

## THE ROLE OF TECHNOLOGICAL AND PROGRAMMING SKILLS IN A LONG TERM PROCESSES REGARDING SPORT FUNDING

Danijela Bonacin<sup>1</sup>, Dobromir Bonacin<sup>1</sup> i Hadžib Salkić<sup>2</sup>

<sup>1</sup> Faculty of Education, Travnik, BiH

<sup>2</sup> Elementary school, Travnik, BiH

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### **Abstract**

*Regarding management essentiality in today's world, where the quality and professionalism of managers is considered as a decisive factor that will lead organization into a group of winners or a group of losers, is an evident reason why we selected high quality managers to be the aim of this research. The goal of this research was to determine correlation between active managers performance on the one hand and usage of technological and programming means on the other hand, in order to define the role of this skills in long term processes regarding sport financing. For this work purposes, we analyzed a sample of 72 high level sport managers from Bosnia and Herzegovina, described with 15 variables from technological, educational, IT, economic, management and sport's law sectors. Data were gathered through anonymous survey questionnaire based on Likert's scale. After normalization and basic statistics we conducted canonical correlation analysis in order to determine existence of specific mechanisms within analyzed sample. The results of analysis indicated there are two bipolar factors within mentioned sample. The general definition of first canonical factor would be **the way to plan the work** which contains two types of performance; planning based on own experience and on the contrary elemental (uncontrollable) work and avoiding technological means. The general definition of the second canonical factor would be **the way to provide income** which contains two ways of income providing; with active work and modern tools and passive work with no desire to change.*

**Key words:** *planning, income, management, technological skills, IT skills*

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### **INTRODUCTION**

The first revolution that elevated humanity on this planet was tool (or weapon) revolution which enabled easier approach to food. During second revolution a man developed his own food resources which enabled planning of future. During third revolution a man organized social community structure which meant security, enough resources and enough time to rest, so sport appears as activity. The fifth revolution presents experience integration into IT systems and artificial intelligence and puts information into superior position regarding all other resources from human environment. According to some authors, sixth revolution is taking place – moral revolution (Bilić & Bonacin, 2007). Therefore, a man maximally used technology development, improving himself more and more, and since, it is not possible to stop comprehension continuity, then this process will continue for a long time. Thus, a man builds in himself everything new, his actions and entire society,

its bits and activities that occur in this society. According to some authors, any activity with emphasized competing has sport features (Šoš, 2004), but deeper analyzing of this definition indicates how outspread this domain is and how many people, actions and resources it includes and what is its perspective. Besides entering political and other levels, essential and interesting is the influence of sports toward economical society level. That is what makes it interesting to research about how managers act – controllers and what type of technology and IT means they use in such delicate sector as sports, especially regarding its financing in times when it is hard to finance anything. What actually means to finance?

According to Bahtijarevic – Šiber et al. (2001) financing are all measures and activities of managing entire organization capital: its providing and usage as well as maintaining optimal partial relations between some types of capital which also includes individual financing (internal and external) and other's

people funding; short-term, mid-term and long-term.

Financial recourses imply all fund recourses (including non-distributed profit and amortization) but we actually talk about planning the best combinations of fund resources especially when it comes to planning of optimal long-term resources between available liabilities and equity. In financial investment planning, relevant evidence, measures and explanations that will help

### ***Subject and purpose***

If we consider that managers are people that perform all business activities in the frame of suitable business-organizational type, engaging all necessary recourses, with the aim to ensure the right balance between efficiency and effectiveness in short and long term (Šunje, 2002) so if we consider that management quality and professionalism is decisive factor whether the organization will enter the group of winners or losers, e.g. even 15% of success is due to operative management (Bahtijarević–Šiber et al., 2001). It is obvious why high quality managers are the aim of this research. The goal of this research was to determine correlation between active managers performance on the one hand and usage of technological and programming means on the other hand, in order to define the role of these skills in long term processes regarding sport financing.

### **METHODS**

For this work purposes, we analyzed a sample of 72 high level sport managers from Bosnia and Herzegovina, described with 15 variables from technological (technological information), educational, (school degree, life long learning) IT (computer at work, programming skills, internet at work) and economic sector (Ministry funding, funding through sponsors, funding through donations, self support funding, other funding) as well as management (sport strategy as a solution, possessing development strategy, possessing business plan) and sports law sectors (the law on sport as a solution). Data was gathered through anonymous survey questionnaire based on Likert's scale (author MSc. D. Mujkić). After normalization and basic statistics we conducted canonical correlation

realization of accomplished financial results, have to be defined in planning of evidence material and setting and managing adequate financial policies (Njuhović, 2000). To make everything function in harmony and according to some norms we certainly need a legal frame for this domain, so on 16<sup>th</sup> of February 2008. in Bosnia and Herzegovina was adopted law "On Sport" that contains relevant data for certain domain and also constitutes sport financing (Kenović & Kovačević, 2008).

analysis in order to determine existence of specific mechanisms within analyzed sample.

### **RESULTS AND DISCUSSION**

Results of analysis indicate (table 1) that there are two bipolar factors within control sample. In the first bipolar factor, in the sphere of activity, some actions are isolated that support their own strategy and business plan, and in the sphere of knowledge and technology the ones which support school degree and IT knowledge. At the same time within the same factor in the sphere of activity some actions were isolated according which sport strategy and The sports law are not the solution, and shouldn't be funded by sponsors or donations, while the actions in sphere of knowledge and technology do not support computer and internet at work, life long learning or technological information. The general definition of first canonical factor would be **the way to plan the work** which contains two types of performance; planning based on own experience and on the contrary elemental (uncontrollable) work and avoiding technological means. Within second bipolar factor, in activity sphere actions were isolated that support self support with donations and business plan, while in the sphere of knowledge and technology were isolated actions that support school degree, computer at work and technological information. At the same time within the same factor in the sphere of activity some actions were isolated according which sport strategy and The sports law are not the solution. In the sphere of knowledge and technology we isolated the ones that don't support life long learning or IT skills. The general definition of this canonical factor would be **the way to provide income** which contains two ways of income providing;

with active work and modern tools and passive work with no desire to change.

Table1. Results of canonical correlation analysis

	KAN-1	KAN-2
Sports law as a solution	-0.21	<b>-0.25</b>
Sports strategy as a solution	<b>-0.55</b>	-0.26
Ministry funding	<b>-0.11</b>	<b>-0.33</b>
Funding through sponsors	<b>-0.31</b>	<b>0.01</b>
Funding through donations	-0.40	<b>0.46</b>
Self support funding	<b>-0.03</b>	<b>0.57</b>
Other funding	<b>-0.12</b>	<b>0.07</b>
Possessing development strategy	<b>0.43</b>	<b>0.13</b>
Possessing business plan	<b>0.37</b>	0.24
School degree	0.47	<b>0.70</b>
Life long learning	<b>-0.46</b>	-0.22
Technological information	-0.19	<b>0.36</b>
Computer at work	<b>-0.62</b>	0.59
IT knowledge	<b>0.26</b>	<b>-0.14</b>
Internet at work	<b>-0.46</b>	<b>-0.02</b>
Canonical determination	<b>0.67</b>	<b>0.58</b>
Canonical correlation	<b>0.45</b>	<b>0.34</b>
Hi-2 test	<b>93.86</b>	<b>56.66</b>
DF	<b>54.00</b>	<b>40.00</b>
Wilks lambda	<b>0.22</b>	<b>0.40</b>
Probability	<b>0.001</b>	<b>0.046</b>

KAN-1,2 = canonical factors

The results of some other research on this sample (Bonacin Da. et al., 2007) revealed two approaches to funding, what placed managers into stable; the ones who exploit already established communication network in financial flows, and unstable; who have tendency of finding new and modern sport organization funding resources. Other researches identified structure and individual roles of managers within sport organization, (Rađo, Bonacin et al., 2008), and also proved with replacing individual on the top (top level manager), relations in organization are also changed which can result with change in structure and the way of acting (Bonacin Da. i Bonacin, 2008). It is obvious that the sample is representative; data of different researches on this one sample support each other and all together points out the importance and role of managers as well as complexity of the sector he performs in. A man is a multi complex same as what he is included in and as something he can not be divided from. Therefore, the illusion of neglecting certain information from any sector can be performed only under assumption of clearly defined goals with an integrated set of comprehensions, which for specific conclusion realization doesn't have to be elaborated, which leads into hierarchic conclusion with stated priorities. (Bonacin et al., 2008). The results of this research verified the importance of this two segments – mechanisms

that exist in the sample and are following; the way to plan the work and the way to provide income. Planning is thinking ahead, preparing periodization and resources, predicting possible solutions and results as well as a possible point with critical advents and consequences (Bilić & Bonacin 2007). That is deliberate directing of activity, where every peace of social and economic system and its subsystems, all directions of its actions and every human activity part possess clear mark of a will and priors to all other managers (Ferizović, 2005). Income presents growth of economic profit that originates as an asset increase or liability decreasing, and the result is asset growth and can be business income, financing income and outside income (Bahtijarević–Šiber et al., 2001). At first sight, correlation between these two terms can be recognized, since it is necessary to plan so we provide income, which is one of the goals, maybe even the only goal of any today's organization.

## CONCLUSION

First of all, it should be noted that (even though it seems different sometimes), the entity where managers act and everything that comes out of it, is a complex matter that needs to be reviewed from different aspects and because it is totality, all its segments we

should take into consideration. The results of such selected sample analysis showed existence of two complex mechanisms (consist of smaller submechanisms of managers acting). The first mechanism would be **the way to plan the work** which contains two types of performance; planning based on own experience and on the contrary elemental (uncontrollable) work and avoiding technological means and the second would be **the way to provide income** which contains two ways of income providing; with active work and modern tools and passive work with no desire to change. On the one hand we have planning with vision and conservative acting and on the other hand creative and destructive, all together active in given legal and other frameworks. Comparing obtained with results of previous researches, connecting and explaining uncovered information we have a chance to see and understand more clearly and more complex picture of the domain where sport managers are acting, and according to that we can apply it to our goals. At the same time we must not forget that the managers are only people, that continuously learn and discover (or they should), and all these knowledge about technology, IT or other, have a large impact on them and certainly change the way they think and act.

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## ULOGA TEHNOLOŠKIH I INFORMATIČKIH ZNANJA U DUGOROČNIM PROCESIMA VEZANIM ZA FINANCIRANJE SPORTA

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### Sažetak

S obzirom na važnost menadžmenta u današnjem svijetu, gdje se kvaliteta i profesionalnost menadžera smatra odlučujućim faktorom ulaska organizacije u grupu dobitnika ili gubitnika očito je zbog čega su vrhunski menadžeri predmet ovog rada. Cilj rada bio je utvrditi odnos između aktivnih djelovanja menadžera s jedne strane i korištenja tehnoloških te informatičkih sredstava s druge strane a u svrhu definiranja uloge tih znanja u dugoročnim procesima vezanim za financiranje sporta. Za potrebe rada analiziran je uzorak od 72 vrhunska sportska menadžera iz BiH, opisan sa 15 varijabli iz područja tehnoloških, edukacijskih, informatičkih i ekonomskih područja te menadžmenta i sportskog prava. Podaci su prikupljeni anonimnim anketnim upitnikom na bazi Likertove skale. Nakon normalizacije i osnovne statistike napravljena je kanonička korelacijska analiza kako bi utvrdilo postojanje specifičnih mehanizama unutar analiziranog uzorka. Rezultati analize su pokazali kako unutar uzetog uzorka postoje dva bipolarna faktora. Opća definicija prvog kanoničkog faktora bila bi **način planiranja rada** unutar kojeg postoje dvije vrste djelovanja: planiranje temeljeno na vlastitom znanju te nasuprot tome stihijski rad i izbjegavanje tehnoloških sredstava. Opća definicija drugog kanoničkog faktora bila bi **način osiguranja prihoda** unutar kojeg postoje dva načina osiguravanja prihoda: aktivnim radom s modernim alatima te pasivnim radom bez želje za promjenom.

**Ključne riječi:** planiranje, prihodi, menadžment, tehnološka znanja, informatička znanja

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Correspondence to:

Danijela Bonacin

University of Travnik,  
Faculty of Kinesiology,  
Kalibunar bb,  
72 270 Travnik  
Bosnia and Herzegovina  
Phone: +387 61 475-922  
E-mail: danijela.bonacin@st.t-com.hr