

The relationship between fresh graduate competencies and salaries - opportunities for competence development in higher education

Sipos Norbert – Kuráth Gabriella – Gyarmatiné dr. Bányai Edit

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Session 2B: Labour market changes

Agenda

1. Higher education graduates' labour market expectations
2. Hungarian GCTS
3. GCTS at UP – competencies
4. The sample
5. Results

HE graduates labour market expectations

- EU strategic goal: increasing competitiveness
- Relationship between labour market performance and HE competencies
- Increasing demand toward HE

Research hypothesis

Significant relationship between UP fresh graduates and the six competence areas of Garcia-Aracil and Van der Velden (2007): socio-emotional, participative, generic, organizational, specialized, methodological.

Hungarian GCTS

- Heavy theoretical backgrounds on REFLEX, REFLEX-HEGESCO, CHEERS, INGRADNET, and TRACKIT
- Launched in 2010, 29-35 HE institutions each year
- Two main fields:
 - Student motivation survey: The student motivation surveys aim to show the motivation of the students regarding the labor market and their further education, to disclose their expectations related to the training, the services, and the labor market, to uncover their training and employment strategies and to prepare future career tracking surveys.
 - The career tracking of graduates: Those are asked who graduated 1, 3, and 5 years before the time of the research. The assessments mainly focus on the success and experiences gained at the labor market, the present fields of study, the ideas of further education, the satisfaction with the institution, and the courses.

GCTS at UP - competencies

	Organizational	Specialized	Methodological	Generic	Participative	Socio-emotional
GCTS graduate questionnaire until 2013	Good organization of work and time management Self-determination Outstanding endurance at work, persistence	Application of professional knowledge in practice	Innovative skill Language skills	Good presentation skill Writing skill	Managing others	Conflict management skills Cooperating in a team Flexibility
CHEERS competence	Independent work; taking responsibility and decision-making ability Precision, attention to details Time management Work under pressure	Knowledge of field-specific methods	Analytical competence Foreign language skills Initiative Learning skills Planning, coordination, organization Understanding complex organizational, social and technical systems	Oral communication skills Written communication skills	Leadership abilities Planning, coordination, organization	Adaptability Assertiveness, persistence Group work Taking responsibility and decision-making ability Tolerance, assessing different perspectives
Guiding competence of the European Parliament and the Council of the European Union	Acquiring learning Initiative and entrepreneurial competence Social and civic competence		Acquiring learning Communication in a foreign language Initiative and entrepreneurial competence Mathematical competence and basic competence in the sciences and technology	Communication in one's mother tongue and in a foreign language	Initiative and entrepreneurial competence Social and civic competence	Acquiring learning Social and civic competence
GCTS student, teacher, employer questionnaire 2014	Good time management Independence Outstanding endurance at work, persistence	Applying theoretical knowledge in practice	Ability to analyze and synthesize Ability to innovate and discover new things Foreign language skills	Good presentation skill Interpersonal and communication skill Writing skill	Entrepreneurial mindset Leadership skills Organization skill	Conflict management skills Entrepreneurial mindset Flexibility Teamwork
GCTS graduate questionnaire 2017	Good time management Independence Outstanding endurance at work, persistence	Applying theoretical knowledge in practice	Ability to analyze and synthesize Ability to innovate and discover new things Foreign language skills	Good presentation skill Interpersonal and communication skill Writing skill	Entrepreneurial mindset Leadership skills Organization skill	Conflict management skills Emotional intelligence Flexibility Knowing protocol and behavioral rules Nonverbal communication (for example appearance, body language) Teamwork

Source: based on Sipos, 2015, Garcia-Aracil and Van der Velden, 2007, Kuráth, 2018

Sample and method

- UP GCTS between 2014-2017
- EFA (Cronbach Alpha=0.853 KMO=0.914 Bartlett's Test of Sphericity: Chi-square: 22,005.303 df =120 p=0.001 R²=65.9%)
- 6,170 respondents

Basic data	Recent graduates			
	2014	2015	2016	2017
Base population	15,459	12,294	12,389	10,308
Number of respondents	1,848	1,816	1,678	1,961
Average response rate	12.0%	14.8%	13.5%	19.0%

OLS regression

$$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \dots + \beta_6 X_6 + \beta_7 Z_1 + \beta_8 Z_2 + \dots + \beta_{13} Z_7 + \varepsilon$$

where:

Y = logarithmic net salary

$X_1 - X_6$ independent variables of the OLS regression

$Z_1 - Z_7$ control variables of the OLS regression

ε = random error.

The control variables and the reference categories:

- Year of the survey: 2014, 2015, 2016, 2017; dummy, the reference category is 2014
- Type of education: full-time, part-time; dummy, the reference category is the part-time
- Level of education: bachelor, master, unified/undivided, short cycle; dummy, the reference category is the bachelor
- Gender: female, male; dummy, the reference category is the male
- Age category: 25 years or younger, 26-30 years, 31-45 years, 46 years or older; dummy, the reference category is those between 26-30 years
- Time passed since graduation: one year, three years, five years; dummy, the reference category is one year
- The position occupied in the labor market: top manager, middle manager, line manager, position with degree requirement, position not requiring a degree; dummy, the reference category is degree-requiring position

OLS results

R ²	0.249	
Adjusted R ²	0.243	
F	41.421	
Sig.	0.000	
Constans	5.059	
Sample size	6,170	
Competence areas (reference values are 0 or less)		
Socio-emotional	0.055	0.001
Participative	0.009	0.578
Generic	-0.025	0.121
Organizational	-0.025	0.112
Specialized	-0.020	0.211
Methodological	0.194	0.000

Conclusions

1. No positive effect of the participative competence-set (the passing of time annihilates it)
2. No negative effect of the organizational competence-set
3. Socio-emotional competence-set has a stronger effect
4. Methodological competence-set has an important effect
5. HEIs should focus on providing soft competence developing courses and services

Thank you for your attention!

sipos.norbert@ktk.pte.hu

kurath.gabriella@ktk.pte.hu

banyai.edit@ktk.pte.hu