Original article (short paper)
Predicting the future of sports organizations

Jugoslav Vojinovic
Nebojsa Maksimovic
Dragan Kokovic
Aleksandar Raic
Radenko Matic
University of Novi Sad, Serbia

Dragan Doder
Regional Institute of Sport, Novi Sad, Serbia

Abstract—The current crisis of sport in Serbia justifies its prediction of real potential future of sport organizations. Sample of respondents (N=277) was divided in two subsamples: 113 professional persons involved in the management of sports clubs ("experimental" sample) and 164 individuals ("control" sample). The results of structural analysis showed that experimental sample based its vision on the staff as a determinant of the system, which is providing creativity as a characteristic of the organizational culture of the club. Control subsample of respondents could indicate some characteristic variables to predict the future of clubs, but can't say a clear prediction system based on a long sequence of reasoning. We can conclude that the mentioned two sub-samples are differerent in terms of the ability to orient to predict the future of their clubs on the basis of assessment of the key variables that shape the future scenarios.

Keywords: sports organizations, scenario planning, prediction, future, development

Resumo—"Previndo o futuro das organizações desportivas." A crise atual do esporte na Sérvia justifica sua predição para um potencial real no futuro das organizações desportivas. Amostra de entrevistados foi dividida em duas sub-amostras: 113 pessoas profissionais envolvidos na gestão de clubes esportivos (amostra ″experimental″) e 164 indivíduos (amostra de ″controle″). O resultado de análise estrutural mostrou que a amostra experimental baseou sua visão no pessoal como um fator determinante do sistema, fornecendo a criatividade como uma característica da cultura organizacional do clube. Sub-amostra de controle dos entrevistados poderia indicar algumas características variáveis para predizer o futuro dos clubes, mas não posso dizer que um sistema de previsão é baseado numa longa seqüência de raciocínio. Podemos concluir que as mencionadas duas sub-amostras são diferentes em termos de capacidade de predizer o futuro de seus clubes na base de avaliação das variáveis principais que formam os futuros cenários.

Palavras-chave: organizações desportivas, planejamento de cenários, predição, desenvolvimento

Resumen—"Predecir el futuro de las organizaciones deportivas." La crisis actual en el deporte en Serbia, justifica la predicción del verdadero potencial de las organizaciones deportivas. La muestra de entrevistados (N=277) fue dividida en dos grupos: 113 profesionales que desarrollan su labor en clubes deportivos (grupo experimental) y 164 individuos (grupo control). Los resultados del análisis estructural mostraron que el grupo experimental basó su visión en el personal como un factor determinante para el sistema, que genera creatividad como una característica de la cultura organizativa del club. El grupo control de entrevistados, podrían indicar algunas variables específicas para predecir el futuro de los clubes, pero sin llegar a proporcionar sistemas claros de predicción basados en una secuencia larga de razonamiento. Podemos concluir que los dos grupos mencionados difieren en su habilidad para orientar las predicciones de futuro de sus clubes, basándose en la evaluación de las variables clave que dan forma a los escenarios futuros.

Palabras claves: organizaciones deportivas, planificación de escenarios, predicción, futuro, desarrollo

Introduction

The management of contemporary sports organizations is faced with the problem of rapid changes and complexity of the environment in which they operate. From such global socio-economic processes characterized by globalization, new approaches emerged in relation with conceiving the future. Several scholars (Bishop, Hines, & Collins, 2007; Morrison, & Wilson, 1997; Schoemaker, 1991; Willmore, 2001; Wilson, 1995) indicate possible scenarios that provide a comprehensive, internally consistent, long-term view of the future as a framework for strategic thinking, as well as scanning and monitoring of activities.

Computerized tools appropriate for systematic defining and testing of research hypotheses (Bar-Yam, 2003, 2008a; 2008b) largely contributed to this. With increasing importance of strategic management, *prediction function* is also becoming more important—within planning function or as a separate management function (Maksimovic & Raic, 2012; Rui, Jie, Xiaobing, Dongdong, & Xiaoming, 2011). In the basis of a long-term strategic planning there is a problem of predicting alternative futures. "Predicting, as an activity that provides an estimate of the probability of events to happen, enables understanding of the consequences for business and development plans" (Lekovic, 1995). Key point of strategic management relates to the preparation of top management to deal with critical uncertainties brought by the future. Scenario planning is a process that puts these matters into real framework, that is, enables "discovering or finding, reviewing and evaluation, recommending and promotion of possible, probable and desirable futures" (Ratcliffe, 2003). The need for formulating a national strategy of the development of sport in Serbia (especially in Vojvodina, which is a highly-developed region with regard sport activities) justifies both research efforts to summarize and apply methodological knowledge on research of future of sports, and experiments in the field of scientific establishing and practical monitoring of actual and preferred strategies of sustainable development of sports in the real circumstances of local communities and their European environment.

The aim of this study is delimited by research question: Is there a correlation between the presence of systematic opinions of the subjects engaged in management of sports organization and predictions of its future development derived from such opinions, and the creation and implementation of the sports organization development strategy?

Method

We have used the Godet's structural analysis computer program (Godet, 1987, 2006) that contains elements of computer simulation (especially detailed ranking of scenarios according to their probability). According to Godet's approach to planning the future, the system of predicting the future of sports clubs is described by a set of two domains (vision of the future of the club, and the future club development factors) and ten variables. These variables are the following: *Preferred level of competition*, *Desirable future success in the competition*, *Preferred type of sport for the club in the future*, *Preferred ownership status of the club in the future*, *Organization structure*, *Culture*, *Resources*, *Local environment*, *European environment* and *Globalization*. Each variable contains sub-variables used for measuring the value of each variable.

By its methodological approach research performed can be characterized as a survey research, which has the character of quasi-experimental research (Trochim, & Donnelly, 2006). Given that respondents were not previously prepared for this analytical procedure, the survey has allowed gaining insight into the presence of elements of the systematic and strategic thinking among the respondents.

The objective of this research is supported by employing a survey in a sample of respondents from the circle of professionals involved in the management of sports-clubs (as a basic "experimental" sample) and individuals (students of the Faculty of Sport and Physical Education in Novi Sad, as a "control" sample). These respondents, although inexperienced, were oriented towards future professional activities related to sports. The final size of the sample, selected in the manner described, in this case amounts to 277 subjects. Out of total number of respondents, 113 were sports experts (management) and 164 athletes. Especially, it should be noted that 220 respondents were students of 3rd and 4th year of the Faculty of Sport and Physical Education in Novi Sad. The selection of athletes, sports managers and students of the Faculty is performed according to the existing lists based on a table of random numbers. This study was approved by the Ethics Committee of the University of Novi Sad (approval number 3/2014 on March 5, 2014).

Characteristics of sports clubs

The population of sports organizations that provides the sample consists of all sports associations in Vojvodina and organizations institutionally included by them (119 clubs from 29 sports branches, one (athletic) sports association and one sports institute – Sports Institute of Vojvodina). Within each of the identified sports organization-club, surveys were supposed to include representatives of management (president, secretary, mid-level managers – marketing managers, finance and so on, as well as representative of the coaching staff and the leaders of the senior squads – a total of 5 to 10 participants). A list of respondents regarding sports shows that four commercial mass sports (football, basketball, volleyball and handball) are responsible for 66.71 %, and all other sports for 33.29 %, of the respondents in the sample. However, given the primary intention of this study, it is reasonable to differentiate new sports from traditional, long time practiced sports in Vojvodina. In order to analyze the connection between types of sports, a two-dimensional variable "Sports Type" (TIPS) was constructed. A typology of sports comprised of four categories of sports was created (TIPS variable): 1 – *Traditional non-commercial* (21.1 %), 2 – *Traditional commercial* (72.1 %), 3 – *New non-commercial* (5.8 %) and 4 – *New commercial sports* (1.0 %). From this insight into the distribution of respondents by type of sport, it was concluded that recoding of TIPS variable is justified (compression of categories 3 and 4 into a single category 3 – Modern sports) resulting in a variable TIPS3.

As a result of creating variables on strategies, variable Type of strategy was created, which, based on the five categories of clubs, enables their analysis from the standpoint of strategies character: 1) *no strategy* – not taking activities, expecting the crisis to finish; 2) *survival – commercialization*: no change, waiting for better days to find a solution for current financial problems in the commercial recreational programs (with an effort to commercially exploit the existing potential of sports – junior and senior squad); 3) *survival – development*: no changes, waiting for better days with an effort to preserve the sporting potential – junior and senior squad (without resorting

to the introduction of commercial programs); 4) *development – short-term*: focusing the activities on the senior squad with expectation of rapid effects in the short term; 5) *development – long-term*: focusing the activities on junior squad with the

expectation of long-term effects. Based on this multi-dimensional variable and by its recoding we obtained Binomial yes/no (0/1) variable, which classifies the clubs to those with or without development strategy.

Table 1. Key variables identified based on the analysis of meaningful core of the system.

Type of variable	Domain	Retained variables	
		Experimental group	Control group
System determinants	Resources	*Equipment*	
	Globalisation	*World sports events*	
	Resources		*Facilities*
Relay variables	Structure	*Organization*	*Organization*
	Culture	*Creativity*	*Creativity*
	Culture		*Interpersonal relationships*
	Culture	*Shared vision, values*	*Shared vision, values*
	Resource	*Human*	*Personnel*
	Resource	*Information*	
	Locally	*Local environment, economy*	*Local environment, economy*
	Locally		*Technology*
Result variables	Level		*Provincial*
	Type of sports	*Recreational-commercial*	
	Globalisation	*Scinece, information technology – knowledge society*	

Figure 1. Experimental sample of respondents – direct influence.
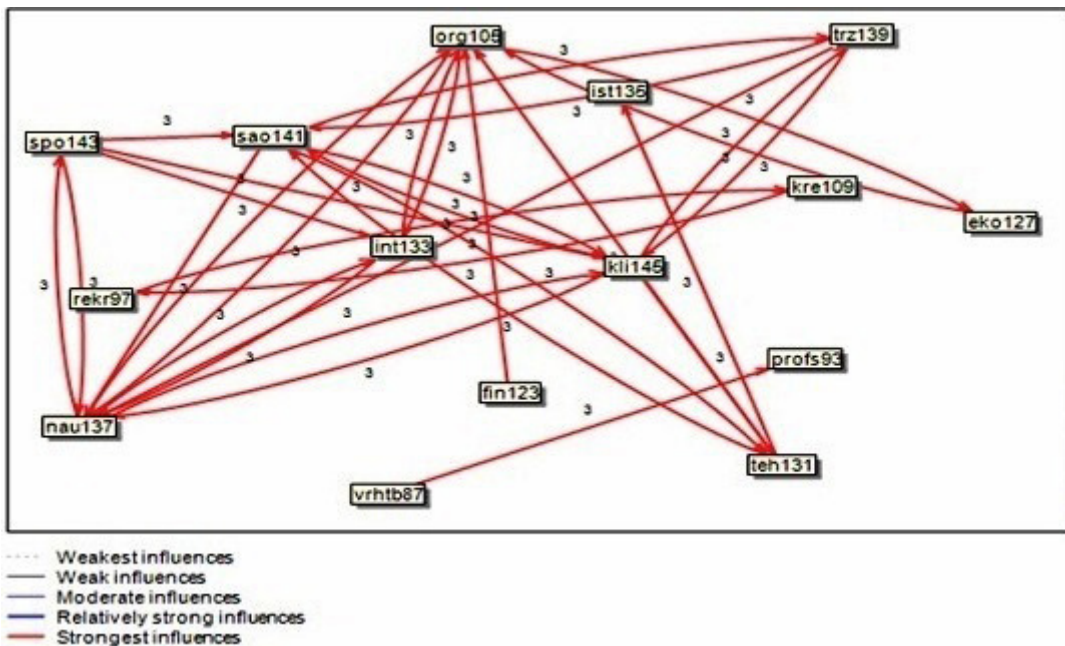
Legend:
spo143 - World sports mega-events, performances, Olympic games
rekr97- Recreational-commercial type of sport
nau137 – Science, information technologies – Society of knowledge
sao141 - Global traffic, migrations, tourism
intl133 - Integration into European union
org105 - Organization
fin123 - Finance

vrhtb87 - Top of the table
ist135 - Pro-East orientation
kli145 - Global climate changes, pollution, environmental deterioration
trz139 - Global market, finance
kre109 - Creativity
profs93 - Professional
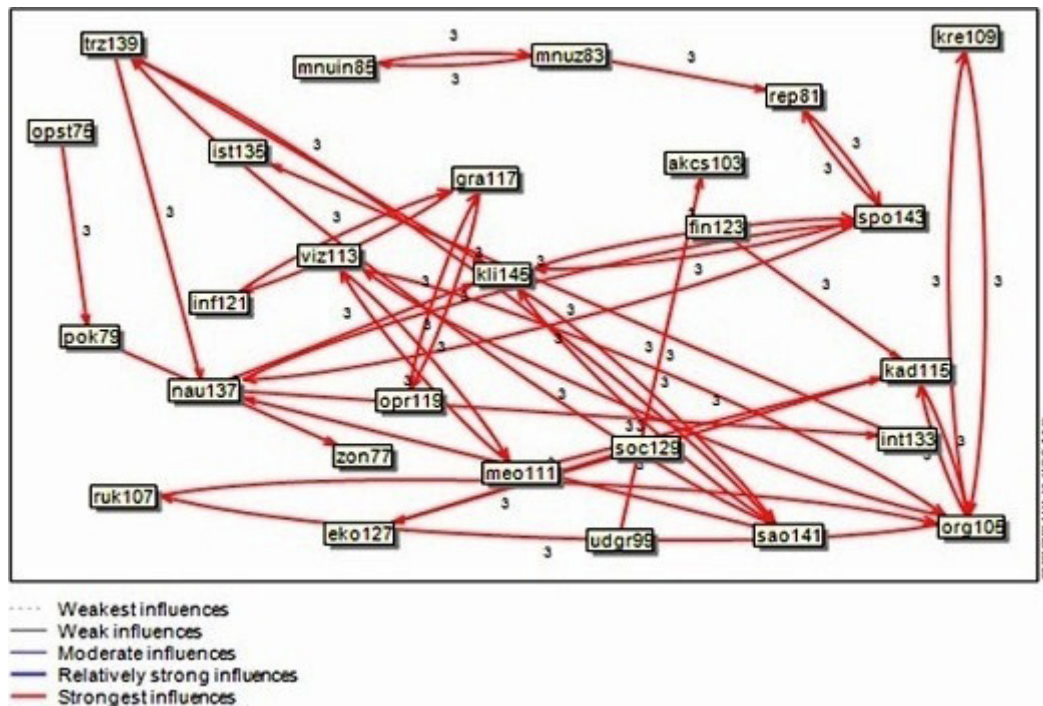teh131 - Technology
eko127 – Economy

The first step in preparing the matrix is derived by calculating the Lambda indicator of asymmetric test which determines the direction of relations between two variables (Lambda indicator which with a higher percentage reduces the likelihood of error of reasoning regarding the direction of the connection between the X variable as an independent and Y variable as a dependent variable). Obtained Lambda indicators were entered into two tables in order to explore two sub-samples of respondents. The next step required the conversion of Lambda indicators table into the matrix of Godet's indicators of the degree of correlation between variables (0 no correlation, 1 weak correlation, 2 moderate and 3 strong correlation). The conversion assumed linear relationship between Lambda indicators and Godet's indicators of the degree of correlation between variables (relationship impact/dependence). After entering an adequate number of converted indicators it was shown that there is a statistical justification for this kind of conversion of indicators. Lambda test converted into Godet's scale: .00 to .25 – little, if any correlation; .26 to .49 – low correlation; .50 to .69 – moderate correlation; .70 to .89 – high correlation and .90 to 1.00 – very high correlation.

The result of the reliability test for such a conversion (R^2 = .835) justified the accepted method of preparing the matrix for structural analysis.

Results

Understanding the concepts and methods of predicting the future is based on the scenario method, developed by M. Godet (French "la prospective" concept) and here less consulted, the narrower concept of morphological analysis by Richy (Swedish School). The number of variables identified by previous procedure of MICMAC structural analysis is greater than the number that allows the system of prediction of future to be interpreted in a rational way (10 to 15 variables). This outcome of reducing the number of variables requires further analysis and elimination of variables not contributing to the understanding of the operations of the system of predicting clubs future.

Insight into characteristics of the relations between variables on the graph of direct impact of variables for the experimental

Legend for influences:
- ···· Weakest influences
- —— Weak influences
- —— Moderate influences
- —— Relatively strong influences
- —— Strongest influences

Legend:

opst75- Municipal level of competition
pok79 – Provincial level of competition
ruk107 - Management
trz139 - Global market, finance
nau137 - Science, information technologies – Society of knowledge
ist135 - Pro-East orientation
inf121 – Information
mnuin85 - International, abroad - vision of future
viz113 - Shared vision, values
zon77 – Zonal level of competition
eko127 - Economy
opr119 - Equipment

gra117 - Facilities
kli145 - Global climate changes, pollution, environmental deterioration
meo111 - Interpersonal relations
udgr99 - Association of citizens
soc129 - Social issues
fin123 - Finance
akcs103 - Shareholders' private property
rep81 – Republic level of competiton
spo143 - World sports mega-events, performances, Olympic games
kad115 – Human resources
int133 - Integration into European union
org105 - Organization
kre109 – Creativity

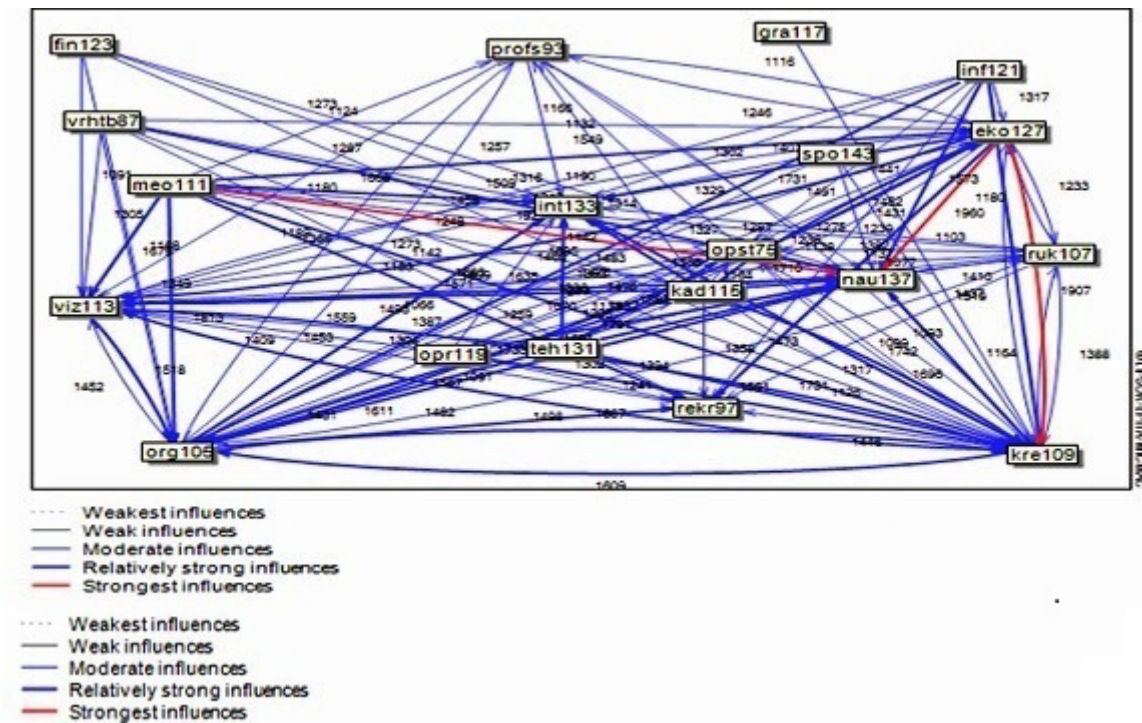Figure 2. Control sample of respondents – direct influence.

sample (Figure 1) reveals the existence of two isolated variables (*Desirable future success in the competition – the top of the table* and *Preferred type of sport for the club in the future – Professional*) and one determinant (*Resources – Finance*). Other variables have at least one feedback, which makes the whole system unstable and hard to predict. There is no paths of unidirectional dependent variables clearly associated with the strongest influences shown here (indicator of the influence level 3), in this system.

At control group level (Figure 2) we isolated three variables (*Preferred level of competition in the future – municipal, zonal, provincial*), two determinants (*Preferred ownership status of the club in the future – Association of citizens, and Finance*) and two result variables (*Preferred level of competition in the future - Zonal, Local environment – Economy*).

A series of feedbacks makes this whole system unstable and unreliable in predicting the future of clubs. Both systems based only on direct effects of variables can contribute to the creation of the real picture about the nature of relationships between variables but do not provide a reliable basis for insight into how respondents approach predicting the future of sports clubs. Introduction of the analysis of the chart of indirect influences of variables (Figure 3 and Figure 4), gives reliable support for identifying key variables but, at the same time, makes the identification difficult due to displaying of all relations of various strengths, in the system of variables. Bearing in mind that the purpose of identifying key variables is obtaining the reduced number of variables, in this procedure the analysis relies on biggest strength relations and relatively strong influences. The purpose of this analysis was to detect meaningful core of the system, which could be interpreted as a simplified system or clubs future prediction model.

Based on results for experimental (Figure 3) and control group (Figure 4) we extracted statistical significant relations which are presented in Table 2 and Table 3:


- - - - Weakest influences
———— Weak influences
———— Moderate influences
———— Relatively strong influences
———— Strongest influences

- - - - Weakest influences
———— Weak influences
———— Moderate influences
———— Relatively strong influences
———— Strongest influences

Legend:

fin123 - Finance

vrhtb87 – Top of the table

meo111 - Interpersonal relations

viz113 - Shared vision, values

org105 - Organization

profs93 – Professional type of sport

int133 - Integration into European union

opr119 - Equipment

teh131 - Technology

opst75 - Municipal level of competition

kad115 – Human resources

rekr97 - Recreational-commercial type of sport

gra117 - Facilities

spo143 - World sports mega-events, performances, Olympic games

nau137 - Science, information technologies – Society of knowledge

inf121 - Information

eko127 - Economy

ruk107 - Management

kre109 - Creativity.

Figure 3. Experimental sample of respondents – indirect influence.

Figure 4. Control sample of respondents - indirect influence.
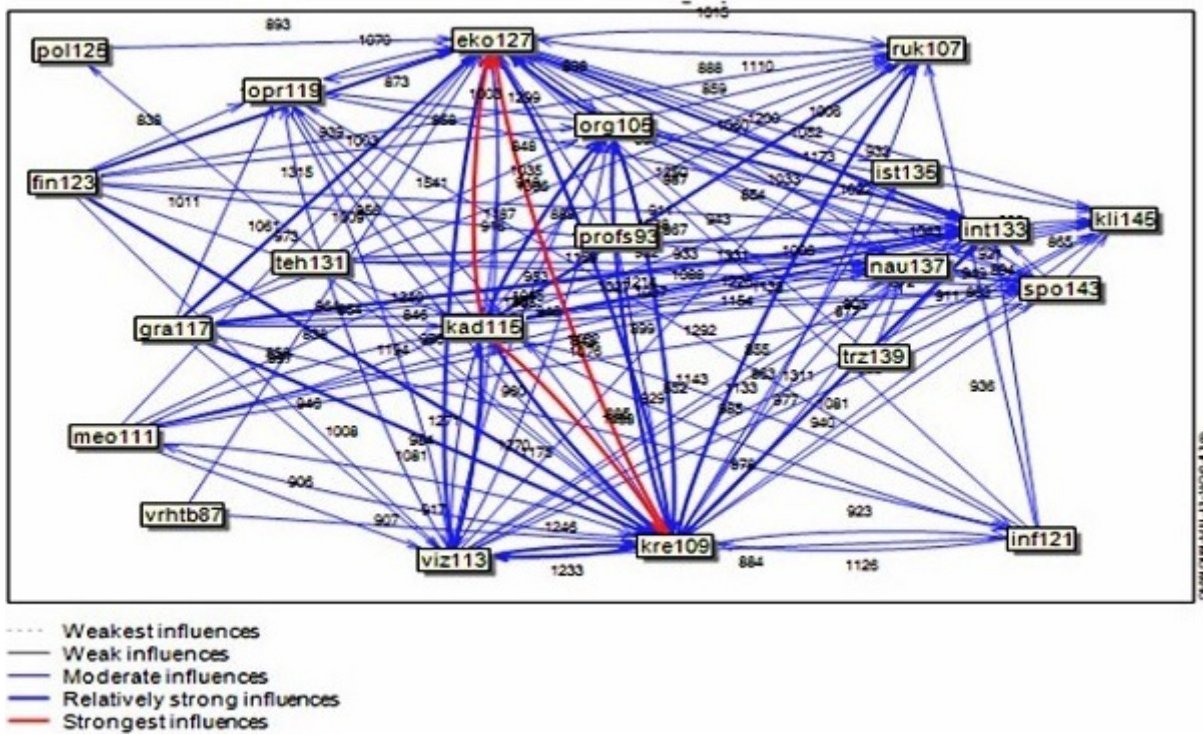
Legend:

Po125 - Politics

Fin123 - Finance

Meo111 - Interpersonal relations

Gra117 – Facilities

Vrhtb87 – Top of the table

Opr119 – Equipment

Teh131 – Technology

Eko127 – Economy

Kad115 – Human resources

viz113 – Shared vision, values

org105 – Organization

profs93 – Professional type of sports

kre109 – Creativity

ruk107 – Management

ist135 - Pro-East orientation

nau137 - Science, information technologies – Society of knowledge

trz139 - Global market, finance

int133 – Integration into European Union

spo143 - World sports mega-events, performances, Olympic games

inf121 –Information

kli145 - Global climate changes, pollution, environmental deterioration.

Table 2. Experimental sample – Meaningful core of the system – statistical significant correlations based on Figure 3.

Interpersonal relations --> Economy --> Creativity

Personnel --> Creativity --> Globalization – Science, use of information technology – Knowledge society --> Shared vision, values --> Organization structure --> Preferred type of sports for club in the future (Recreational-commercial)

Top of the table --> Globalization – Science, information technology – knowledge society.

Table 3. Control sample – with no experience in management of sports clubs, but oriented towards a professional career in sports - statistical significant correlations based on Figure 4.

Facilities--> Integration into European Union

Top of the table --> Economy

Finance--> Economy --> Integration into European Union

Finance --> Creativity --> Integration into European Union

Facilities --> Creativity

Economy <--> Creativity

Personnel <--> Creativity --> Integration into European Union

Organization structure --> Creativity

Top of the table --> Creativity

Organization structure --> Integration into European Union

Discussion

The results of the analysis of the chart of indirect impacts (Figure 3 and Figure 4) of variables are meaningful cores of the system of sports clubs future prediction by two samples of respondents in this study. The analysis of the system of indirect impact of variables for experimental sample of respondents shows that these respondents, based on ten key variables, predict that the result of the realization of their visions of future will be transition of clubs towards recreational, commercial type of sport. The basic sequence of this prediction starts from the staff as a determinant of the system, which provide creativity as a characteristic of the organizational culture of the club. The main mediating relay variable in this prediction sequence is *Science, Information technology – Knowledge society*, which inspires a shared vision and values as a feature of organizational culture of the club (these two variables are mutually reinforcing each other in the form of feedback) which leads to said result—a recreational commercial sport as a backbone of the future of the club.

Relying of prediction on the society of knowledge and application of science, respondents associate with achieving highly competitive results (probably assuming the existence of adequate competitive team in the club oriented toward recreational and commercial basic programs). Respondents also relate establishing of a culture of creativity in the club with supportive interpersonal relationships and favorable economic local environment of their clubs. For the control subsample of respondents, some characteristic variables could be indicated as predictors of the future of clubs but cannot determine a clear prediction system based on a long sequence of reasoning. The major feature here is the European integration as the expected environment for the future development of sports and clubs. Creativity, as a feature of organizational culture of clubs, here also is the main relay variable. The second relay variable is the economic condition of the local environment. Determinants of this prediction system are primarily finance, personnel, buildings (sports facilities) and clubs' resources. Also, organization, as a frame of the club structure, emerges as determinant. Achieving superior competitive success (top of the table) is perceived by these respondents as a motive for creativity and the chance to use the economic benefits from the club's local environment. By incremental identification procedure described above, a sample was obtained, made of ten key variables for each sample of respondents. Analytical procedure and interpretation of prediction function can rely on these variables in relation with the long term perspective of sports clubs development.

This research is oriented towards the practice of strategic management in sports organizations (clubs) in Vojvodina. It revealed "a storm of ideas" about the paths of our sport in the future, which grows in these organizations. This research also discovered, a lagging, difficult to understand lack of interest of sports infrastructure (branch associations, local administration) in creation of organizational culture in our sports, which supports creativity in the field of convergence of visions of the sports future and their democratic way of articulation through scenario planning and developing strategies for sustainable development of sport in the European environment.

Responses to these questions can be obtained by using analytical techniques (Porter, 1985), but strategic approach to the future of the organization remains a key vision, and response to the question "What we want our organization to be in five or ten years?" It is a cornerstone of predicting the future of sports organizations (Wilson, 1996). Therefore, in order to encourage and maintain the utopian imagination and mood of participants, in relation with vision for the future, some questions need to be answered: "What are the major obstacles in achieving our vision?" "How are we going to deal with these obstacles," "What should our strategy be for overcoming obstacles?" About the importance of these issues, Wilson (1997) concludes: "This way we will recapture process of planning by professionals, make it more democratic, and we'll put primacy on the creative and imaginative thinking, and not on the pro forma planning documents."

At the same time, knowledge of the existence of decades-long successful implementation of scenario planning methods—not as a bureaucratic "planning" intended for narrow apparatus of experts in the ministries and departments of the local administrations, but as a process of mobilization and holding "of a course" regarding realizing the visions of the future of the democratic base of sports—encourages critical approach towards the sluggishness of development of our sport. Without accepting scientific approaches for predicting the future of sport within broader visions, scenarios and strategies of development of the European (and global) environment, above mentioned "storm of ideas" can start criticism without real effects, without setting and socialization of achievable strategies for survival and development of sports organizations. Without intertwining of scientific approaches towards the future and the broad democratic practice of sports reforms, one cannot expect a turnaround from stagnation and decay of state-regulated sports structure towards the sports directed by private investors, so-called sponsors, private patrons and commercially motivated partnerships, expected by majority of sports activists. Achieving this turnaround assumes changed attitude towards strategic management, particularly its function of predicting the future, primarily in the very basic sports organizations. It seems that sports upgrading (associations) is lagging behind, and that we cannot expect the management to start desirable initiatives "from above to below" in the field of strategic management.

The above suggestion is closely related to knowledge about how to treat strategic, "futuristic" aspect in sports management research in Serbia. In the international science of sport management, this aspect has become the subject of extensive scientific research since the nineties. In our country it is still in its infancy. Regarding our science of strategic management in sports, open issues and topics for further research can be indicated. From the conclusions of this paper several questions can be derived: How to provide reliable information on strategic management as a component of the overall management of sports clubs? How to promote the practice of planning in sport organizations into the process of predicting the future, as a democratic process of creating a shared vision, revealing variables of desirable scenarios and choosing those which enable strategy of sustainable development of the organization? Finally, it is important to

question the role of the institutional reform of sports, as well as scientific-research institutions in getting closer to the practice of sports management in the world of verified and successfully used methods of scenario planning and other methods and techniques for predicting the future?

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Authors' note

Jugoslav Vojinovic is affiliated with the Faculty of Interdisciplinary studies, ACIMSI, University of Novi Sad, Serbia.

Nebojsa Maksimovic is affiliated with the Faculty of Sport and Physical Education, University of Novi Sad, Serbia.

Dragan Kokovic is affiliated with the Faculty of Philosophy, University of Novi Sad, Serbia.

Aleksandar Raic is affiliated with the Faculty of Sport and Physical Education, University of Novi Sad, Serbia.

Radenko Matic is affiliated with the Faculty of Sport and Physical Education, University of Novi Sad, Serbia.

Dragan Doder is affiliated with the Regional Institute of Sport, Novi Sad, Serbia.

Corresponding author

Radenko Matic
University of Novi Sad
Faculty of Sport and Physical Education
Lovcenska 16, 21000 Novi Sad, Serbia
E-mail: radenkomatic@uns.ac.rs

Appendix

List of variables.

Dimensions	Domains	No	Long name of variable	Short name
Vision of future	Levl of competition	1	Municipal	opst75
		2	Zonal	zon77
		3	Provincial	pok79
		4	Republic	rep81
		5	International, in country	mnuz83
		6	International, abroad	mnuin85
	Success in the competition	7	Top of the table	vrhtb87
		8	Middle of the table	sretb89
		9	Bottom of the table	dnotb91
	Type of sports	10	Professional	profs93
		11	High-quality amateur	amat95
		12	Recreational-commercial	rekr97
	Ownership structure	13	Association of citizens	udgr99
		14	Individual or partnership private property	inds101
		15	Shareholders' private property	akcs103
	Structure	16	Organization	org105
		17	Management	ruk107
	Culture	18	Creativity	kre109
		19	Interpersonal relations	meo111
		20	Shared vision, values	viz113
	Resources	21	Personnel	kad115
		22	Facilities	gra117
		23	Equipment	opr119
		24	Information	inf121
		25	Finance	fin123
	Local environment	26	Politics	pol125
		27	Economy	eko127
		28	Social issues	soc129
		29	Technology	teh131
	European environment	30	Integration into European union	int133
		31	Pro-East orientation, Anti-Americanism	ist135
	Globalization	32	Science, information technologies – Society of knowledge	nau137
		33	Global market, finance	trz139
		34	Global traffic, migrations, tourism	sao141
		35	World sports mega-events, performances, Olympic games	spo143
		36	Global climate changes, pollution, environmental deterioration	kli145