Omer Osmanović[1]

IMPACT OF PUBLIC FINANCING FROM THE BUDGET OF BOSNIA AND HERZEGOVINA ON AWARDING OLYMPIC MEDALS IN COMPARISON TO EU MEMEBERS AND EU CANDIDATES

[1]PBS Bank Sarajevo, Bosnia and Herzegovina

Abstract

The Olympic Committee and sport organizations in Bosnia and Hercegovina function mainly as associations of citizens. Therefore, information about financial model and amount of financing of programs they deal with are rather heterogeneous without exact data. Adequate legal framework regulating sports is a starting basis for its efficient public financing system. The goal of this research is to determine to which extent the public financing from the budget of Bosnia and Hercegovina impacts achievement of excellent sport results, such as winning of the Olympic medal, in comparison to the EU countries and EU candidates. The research sample include Bosnia and Herzegovina and eight EU member states (Austria, Germany, Slovenia, Denmark, the Czech Republic, Hungary, Croatia and Sweden), as well as Serbia as the EU candidate country. The sample used involves: number of population, country budget, sport grant, GDP, grant for sport per resident, grant for sport compared to the budget, Olympic medal per resident, Olympic medal compared to the budget, Olympic medal compared to grant for sport, Olympic medal compared to GDP, all of those used as predictive indicators, including the number of medals awarded at Summer Olympic Games, at Winter Olympic Games and total number of medals won at the Olympic Games. This research includes period from 2008 to 2014. Regression analysis used here showed that the group of predictive indicators, which involves the amount of budget and amount of assigned financial means for sports, as well as the number of population, has significant impact on the number of the Olympic medals won. Based on the research results, it is recommended that Bosnia and Herzegovina harmonizes its legal regulations which could provide efficient and effective financing of sport, thus creating a positive effect on achieving excellent sport results..

Key words: **public administration, budget, grant for sport, excellent results**

Introduction

Key problem in financing of sports, beside low assignment of funds, is unbalanced criteria system to be used for sport financing. In EU countries, which achieve excellent results, there are sport systems in which legal and financial legislation is precisely defined. Croatia, for instance, has a similar state structure as B&H, having its line ministry financed sport at annual level in amount from 92,84% during 2010 to 99,12% in 2008. In this period, the Ministry of Science, Education and Sports of the Republic of Croatia financed public demands in sport, which relate to functioning of Croatian Olympic Board and national sport associations, Croatian Special Olympics Board, Croatian Deaf Sports Association, Croatian School Sports Federation and Croatian Academic Sports Federation (Bronić et al., 2012). In Croatia, criteria is very precisely set and it unambiguously and clearly presents to whom the funds of budget payers are allocated, how they are controlled and what their function is (Ministry of Science, Education and Sport of the Republic of Croatia). Elite sport has quite often been considered to be the main transmitter for articulating the national pride and a tool to stimulate national cohesion and correlation for increasing sports funds aiming at winning more medals in order to rise national pride even more, (Van Hilvoorde, Elling, & Stokvis, 2010).

Andreff & Szymanski (2006) have been researching a correlation between the level of economic growth and sport results made in large sport events such as the Olympics. By researching the baselines for the Olympic success at the state level (Bernard & Busse, 2004), they have also researched the significance of relation between population and economic resources of a certain state in comparison to the number of medals won. They found out that, although on the margins, population and income per capita create similar effects on winning the Olympic medals, thus

showing that there is a link between population and high GDP per capita in terms of achieving excellent results. De Bosscher et al., (2009) analyzed relation between politics system in the EU countries in terms of elite sports, i.e. incoming and flow of financing and success achieved in international competition, i.e. outcome. Since the EU countries as well as the EU aspiring countries, including Bosnia and Herzegovina, are not immune to the problem that sports face in terms of financing, regardless the level of country development measured by national income per capita or other relevant indicators, taking into consideration as well as resolving of these issues require participation of the community in whole (Bartoluci & Škorić, 2009:31). In order to increase effectiveness and efficiency, B&H public administration needs to be changed thoroughly and it should result in a better and higher quality public service. While identifying population with sport results, state structures by directing financial means, support sport organizations, thus creating necessary triangle for improvement, not only of sport system but also for achieving ideological goals (Bartoluci & Perasović, 2008). Therefore, systematic financing of sport is of great significance for every country as well as for B&H as it conditions the quality, high number and diversity of programs, availability of sports infrastructure, education of sport human resources, and finally it is a precondition for making necessary impact on business and sport results (European Commission, 2007a:27, according to Bronić et al., 2012). A strong link is considered to exist between financial and sport success, having sport

managers thriving to achieve both maximum profit and sport results with minimum investment made (Samagaio, Couto, & Caiado, 2009).

The goal of this research is to determine the level of impact of public financing from the budget of Bosnia and Herzegovina on achieving excellent sport results, i.e. winning of the Olympic medals, when compared to the EU members and the EU aspiring countries, but also to make relation to budgetary funds assigned for sports as pragmatic as possible when compared to total budget of countries used in this research.

Methods

Participants

Sampled population involve ten countries. Representation and relevance of samples are provided through research which has been done using sample of Bosnia and Herzegovina (state level, entities: the Federation of B&H, Republic of Srpska and Brcko District), as well as eight EU countries (Austria, Germany, Slovenia, Denmark, the Czech Republic, Hungary, Croatia and Sweden) and Serbia as EU candidate country.

Variables

Sample variable is made of a group of predictive indicators and criteria variables as showed in Table 1.

Table 1. Summary of used variables

R.B	Abbrv.	Variables	Description
		group of predictive indicators	
1	**NoP**	No of population	Total No of population, in million
2	**Budget**	budget	Average national budget, period 2008-2014, in billion
3	**GfS**	grant for sports	Average sport grants of countries, period 2008-2014, in million
4	**GDP**	Gross domestic product	Average GDP, period 2008-2014, in thousands
5	**GfS/p.c**	grant for sport per capita	Ratio between participation in grants for sports per capita
6	**GfS/budget**	grant for sport compared to budget	Ratio of allocation for sports grant from country budget
7	**OM/p.c**	Olympic medal per capita	Ratio of Olympic medals won per capita
8	**OM/budget**	Olympic medal compared to budget	Ratio between Olympic medals and national budget
9	**OM/GfS**	Olympic medal compared to grant for sport	Ratio between Olympic medals won and sports grant
10	**OM/GDP**	Olympic medal compared to GDP	Ratio between Olympic medals won and GDP
		Group criteria	
11	**OM/S**	Olympic medal SOG	No of Olympic medals won on Summer OG 2008 and 2012
12	**OM/W**	Olympic medal WOG	No of Olympic medals won at Winter OG 2010 and 2014
13	**OM**	Olympic medal	Total Olympic medals won at OG 2008-2014.

Variables chosen for the statistics were used to determine the structure of public financing of sports and should serve to generate excellent results in sports.

Collection of data

Data used for this research, for Bosnia and Herzegovina, is taken from official web pages, from line ministries of Bos-

nia and Herzegovina (Ministry of Civil Affairs, Federal Ministry of Culture and Sports, Ministry of Family, Youth and Sport of RS, District Brčko), and for Serbia from official web page of the Ministry of Family and Sports, as well as from database used in research by Bronić et al. (2012) for EU countries. A part of data has been collected from email communication between the author of this research and

competent persons from the above mentioned state authorities. All data which has been collected is documented and sorted with a goal to implement this research.

Statistical analysis

Regression analysis and ratio of multiple correlation were used to determine the impact of allocated public funds on achieving excellent sport results at the Olympics, thus showing the correlation between variables. The Pearson's correlation ratio was used as to determine correlation between variables in the EU countries and candidate countries such as Serbia, based on the awarded Olympic medals.

Results

Results of this research are presented in cumulative values and percentages. The research enables objective justification of investing of budget allocated funds for financing of sports. This research point to complexity of public financing system using budget at all levels of public administration in Bosnia and Herzegovina. Nevertheless, analysis of existing legislation in B&H showed that there is no differentiation between competencies in terms of financing, so that in real life, it is possible for sport organizations to be financed from the national budget of Bosnia and Herzegovina, the budget of entities, budget of cantons and local administrations for the same program activities. Analysis of sport system in B&H showed that public financing of sport is burdened by complex bureaucracy and procedures thus calling for certain reforms to be made at all administrative levels. Table 2 shows that funds allocated for sports by entities as well as the state are rather the same when compared to total budget, whereas the Republic of Srpska allocates double amount of money for sport per capita compared to the Federation and the state level. In terms of other countries, their funds for sports are much higher than in B&H. Average number of population which is required to achieve excellent sport results, such as the Olympic medal, is 388,562. As shown in the Table 2, GDP per capita and amount of grant per capita can be brought into correlation with all countries, save for Sweden, which has significantly lower amount of grant for sport per capita compared to GDP per capita. It should be noted that grant for sport compared to the budget is the highest in Serbia whereas the lowest in B&H. Croatian sport results (15 medals in big international competitions such as the Olympics), in period 2008 - 2012 (Milanović et al., 2005), speak in favor of its competiveness. Research results unambiguously show that economic growth of country measured by amount of grant for sport and GDP significantly influences achievement of excellent sport results expressed by the number of the Olympic medals won. These research results showed exactly that grant for sport at all level of B&H public administration is considerably lower compared to those in the EU countries, as well as the EU aspiring countries, thus making it insufficient to generate success at the Olympics.

Table 2. List of data base used for selected EU countries, EU aspirants and B&H

Country	BS	BUDZ	GSP	BDP	GSP/ BS	GSP/ BUDZ	BS/MOI	BUDZ/ MOI	GSP/ MOI	BDP/ MOI	LJOI 2008/ 2012	ZOI 2010/ 2014	MOI
AUSTRIA	8.355	246,30	717	29.611	86,4	0,29%	232,083	6,84	19,92	822	3	33	36
GERMANY	82.002	2.270,80	5.091	27.619	62,1	0,22%	611,955	16,95	37,99	206	85	49	134
DENMARK	5.511	191,80	593	35.019	107,8	0,31%	344,438	11,99	37,06	2188	16	0	16
SWEDEN	9.256	322,30	662	35.099	72	0,21%	237,333	8,26	16,98	899	13	26	39
CZECH R.	10.468	86,00	164	8.282	15,6	0,19%	348,933	2,87	5,47	276	16	14	30
HUNGARY	10.031	67,90	248	6.756	24,8	0,36%	263,974	1,79	6,52	177	28	0	28
SLOVENIA	2.032	30,00	104	14.944	52	0,35%	101,600	1,50	5,20	747	9	11	20
CROATIA	4.284	15,30	44	10.297	10,15	0,28%	285,600	1,02	2,90	686	11	4	15
SERBIA	7.498	8,19	39	5.410	5,2	0,47%	1071,143	1,17	5,57	772	7	0	7
B&H	3.792	0,78	0,30	3.530	0,08	0,04%	0	0	0	0	0	0	0
Federation of B&H	2.372	1,02	0,76	3.740	0,32	0,07%	0	0	0	0	0	0	0
Republic of Srpska	1.326	1,12	0,95	3.320	0,71	0,08%	0	0	0	0	0	0	0
District BRČKO	0,09	0,105	0,82	3.650	8,81	0,73%	0	0	0	0	0	0	0

Table 3. Pearson's correlation ratio for EU countries and Serbia

	NoP	Budget	GfS	GDP/p.c	GfS/p.c	OM/p.c	OM/budget	OM/GfS	OM/GDP	OM
				Pearson's correlation ratio						
NoP	1									
Budget	**,977***	1								
GfS	**,985***	**,985***	1							
GDP/p.c	,285	,356	,427	1						
GfS/p.c	,175	,236	,325	**,942***	1					
OM/p.c	,338	,253	,276	-,077	-,144	1				
OM/budget	,741	,772	**,824***	,817	,745	,190	1			
OM/GfS	,619	,654	,717	**,831***	**,818***	,199	**,971***	1		
OM/GDP	-,284	-,241	-,166	,625	,701	,094	,353	,517	1	
OM	**,963***	**,933***	**,971***	,438	,327	,228	,792	,661	-,230	1

p < 0,01*

Table 3. shows that there is statistically significant positive correlation of part of predictive set of variables (No of population, total budget, grant for sport from budget) when compared to criteria variable of excellent sport result presented in number of medals won at the Olympics (MOI) with statistical reference of 0.01. Such results indicate that countries having higher number of population, total country budget and financial allocation for sports, do create a prerequisite for achievement of excellent sport results, i.e. winning of the Olympic medals.

Disperse diagram (Picture 1) shows there is a quantitative matching between variations of shown data, for EU countries and Serbia. In fact, growth of budget and investment in sports through grants increase the number of achieved sport results, which can be seen in number of the Olympic medals. Arrangement of points is grouped rather linearly, showing thus a linear, positive relation. Therefore, it makes sense to examine existence and strength of linear relation between samples. However, all points are not set within the straight line as that would represent functional matching, which is extremely rare.

While interpreting regression analysis results it is quite often that there is statistically significant multiple correlation between predictive variables. However, in the case of predictive indicators and criteria, it is possible to separate statistically significant individual variables, so that results could be interpreted in general, by observing group of predictive indicators separately, which means that certain variables are more significant and have impact on variable of Olympic medals (awarded Olympic medals-AOM).
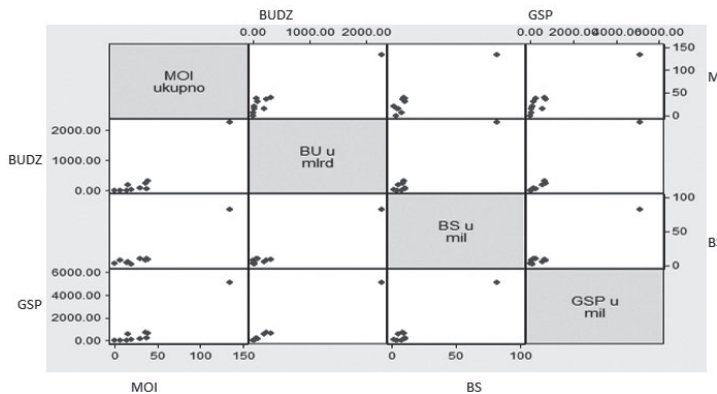

Figure 1. Relation between variables used for data modeling (total budget, grant for sport, No of population and No of Olympic medals).

Table 4. Presentation of parameters of regression analysis of variables in the EU countries and Serbia compared to variables of sport results at the Olympics (OG) for 2008/2010/2012/2014, Summer Olympics (SOG) 2008/2012. and Winter Olympics (WOG) 2010/201.

variable	Model 1 (OG)	Model 2 (SOG)	Model 3 (WOG)
BS			
beta ratio.	0,963*	0,960*	0,990*
R	,963[a]	,960[a]	,990[a]
R square	,928	,922	,980
	Model 1 (OG)	Model 2 (SOG)	Model 3 (WOG)
BUDZ			
beta ratio.	0,933*	0,908*	0,994*
R	,933[a]	,909[a]	,994[a]
R square	,871	,825	,987
	Model 1 (OG)	Model 2 (SOG)	Model 3 (WOG)
GSP			
beta ratio.	0,971*	0,939*	0,995*
R	,971[a]	,939[a]	,995
R square	,943	,882	,990

p < 0.01*; BS – No of population, BEUR – total budget, GSP – granny for sport from the budget

Regression connection between predictive indicators and criteria variable of AOM is very high, its statistical significance being at 0.01, explaining very high level of participation of joint dispersion. Here, it should be said that Denmark, Hungary and Serbia were excluded from data processing for Winter Olympics due to the fact they have not been winning medals in the aforesaid period. All three separate regression models confirmed that development of elite sports expressed by the number of won Olympic medals depends on number of population, country's economic growth mirrored in the budget amount and level of allocation of funds for sports from the budget as well as GDP. Analysis results showed that this model could be applied on achieving sports success, i.e. Olympic medals, which is to be very expected. This analysis clearly and unambiguously shows to what extent financial funds are linked to excellent sport results.

Other variables, such as GDP per capita, grant for sport per capita, also influence development of elite sports, while regression analysis confirms that economic development of country to be viewed in terms of the budget and amount of funds allocated for sports, as well as number of population, statistically significantly influence excellent sports results presented in this research by the number of Olympic medals.

Discussion

This research showed that set goal has been achieved. And the goal was to determine to what extent the public financing from B&H budget impacts achievement of excellent sports results, i.e. Olympic medals, when compared to EU members and EU aspirants. Previous researches proved that success of a country in sports is directly linked to economic resources available for such activities. Factors used to determine the amount of success of a developed country need not to be the same or as significant as those for developing countries. Nevertheless, there is a lack of research in sports and organizational economy, namely in developing countries (Manuel Luiz & Fadal, 2011). Andreff (2001) in his research showed a strong connection between economic development of the country and its sport development. Therefore, estimates made using "ordered-logit" model showed likelihood to win Olympic medal by increasing GDP per capita and number of population. Economic growth is the only fundamental formula to fight underdeveloped sports. B&H Sports Law which prescribed the way in which sport federations are organized at state level introduced, for the first time, legal regulation, which precisely prescribes the system in which sport is organized in B&H. The issue here is that existing sport federations have not been reorganized at B&H level. Such a situation might lead to the problem of financing of sport federations that have not fulfilled required legal provision and could not be co-financed by a foreign country's administration since failure to apply this provision directly leads to the violation of the law. (Rađo et al., 2010) Heterogeneousness of legal regulation is fundamental issue in

terms of budgeting of sports in B&H, as it has not exactly defined the minimum of public financing required for sports, as well as not having a unique Ministry of Sports and Culture at the state level, which is being reflected namely on financing of 35 state sports federations and the Olympic Committee. Although higher number of countries invest large sums in sports in terms of competitions with other countries, there are no clear proofs in which way sport politics influence international sport results. This paper is an insight into important determining indicators that can bring countries to significant international sport results. The texts show that more than 50% of success variables at macro level are being out of reach of politicians' control, unlike the middle level, which involves factors that could be influenced by sport politics. Empiric-based theory involving factors of policies that determine elite sport success has not been developed yet. (De Bosscher et al., 2006). The lack of means for measuring competiveness is obvious in terms of elite sports research and the texts about impact of elite sports policies on international success are mainly inadequately examined. All these is connected to sport systems, sport complexity, and influence of policies' decisions (Green & Collins, 2008; Houlihan & Green, 2008) as well as inexistence of standardized methods for making international comparison (Henry, 2007). Sport, as public property, is financed from public resources within public requirements. Financing of sports in B&H is similar to European one and based on "mixed model of financing of sports" (Bartoluci, 2003.). This model involves two financing sources: financing from budget (public funding) and financing from private activity (private funding). Data shows link between investments in sports with achieved results, although some countries use them more efficiently. Thus, for instance, Denmark has more population than Slovenia, but in terms of investing in sports per capita, Slovenia, although investing two time less in sports, achieved better results. Total investments made in sports in Slovenia recorded nominal increase by 2005 and started gradually to decrease with regard to GDP due to higher investments made in other social segments, namely transportation infrastructure (Bednarik, Kolar & Jurak (2010). This research analyzed correlation between realistic GDP increase in EURO zone, direct foreign investments in that zone, as well as rate of growth of population in the same area (Alfaro et al., 2004; Basu & Chakraborty, 2003; Borensztein , De.Gregorio, & Lee, 1998; Trevino & Upadhyaya, 2003). Investing in sports in the Czech Republic showed even better effects, with average investments in sport per capita of EUR 15,6 per annum, having the Czech national team won 30 Olympic medals, whereas Hungary won 28 and had to invest in sport EUR 24,8 per capita per annum. Andreff (2009) based his research results on econometric testing, mainly on regression analysis. He also takes GDP or GDP per capita and number of population as important indicators to determine success at the Olympic Games. Results from these researches indicate the fact that public financing segment solely does not necessarily guarantee good sport results as only the main pil-

lar of sports financing from the country budget was analyzed, and it should represent a factor to generate excellent result in sport. Other factors that might have an impact on financial-sport result have not been included in this research. In this context, it is shown that in spite having significant economic and demographic factors, improvements in these variables though governmental policies would have limited effect on the number of awarded medals. (Hoffmann, Ging, & Ramasamy, 2004). Other researches assume that countries with higher standard measured by GDP or GDP per capita may have higher amount of funds allocated for elite sports ((Kuper & Sterken, 2005; Roberts, 2006:2; Rathke & Woitek, 2007:1 acc.to Škorić, 2011). Research (Škorić & Hodak, 2011) showed that by using regression analysis, economic growth of Croatia, measured by changes in GDP, significantly influences number of registered participants in sport in a positive way. It is obvious that ratio between number of awarded medals and grant for sports per capita (GfS/per capita) is highest in Germany followed by the Czech Republic, Croatia and Serbia. Bosnia and Herzegovina does not have such a ratio since it has never won any medal at the Olympics. Sport in Bosnia and Herzegovina is still at low level and without business climate for sport (Simović et al., 2010), as it namely has not created facilitating circumstances for those who would be willing to invest money. And that is the main reason for stagnation and inability to progress. The EU countries which put aside significant amount of funds from the budget for sports prove that financial security for potential investors in sport cannot go without proper supervision and control of funds spending (Rađo et al., 2010). Table 2 showing return ratio (medals) on funds invested in sports and sport activities per separate countries also partially indicates that European countries having much higher GDP per capita invest a lot more in development and growth of sports. However, investment in percentage in respect to number of population is not significantly different from investments made by our neighbors (Croatia and Serbia). In 2012. year, total income of all nongovernmental sport organizations was decreased for the first time in the last 10 years. Stagnation during this period can be best seen in professional sports of NGOs due to decrease in public income of app. 8% (Jurak et al., 2014). This research proved that it could be possible to determine even "the price of medal". Thus, for sampled countries, in average EUR 15.58 Mil should be invested from public funds for each awarded medal. Croatia has invested funds in sport most efficiently, i.e. for each EUR 2.9 Mil invested in sports Croatia won Olympic medal whereas Germany and Denmark invested EUR 37 Mil in order to achieve the same result. Research results point to connection between sport and business success on one hand, and on predictive variables of level of education of managers in football clubs, on the other, which is considered to be an essential potential of organizations. (Mašala et al., 2011) Financial support by public sector need not necessarily to come from increase of direct funds from the budget, but also some other actions are possible, such as: to increase tax

reliefs for those investing in sport; to decrease VAT on sport equipment (Škorić & Hodak, 2011) Participation of budgetary sources of financing in total amount of sports requirements in the most developed countries of Europe amount from 15 to 28% (Bartoluci, 2003). The practice is to rank countries participating at the Olympic Games per number of medals awarded. This ranking is based on ability of each country to win medal in comparison to available funds (Lins et al., 2003). It should be highlighted that many of the mentioned countries are traditionally focused on certain sports and are being awarded medals mainly in these sport disciplines. This research offers new information for more efficient and accurate setting of goals, and highlights requirements of sport associations in terms of public funds to provide for a better development of B&H sports.

Conclusion

All options of financing in sports described here, either for EU countries or for EU candidates cannot be compared by simple comparison of certain elements as each of these involve many factors making such systems unique, specific and inapplicable to others. Each good practice used in European countries, individually, would call for thorough analysis of effects, costs and possibility to implement those in B&H legal system. Results of such research could help to a large extent to state institutions, NGOs and sport workers in rising awareness of importance of systematic financing of sports in B&H, as a good prerequisite for achievement of excellent results in sport. These results showed clearly there are certain issues in B&H in terms of distribution of grant for sports at all levels in B&H. This applies both to legal distribution that has not precisely defined minimum required for public financing of sports and to formal distribution, i.e. inexistence of one Ministry of Sports and Culture at state level, which influences namely systematic solution for financing of sports in B&H as whole. The Law on Sports of B&H should provide that programs for public requirements in sports, regardless their source of financing, (state, entities, cantons, local budget) are mutually reconciled and linked to the main Criteria Rules for distribution of finances for sports, as a strategic document. Making one criteria system for financing of sport programs, justified financing, as well as establishing of informational system in sports, which would use known indicators to monitor results generated from invested funds, would result in much better effects, and achievement of excellent results.
In order to see objectively the situation in financing of sports from the budget, here we found a link between structurally and basically significant segments, such as number of population, amount of country budget, amount of grant for sports, GDP, which statistically influence excellent sport results to a large extent, achieved by winning Olympic medal. Such a treatment of sports in B&H leads to occasional and slight sport success (occurrences), and are mainly result of talent and strong commitment of an individual and not the result of systematic work of institutions.

References

Alfaro, L., Chanda, A., Kalemli-Ozcan, S., & Sayek, S. (2004). FDI and Economic Growth: The Role of Local Financial Markets, *Journal of International Economics*.

Andreff, W. (2001). The correlation between economic underdevelopment and sport. *European Sport Management Quarterly, 1(4), 251-279*.

Andreff, W., & Szymanski, S. (2006). Sport in developing countries. *Handbook on the economics of sport, 308-315*.

Andreff, W. (2009). Sport financing in times of global recession. *Play the Game 2009 International Conference, Coventry*.

Antonio, S., Eduardo, C., & Jorge, C. (2009). Sporting, financial and stock market performance in English football: an empirical analysis of structural relationships, CEMAPRE Working Papers 0906, Centre for Applied Mathematics and Economics (CEMAPRE), *School of Economics and Management (ISEG), Technical University of Lisbon*.

Bartoluci, M., & Škorić, S. (2009). Karakteristike menadžera u upravljanju sportskim organizacijama. [*Manager's profile in managing sport organizations*], *Hrvatski kineziološki savez, Zagreb*.

Bartoluci, S., & Perasović, B. (2008). National identity and sport: The case of Croatia. In Sport, culture & society: An account of views and perspectives on social issues in a continent (and beyond). *University of Ljubljana, Faculty of Sport*.

Basu, P., Chakraborty, C., & Reagle, D. (2003). Liberalization, FDI, and Growth in Developing Countries: *A Panel Cointegration Approach, Economic Inquiry, Oxford University Press*.

Bednarik, J., Kolar, E., & Jurak, G. (2010). Analysis of the sports services market in Slovenia. *Kinesiology, 42(2), 142-152*.

Bernard, A. B., & Busse, M. R. (2004). Who wins the Olympic Games: Economic resources and medal totals. *Review of Economics and Statistics, 86(1), 413-417*.

Bronić, M., Čustonja, Z., Franić, J., et al. (2012). Financiranje sporta u Republici Hrvatskoj s usporednim prikazom finansiranja u Europskoj uniji. [*Financing of sports in the Republic of Croatia with matching presentation of financing in EU*] . *Institut za javne finansije , Zagreb*.

De Bosscher, V., De Knop, P., Van Bottenburg, M., & Shibli, S. (2006). A conceptual framework for analysing sports policy factors leading to international sporting success. *European sport management quarterly, 6(2), 185-215*.

De Bosscher, V., De Knop, P., Van Bottenburg, M., Shibli, S., & Bingham, J. (2009). Explaining international sporting success: *An international comparison of elite sport systems and policies in six countries. Sport Management Review, 12(3), 113-136*.

Green, M., Collins, S. (2008). Policy, politics and path dependency: *Sport development in Australia and Finland [special issue]. Sport Management Review, 11, 225-251*.

Gregor, J., Popović. S., Jakšić, D., Kolar, E., Andreff, W., and Bednarik, J. (2014) The impact of the global economic crisis on the finances in sport: *Case of Slovenia, 7th International Scientific Conference on Kinesiology, Opatija, Croatia*.

Henry, I. (2007). Bridging research traditions and world views: universalisation versus generalisation in the case for gender equity. In I. Henry and the Institute of Sport and Leisure Policy (Eds). Transnational and comparative research in sports. Globalization, management and sport policy (197-212). London and New york: Routledge.

Hoffmann, R., Ging, L. C., & Ramasamy, B. (2004). Olympic Success and ASEAN Countries Economic Analysis and Policy Implications. *Journal of Sports Economics, 5(3), 262-276*.

Houlihan, B., & Green, M . (2008). Comparing elute sport development. London: Butterworth-Heineman.

Lins, M. P. E., Gomes, E. G., de Mello, J. C. C. S., & de Mello, A. J. R. S. (2003). Olympic ranking based on a zero sum gains DEA model. *European Journal of Operational Research, 148(2), 312-322*.

Manuel Luiz, J., & Fadal, R. (2011). An economic analysis of sports performance in Africa. *International Journal of Social Economics, 38(10), 869-883*.

Mašala, A., Rađo, I., Talović, M. (2011). Uticaj obrazovanja menadžera sportskog usmjerenja na poslovni i sportski uspjeh u nogometu. [*Impact of sport manager's education on business and sport results in football]. Homosportikucus, 13(2), 42-48*.

Milanović, D.. Čustoja, Z., & Jukić, I. (2005). Stručni kadrovi u sportu. [*Qualified human resources in sports]. Zagreb*.

Rađo, I., Demir, M., Travar, D., Vračić, D., Hasanbegović, N., Bijelić, S., Dobraš, R., Hmjelovjec, I., Bilić, Ž., Džafić, S., & Lazović, V. (2010). Strategija razvoja sporta u Bosni i Hercegovini 2010-2014. [*Strategy of sport development in B&H 2010-2014]. Ministarstvo civilnih poslova Bosne i Hercegovine; Sarajevo*.

Simović, S., Ilić, G., & Danilović, A. (2010). Globalna ekonomska kriza i trend eksplozije plata u sportu, . [*Global economic crises and explosive salary increase trend in sports]. Alfa univerzitet, Fakultet za menadžment u sportu*.

Škorić, S., & Hodak, Z. (2011) The system of sports financing and management in the Republic of Croatia. Zbornik radova Ekonomskog fakulteta u Rijeci, časopis za ekonomsku teoriju i praksu-Proceedings of Rijeka Faculty of Economics. *Journal of Economics and Business, 29(2), 443-464*.

Trevino, L.J., & Upadhyaya, K.P. (2003). Foreign aid, FDI and economic growth: Evidence from Asian Countries. *Transnational Corporations, 12, 119-135.*

Van Hilvoorde, I., Elling, A., & Stokvis, R. (2010). How to influence national pride? The Olympic medal index as a unifying narrative. *International review for the sociology of sport, 45(1), 87-102.*

Omer Osmanović, MA
PBS Bank Sarajevo
Alipašina 6, 71 000 Sarajevo
Bosnia and Herzegovina
e-mail: omerosmanovic@gmail.com