

THE MANAGEMENT OF UNIVERSITY-BUSINESS COLLABORATION: THE ROLE OF PERSONAL RELATIONSHIPS

Mirela Minică^{1,*}, Gelu Trișcă²

¹ Babeș-Bolyai University, Faculty of Economics and Business Administration
Traian Vuia, no. 1-4, Reșița, Romania

² Babeș-Bolyai University, Faculty of Economics and Business Administration
Traian Vuia, no. 1-4, Reșița, Romania

* Corresponding author. E-mail: mirela.minica@econ.ubbcluj.ro

Abstract: University-business collaboration is fundamental to the entrepreneurial university ecosystem. Through a questionnaire-based survey (N=110) conducted among academic staff from 52 economics and business-focused faculties in Romania, the research investigates the forms and factors influencing this collaboration. A key facilitator is the establishment of personal relationships between academics and practitioners.

Keywords: University-business collaboration, Entrepreneurial university, Triple Helix: University-Industry-Government, Entrepreneurial university ecosystem.

1. Introduction

The concept of the Entrepreneurial University (EU) is complex, controversial, and evolving. Despite the ongoing global and European discourse emphasizing the need for reform in higher education systems, significant resistance to change persists in practice.

An analysis of the missions of all universities in Romania reveals that none explicitly identify as Entrepreneurial Universities. Instead, they present themselves as being centered on education, research, and community engagement. However, in the field of entrepreneurship research, based on the citation of 803 academic papers, eight Romanian universities are featured in the EduRank database. The reluctance to associate with the term "entrepreneurship" stems from several factors: public perceptions that link the term with risk and uncertainty, organizational culture and resource limitations, public policies and funding systems that are misaligned with entrepreneurial objectives, and the complexity of implementation, which would require a fundamental shift in mindsets at both individual and organizational levels.

Current approaches to entrepreneurial attributes are tangential at best. They include introducing entrepreneurship-related courses (mostly as elective or optional subjects), participating in projects initiated by private companies and NGOs (e.g., Junior Achievement, the Association for Entrepreneurial Education), engaging academic staff as trainers in entrepreneurship courses funded by European projects, and establishing laboratories, business incubators, or spin-offs within universities.

Building on this context in the Romanian higher education system, and analyzing the economic performance of the business environment in Caraș-

Severin County—which shows a consistent decline in the number and outcomes of economic activities—this article takes a first step in addressing the following questions: Can universities become entrepreneurial? How can change be implemented to transform the current state of affairs (marked by rigid organizational culture, performance evaluation of academic staff based on citation metrics and quantophobia, divergent perspectives on economic dynamics, a mindset tied to a superior, elitist social role-status, and an aversion to risk and uncertainty)?

2. Conceptual Frameworks

The concept of the Entrepreneurial University (EU) was first introduced in the academic literature by Henry Etzkowitz in 1983 [2] and further developed in collaboration with Loet Leydesdorff in 1995[3], and 2000[4] through the seminal work *The Dynamics of Innovation: From National Systems and Beyond to a Triple Helix of University-Industry-Government Relations*. The authors examine the interactions among the three actors, highlighting the role of universities in promoting innovation and economic development through an entrepreneurial approach. In this model, each actor retains its identity while knowledge capitalization occurs within an evolving spiral of mutual influence in the Triple Helix model of university-industry-government relationships.

As there is no unified definition of the integrative concept of the Entrepreneurial University, we synthesized its characteristics based on the work of several prominent authors:

1. Entrepreneurial Profile: This is reflected in the university's mission, vision, and strategic positioning, along with the mindset of its administration, faculty, and

students. Initiatives that promote this mindset include leadership, institutional culture, and incentive systems. Knowledge transfer occurs through the application of academic expertise to various external contexts and the internal use of socio-economic experiences as tools for interdisciplinary teaching, training, and learning. [5].

2. Value Creation and Revenue Generation: Entrepreneurial universities focus on generating additional value and income (e.g., patents, licenses, spin-offs) to achieve greater financial independence from government institutions. [6].

3. Interaction and Engagement: They cultivate long-term, synergistic partnerships with various stakeholders. [7].

4. Innovation Redefined: As the Triple Helix spirals intertwine, the organizations involved cooperate to enhance each other's traditional roles.

From the perspective of these concepts' evolution, the OECD's 2018 policy report, [9] developed in collaboration with the European Commission, introduced the term *regional entrepreneurial ecosystems*. These ecosystems play a vital role in socio-economic progress and achieving the 17 United Nations Sustainable Development Goals (SDGs) outlined in the 2015 Agenda 2030 for Sustainable Development, including the vision for "universities without walls" by 2030, adopted by the European University Association (EUA). [10].

An effective ecosystem identifies numerous proactive connectors to ensure interaction, rewards participants for seizing opportunities through innovation, and maintains long-term sustainability [1].

In 2013, the European Commission, in collaboration with the OECD, launched *HEInnovate*, a tool enabling universities to explore their innovation potential across eight dimensions: (1) Leadership and Governance, (2) Organizational Capacity, (3) Entrepreneurial Teaching and Learning, (4) Preparing and Supporting Entrepreneurs, (5) Digital Transformation and Capability, (6) Entrepreneurial Ecosystem and Networks, (7) The Internationalized Institution, (8) Impact of Entrepreneurial HEIs

The 2019 HEInnovate report on Romania [11] highlights several findings: Romanian universities are more focused on achieving favorable positions in academic rankings than on addressing regional and local development priorities. They are often characterized as bureaucratic, rigid entities heavily reliant on state funding. While the introduction of "smart specialization" is viewed positively (Healy, 2016), its practical implementation—along with the new dual system that aims to elevate university-business collaboration—remains challenging, hindered by a lack of trust from both beneficiaries (students, parents) and partners.

Regardless of how the Entrepreneurial University is defined or discussed in the literature, the central element of the concept, universities-businesses collaboration, often seems overlooked due to the complexity of associated issues [8]. This study aims to identify the

primary forms of this collaboration within Romania's academic landscape and the factors influencing it. The findings indicate that the personal relevance of interactions between academic community members and business representatives serves as the main facilitator of such collaborations.

3. Methodology

The empirical research was conducted between May and June 2024 through a questionnaire-based survey (N=110) targeting academic staff and researchers from 52 faculties with economic and business administration profiles in Romania. The link to the questionnaire, hosted on Google Forms, was sent to 550 email addresses from the database, including the vice-deans of the faculties, with a request to support the research. The collected data was processed using SPSS software.

4. Results

Across the entire sample (Table 1), the factor that most strongly facilitates collaboration between academics and companies is personal relationships between the two parties (M=4.00; SD=1.146). Government policies are not perceived as facilitating university-company collaboration: policies of the Ministry of Education (M=1.76; SD=0.815), tax legislation (M=2.15; SD=1.282), and labor legislation (M=2.19; SD=1.186).

Tab. 1 Collaboration between universities and companies is facilitated by...

Facilitator	Mean	Std. Deviation
...personal relationships established with practitioners	4,00	1,146
...practitioners' trust in universities	3,05	1,029
...evaluation criteria developed at the faculty level	2,85	1,321
...advancement criteria (developed at the ministry/university level)	2,58	1,276
...labor legislation	2,19	1,186
...tax legislation	2,15	1,282
...the Ministry of Education through its policies	1,76	0,815

Five-point Likert scale: 1=Disagree, 2=Slightly disagree, 3=Neither agree nor disagree, 4=Slightly agree, 5=Agree; N=110.

The age of respondents is negatively and significantly correlated with the perceived role of labor legislation as a facilitator of university-business collaboration ($r=-0.222$, $p=0.026$; $N=100$), advancement criteria developed by the ministry/university ($r=-0.315$,

p=0.003; N=100), and practitioners' trust in universities (r=-0.315, p=0.003; N=100). The strength of these correlations is weak.

Previous experience in business practice also shows a negative and statistically significant correlation with most of the investigated university-business collaboration facilitators: policies of the Ministry of Education (r=-0.225, p=0.021; N=105), tax legislation (r=-0.517, p=0.000; N=100), labor legislation (r=-0.547, p=0.000; N=105), advancement criteria developed at the ministry/university level (r=-0.377, p=0.000; N=95), advancement criteria developed at the faculty level (r=-0.363, p=0.000; N=100), and practitioners' trust in universities (r=-0.626, p=0.000; N=100). The strength of these correlations ranges from weak to moderate.

Years of academic experience are positively and significantly correlated with the perception of faculty-level advancement criteria (r=0.241, p=0.016; N=100) and personal relationships with practitioners (r=0.232, p=0.024; N=95) as facilitators of university-business collaborations. Both correlations are weak.

Across the entire sample, as shown in Table 2, collaborations with companies were most frequently initiated by academic staff, either through personal relationships (M=3.86; SD=1.464) or their own initiative (M=3.64; SD=1.701), and by students or alumni (M=3.40; SD=1.206). Collaborations were least often initiated at the institutional level, either by practitioners contacting the institution (M=2.61; SD=1.067) or by the educational institution itself (university/faculty/department) (M=2.95; SD=1.403).

Tab. 2 How frequently have the professional collaborations (teaching and/or research) you have had with companies been initiated by...

The initiator	Mean	Std. Deviation
... yourself (based on personal relationships with practitioners)	3,86	1,464
... yourself (on your own initiative)	3,64	1,701
... students or former students	3,40	1,206
...practitioners who contacted you directly	3,14	1,212
... the institution (university/faculty/department)	2,95	1,403
...practitioners who contacted the institution	2,61	1,067

Six-point scale: 1=Never, 2= Very rarely, 3= Rarely, 4= Occasionally, 5= Often, 6= Most of the time; N=110.

There is a positive and statistically significant relationship between the number of years of teaching experience in universities and the frequency of

collaborations with companies initiated by the academic staff's own initiative (r=0.211, p=0.027; N=110), the initiative of students or alumni (r=0.390, p=0.000; N=100), direct contact initiated by practitioners (r=0.424, p=0.000; N=105), or indirect contact by practitioners (r=0.370, p=0.000; N=90). The strength of these relationships ranges from weak to moderate.

Previous business practice experience is negatively correlated with the frequency of collaborations initiated by academic staff through personal relationships (r=-0.230, p=0.018; N=105) or without them (r=-0.195, p=0.041; N=110), as well as collaborations initiated by students or alumni (r=-0.362, p=0.000; N=100), by practitioners who directly contacted the academic staff (r=-0.424, p=0.000; N=105), indirectly contacted them (r=-0.370, p=0.000; N=90), or by practitioners contacting the institution (r=-0.362, p=0.000; N=90). The strength of these correlations also ranges from weak to moderate.

The most frequent activities in university-business collaborations include identifying internship partners (M=3.05; SD=1.337) and fulfilling the role of internship tutor (M=3.05; SD=1.337) (Table 3).

Tab. 3 The frequency of university-business collaboration by types of activities

Activity	Mean	Std. Deviation
For identifying work (industry) placement partners	3,05	1,337
As a practice tutor	2,82	1,503
For involving practitioners in teaching activities	2,59	1,650
For involving practitioners in the development of course content	2,50	1,346
For conducting student visits to companies	2,19	1,338
For preparing teaching materials such as case studies	2,05	1,499
For organizing an internship program	1,67	1,498

Five-point scale: 0=Never, 1=Only once (in the entire career), 2=Occasionally (a few times in the entire career), 3=Periodically (once every few years), Frequently (annually), 4=Frequently (annually), 5=Regularly (each semester); N=110.

The least frequently conducted activities by academic staff are organizing internship programs (M=1.67; SD=1.498) and preparing case studies in collaboration with practitioners (M=2.05; SD=1.499). The involvement of practitioners in teaching activities (M=2.59; SD=1.650) and course content development (M=2.50; SD=1.346), as well as organizing company

visits for students ($M=2.19$; $SD=1.338$), occurs occasionally in most universities, with some variability as indicated by the standard deviations.

The age of academic staff is positively and significantly correlated with activities related to identifying internship partners ($r=0.215$, $p=0.027$; $N=105$) and preparing case studies in collaboration with practitioners ($r=0.204$, $p=0.036$; $N=105$). However, these correlations are weak.

The number of years of teaching experience is positively and significantly correlated with activities such as identifying internship partners ($r=0.224$, $p=0.019$; $N=110$), involving practitioners in course content development ($r=0.369$, $p=0.000$; $N=110$), involving practitioners in teaching activities ($r=0.235$, $p=0.013$; $N=110$), and preparing case studies in collaboration with practitioners ($r=0.350$, $p=0.000$; $N=110$). These correlations are also weak.

Previous business practice experience is positively and significantly correlated with the activity of identifying internship partners ($r=0.288$, $p=0.002$; $N=110$) and negatively correlated with the involvement of a practitioner in teaching activities ($r=-0.196$, $p=0.040$; $N=110$). Both correlations are of weak intensity.

At the sample level (Table 4), the most significant barriers to developing collaborations with the business sector are the lack of time among academic staff (24.2%), bureaucracy (18.18%), practitioners' lack of trust in academic institutions (13.63%), and their disinterest (13.63%).

Tab. 4 The most significant barriers to collaboration between universities and companies (personal opinion)

Barriers	%
Lack of time among academic staff (<i>"No barriers exist, but we need to have available time for collaboration"</i>)	24,2%
Inertia among academic staff	5,5%
Lack of trust from practitioners	13,63%
Disinterest among practitioners/Lack of openness	13,63%
Collaboration perceived by entrepreneurs as an expense rather than an investment (<i>"I don't want to spend money on research or studies!"</i>)	5,5%
Lack of tangible benefits for the company	10,9%
Legislation/Legal framework	10,9%
Bureaucracy/Formalities	18,18%
Lack of public policies	5,5%
Level of local development/ Economic strength of companies	10,9%

Frequencies (expressed as percentages); N=110.

Across the entire sample (Table 5), respondents who collaborated with the business sector did so

predominantly with small businesses/micro-enterprises (77.3%) and medium-sized enterprises (45.5%).

Tab. 5 Type of companies collaborated with for teaching or research purposes so far

Type of companies	%
Small businesses/micro-enterprises	77,3%
Medium-sized companies	45,5%
Large companies	13,6%
National/international chains	4,5%

Frequencies (expressed as percentages); N=110.

At the sample level, the entrepreneurial activities most frequently undertaken by respondents were the development of a start-up (40.9%) and the transfer of intellectual property to companies (22.7%). The entrepreneurial activities with the lowest participation were the development of spin-offs/spin-outs (4.5%) and the development/operation of science parks (4.5%) (Table 6).

Tab. 6 Entrepreneurial activities involved in so far

Activity	%
Development of a start-up	40,9%
Intellectual property transfer to companies	22,7%
Development/operation of a business incubator	13,6%
Development/operation of a science park	4,5%
Development of a spin-off/spin-out	4,5%

Frequencies (expressed as percentages); N=110.

As shown in Table 7, across the entire sample, the entrepreneurial activities most frequently undertaken by respondents include conducting research activities in collaboration with researchers from other universities ($M=1.68$; $SD=1.526$), participating in entrepreneurial education programs as trainees ($M=1.59$; $SD=0.989$) or as trainers ($M=1.59$; $SD=1.236$). The scores are low and indicate at most occasional engagement.

By contrast, the entrepreneurial activities in which respondents were least frequently involved include providing consultancy during the initiation phase of a start-up ($M=0.68$; $SD=0.823$), organizing/participating in business plan competitions ($M=1.09$; $SD=1.088$), and participating as trainees in entrepreneurial programs conducted in companies ($M=1.09$; $SD=1.170$).

The age of academic staff is negatively and significantly correlated with research activities conducted in collaboration with researchers from other universities ($r=-0.224$, $p=0.022$; $N=105$) and positively correlated with consulting activities provided to a company's management team ($r=0.229$, $p=0.019$; $N=105$). However, both correlations are weak.

Years of teaching experience are positively and significantly correlated with participation as trainers in entrepreneurial education programs ($r=0.279$, $p=0.003$; $N=110$), conducting research activities in collaboration with specialists from companies ($r=0.272$, $p=0.004$;

N=110), and participating as trainees in professional training programs conducted within companies ($r=0.520$, $p=0.000$; N=110). Except for the last correlation, which is of moderate strength, the others are weak.

Tab. 7 The frequency of involvement in activities with third parties

Activity	Mean	Std. Deviation
Conducting research activities in collaboration with researchers from other universities	1,68	1,526
Participation as a trainee in entrepreneurial education programs	1,59	0,989
Participation as an educator/trainer in entrepreneurial education programs	1,59	1,236
Carrying out joint research activities with specialists from a company	1,41	1,273
Conducting research activities at the request of a company	1,32	1,299
Training/continuous professional development for a company's employees	1,32	1,401
Providing consultancy to the management team of a company	1,27	1,180
Participation as a trainee in professional training programs conducted within a company	1,09	1,170
Organizing/participating in business plan competitions	1,09	1,088
Providing consultancy during the initiation phase of a start-up	0,68	0,823

Five-point scale: 0=Never, 1=Only once (in the entire career), 2=Occasionally (a few times in the entire career), 3=Periodically (once every few years), Frequently (annually), 4=Frequently (annually), 5=Regularly (each semester); N=110.

Previous business practice experience is negatively correlated with research activities conducted in collaboration with researchers from other universities ($r=-0.322$, $p=0.000$; N=110) and positively correlated with consultancy provided to company management teams ($r=0.199$, $p=0.037$; N=110) and start-ups during the business initiation phase ($r=0.201$, $p=0.035$; N=110). All correlations are, however, of weak intensity.

5. Conclusions

The research reveals a broad consensus among respondents that personal relationships with practitioners are the primary facilitator of collaboration between academia and the business sector. These personal connections help overcome a significant barrier to university-business collaboration, namely practitioners' lack of trust in universities. If Romanian universities aim to decisively strengthen their collaboration with the business environment, future studies investigating the nature and causes of this mistrust are urgently needed.

The issue of practitioners' lack of trust in universities is best illustrated by the perceptions of academic staff with practical experience. These individuals not only comprehend this mistrust but, through their negative attitudes towards the aspects under investigation (compared to their peers without practical experience), demonstrate that they may represent a key stakeholder group capable of accelerating the identification of solutions to facilitate university-business collaborations.

The research also reveals that, due to an excessive emphasis on their own experience and their understanding of the gap between theory and practice, academic staff with practical experience do not necessarily act in ways that enhance university-business collaboration, as might be expected.

The observation that the age or teaching experience of academic staff facilitates university-business collaborations suggests, on one hand, that the Romanian business environment tends to be relatively conservative and, on the other hand, that establishing relationships with business professionals requires temporal validation.

The fact that government policies, particularly those of the Ministry of Education, are not perceived as facilitators of university-business collaborations suggests the need for policy adaptation to reduce bureaucracy and establish a more flexible legislative framework in fiscal and labor domains.

The concept of the entrepreneurial university emphasizes fostering closer relationships with the business environment and taking responsibility for the impact on firm competitiveness, regional economic well-being, and especially the local entrepreneurial culture. The research highlights the necessity of rethinking faculty evaluation criteria to allow academic staff the time required to build meaningful collaborative relationships with practitioners.

Currently, most existing collaborations are initiated on an individual level, often stemming from personal connections developed between faculty members and practitioners, students, or alumni. This type of engagement requires time and entrepreneurial catalyst activities. The majority of recurring interactions between universities and businesses result from normative activities, such as organizing mandatory internships and

implicit tutorial activities. Practitioner involvement in developing case studies, curriculum content, or other teaching-related activities remains largely sporadic, with the organization of internship programs still significantly underdeveloped.

The research indicates that the primary collaborators for faculty are small businesses, microenterprises, and medium-sized firms. The receptiveness of these types of firms to collaboration with universities can also be attributed to the ease of establishing personal relationships with them, despite the fact that most economic discipline content is approached from a corporate perspective. A better alignment with this reality would be highly beneficial.

6. References

- [1] Coşkun H.E., Popescu C., Şahin Samaraz D., Tabak A., Akkaya B.: "Entrepreneurial University Concept Review from the Perspective of Academicians: A Mixed Method Research Analysis", Sustainability no.14, 2022.
- [2] Etzkowitz H.: "Entrepreneurial scientists and entrepreneurial universities", American academic science no.21, p.198–233, 1983.
- [3] Etzkowitz H., Leydesdorff L.: "The Triple Helix - University-Industry-Government Relations: A Laboratory for Knowledge Based Economic Development", EASST Review, Vol.14, No.1, p.14-19, 1995.
- [4] Etzkowitz H., Leydesdorff L.: "The Dynamics of Innovation from National Systems and More 2 a Triple Helix of University-Industry-Government Relation", Research Policy, Volume 29, Issue 2, p.109-123, 2000.
- [5] Forliano C., De Bernardi P., Yahiaoui D.: "Entrepreneurial universities: A bibliometric analysis within the business and management domains", Technological Forecasting&Social Change, no. 165, 2021.
- [6] Guerrero-Cano M., Urbano D., Kirby D.: "A literature review on entrepreneurial universities: an institutional approach", Universitat Autònoma de Barcelona, 2006.
- [7] Radko N., Belitski M., Kalyuzhova Y.: "Conceptualising the entrepreneurial university: the stakeholder approach", The Journal of Technology Transfer, no.48, p.955-970, 2023.
- [8] Tănase F-D., Martin M.: "Human capital and its training through extracurricular activities", Robotica&Management, 29-1, 2024.
- [9] European Commission: "The State of University-Business Cooperation in Europe, Final Report", Luxembourg: Publications Office of the European Union, 2018.
- [10] European University Association, "European University Association CoARA Action Plan", 2024.
- [11] OECD, European Commission: "Supporting Entrepreneurship and Innovation in Higher Education in Romania", 2019.

Personal Notes

Associate Professor Dr. Mirela Minică, a faculty member with 26 years of experience in Romanian higher education, is the author of numerous scientific works in the fields of human capital, the knowledge society, economic development and growth. Her research focuses on the role universities play within the structure of society and the imperative need for their adaptation to the contemporary context.

University Lecturer Dr. Gelu Trişcă is a dedicated researcher in the field of business, focuses on analyzing the economic impact of universities and their pivotal role in enhancing business competitiveness. His work examines how universities contribute to social responsibility initiatives, fostering sustainable practices and partnerships between academia and industry.



New Generation of Arc Welding Robots

www.GYROX.ro by www.CLOOS.ro

