

Joint Degrees – A Competitive Advantage of Czech Higher Education Institutions (?)

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Abstract

Universities nowadays engage in fierce competitive battles, both for students and funding. Among the competitive advantages addressing both people and money counts potent internationalization, opening possibilities to study abroad or work with foreign specialists. Providing joint degrees with foreign partner universities has emerged as a viable path to a higher attractiveness of university study options. Nevertheless, after almost two decades of joint degree offers in the European higher education area, the joint degree popularity seems to be stagnating at best. Based on an overview of Czech universities, this study seeks to answer whether universities providing joint degrees rank better in international assessments and whether individual faculties running joint degrees at Czech universities rank better in the national Czech Universities Ranking. As a mixed-method study, it applies the methods of content and correlation analyses to analyze and compare the national and international quality ranking of higher education institutions in the Czech Republic in relation to providing joint or double degree programmes. While no statistically significant relationship has been found between the Czech national ranking of individual faculties and their offer of double degrees, the findings suggest a statistically significant relationship between the joint degree offer and international university ranking. Nevertheless, the direction of the relationship remains obscure.

Keywords: *joint degree, Czech Republic, higher education institutions, ranking*

JEL Classification: I23, I21

Article history: Received: October 2023; Accepted: May 2024; Published: June 2024

1 INTRODUCTION

The study programmes built on international academic collaboration have been of steady presence in the European higher education area (EHEA) for several decades. Their introduction to European universities started in the 1970s, with the 1990s seeing a boom in the area (EACEA, 2020). The major institutional support was anchored with the emphasis on degree awarding mobility set by the Lisbon Strategy in 2000.

The launch of the Erasmus Mundus programme in 2004 was a turning point in the implementation of joint programmes in the EU (Kivistö & Pausits, 2020). Being one of several financing options, it contributed significantly to the European Higher Education Institutions' offer of joint programmes by funding their development and supporting students with scholarships (Becker, 2020). The Erasmus Mundus budget is managed by the European Commission, which also sets the objectives of the programme and guides, and monitors its implementation. Operating under the auspices of the European Commission, the Education, Culture and Audiovisual Executive Agency (EACEA) is responsible for the implementation of the programme closely cooperating with national Erasmus+ agencies at local levels (Vellamo et al., 2023). By 2016, one in two European Higher Education Institutions (HEIs) ran a joint

degree programme, claiming visibility and prestige as one of the major reasons for their development (European Commission, 2016).

After more than three decades of institutionally supported effort, the majority of Erasmus+ Programme countries have gained experience in creating joint and multiple-degree arrangements and administering the existing programmes (EACEA, 2020). Even though their existence is generally seen as positive, HEIs often face challenges related to sustainability once the EU funding is withdrawn, applying appropriate management strategies, developing flexible human resources via coaching, and offering appropriate student services (European Commission, 2016).

Administrative frameworks vary considerably among the countries but institutional rationales are more or less common to them – attractiveness to applicants, curriculum innovation, faculty exchanges, international research networks, and last but not least increased reputation and ranking (Fehrenbach & Huisman, 2022; Knight, 2011; Král'ová & Doleželová, 2020). University ranking is a driving force in HEIs' competitiveness on both global and national levels. Some of the best-known and most respected global rankings providing assessment and comparison on relevant indicators include the Times Higher Education, the Academic Ranking of World Universities also known as the Shanghai Ranking, and the QS World University Rankings. The national-level ranking in the Czech Republic, Hodnocení vysokých škol [Higher Education Institutions Assessment], assesses individual schools (faculties) of the universities rather than the universities as a whole and provides their ranking within particular fields of study (Hodnocení vysokých škol, 2022).

This article aims to analyze and compare the national and international ranking of higher education institutions providing and not providing joint or double degree programmes, focusing on the situation in the Czech Republic. The geographical limit is motivated by the availability of data in the Annual Reports published by all the publicly funded HEIs in the Czech Republic. To the best of the authors' knowledge, there have not yet been any studies focusing on joint programmes as a potential factor affecting the competitiveness of higher education institutions in local and global contexts.

2 THEORETICAL BACKGROUND

Globally, joint degrees, also referred to as double or dual degrees, have various forms and functions. Outside of the EU, they typically refer to multidisciplinary Bachelor or Master study programmes within one university, multiplying the acquired skills of the graduate (e.g., Russell et al., 2008). The joint degree (JD) programmes in Europe are degrees issued simultaneously by two European institutions and are offered predominantly at a Master level. Their development and operation are managed mostly by Erasmus Mundus action, part of the Erasmus+ programme. A minority of European JD programmes are developed and supported by HEIs' funds or project schemes not linked to the EU institutions (EACEA, 2020).

In the Czech Republic, the implementation of the JD programme depends on a mutual agreement of partner institutions but must comply with the requirements of the National Accreditation Bureau for Higher Education. The main national legislation referring to joint programmes in the Czech Republic is the Higher Education Act no. 111/1998 (art. 47a, 81), Government Regulation on Standards for Accreditation in Higher Education no. 274/2016, and Strategy for the Education Policy of the Czech Republic up to 2030+ (Ministry of Education, Youth and Sports, 2020).

Even though the majority of JD programmes occur at the second cycle (master level), doctoral and bachelor programmes are also provided by Czech HEIs awarding one of four different degree types (EACEA, 2020). The first type, according to EACEA, is a joint degree proper (27%) in which an integrated study programme is offered by at least two higher education institutions resulting in a single degree certificate issued and signed by all the participating institutions jointly. The second type is a joint degree per track (9%) where the institutions awarding (and signing) the diploma vary depending on the study track of the student. Comprising the third category is a multiple degree (45%), which is understood as a study programme offered by at least two (double) or more (multiple) higher education institutions whereby the student receives, upon completion of the study programme, a separate degree certificate from each of the participating institutions. The last type is a degree combination (18%) where students (can) get more than one degree upon graduation. One of these degrees is jointly awarded by at least two different HEIs, each formally signing and awarding the degree.

Double/multiple degree programmes are more common than joint degree programmes all over Europe, most likely due to legislative and administrative challenges in granting a joint diploma (Knight, 2011; Obst, 2008) though considered less flexible in the curriculum (Culver et al., 2011). Management of the programme formalized in a consortium agreement is rather labor-intensive and time-consuming. Long-term administrative and financial sustainability are also in question as most grants are awarded for the longest period of five years.

However, many institutions have developed joint degree programmes as a response to an increasingly global job market (Sursock & Smidt, 2010) and the demographic crisis (Becket & Brooks, 2008; Bileviciute et al., 2019). In the Czech Republic, besides the ongoing decrease in student enrolment (Figure 1), high internal competition is caused by the number of HEIs and international competition postulated by the single European system (Dimitrova & Dimitrova, 2017).

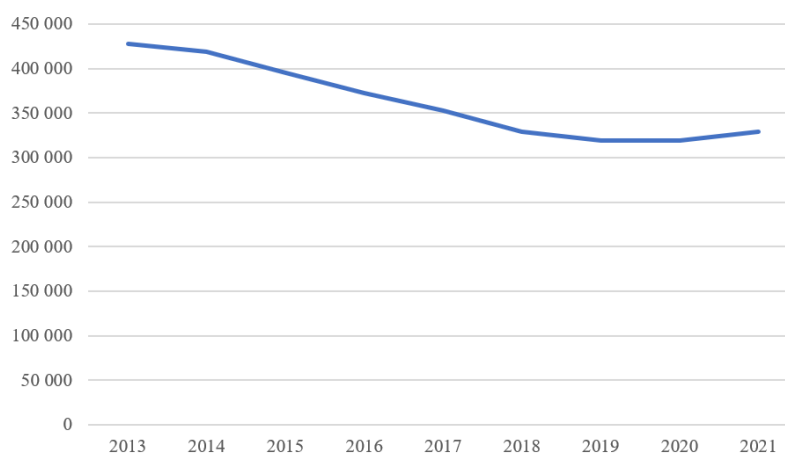


Fig. 1 – Students enrolled in tertiary education (Czechia). Source: Eurostat (2022).

The competition among HEIs is thus getting stronger and providing attractive high-quality programmes is becoming a key element for their strategic management (Pârvu & Sandu, 2019). Undoubtedly, competition plays the role of a driving force in the development of HEIs in search for various sources of competitive advantages in offering an educational product that satisfies both the consumers of educational services (students) and the consumers of the product (labor market) (Dimitrova & Dimitrova, 2017).

The concept of competitiveness of a HEI is closely linked to their international and national rating assessment undertaken annually by the government, media outlets, and not-for-profit organizations (Hewitt, 2021) as they are a source of interest for university administrators, faculty, governments, and for prospective students (Marope & Wells, 2013). With over 3,000,000 students now pursuing studies abroad outside their own countries (Hewitt, 2021) and over 30,000 universities currently operating worldwide, rankings provide a very effective resource for making decisions (Sowter et al., 2017).

3 RESEARCH OBJECTIVE, METHODOLOGY AND DATA

Objective

The primary objective of the research was to find out whether providing JD programmes by Czech Republic HEIs relates to their global and national quality ranking. Within this mixed-method study (Creswell, 2015) the following research question was formulated: *What is the structure of JD programmes provided by Czech public HEIs?* In the same line of reasoning, the following research hypothesis was formulated: *The number of JD programmes provided by a Czech HEI positively correlates with global and local rankings of HEIs.*

Sample

The higher education area in the Czech Republic consists of 59 higher education institutions. The final sample consists of 26 HEIs which are public universities obliged to publish their annual reports. The data on providing JD study programmes were collected from the latest annual reports of Czech public universities available on their websites by the end of June 2023. Two state institutions were excluded from the sample due to different methodologies for allocating subsidies from the state budget. Thirty-one private higher educational institutions were excluded as they were not obliged to publish their annual reports unless allocated a subsidy from the state budget. For the purposes of this analysis, all HEIs were anonymized as their identity does not provide any additional information leading to fulfilling the research objectives. In the Results and Discussion sections, individual HEIs of the sample are referred to as A to Z.

The Czech HEIs' obligation to publish their annual reports in a prescribed outline is stated in the Higher Education Act no. 111/1998, section 21, § 1. Due to the prescribed form, the data on JD programmes are always included in the Table Appendix, section 2.3 of the Annual Report.

Methods

The qualitative method of content analysis (Cohen et al., 2007) was used to obtain the data in pre-existing categories: the number of all study programmes provided, the number of JD programmes provided, the degrees provided, partner institutions, and the fields of JD programmes. The latest available Annual Reports of all public universities in the Czech Republic were reviewed in order to place the data into categories. Data verification was done through the reanalysis by another researcher. The data were then quantified to get the absolute number and the relative number of JD programmes for each institution (a proportion of the total number of all programmes provided by the university and the number of JD programmes provided). The findings were compared and interpreted.

Further, correlation analysis was applied as a quantitative method to relate the data obtained by the content analysis (absolute and relative number of JD programmes) to two sets of quality indicators that determine the global and national university ranking. On the global level, QS World University Ranking 2022 was chosen for the purposes of this analysis. The quality indicators used for the QS World University Ranking comprise Academic Reputation,

Employer Reputation, Faculty/Student Ratio, Citations per Faculty, International Student Ratio, International Faculty Ratio, International Research Network, and Employment Outcomes. On the national level, the quality indicators used for the Czech HEIs ranking comprise Students’ Interest, Scientific Orientation, International Openness, Study Evaluation, Focus on Practice, and Graduates’ Prospects.

4 RESULTS AND DISCUSSION

4.1 The Structure of Joint Degree Programmes in the Czech Republic

The content analysis of the annual reports brought descriptive data on the structure of JD programmes at Czech universities. Out of 26 public HEIs in the Czech Republic, six do not provide any joint/double degrees. Twenty HEIs provide 164 joint/double degree programmes (15.4% Bachelor, 65.4% Master, and 19.2% Doctoral) with the highest number of 20 JD programmes at one institution (Tab. 1). The average number of both outgoing and incoming students is 11 for one joint/double degree programme, with the highest number of 301 students enrolled in one JD programme. However, in almost one-third of the JD programmes provided (51 in total), there were no students enrolled in 2022.

Tab. 1 – The number of study programmes at public institutions of higher education in the Czech Republic. Source: own research

Institution	Study Programmes	JD	JD%	JD Students
A	720	18	2.50	601
B	490	10	2.04	172
C	401	14	3.49	52
D	359	20	5.57	69
E	262	6	2.29	1
F	257	12	4.67	308
G	243	8	3.29	70
H	225	4	1.78	18
I	206	15	7.28	46
J	197	3	1.52	10
K	186	2	1.08	8
L	164	6	3.66	60
M	143	16	11.19	82
N	133	2	1.50	12
O	123	1	0.81	0
P	105	14	13.33	26
Q	104	3	2.88	6
R	101	2	1.98	3
S	100	0	0	0
T	89	1	1.12	1
U	82	7	8.54	851
V	29	0	0	0
W	17	0	0	0
X	15	0	0	0
Y	13	0	0	0
Z	12	0	0	0
total	4776	164	3.10	2396

JD – absolute number of JD degree programs provided

JD% – relative number of JD degree programs provided

JD Students – number of active incoming and outgoing students in JD programmes

In providing JD programs, Czech HEIs cooperate with 391 foreign partners in all, mostly from Europe (84.41%) (Fig. 1), predominantly from the European Union countries. Among those, institutions from France (contributing to 56 programmes), Germany (49 programmes), and Italy (27 programmes) are the most frequent cooperation partners.

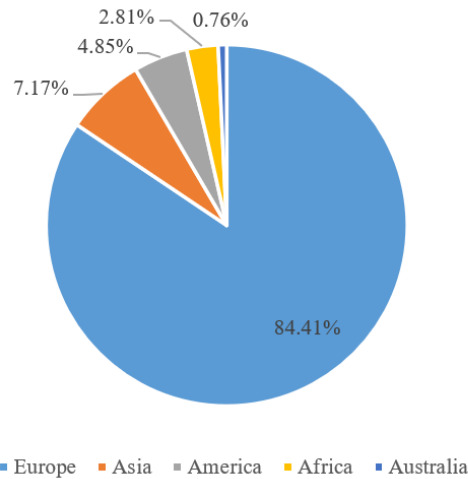


Fig. 1 – The partner countries in JD programs at public higher education institutions in the Czech Republic. Source: own research

In terms of study fields (OECD, 2015), Social Sciences (with over 30%) and Engineering and Technology (almost 27%) dominate the scientific structure of Czech JD programs. A slightly smaller, but still significant number of JD programmes is offered in the fields of Humanities and the Arts (almost 22%) and Natural Sciences (over 17%). Within Agricultural and Veterinary Sciences and Medical and Health Sciences, the offer of JD programmes does not exceed 3% and 1% respectively.

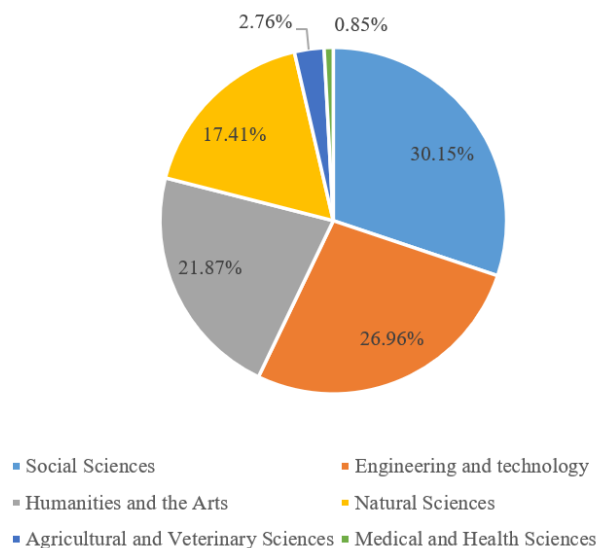


Fig. 2 – The fields of research in JD programs at public higher education institutions in the Czech Republic. Source: own research

4.2 The Correlation of Joint Degree Programs and Quality Rankings

4.2.1 QS World University Rankings

Only 16 out of 26 Czech public universities whose estimated rank (within the overall score of 100) was within a publishing threshold for each indicator have been included in the QS World University Rankings (QS World Rankings, 2022). The ranking is determined via a set of indicators (O'Callaghan, 2023). The first indicator, accounting for 40% of the overall score, is Academic Reputation. It looks at the quality of the research and its world impact. Employer Reputation, as the second indicator, carries a weight of 10% and it assesses the employability of graduates. Faculty/Student Ratio accounts for 20%; it is calculated by dividing the number of the overall faculty figure by the overall students figure. Citations per Faculty indicator contributes 20% to the score. It takes the total number of academic citations in a five-year period. International Student Ratio and International Faculty Ratio cover 5% each; they look at the ratio of international students to overall students and international faculty staff to overall staff, respectively. For the 2023 edition, two indicators carry 0% weight; these are International Research Network and Employment Outcomes, estimating the richness of the selected international research partners for a given institution and reflecting the ability to ensure a high level of employability for their graduates, respectively.

Shapiro-Wilk Normality Test proved that the data do not have a normal distribution, therefore non-parametric tests had to be used for the analysis. Spearman's Rank Correlation¹ was thus used to calculate the correlations between the relative number of JD degrees provided by the institutions included and the parameters identified by the World University Ranking. A statistically significant moderate correlation was detected only with the indicator International Student Ratio ($R = 0.5825$), and weak correlations with the indicators Faculty/Student Ratio ($R = 0.4167$), Citations per Faculty ($R = 0.4340$), and Employment Outcomes ($R = 0.3475$) within the confidence interval (CI) 95% (Tab. 2).

Tab. 2 – The correlation of QS World University Rankings and the relative number of JD programs. Source: own research

Institution	Academic Reputation	Employer Reputation	Faculty / Student Ratio	Citations per Faculty	Internat. Student Ratio	Internat. Faculty Ratio	Internat. Research Network	Employment Outcomes	JD%
A	45.3	34.9	41.3	10.7	51.6	23.9	96.0	41.5	2.50
B	23.7	25.8	11.5	14.9	66.9	31.3	85.0	23.5	2.04
C	15.6	11.5	32.6	8.8	19.2	35.0	73.6	7.4	3.49
D	19.9	33.2	68.9	4.9	47.3	23.7	75.0	8.7	5.57
E	4.3	7.7	12.6	4.0	16.7	7.5	41.7	9	2.29
F	5.2	2.3	71.4	5.0			53.2	10.3	4.67
G	5.7	1.8	13.1	4.4			38.8	18.7	3.29
H	5.0	1.0	21.6	4.4	13.7	20.2	36.7	15.8	1.78
I	12.3	29.4	20.2	6.3	68.0	12.2	73.9	26.3	7.28
J	4.6	1.2	35.2	3.8	3.1	29.6	26.1	19.9	1.52
L	4.0	2.8	48.3	4.2	11.3	17.8	25.8	14	3.66
M	10.1	6.2	8.8	9.3	52.4	28.1	85.1	10	11.19
N	4.4	1.7	35.4	4.3	7.9	10.7	23.3	12.7	1.5

¹ $0 \leq |R| < 0.3$ – insignificant correlation, $0.3 \leq |R| < 0.5$ – weak correlation, $0.5 \leq |R| < 0.7$ – moderate correlation, $0.7 \leq |R| < 0.9$ – strong correlation, $|R| \geq 0.9$ – very strong correlation.

P	6.5	7.9	99.7	13.0	61.2	28.3	35.2	44.1	13.33
Q	3.7	10.5	12.4	6.5	18.1	21.1	25.5	13.3	2.88
R	6.4	6.5	42.2	3.6	39.5	9.4	46.0	10.7	1.98
/R/	-0.0560	0.0829	0.4167	0.4340	0.5825	0.2683	0.2244	0.3475	

The mean descriptive values (number of all study programs provided, absolute and relative numbers of JD programs provided) of the institutions included and not included in QS World Universities Rankings were compared. As shown in Tab. 3, most institutions not included in QS World Universities Rankings do not have any JD degree programs while all included institutions offer such programs and their average ratio to all study programs is four times higher than in the non-included institutions.

Tab. 3 – The comparison of QS World University Rankings included and non-included institutions. Source: own research

Included in QS World University Rankings				Non-included in QS World University Rankings			
Institution	SP	JD	JD%	Institution	SP	JD	JD%
A	720	18	2.50	K	186	2	1.08
B	490	10	2.04	O	123	1	0.81
C	401	14	3.49	S	100	0	0
D	359	20	5.57	T	89	1	1.12
E	262	6	2.29	U	82	7	8.54
F	257	12	4.67	V	29	0	0
G	243	8	3.29	W	17	0	0
H	225	4	1.78	X	15	0	0
I	206	15	7.28	Y	13	0	0
J	197	3	1.52	Z	12	0	0
L	164	6	3.66				
M	143	16	11.19				
N	133	2	1.50				
P	105	14	13.33				
Q	104	3	2.88				
R	101	2	1.98				
Mean	257	9.56	4.33	Mean	67	1.10	1.16

4.2.2 Czech Faculty Rankings

Czech national ranking of the faculties (Hodnocení vysokých škol [Higher Education Institutions Assessment], 2022) is calculated by the Education Policy Centre at Charles University using primarily the data from the Czech Ministry of Education, Youth and Sports of the Czech Republic, SCIO Ltd. running the national comparative exams, and Primat database survey of Czech public HEIs' students. All the faculties of Czech higher education institutions are evaluated in six indicators within an overall score of 10. The Students' Interest indicator looks at the number and the quality of accepted students. The Scientific Orientation indicator evaluates research activity and the number of Professors and Associate Professors. International Openness takes the number of outgoing and incoming students. Study Evaluation relies on the graduates' evaluation of the institution. Focus on Practice reflects the ability to provide education applicable in practice. Employability of Graduates reflects the ability to ensure employability.

No statistically significant correlation between the number of JD programmes offered by the Czech HEIs and any of the indicators in the Czech HEIs ranking was detected (Tab. 4).

Tab. 4 – The correlation of Czech Faculty Rankings and an absolute number of JD programs.
Source: own research

Faculty	Students' Interest	Scientific Orientation	Internat. Openness	Study Evaluation	Focus on Practice	Employ. of Graduates	JD
A1	7.75	4.16	8.62	4.56	2.86	6.71	8
A2	7.62	4.76	8.45	5.47	3.86	6.23	6
A3	7.6	10	4.94	10	4.85	8.66	1
A4	5.96	3.79	5.92	5.64	3.16	5.91	1
A5	5.41	2.37	3.44	2.7	6.84	6.96	1
U1	8.35	3.97	4.49	8.21	4.76	7.54	1
U2	8.17	2.24	5.27	4.13	3.26	7.03	1
U3	7.3	2.68	5.95	6.57	4.83	7.18	2
P1	5.96	7.85	5.24	7.16	5.57	7.17	2
P2	5.1	7.09	4.27	6.95	6.47	7.19	2
P3	4.92	7.36	4.84	7.5	6.78	6.55	11
P4	4.02	6.19	4.77	6.63	7.04	6.46	2
D1	5.66	6.77	5.89	7.15	5.96	7.61	6
D2	5.38	5.39	3.97	4.87	5.38	6.48	7
D3	4.68	2.97	3.11	2.76	3.93	5.57	2
D4	4.38	5.12	5.26	4	5.59	6.97	1
D5	3.36	8.3	3.93	9.05	5.45	8.23	5
D6	5.03	2.83	2.07	1	3.24	6	1
M1	3.85	1.74	4.16	3.11	4.21	6.05	8
M2	3.57	3.88	2.14	3.26	4.75	6.35	1
M3	3.2	4.19	2.69	4.06	3.77	3.94	2
O1	4.69	3.79	3.6	4.85	5.13	5.87	1
C1	6.63	3.92	3.94	5.86	4.38	5.66	5
C2	7.96	2.34	3.72	2.39	6.22	6.77	1
C3	2.96	6.54	2.59	5.74	5.04	4.98	4
C4	2.48	3.75	1.19	6.07	6.46	6.09	4
B1	6.43	4.01	5.38	5.89	2.81	5.48	3
B2	6.36	2.42	5.21	4.47	3.37	5.81	1
B3	5.05	6.1	7.67	6.47	4.49	8.44	1
B4	4.98	4.06	4.15	5.59	2.8	4.25	3
R1	2.87	3.14	3.67	3.96	4.54	4.48	2
I1	6.02	6.8	5.94	6.56	8.49	8.25	1
I2	4.63	2.31	3.6	2.75	4.74	5.13	1
I3	4.55	6.38	4.63	4.5	5.11	5.19	2
I4	3.86	6.98	4.19	6.6	6.18	6.79	5
I5	3.58	5.93	3.66	6.96	6	6.59	4
T1	4.69	3.79	3.6	4.85	5.13	5.87	1
H1	5.14	3.5	2.29	5.47	4.28	3.98	2
H2	4.69	3.79	3.6	4.85	5.13	5.87	1
H3	4.53	3.69	2.13	5.23	3.68	4.15	1
E1	4.51	2.36	3.05	2.84	2.7	3.63	4
E2	1	4.88	2.07	5.07	4.89	5.91	1
E3	1.06	5.64	2.53	5.1	6.22	6.57	1
F1	5.43	4.38	2.88	7.41	2.63	2.14	5
F2	5.15	6.58	3.95	9.02	6.32	5.76	3
F3	4.27	1.92	1.3	3.74	5	6.23	1
F4	3.98	2.05	2.57	2.62	3.29	4.43	1
J1	4.66	2.03	1.47	2.93	5.46	5.88	3
L1	3.7	2.14	3.17	3.54	3.91	5.87	2
L2	3.44	4.5	2.04	1.86	5.32	7.35	2

N1	3.26	2.58	2.91	2.09	2.86	4.67	2
G1	4.55	1.59	1.9	3.47	5.16	5.98	1
G2	4.36	1.89	2.25	2.2	3.56	5.86	2
G3	3.83	3.54	3.97	4.33	1	3.12	2
G4	2.33	5.62	1.91	7.01	5.72	6.72	1
K1	3.21	3.08	2	3.36	2.79	4.05	2
Q1	5.63	2.83	4.59	3.23	4.05	4.62	3
/R/	-0.1758	-0.1661	-0.0489	0.1349	-0.1064	-0.0541	

The mean values for each of the indicators for the faculties providing and not providing JD programs were compared (Fig. 3). There is no significant difference at $\alpha = 0.01$ between the mean scores for any of the indicators (Tab. 5).

Tab. 5 – The difference of Czech Faculty Rankings indicators for faculties providing and not providing JD. Source: own research

Faculty	Students' Interest	Scientific Orientation	Internat. Openness	Study Evaluation	Focus on Practice	Employ. of Graduates
Z	-0.3354	0.358	0.7642	-0.557	0.102	0.339
p	0.7373	0.7204	0.4448	0.5775	0.9187	0.7346

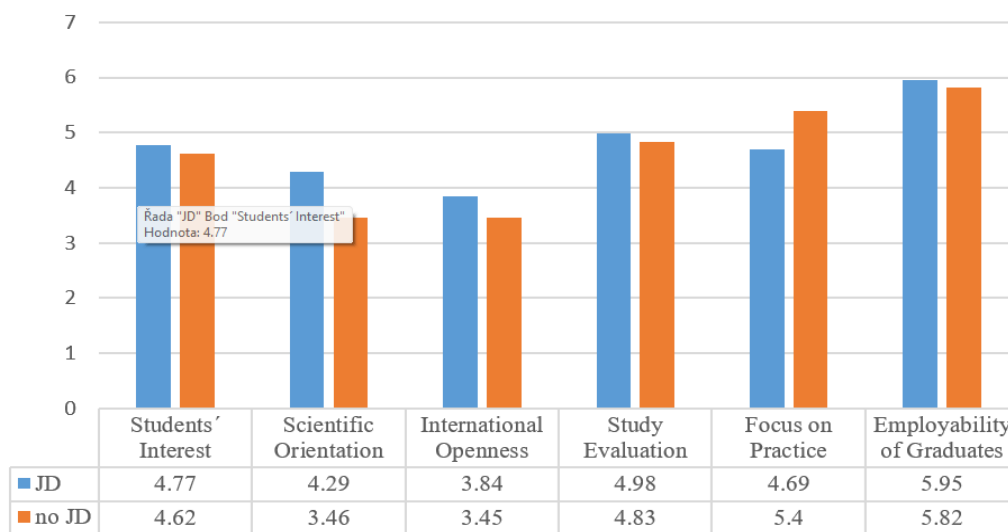


Fig. 3 – The comparison of Czech Faculty Rankings indicators for faculties providing and not providing JD. Source: own research

The analyses show the higher number of JD programmes offered by Czech HEIs is reflected in their higher ranking in some of the indicators within the QS World University Rankings. On the other hand, no such link is observable on the national level. However, the existing relationship is rather weak and the direction of the relationship between the global rank and the number of JD programmes is not distinguished.

The Czech JD educational field is dominated by programmes offered in Social Sciences which includes Economics and Business, Education, Law, Political Sciences, and others (as categorized by OECD, 2015). The second strongest segment is Engineering and Technology,

followed by Humanities and the Arts. This proportion reflects the overall enrollment of university students by field in the Czech Republic in recent years (OECD Statistics, 2021).

Master's seems to be the most effective study level for JD programmes in the Czech Republic with over 60% of the total number. This is mostly related to its convenient length of study, where a shorter, four-semester period enables an easier organizational setup to provide education at two international institutions (typically, one year at each HEI) compared to a longer Bachelor's study of six semesters. It may also be linked to its more specialized focus and at the same time still involving a potentially larger bulk of students than in Doctoral degree programmes. Nevertheless, despite the Bachelor's JD programmes comprising only 20% of all offered JD programmes in the Czech Republic, the students enrolled in them comprise almost 40% of all JD programme students in the country. This disproportion may, at the same time, be an anomaly since 60% of all Bachelor's students enrolled in the JD programmes in the Czech Republic are reported by a single HEI (see Tab. 1) within two JD programmes.

Natural geographical proximity and long-term historical closeness along with support from the partner HEIs's national agencies seem to explain the typical JD partner institutions. Due to the consistent financial support of the French Embassy and the German Academic Exchange Service, France and Germany are the main strategic partners in JD programmes (IFP, 2023; Keményová, 2023).

Even though some authors claim the demand for JD programmes comes mainly from students, which pushes the HEIs to be attractive to them (Dimitrova & Dimitrova, 2017; Pârvu & Sandu, 2019), the demanding administration and financial sustainability discourage many local and smaller institutions from creating and maintaining JD programs. At the same time, providing JD programmes as such is not directly reflected in the methodology for allocating subsidies from the state budget. What is reflected in the budget financing of Czech universities, though, is the number of incoming and outgoing students and staff. Thus, it seems stronger institutions run JD programmes for the sake of attractivity to international (or rather globally oriented) students and staff despite the costs, while some may use the international student reporting to gain financial benefit within the system of Czech university funding.

The results revealed that there is no relationship between providing JD programmes by Czech public HEIs and their national quality ranking. The results also show that providing JD programmes only weakly relates to the universities' global quality ranking (obviously, most significantly in the parameter of international to overall students ratio). For the existing correlation, two directions of the relationship are possible: providing the JD programmes will improve the ranking of the HEIs; or, the universities ranking higher in the global perspective will have more funds, expertise, and human resources to develop and provide JD programmes. Only strong institutions are able to attract quality staff from across the world to do research with world impact, thus building sustainable international cooperation networking. Institutions with more limited resources may certainly be less able to develop attractive programming and engage meaningfully in international networks (Hewitt, 2021). What is more, the criteria for obtaining an Erasmus+ grant usually count at least 20% academic and research quality (Czech National Agency for International Education and Research, 2023). Similar criteria are also taken into account by the National Accreditation Bureau for Higher Education (National Accreditation Bureau for Higher Education, 2023) when approving study programmes proposed by HEIs. Considering the mentioned policies and circumstances, the second scenario, where the stronger institutions operate with resources to provide JD programmes, seems to be more probable.

5 CONCLUSION

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Currently, some universities discuss virtual mobilities and micro-credentials and plan to develop a hybrid form of JD studies to make them more flexible and accessible to a higher number of students (Keményová, 2023). Some Czech institutions are already taking part in piloting a joint European degree label in new forms of international HEI cooperation (Tomášek & Matoušek, 2021).

The causality of the results remains speculative and offers itself to become a point of interest in further research. More research could also be aimed at comparing the competitiveness of Czech universities with other university-ranking platforms than QS World Ranking, possibly Times Higher Education World University Rankings or ARWU (Shanghai Ranking).

Globally, universities compete for better standing in renowned ranking lists, attracting cooperating institutions, high-quality staff, or international students. On the national level, the HEIs ranking seems to focus on providing insights into academia for the prospective students opting to study locally (which in most Czech HEIs is a majority). While globally, prestige tends to be measured in overall academic performance, locally (at least in the studied case of the Czech HEIs), universities with higher local ranking seem to attract more local students. This insight may explain why no significant relationship was observed between the offer of JD programmes at a Czech HEI and their national ranking. On the other hand, stronger and more ambitious institutions that seek global ranking success will most likely have the drive, capacity, and funds to develop and provide costly JD programmes which, even with low student enrollment, serve as a batch of success.

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