting that would lead to the evidence - based and reasonable allocation of the public resources for sport.

## Methods

The data was collected in a national context, employing two instruments. Desk research method has been used for identifying the relevant policy documents on sport and physical activity in selected cities and all 14 Czech regions. Systematic content analysis of all documents has been conducted. Categories suggested by Christiansen et al. (2014) were used for the content analysis of the policies namely evaluation – whether the strategy had an evaluation plan and whether the responsibility for evaluation was clarified. To achieve the given goal, we analyzed the strategic documents with the emphasis on the indicators of the performance and their linkage with the strategic plan in the sports area. Moreover, the data was collected from the phone survey conducted on the topic of monitoring physical activity and the well-being of the population. Respondents/sample file in this survey were the heads of sports departments in cities with 50 000 or more inhabitants (n=35; return rate 70%) and heads of the sports departments in (n=10; return rate 71%) Czech regions. Data collection was realized during the year 2017. The data from the phone survey was analyzed with the IBM SPSS Statistics (24.0) software. All the information was then used to identify the scope of key performance indicator and data sets that are used for tracking and analyzing the data regarding the physical activity of citizens.

## Results

The results of the study showed that sports strategies in Czech cities and regions differ significantly regarding the formulation of performance criteria for evaluation of their sports policies. In general, they contain aggregate goals that address physical activities and health on an overall level by recognizing

the importance of Sport for All approach. Few also focus on various target groups specifying the time frame and responsible body for implementation. However, in almost all strategies, there is a lack of measurable targets and indicators that would enable the evaluation of the regional development in the physical activity, physical fitness, and health. Moreover, in sports policies there is no clear distinctions of outputs indicators (as a result which are achieved immediately after implementing an activity), outcomes indicators (that are the difference made by the outputs) and impacts (as a long - term outcomes indicators). Shortcomings and problems in defining indicators in strategies for sport are as follows:

- the tendency to set the goals that represent only output measured by the number of various services, while the outcome of the sports activities are set vaguely or not at all
- the given goals are not differentiated as the short-term and long-term
- there is no system of monitoring specified
- there are no indicators of the quality and inputs that results in no efficiency measuring
- the output - oriented goals are measured by the outcome indicators and vice versa (e.g. the improvement in the quality of service is measured by the number of visitors, the increased number of visitors is measured by spending, and all this is not based on the comparative basis and so on.)
- the outcome and output - oriented goals and indicators are not differentiated, or they are confused ( the goal measuring is presented as output/outcome)
- regions and cities do not follow in their strategic materials the principles of the programme budgeting
- there is no factual classification into the programmes and sub-programmes in sport

We identified two approaches when comparing the intentions, goals and measurable indicators for sports. They differ in the way the intentions, goals, and indicators reflect the strategic objectives in sport.

In the first case the goals and indicators are aimed primarily at sustaining the current status and for securing the fulfillment of the duties of the cities and regions about the sport and subsequently to reaching the development goals in this area. The goals are defined as the output goals and are characterized by the measurable indicators through quantity. The indicators of quality and efficiency are missing. It is not clear from the given targets and indicators how to fulfill the given plan. The linkage to the strategic documents is not clear.

In the second case, it is the approach when the region uses the outcome and output - oriented goals, and indicators. The goals are defined as better and higher quality provision of sports services and activities. Thus, they do not concentrate on securing the basic operations that are considered evident as for the fulfilling the essential mission of the city and region in the area of sport according to the law (ACT no. 115/2001 on the Support of Sports). The presentation of outcome and output indicators defined this way is clear and understandable also to the public from the communication point of view.

By perceiving the defined goals and indicators, the public sees that the interest of the city and regions is not only to provide activities for sport but also to improve the quality of life. The above - mentioned approaches towards the goals and

indicators definitions differ significantly in cities and regions, while the second one stresses the concrete outcome and output related to the given development objectives in the sport. Though at both approaches we see the lack of linkage towards the strategic goals defined by the regions and cities for different areas of sport.

Cooperation with other sectors such as health and education is envisaged, but strategies lack identifying the areas where this could take place. The results from phone survey showed that more than 55% of cities and regions cooperate in the implementation of sport policies with the department that implements activities related to transport policy and more than 31% cooperate in the implementation of activities to increase the physical fitness of citizens with a department that implements activities from the "Health Program for the City / Region". The results from phone survey also showed that just 11% of cities and regions have been able to implement projects in the past three years during which the basic diagnosis of the health status of citizens was carried out even by age categories. When it comes to the data sources for designing and evaluating the sports policies almost 38% of surveyed cities and regions are using the data on the frequency of movement activities of city/region population and 71% data on the use of sports facilities by citizens of the city/region. Just 13% use the data on the physical fitness of the inhabitants of their city/region and 11% data coming from their investigations and research. 85 % are tracking the number of participants (according to different age categories) at events supporting movement activities but just 9% are tracking the changes in the level of physical activity of the population after the favourable changes in pricing policies of sports grounds, 11% changes after the change in transportation system, almost 16% changes after building of the new sport facilities and only 4% are tracking the changes after a campaigns that are promoting the physical activity. These results are indicating the lack in the usage of Sports Business Intelligence concept that is based on using advanced data-collection and sophisticated analyses to support informed decision and quality improvement (Raskuet al., 2015).

## Discussion

The results from the conceptual and content analysis performance management systems used by municipalities in the Czech Republic at local and regional level showed the commonalities regarding purpose, principles but also the insufficient array of indicators related to the changes in population physical activity as a result of sport policies implementation. As it was suggested by Woodside (2011) Business Intelligence is not a single product, application, program, user, area, or system, rather an architecture of integrated systems that provide users with easy access to and storage of information for decision making and learning. When it comes to the data warehousing and data mining to design and evaluate the sports policies in the Czech Republic the achievement of the synergies at the documentation and organizational levels are of the utmost importance. Internal alignment of performance indicators and data collections on different levels of the municipality and regular update of the indicators in changing circumstances will provide a balanced picture about the sports policies performance as a whole.

Based on the analysis results we present the proposals how to secure the more effective linkage of the Sports Business Intelligence, programme budgeting, and the sports strategies. The use of the outputs of the programme budget will be possible only if the strategic, specific goals and measures from Sports Strategy are linked and compatible with goals and indicators of the programme budget. To reach the above - mentioned status, it is necessary to harmonize various conceptual materials on the level of the region and city and create the understandable strategy for the citizen. Strategic plan for sport should include short and well-arranged initiatives and goals. Clearly formulated goals and indicators will after the evaluation of their fulfillment identify the meaning of the public resources use and will serve to measure the success rate of the regions and cities when fulfilling the declared initiatives and objectives in the sport. For the purposes of the linkage of the strategic plans of the cities and regions and the programme budgets we recommend to follow the logic as presented in the Table 1. The proposed framework will require the indicators of input to be watched apart from the indicators of the output and outcome in order to measure the efficiency.

**Table 1.** Framework for the initiatives, goals and indicators of a programme budget formulation in sport

<b>Sport</b>	<b>Objectives</b>	<b>Outcome oriented goal</b>	<b>Outcome indicators</b>
Intentions Improve the physical activities in schools	High-quality and effective school services offered to the pupils	Increase the quality of the provided services	% increase in the activities with newly created attractive programme
		Increase the pupils' interests in the out- of-school activities	% increase in the number of pupils taking part in the activities
		<b>Output oriented goal</b>	<b>Output indicators</b>
		Improve the material and technical equipment for the activities	Number of activities with renewed material and technical equipment

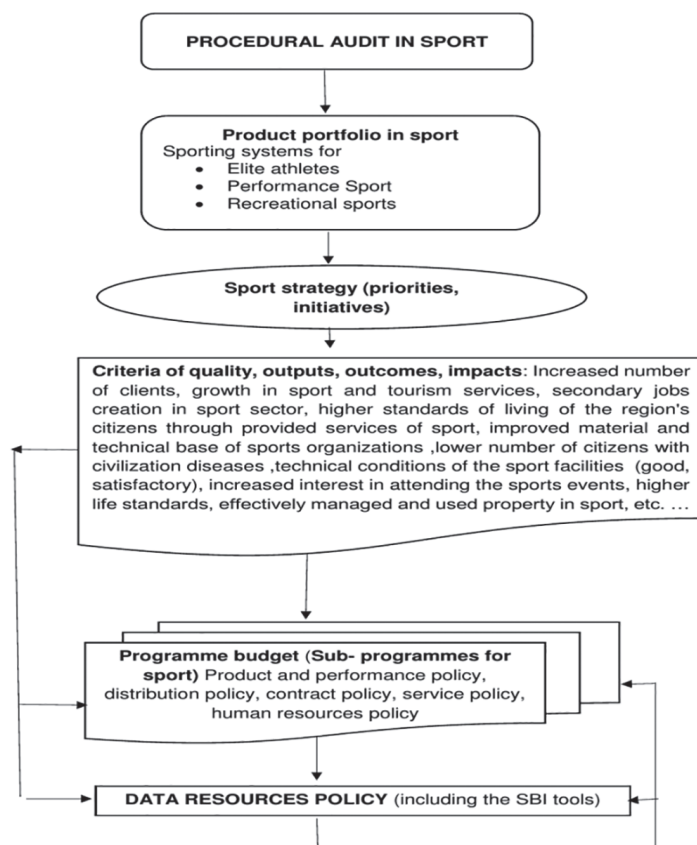
To increase the quality of the creation of the programme budgets of the cities and regions in order to improve the formulation of the outcome of the goals and indicators, they should respect the fact that the strategic planning, programme budgeting and Sports Business Intelligence (SBI) are closely linked together. Various forms of physical activity interventions (measured by outputs) result in changes in physical activity behaviour (outcomes) intermediate outcomes (aerobic capacity, body composition, metabolic fitness, mood, skill-based fitness, etc.) lead to long- term health outcomes /impact

(mortality, morbidity, quality of life, hypertension, diabetes, cancer, fall with fractures, depression, etc.). The key issues of the strategic plans of the cities and regions such as the vision, the mission, the initiatives, goals and the measurable indicators should be reflected in the programme budget. While the mission and vision are reflecting the ideal state of sport in the city and region, the initiatives and the outcome-oriented medium-term goals define the priorities in sports. These should be taken into consideration when preparing the budget so that the structure of the programme budget reflects and integrates

them. When taking this approach into consideration the linkage of the strategic planning and the programme budgeting will be provided for. Furthermore, it is necessary for the cities and regions to define the proper Sports Business Intelligence tools for the monitoring of the successfulness of the solution of the initiatives and goals as well as the satisfaction of citizens with the performance of the public administration in sport. SBI can also help to standardize their processes and create a product portfolio in sports with the criteria of quality. We consider the procedural audits to be the proper tool for the process standardization and the setting of the mutually comparable indicators of the outputs/outcome and quality in sports. The services and products of the cities and regions in sport would

be defined according to the procedural audits as the outputs for the citizens. Together with the criteria of their quality, they would be the basis for the definition of the product strategy of the city and region in the sport. After the definition of the spot products and criteria of their quality, it will be easier to understand their philosophy of the programme budget linked to the sport and other sectoral strategies i.e. health, transport, spatial planning, education etc. The given criteria of the quality will help to set the measurable indicators for the individual programmes and sub-programmes in the sport.

The linkage among the procedural audit, sport strategy, programme budget and Sport Business Intelligence is documented in Figure 1.



**Figure 1.** Integrated model of the strategic planning, programme budgeting and Sports Business Intelligence in sport

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#### Conflict of Interest

The authors declare that there are no conflict of interest.

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