

THE EFFECT OF SPORTS MANAGERS EDUCATION ON BUSSINESS SUCCESS IN BASKETBALL, VOLLEYBALL AND HANDBALL

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Abstract

The aim of this study was based on analysing the effects of sport managers education in Bosnian and Herzegovinian clubs practicing following sports: basketball, volleyball and handball, and business success during the 2003/04 competition season.

The research was conducted using a stratified sample of 35 B&H sport clubs located in Canton Sarajevo, with a number of subjects (N=525) and 81 variables in total. Sample evaluation scale was designed according to Likert, Thurstone and Bogardus scale model but with a higher number of ratings 1-10; 1-100 which resulted in a greater discriminative force of the instrument.

The obtained results indicated that the business success in basketball, volleyball and handball sport clubs was influenced by the education of managers who completed their studies at Sports high school or at Faculty of Sport and Physical Education. The results were interesting from various aspects, especially when it came to following the necessary requirements of modern technical knowledge and skills regarding training and training process (coach education), first line managers, and management skills in middle and top management (interpersonal and diagnostic) which was developed through the system of higher education in sport as a part of bachelor and master studies. Using this method we were able to contribute to the awareness of the advantages that such study programs have to offer, in particular when it comes to the needs of the abovementioned sports. The results of this study clearly state that employees of the previously indicated educational profile most certainly contribute to the advancement of business success in the listed sport clubs, which ultimately represents the goal of professional management.

Similarly, the study results point out towards the necessity of developing a management philosophy for team sport organizations, based on an ongoing organizational learning and education.

The results can be used when identifying present market mechanisms related to the institutional needs which educate sport managers, and in the process of developing more significant connection between sport and practical education.

Key words: **Sport education, business success and effects**

Introduction

The fact that the development of sport organizations (from economical and social aspect) is conditioned by the level of managers education and their innovative knowledge, can be established if we take into account other study results by a number of authors working in the same field (Drucker, 2005; Malacko and Radjo, 2006; Masala, 2008). The lack of a significant number of scientific discussions dealing with the issues related to the sport managers education and its effects on sport, especially if it is taking place in transition countries, requires a deeper analyses of what can be benefited from management education or sport profession, which also includes the effects and awareness of fast changes taking place in the modern environment and society in general (Smith and Hans, 2009).

For this reason, the study was based on the assumption that the business success in basketball, volleyball and handball sport clubs is determined by professional sport management education following the systematic management model (Beech and Chadwick, 2004).

The aim of this study was to determine the effects of sport managers education on business success in basketball, volleyball and handball. Using the statistical analyses procedures, we have acquired efficient data for detecting the effects of sport managers education on business success in basketball, volleyball and handball.

Method

Stratified sample was used for the purposes of this study. The sample included a group of 35 B&H sport clubs located in Canton Sarajevo practicing the following sports: basketball, volleyball and handball, with the number of subjects N=525 in 2003/04 competition season.

The idea behind this sampling was to secure the participation of managers of the highest and the lowest level of responsibility in the organisation (lower, middle and top level).

The scale for sample evaluation was modelled by Likert, Thurstone and Bogardus scale but with a higher number

of ratings from 1-10; 1-100 which resulted in a greater discriminative force of the instrument. (Fajgelj, 2004, Fajgelj, 2005; Supek, 1981 and later years). The survey was constructed using the following templates: The Collection of Current City and Municipality Sport Regulations (Vujmilovic et al., 2004), Economy and Management in Sport (Bartoluci, 1999.), Sport Governance in the Global Community, Morgantown: Fitness Information Technology (Thoma and Chalip, 1996).

In the survey, the respondents/managers expressed the level to which they agree or disagree with the given statement by declaring the educational profile group they belong to: a) Sport education (university degree), Faculty of Sport and Physical Education b) Sport education (college degree), School of Higher Education for coaches c) Sport education (high school degree), Sport High school d) non-sport education group. The rest of the data used in the survey was related to the club reports: e) total sum of the achieved financial incomes, f) the best sport result at a local competition and g) the best sport result at international competitions in basketball, volleyball and handball for the 2003/04 competition season.

Sample variables consist in total of 81 variables. A group of 75 variables relates to the statements on the type of sport education of the overall number of respondents/managers (presidents, directors, consultants, general secretaries, sport directors, marketing directors and PR team managers- A scouts, chiefs of expert staff, A coaches, B coaches, C coaches, Youth Set-Up Team Leaders, Sport school team leaders, directors of the monitoring department and the directors of facility maintenance). Apart from the statements on the education, this group of variables included the results from the club reports regarding the total sum of acquired financial income, the best sport result at a local competition and best sport result at an international football competition in the 2003/04 competition season.

At a final sample defining procedure, we have isolated 6 collective variables using the consolidated analyses in order to determine the educational profile of the overall an-

Table 2. Omnibus test for examining the significance of prediction model

Model	Source	Sum of Squares	Degree of Freedom	Variance	F	Significance p
1	Regression	203473713803.646	1	203473713803.646	11.859	0.003 **
	Residual	274527328952.887	16	17157958059.555		
	Overall	478001042756.533	17			

alysed management staff, which included the following: the managers who completed their education at a Sport High School (MGTSPG), managers who completed their education at a Higher School for Coaches (MGTVSS), managers who completed their education at a Faculty of Sport and Physical education (MGTSP0), managers who have not received education in sport (MGTDORM), followed by business success variable (POUSP) and sport success variable (SPUSP) in football for 2003/04 competition season.

The data analyses method was based on the statistical procedure of the regression analyses and the received data from the software analyses SPSS 12.00 for Windows. Within the scope of the conducted statistical procedure, the correlation coefficient values of the regression model for prediction were presented, along with the value and the level of significance in F-scale variance analyses, which included testing the significance of prediction model based on predictor variable and presentation of regression analyses parameter.

Results and Discussion

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Table 1, 2 and 3 Multiple regression analyses parameter of the variable Managers who completed their education at a Sports high School (MGTSPG) in relation to the business success (POUSP) in basketball for 2003/04 season.

Table 1. Correlation coefficients and coefficients of determination

Model	R	R2	Adjusted R2	Std. Error R2
1	0.652	0.426	0.390	130988.3890

**F-ratio is statistically significant at a level lower than 1%

Table 3. Values and degrees of significance in standardised and unstandardised regression coefficient

Model		Unstandardised coefficient		Standardised coefficient	t-test	Significance
		B	Std. Error	Beta		
1	(Constant)	29571.898	32747.097		0.903	0.380
	MGTSPG	169155.228	49120.646	0.652	3.444	0.003 **

**B-coefficient is statistically significant at a level lower than 1%

The values of adjusted determination coefficient R^2 presented in Table 1, define the predictor variable Managers who completed their education at a Sport High School (MGTSPG) with 39% variability of business success in basketball organisations. Indicated study parameters show that this group of managers belongs to the operational core of sport organisation management. Their impact in respect to the enhanced modern technical knowledge and skills (Mintzberg, 1987; Sunje, 2002.), within the concept of training and training process represents a prerequisite to sport success closely related to business success in basketball (Masala et al., 2009).

Regression variance in Table 2, is in average 11 times greater than the error variance also demonstrated by the F-ratio, which is statistically significant at a level lower than 1%. This signifies that the isolated model, which in its structure has a constant value and predictor variable Managers who completed their education at a Sport High School (MGTSPG), is significantly better at indicating the business success variable in basketball organisations in relation to the base-line model. The prediction model is in overall statistically significant. This model actually confirms the significance of operative club management especially coach-training in basketball school, whose education after completing Sports high school contributes to the improvement of business success (Masala, 2008). This method can contribute to a rise in numbers of potentially employed managers, establishing the learning organisation (Sunje, 2002.), and achieving business success in basketball.

Regression coefficient in Table 3, referring to the predictor variable Managers who completed their education at

a Sport High School (MGTSPG) is statistically relevant at a level lower than 1%. This implies that the variable is statistically significant in contributing to the business success prediction model in basketball. Regression coefficient is a positive coefficient, and it points out the positive correlation between this educational level and business success. In average, the higher the number of employees of this specific educational profile in sport organisations, the greater the business success, i.e. the greater the value. These data provide a special informative value for the basketball clubs which want to employ management staff in their operational core.

THE EFFECT OF SPORT MANAGERS EDUCATION ON BUSINESS SUCCESS IN VOLLEYBALL

The next step in the analyses concerns the presentation of multiple regression analyses parameters of the variable Sport managers education in relation to the business success in volleyball for the 2003/04 competition season.

Tables 4, 5 and 6 Multiple Regression analyses parameter of the variable Managers who completed their education at a Faculty of Sport and Physical Education (MGTSPG) in relation to the business success (POUSP) in volleyball for the 2003/04 season.

Table 4. Correlation coefficients and coefficients of determination

Model	R	R ²	Adjusted R ²	Std. Error R ²
1	0.689	0.474	0.409	13748.7800

Table 5. Omnibus test for examining the significance of prediction model

Model	Source	Sum of squares	Degree of Freedom	Variance	F	Significance p
1	Regression	1364887705.892	1	1364887705.892	7.221	0.028 *
	Residual	1512231618.701	8	189028952.338		
	Overall	2877119324.593	9			

Table 6. Values and degrees of significance in standardised and unstandardised regression coefficient

Model		Unstandardised coefficient		Standardised coefficient	t-test	Significance
		B	Std. Error	Beta		
1	(Constant)	9763.612	6874.390		1.420	0.193
	MGTSPG	23847.499	8874.799	0.689	2.687	0.028

**F-ratio is statistically significant at a level lower than 5%

**B-coefficient is statistically significant at a level lower than 5%

The results demonstrated in Table 4, the coefficient of determination value (square of the correlation coefficient), and the predictor variable Managers who completed their education at a Faculty of Sport and Physical Education (MGTSPG) demonstrate 40,9% variability for criterion variable of business success in volleyball organizations.

Acquired coefficient of determination value expressed in percentage, indicates that analysed variability is higher for 1, 9% when compared to the basketball managers who completed education at a Sports high school. This is not by accident since this type of management staff within volleyball clubs possess, apart from technical skills, interper-

sonal and diagnostic skills (Sunje, 2002), which are developed as a part of a system of higher education in sport. F-ratio in Table 5, is statistically significant at a level lower than 5 %. By observing the value of this F-ratio, we can conclude that the regression variance is by 7 times higher than the variance of error. The results provided by ANOVA analyses indicate that the prediction model for business success in volleyball as a whole is statistically significant. The very structure of the model contains a constant value and predictor variable of Managers who completed their education at a Faculty of Sport and Physical Education (MGTSP0), which supports the effectiveness of this kind of study programs designed in the form of systematic management and all in favour to the needs of volleyball sport.

Regression coefficient in Table 6, is statistically significant at a level lower than 5 %. Taking into account that it is a positive coefficient, it points out to the positive predictor variable correlation of variable Managers who completed their education at a Faculty of Sport and Physical Education (MGTSP0) once compared to the business success criteria in volleyball. In average, the higher number of employees of this specific educational profile in volleyball sport organisations, the greater their business success. This model's

regression coefficient has a positive correlation effect on business success in volleyball, which is more than evident, however that does not imply the significant impact on the publicity associated to volleyball as a sport. In general, the use of this predictor variable has a statistically significant contribution in improving the model's predictive ability, confirming that the employees of this educational profile certainly contribute to the rise in business success in volleyball at an analysed competition levels.

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Table 7, 8 and 9 Multiple Regression analyses parameter of the variable Managers who completed their education at a Faculty of Sport and Physical Education (MGTSP0) in relation to the business success (POUSP) in handball for the 2003/04 season.

Table 7. Correlation coefficients and coefficients of determination

Model	R	R2	Adjusted R2	Std. Error R2
1	0.956	0915	0.898	18681.5913

Table 8. Omnibus test for examining the significance of the prediction model

Model	Variability Source	Sum of Squires	Degree of Freedom	Variance	F	Signifinace p
1	Regression	18756666013.852	1	18756666013.852	53.744	0.001 **
	Residual	1745009273.434	5	349001854.687		
	Overall	20501675287.285	6			

**F-ratio is statistically significant at a level lower than 1%

Table 9. Values and degrees of significance in standardized and unstandardized regression coefficient

Model		Unstandardised coefficient		Standardised coefficient	t-test	Significance
		B	Std. Error	Beta		
1	(Constant)	17410.288	9091.663		1.915	0.114
	MGTSP0	58780.739	8018.093	0.956	7.331	0.001 **

**B-coefficient is statistically significant at a level lower than 1%

According to the value of adjusted correlation coefficient in Table 7, Managers who completed their education at a Faculty of Sport and Physical Education (MGTSP0), equals to 89,8% variability of business success in handball sport organisations, which is a high percentage when compared to the models in the previously analysed sport organisations. When analysing parameters provided by this study we come to the following conclusion, that the Managers of this educational profile possess considerably enhanced conceptual and diagnostic skills (Sunje, 2002.), which is a characteristic of top and middle level managers of the analysed handball clubs management.

The results provided by ANOVA analyses in Table 8, indicate that the regression variance is 53 times higher than the residual or error variance. This F-ratio is statistically significant and demonstrates that the prediction model as a whole is significant. The isolated model alone consists of constant value and predictor variable Managers who completed their education at a Faculty of Sport and Physical Education (MGTSP0), which allows us to conclude that the employed managers are key factors in handball clubs business success.

Regression coefficient in Table 9, is statistically significant at a level lower than 1 %. Therefore the predictor variable

Managers, who completed their education at a Faculty of Sport and Physical Education (MGTSP0), is statistically significant in changing and improving this model's predictive ability when it comes to predicting the value of business success in handball. In average, the higher number of employees of this specific educational profile in handball sport organisations, the greater their business success. Considering that the managers of this educational profile have considerably enhanced conceptual and diagnostic skills, which are an essential characteristic of top and middle level managers, it becomes quite clear that they should have priority to these suitable positions within the club. It is likewise necessary to support their evaluation and progress as a part of human resource analyses, keeping in mind the perspective in ongoing education and improvement, especially in terms of sport management and marketing.

Discussion and conclusion

According to the results of conducted analyses, we can conclude that the Sports high school education of managers plays a significant role in the field of basketball sport, indicating that the managers of this educational profile, though they most commonly belong to the operational core of sport club management, possess enhanced modern technical knowledge and skills when it comes to training and training process, for which reason they represent a prerequisite to successful sport and business success in basketball clubs.

Applying a statistically isolated value model of F-ratio at a level lower than 1 % we can confirm the significance of operational management in which case the education increases the level of managers' awareness for constant improvement, especially for basketball coach trainers. As a consequence we can verify the existence of positive correlation between managers who completed sports high school and their business success in basketball. In average the higher number of employees in basketball clubs, who completed education in Sports high school, the greater their success. These data provide a special informative value for the basketball clubs which want to employ management staff in their operational core.

Similarly, the results of the conducted analyses direct us into acknowledging the significant role of managers education at Faculty of Sport and Physical Education in the field of business success in volleyball sport. A discreetly higher level of 1,9 % in the values of coefficient of determination relating to the basketball clubs, as well as increased value of F-ratio for the prediction model of business success in volleyball indicate that the volleyball club managers of this educational profile possess, apart from technical knowledge, additional interpersonal and diagnostic knowledge, which are developed under the system of higher education in sports. This complements the effectiveness of the study programs in relation to the requirements of volleyball sport. According to the study results, it is quite obvious that the employees of this educational profile contribute to the rise in volleyball business success for the analysed competition levels.

The results gained from the conducted analyses relating to handball sport and clubs without any doubt reveal to us that the managers, who completed the study program at the Faculty of Sport and Physical Education, play the most important role. This is equally supported by the value of adjusted correlation coefficient demonstrating the variability in business success at 89,8 %. This confirms that managers of this educational profile have considerably enhanced conceptual and diagnostic skills which represent, if we take into account management handball club structure, a characteristic of top and middle level managers. The prediction model and the significance of the regression coefficient at a level below 1 % indicate that the greater number of managers of this educational profile in handball clubs, the greater the values of their business success. Therefore, the positions of top managers as well as the positions of middle level managers in handball clubs should be left open to the managers of this educational profile. In addition, their evaluation and improvement should receive additional support considering the ongoing education in the field of sport management and marketing.

Reference

- Aaron, C., Smith, T., & Hans, M. (2009). "Professional" Sport Management Education and Practice in Australia; *Westerbeek Journal of Hospitality, Leisure, Sport and Tourism Education*, La Trobe University, Melbourne, Australia, Vol. 3, No. 2.
- Bartoluci, M. (1997). *Economics and management in sports*. Zagreb: Faculty of Kinesiology.
- Beech, J. & Chadwick, S. (2004). *Sport management*. Mate Ltd. Zagreb
- Fajgelj, S. (2004). *Behavioral research methods*. Belgrade: Center for Applied Psychology
- Fajgelj, S. (2005). *Psychometrics – Method and theory of psychological measurement*. Belgrade: Center for Applied Psychology
- Drucker, P. (2005). *Most important in tge management, Selection of papers on management P.F.Druckera*, Zagreb, M.E.P.Consult.
- Supek, R. (1981). *Public opinion polls*. Zagreb: Liber University Press.
- Crust, L., & Lawrence, A. (2006). *Review of Leadership in Sport: Implications for Football Management*, *Athletic Insight, The Online Journal of Sports Psychology*, York St. John University College, Volume 8, Issue 4
- Mintzberg, H. (1987). *Crafting Strategy*, *Harvard Business Review*, July-August, 66-75.
- Malacko, J., & Rađo, I. (2006). *Management of human resources in sport*. Faculty of Sport and Physical Education, University of Sarajevo.

Mašala, A. (2008). Models of management of sport organizations for sustainable development. (Doctoral dissertation), Faculty of Sport and Physical Education, University of Sarajevo, Sarajevo.

Mašala, A., Bonacin, Da., & Bonacin, D. (2009). Models of sports success prediction in team sports of football, basketball volleyball and handball, *Acta Kinesiologica*, Vol.3, Issue 2

Vujmilović, D., Rašidagić, F., Zubović, M., & Mašala, A. (2004). Zbirka važećih kantonalnih gradskih i opštinskih propisa iz oblasti sporta, Ministry of Culture and Sport, Canton Sarajevo, Sarajevo.

Šunje, A.(2002). Top menadžer, vizionar i strateg, Sarajevo, Tirada.

Thoma, J. E., & Chalip, L. (1996). Sport Governance in the Global Community, Morgantown: Fitness Information Technology.

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