

# THE EFFECT OF STUDENT-AGE ACADEMIC AND SPORTS COMPETITIONS ON WORKPLACE COMPETITIONS

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## Abstract

These days, competitions are becoming part of our lives. Including tests for pupils and competitive situations at the workplace between employees, we have to face challenges that require an organization to select its best people, or perhaps its weakest ones. Some have grown accustomed to these situations in childhood, while others try to avoid challenging situations.

The present study explores how the academic and sports competitions that a person participated in as a student influence experiences in adult life related to workplace competition, and if there is any correlation between the two situations. We examined the motivations that result in participation in childhood competitions and also to what extent these remain and show their effect in workplace environments. We differentiated between internal and external motivators, then we studied what type of motivations can be tied to the personality of the respondents in childhood and adulthood. The results show that there is a correlation between competition experiences in student age and the motivations involved in workplace competition situations later in adult life.

**Key words:** competition, motivations, childhood, workplace

**JEL Code:** J24, Z20, I25

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## Introduction

Competition and performance are always closely correlated. But is creating competition a suitable strategy to increase performance, or is it the opposite? Worrel et al (2016) studied what kind of correlation can be detected between competition and performance, furthermore how competitive situations can be used to increase the performance of young people. The question and the response given to it is important, because everyone striving for higher performance than others is not the only way of workplace competition between colleagues, rivalry can appear in other scenes (Kato & Shu, 2016). Such is for example bullying, which has extensive literature devoted to it (Hoehl et al., 2010, Einarsen et al., 2016), but this is not connected to

the subject of the present work. However, applying gamification is a provably successful performance increasing method in workplace environments (Silic et al., 2020), which also increases the work related satisfaction of employees and makes them more committed to their company. The role played by sports in later career planning is studied by Wendling, E., & Sagas, M. (2020), as well as Plakhotnik, Krylova & Maslikova (2020). Wendling & Sagas (2020) studied the effect of competitive sports during student years exerted on later career planning with the application of the Cognitive Career Theory model (Lent et al., 1994). Several personality traits were studied, such as extraverted-ness, openness and consciousness. From among the external motivations, they studied the role of the coach, and not surprisingly they concluded that the coach assists in determining the goals, but has a negative effect on career building after sports, which is not surprising, because the coach would like to retain his player as long as possible.

From among the motivating factors of childhood individual sports, the role of parents was studied by Harwood et al. (2019). They demonstrated the role of parents in processing victory and defeat, in setting goals and creating an atmosphere that supports sports. The role of young age and the related career expectations were studied by Csiszárík-Kocsír and Garia-Fodor (2018), as well as one of the authors of the present study (Bencsik, Horváth-Csikós, & Juhász, 2016).

## **1 Sample and method**

The authors conducted the study in 2019. The method of sampling was snowball sampling. The primary research was a quantitative study, in the course of which the researchers compiled an internet questionnaire. Filling in the questionnaire was voluntary. During the trial fill-in there was no interpretability question from the part of the respondent, thus the authors posted the original questionnaire on the internet. Every one of the filled-in responses was interpretable. The questions were classifiable in the following subject ranges:

- Demographic information (gender, age, address, school qualifications, size of workplace, organization's activities, the company's ownership status, job position).
- Statements characteristic of elementary and secondary education.
- Statements related to elementary and secondary school individual and team academic and sports competitions.

- Statements related to competitions ongoing at the current workplace (if there is a competition, its type, sources, causes, situations, evaluation).
- If there is workplace rewarding, its form and frequency.

There were a total of 308 respondents, 129 men and 179 women. The average age of respondents was 25 years, their standard deviation was 9.86 years. Most of the respondents have secondary school education qualification (203), 56 have advanced level Technical and Further Education (OKJ) qualification, while 44 have higher education diplomas and the remaining 5 persons do not have Secondary School Final Exam Certification. The largest portion of respondents originate from the Central Hungary Region (168), in second place from the Northern Hungary Region (63), the rest of the 77 respondents are from the 5 other regions of Hungary.

The authors formulated numerous hypotheses regarding the research, the present study discusses the validity of the following:

H: The motivation experienced in secondary school during individual academic and sports competitions influences a person's opinion, motivation and attitude divergently regarding competition in adulthood.

The authors performed the examination of the validity of the hypothesis with the following statistical methods: single variable and multivariable analyses, within those frequency analyses, and correlation analyses processed by the SPSS 25 program.

## **2 Results**

During the study the authors used a five-level Likert scale to examine activity related to secondary school academic and sports competitions.

The first such field was the analysis of motivations connected to individual academic competition. The respondents had to decide on a five-level Likert-scale how much the specified variables were characteristic of them. After this, the authors condensed the given responses into factors. Every variable was suitable for factor formation. The KMO and Bartlett's Test was 0.865 value, and the proportion of variance explained variants was 65.022%. Three factors

were formed for individual academic competition motivation: ambition, competitiveness and external motivation.

The results are shown in Tab. 1:

**Tab. 1: Motivations related to individual academic competition (MOT ET: motivation for individual academic competition)**

	Average	Deviation	Factor weights		
			MOT ET Ambition	MOT ET Competitiveness	MOT ET External
I enjoyed preparing for the competition with my teacher	2.90	1.308	0.799		
I enjoyed preparing for the competition individually.	2.84	1.241	0.760		
I learned new things during the competition.	3.38	1.259	0.748		
I acquired test experience by participating.	3.18	1.336	0.730		
I wanted to make my parents happy.	3.47	1.351	0.566		
It is a great feeling if I am chosen as the best.	3.57	1.291		0.843	
I was proud when I achieved good result.	4.07	1.200		0.831	
I enjoyed being praised after the competition regardless of the result	3.54	1.339		0.775	
I enjoyed defeating others.	3.24	1.309		0.648	
Participation was mandatory.	2.14	1.253			0.806
I mostly participated for the prize.	2.45	1.291			0.783
Cronbach-alfa			0.824	0.835	0.520

Source: own table

The respondents characteristically participated in competitions for themselves, it gave them a good sensation to be the best, external reasons were weaker motivating factors. The authors examined what kind of motivating forces were functioning in the individuals if they participated in individual sports competitions in the past. Here three factors were formed as well with Varimax rotation. Barlett's Test: 0.897, and the proportion of variance explained variants was 61.213%. The factors were ambition, competitiveness and external motivation. The results are shown in Tab. 2:

**Tab. 2: Motivations related to individual sports competition (MOT ES: motivation for individual sports competition)**

	Average	Deviation	Factor weights		
			MOT ES Ambition	MOT ES Competitiveness	MOT ES External
It was good to experience that I could do it.	3.96	1.254	0.769		
I was proud when I achieved good result.	4.00	1.246	0.753		
I made friends during the competitions.	3.36	1.298	0.781		
I wanted to make my parents happy.	3.50	1.376	0.722		
I found out what I was capable of.	3.88	1.202	0.707		
I enjoyed being praised after the competition regardless of the result.	3.52	1.342	0.695		
I didn't need to depend on teammates.	2.97	1.343		0.767	
I enjoyed defeating others.	3.33	1.398		0.685	
I knew that I could only count on myself during the competitions.	3.03	1.324		0.702	
If I was unsuccessful, I knew that I could only blame myself.	3.08	1.352		0.618	
It was good to share the success with others.	3.96	1.254		0.574	
I mostly participated for the prize.	2.33	1.302			0.806
Participation was mandatory.	2.07	1.263			0.679
<b>Items</b>			<b>6</b>	<b>5</b>	<b>2</b>
<b>Cronbach-alfa</b>			<b>0.888</b>	<b>0.820</b>	<b>0.730</b>

Source: own table

The respondents mostly participated in the sports competitions for pride, to know their capabilities, and the social experience was also an important motivating factor. External reasons were weaker motivating factors, than the prize or mandatory participation. We managed to create factors measuring internal and external motivating factors in both competition motivation areas. We managed to separate the internal motivating factors into two parts: ambition and competitiveness.

Examining the correlations between factors, the correlation is weak between the motivation for individual academic competition and the motivation tied to individual sports competition. Since the variables are high measurement level factors, and the sample was also above 100 (the normality of variable can be presumed based on the central limit theorem), thus the authors used the Pearson correlation coefficient to examine the correlations between them (Tab. 3).

**Tab. 3: Correlation matrix of motivating factors**

	MOT ET K	MOT ET V	MOT ET KÜ	MOT ES K	MOT ES V	MOT ES KÜ
MOT ET K	1	0	0	.403**	0.049	0.076
MOT ET V	0	1	0	.467**	.255**	-0.011
MOT ET KÜ	0	0	1	-0.102	.141*	.586**
MOT ES K	0.403**	.467**	-0.102	1	0	0
MOT ES V	0.049	.255*	.141*	0	1	0
MOT ES KÜ	0.76	-0.11	.586**	0	0	1

\*\* . Correlation is significant at the 0.01 level (2-tailed).

\* . Correlation is significant at the 0.05 level (2-tailed).

Source: own table

The questionnaire furthermore included unique questions that asked about the forms and dimensions of workplace competitions as well as their related factors. Among others, these were the following:

- Do you usually compete with your coworkers at your workplace (during your work)?
- How much do you enjoy workplace competitions during your work?

How would you qualify competition between colleagues within an organization? What effect does it have on the organization?

Mostly those compete with their coworkers who in the past were motivated by winning the prize and competitiveness during academic competitions, and ambition at individual sports competitions. Similarly to prizes, numerous competition-aggregates are present here as positive influencing factors (see Tab. 4). Meaning that mostly those will compete at their workplaces with their coworkers who are given such opportunity (the competition-aggregates have high values), as well as those who have sufficient knowledge.

**Tab. 4: Attitude related to academic and sports competitions, correlation between motivating factors in the present with the frequency of workplace competition with coworkers (p=0.05)**

Factor / Aggregate	N	Do you usually compete with your coworkers at your workplace (during your work)?	
		Correlation Coefficient (rho)	Sig. (2-tailed)
MOT ET Ambition	308	0.110	0.053
MOT ET Competitiveness	308	0.144	0.012
MOT ES Ambition	308	0.150	0.008
MOT ES Competitiveness	308	0.014	0.800
MOT ES External	308	0.029	0.618
MOT CsS Internal	308	0.056	0.327
MOT CsS External	308	0.132	0.021

Source: own table

Who are those that enjoy competition more than others? The groups of factors as well as aggregates included in the analysis provide a relatively clear answer to the question. Those who were motivated in school to get good grades, the persons motivated by competitiveness during individual academic and sports competitions will enjoy competition, especially if the proper conditions are given, namely the dimensions, groups, sources and reasons for the competition as well as their effects on the individual and values. Meaning, it is primarily childhood internal motivating factors that will make workplace competition enjoyable. The results are shown in Tab. 5.

**Tab. 5: Attitude related to academic and sports competitions, correlation between motivating factors in the present regarding the enjoyment of workplace competition with coworkers (p=0.05)**

<b>Factor / Aggregate</b>	<b>N</b>	<b>How much do you enjoy workplace competitions during your work?</b>	
		<b>Correlation Coefficient (rho)</b>	<b>Sig. (2-tailed)</b>
MOT ET Ambition	308	0.141	0.013
MOT ET Competitiveness	308	0.162	0.004
MOT ET External	308	-0.038	0.510
MOT ES Ambition	308	0.114	0.046
MOT ES Competitiveness	308	0.125	0.029
MOT ES External	308	-0.031	0.591

Source: own table

In the end the question arose, what the participants think about the effects of competition within an organization (Tab. 6). With regards to the examined factors, there was no significant correlation. However, there is a positive significant correlation between considering competitions harmful and the effect of competitions on values.

**Tab. 6: Effects of competition within the organization (p=0.05)**

Factor / Aggregate	How would you qualify competition between colleagues within an organization? What effect does it have on the organization?		
	N	Correlation Coefficient (rho)	Sig. (2-tailed)
MOT ET Ambition	308	-0.007	0.909
MOT ET Competitiveness	308	0.057	0.317
MOT ET External	308	-0.066	0.250
MOT ES Ambition	308	-0.002	0.970
MOT ES Competitiveness	308	0.001	0.990
MOT ES External	308	-0.097	0.088
Competition's effect on the individual	308	0.180	0.001
Competition's effect on values	308	0.138	0.015

Source: own table

## Conclusion

In our research we examined the effects of childhood competitive sports motivations on the later situations created by workplace competitions. As we can see, the experience gained in past (elementary school and secondary school) competitions, in the examined dimensions, determines to different extent what attitude the individual will have regarding competitions in the present. We managed to point out that during work performance, primarily those will compete at their workplaces, for whom grades were important in school, and during competitions in education institutions were motivated by competitiveness and ambition. These factors definitely influence who and how participate in workplace competitions, and how harmful and beneficial the person considers such company situations. In contrast with the results of Harwood et al. our data suggests that direct parental influence is weaker in childhood motivations, and internal motivations are more important, such as showing off knowledge. Even though we performed our research with considerably lower element number sample, we approached the subject from numerous aspects (enjoying competition, its frequency, competitiveness, and personality traits). As perhaps the most important conclusion, we established that a large portion of childhood motivations are also present in adulthood, but a shift can be detected from the importance of internal motivations in the direction of external motivations. To confirm these results, for the future, we are planning the performance of a more complex questionnaire study conducted on a larger sample. In consideration of the fact that today's young generation enters the labor market much earlier than their predecessors, it could be particularly important to examine childhood motivating effects and their influence on

adulthood from multiple aspects, for the individual as well as the employer. The present study added some important information to this subject range.

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