



Challenges of University-Industry Cooperation in Albania

Dr. Ketrina Mijo Çabiri

European University of Tirana”, Tirana, Albania

Ketrina.cabiri@uet.edu.al

Prof.Dr. Ermira Qosja

University ‘Aleksandër Moisiu’ Durrës, Albania

eqosja@yahoo.com

Purpose: Albanian universities have a rigid experience, especially in their effort to become competitive and respond to market demands. Today, it is a necessity for Albanian universities to become dynamic academic units, to go on an entrepreneurial path and to affect innovation in the region. This paper aims to measure the perception of university management staff regarding the challenges and barriers that appear in university-industry cooperation. It sheds light on the identification of factors that motivate the academic staff toward such cooperation

Study design/methodology/approach: This paper implies a qualitative-based methodology and relies on the methods used by the ERASMUS + CBHE ‘KALCEA’ project. Questionnaires used on KALCEA Project collect data from universities, businesses and research centres. The questionnaires pose a set of standard questions as well as a set of tailored questions for each of the three categories. The high management staff of universities completed the questionnaire in June-July 2022. From 39 universities and higher education colleges established in Albania, the questionnaire was sent to 22 institutions and received answers from 16. Respondents are positions of rector/vice-rector/dean.

Findings: One of the significant challenges of the current high education system is demonstrating the capacity to adapt to societal changes and its emerging economic demands. Nowadays, in higher education institutions in Albania, the biggest challenges are internationalisation, connection with industry, commercialisation of knowledge and academic entrepreneurship.

Originality/value: Findings of the paper have interest for universities, industry, and politicians in Albania. They go in line and add value to the new Albanian law on HEIs (2015), which provides more autonomy to Departments and poses a challenge for them to cooperate with industry and act entrepreneurially.

1. Introduction

University-business cooperation and how it is managed within universities is important not only for the benefits it brings to research but also for the cooperation with talented students and staff, support of start-ups, engagement in public activities and long-term awareness of science (World Economic Forum, 2019).

After 2000, many countries have promoted legislative reforms to stimulate the technology transfer process from university to the economic system (Fini et al. 2011). The main purpose has been overcoming market failure through innovative processes.

After 2000, Albania tried to align the higher education system with the European one, where the signing of the Bologna process in 2003 was a formal moment of this strategic goal (Panorama Newsletter, 2012) while numerous legal and structural transformations were presented on the law for Higher Education and Scientific Research in the Republic of Albania, Law No. 80/2015 (Albanian Law on HE, 2015). As a result, the law provides, among others, academic freedom to higher education institutions in organising teaching, research-scientific, innovation and creative activities. Furthermore, financial autonomy is guaranteed through the competence of creating incomes from teaching activities, research-scientific activities,

intellectual rights, brands and patents, services, artistic and sports activities, as well as other economic activities in compliance with the legislation in force as well as funds from state and other opportunities (Albanian Law on HE, 2015).

Erasmus KA2 projects of the European Commission and other regional and cross-border projects have significantly supported Albanian universities' capacities in academic entrepreneurship. In this framework, the European University of Tirana has been part of several projects that aim at university-industry cooperation, such as Erasmus + CBHE projects (REBUS, KNOHUB, e-VIVA, KALCEA) IPA Project (INNOPLATFORM), etc. This paper is based on the everyday engagement of the authors related to establishing the entrepreneurial culture within the university and the fact that they work intensively in developing projects in connection to the industry and internationalisation.

This paper derives from the methodology used in Erasmus + Kalcea project 'Knowledge Triangle for a Low Carbon Economy' (no. 618109 – EPP-1-2020-1-EL-EPPKA2-CBHE-JP). One of the project's work packages aimed at measuring the perception of universities, businesses and research centres on cooperation mainly in the research area. In this paper, the authors present the collaboration in terms of research activities from the view of top managers of Albanian Universities.

This paper aims to analyse how Albanian universities are involved in university-industry collaboration, exploring the internal and external factors that affect this collaboration.

To achieve this goal, the paper has the following objectives:

- to observe systems, practices and instruments universities/departments have set up to enhance university-business cooperation.
- to observe the purpose of university-business cooperation.
- to observe this cooperation's influencing factors, barriers, challenges, and results.
- to observe the factors that motivate the academic staff to cooperate with the industry.

The research question is, "How are Albanian universities facing the challenge of cooperation with the industry?"

The sample for this paper consists of 16 senior academic top managers of public and private universities from 39 universities and colleges in the country. The paper's findings help us to create a perception of the current situation of university-industry cooperation and to reflect on the challenges and barriers of this cooperation. Also, the findings make university leaders aware of what needs to be done to raise the quality of scientific research and increase its applied and innovative nature, the orientation towards the market needs and internal changes in structure and mentality. Finally, the findings have implications for the industry as an awareness-raising tool to enhance collaboration and public institutions responsible for educational policymaking.

2. Literature review

The triple helix model developed by Etzkowitz (Etzkowitz H, 2004, 64–77) shows the entrepreneurial university concept as an important concept regarding the university's role within this cooperation. Furthermore, despite the traditional goals (education and scientific research), the entrepreneurial university sheds light on contributing to economic development by transferring research results from the laboratory to the economic system (Feola R. et al., 2021).

In the triple helix model, each actor of the system plays a specific role, working in close synergy with others: - universities produce knowledge and new technologies that are applied in the industry; - the government, with its regulatory role, acts as a public entrepreneur;

entrepreneurship and big companies become engines of the innovative system, generating capital, managerial skills and a network that brings the development of innovative businesses.

The commercialisation of academic knowledge, closely related to academic entrepreneurship, patenting and licensing of inventions, has influenced the academic literature and public policies, laws and reforms in Higher Education institutions. Commercialisation is an excellent example of generating academic impact since it allows research to be measurable and accepted within the market (Perkman, M, 2013, 423-442).

Academic engagement is a meaningful way to transfer academic knowledge to industry. For many companies, academic engagement is seen as more valuable than university patent licensing (Cohen et al., 2002). As a result, universities' income from academic engagement is usually a multiple of the income derived from intellectual property (Perkman, M, 2013, 423-442).

In recent years, many universities have promoted policies and activities supporting academic researchers, aiming to support technology transfer processes and taking a leading role in the country's economic development and beyond.

To create an entrepreneurial culture within the university among lecturers and students, higher education institutions have developed academic courses or activities specifically focusing on entrepreneurship. Since 2002 when the European Commission established the competence for entrepreneurship as one out of eight competencies of the education system, entrepreneurship has received increasing attention for researchers (European Commission, 2002). In addition, many universities offer courses that aim to expand the entrepreneurial culture in three study cycles: bachelor, master and doctorate, and crosscutting extracurricular activities.

On the one hand, these initiatives represent a possibility for researchers to convert their research into an entrepreneurial project and, on the other hand, a window through which the project can be communicated to the community and potential stakeholders (Parente, R, 2015, 551–567).

University incubators establish policies and development activities to stimulate and support technology transfer processes. This strategy has provided tangible results, inspiring universities to establish more incubators. In addition to typical services offered by incubators (shared office services, business assistance, access to capital, business networks, etc.), university incubators offer several university-related services, such as consultancy for the academic departments, student employment, library and access to R&D facilities (Mian, S, 1996; 325–335).

Another policy that aims to provide specific resources for academic spin-offs is the university venture funds, which means financing start-ups in their initial phase, either fully or partially, from university resources (Von Zedtwiz et al., 2006, 459–468).

To provide support to researchers as well as academic spin-offs, a significant number of universities have promoted the establishment of a technology transfer office (TTO). These offices are generally included in the organisational structure of the university. Still, they may also be created as an independent structure outside the university, operating on its behalf, with the common goal of facilitating the transfer of knowledge from academia to business (Fini, R. et al., 2011, 1113–1127).

3. Methodology of research

This paper implies a qualitative-based methodology and relies on the methods used by the KALCEA project. Questionnaires used on Kalcea Project collect data from universities, businesses and research centres. The questionnaires pose a set of standard questions as well as a set of tailored questions for each of the three categories. The high-management staff of

universities completed the questionnaire in June-July 2022. From 39 universities and higher education colleges in Albania, the questionnaire was sent to 22 institutions and received answers from 16. Respondents are positions of rector/vice-rector/dean.

This paper aims to analyse how Albanian universities are involved in university-industry collaboration from the view of high management staff perspectives, exploring the dynamic factors that affect this collaboration. The research question is: How are Albanian universities facing the challenge of cooperating with the industry?

To achieve this goal, the paper has the following objectives:

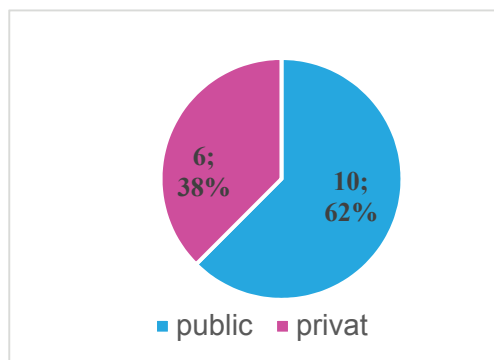
- to observe systems, practices and instruments universities/departments have set up to enhance university-business cooperation.
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Regarding the limitations of the paper, we can consider the small number of respondents (16); however, this can be justified by the position of respondents, the seniority of the academic staff and their high management positions since university-industry cooperation is designed at a strategic level.

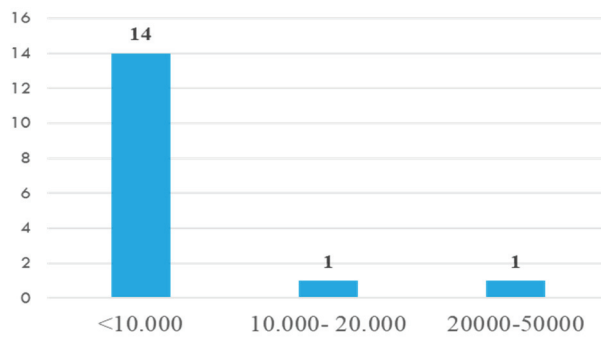
General data of the sample

Figure 1 shows the general data collected from respondents. Specifically, Figure 1.a. shows the universities according to the type of ownership, from which 62% are public and 38% private. Figure 1. b - shows universities according to the number of students; fourteen respondents are from universities with less than 10.000 students, one from 10.000-20.000 and one from the largest university in Albania, the University of Tirana.

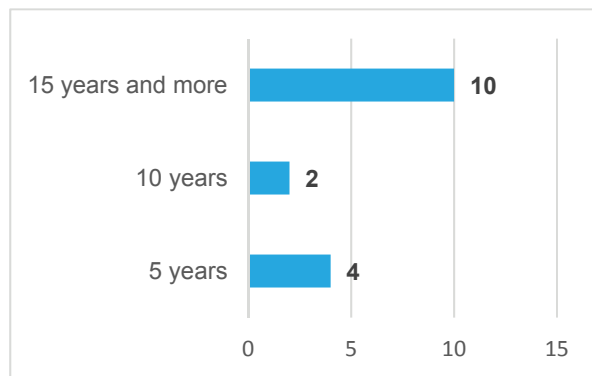
Figure 1. c. shows the length of service of the respondents in each university; those occupy the greatest weight with over 15 years. Figure. 1.d. shows the participating faculties according to the number of students. Meanwhile, it is noted that all respondents have over 15 years of working in academia, and this is understandable for their status and title.



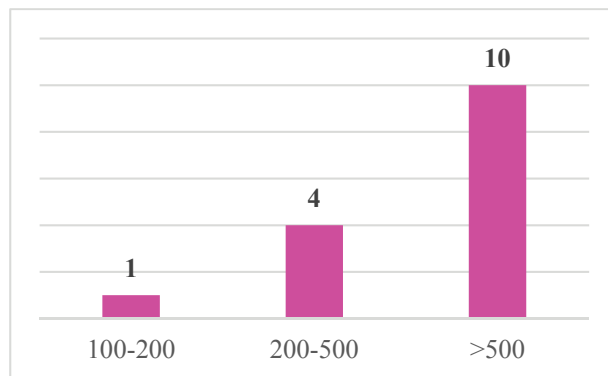
a)



b)



c)



d)

Figure 1. General Data of Sample of Respondents

4. Findings

Below are presented the graphs generated from the data obtained by the questionnaires.

Regarding whether universities use systems or specific practices of cooperation with universities (Fig.2), 87% of respondents answered **YES**.

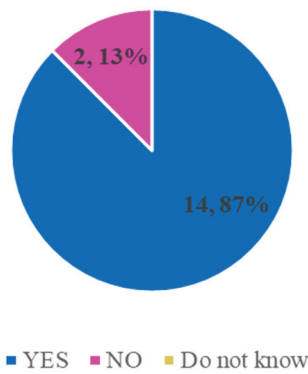


Figure. 2. Detailed systems or practices of university cooperation with business

It seems that not only do universities use cooperation systems/practices, but also 81% of them are familiar with the cooperation model between them and business (fig.3). It is clear from the fig. 4 that the high management staff of universities think that universities should act as initiators of this cooperation.

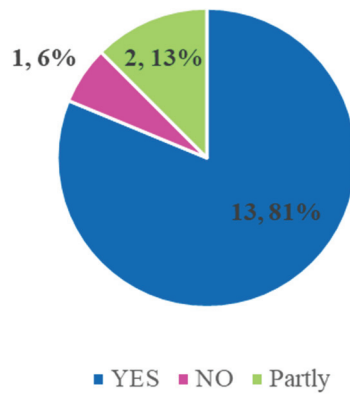


Figure.3. Familiarity with the model of cooperation between your university and businesses

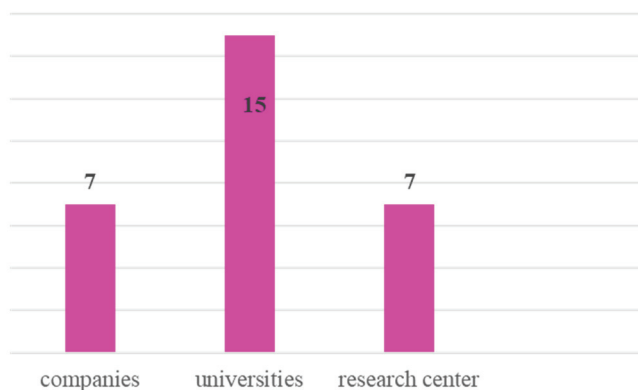


Figure 4. Initiative for cooperation between companies and universities

Personal contacts are rated among the most significant mechanisms used by the university to promote cooperation with businesses, which does not align with the formal systems established for the purpose (fig. 5).

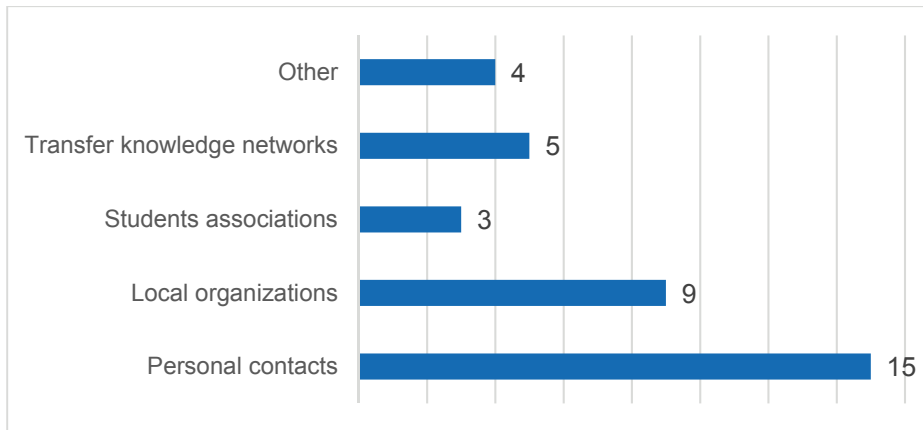


Figure 5. Tools used by the university to promote cooperation with businesses

Figure 5 shows that other tools for boosting cooperation include cooperation agreements, labour market boards, workshops and round tables, and institutional contacts from both sides.

Figures 6 and 7 show answers to the same questions in two directions: cooperation department - business and cooperation company - faculty/university cooperation. To this question, 87% of the respondents answered that cooperation exists, while as far as frequency is concerned, the answers varied from “several times” to “many times up to 50.”

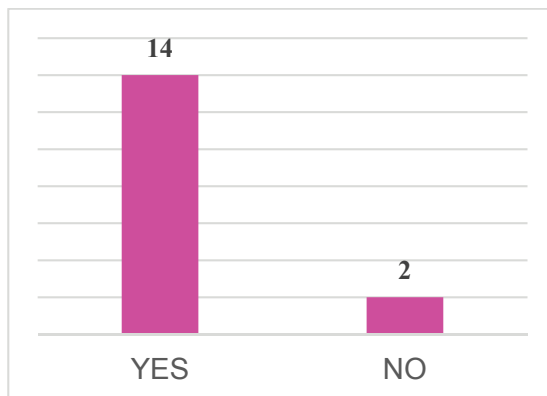


Fig.6.Cooperation of the department with business;

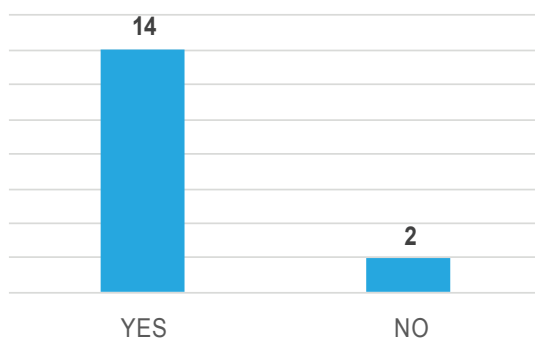


Fig.7.Cooperation of the companies with universities

Figure 8 shows the cooperation in recent years of different institutions with industry. Again, it is visible that business associations and NGOs have a meaningful and active role.

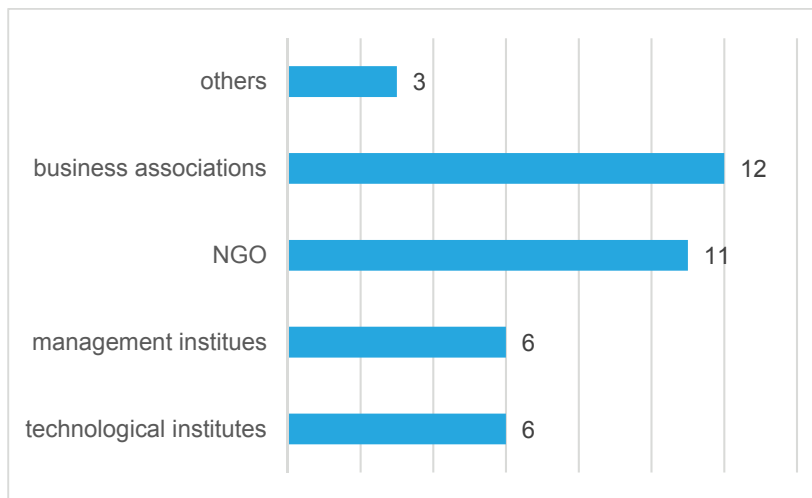


Figure 8. The cooperation of the university with institutions in recent years

Figure 9 shows the form and size of the company universities have cooperated with in the last 3 years. The characteristics of the market and business development in Albania and the typology of the economic sectors explain the cooperation mainly with medium-sized companies. On the other hand, big companies take advantage of the mother company and the international partners; they cooperate and receive technology and innovative modules. Moreover, while cooperating with universities, such companies focus more on internships and the employment of students. Meanwhile, cooperation with NGOs and business associations is also related to partnerships for joint applications in European and regional projects or with events of a public nature.

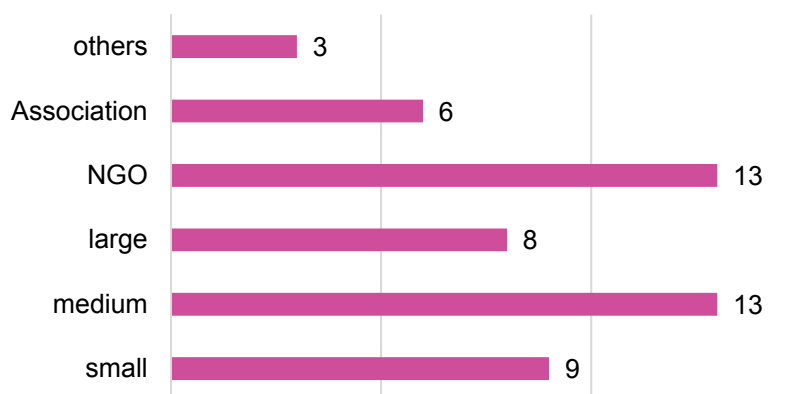


Figure 9. The form and size of the company that the university has cooperated with in the last 3 years

A fundamental question posed to the high management staff of universities was related to cooperation, structured into four categories: education, research work, monetisation and shared interest (fig. 10 a, b, c, d). As seen from the figure below, university-industry cooperation is prioritised toward internships and employment of students, followed by open lectures at the university. Regarding the scientific research (as seen in fig.10.a), the cooperation is also limited due to some formal and legal obstacles posed by the higher education law, which can address if there is goodwill for collaboration with concrete projects and incentives.

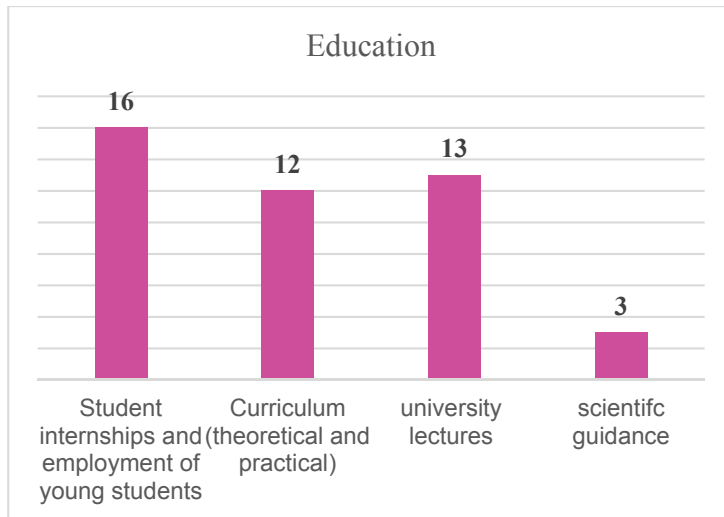


Figure 10. a. The purpose of cooperation - Education

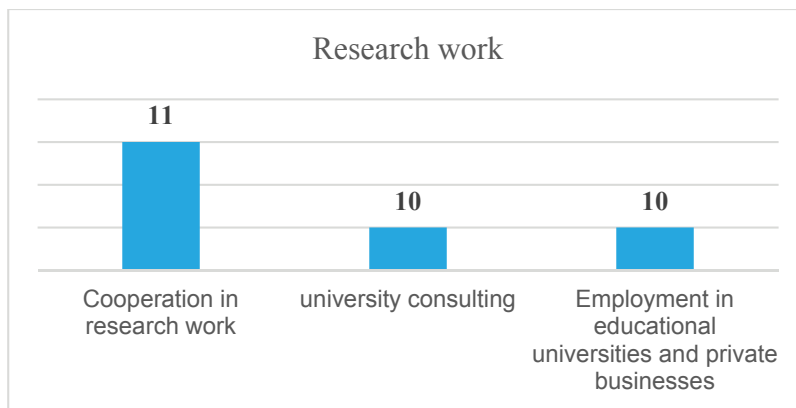


Figure 10. b. The purpose of cooperation – Research work

In figure 10. c. it is shown that only 50% of the respondents perceive academic entrepreneurship as an option for monetisation while sharing common resources is also an interest since universities, both public and private, need laboratories and investments in technological projects. Also, cooperation is perceived as more important regarding applying new projects and tenders. Despite the cooperation on research projects, there is a high interest from universities in the support businesses offer to develop staff and employ students (Fig. 10.c).

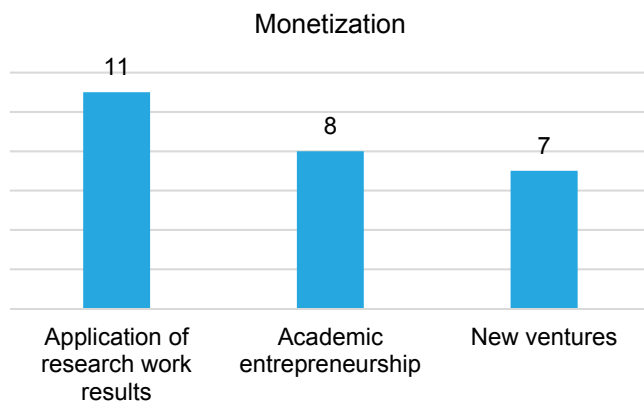


Figure 10. c. The purpose of cooperation – Monetisation

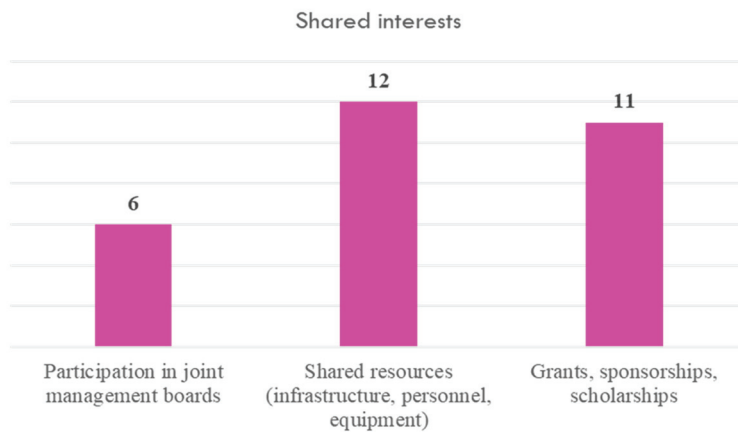


Figure 10. d. The purpose of cooperation – Shared interests



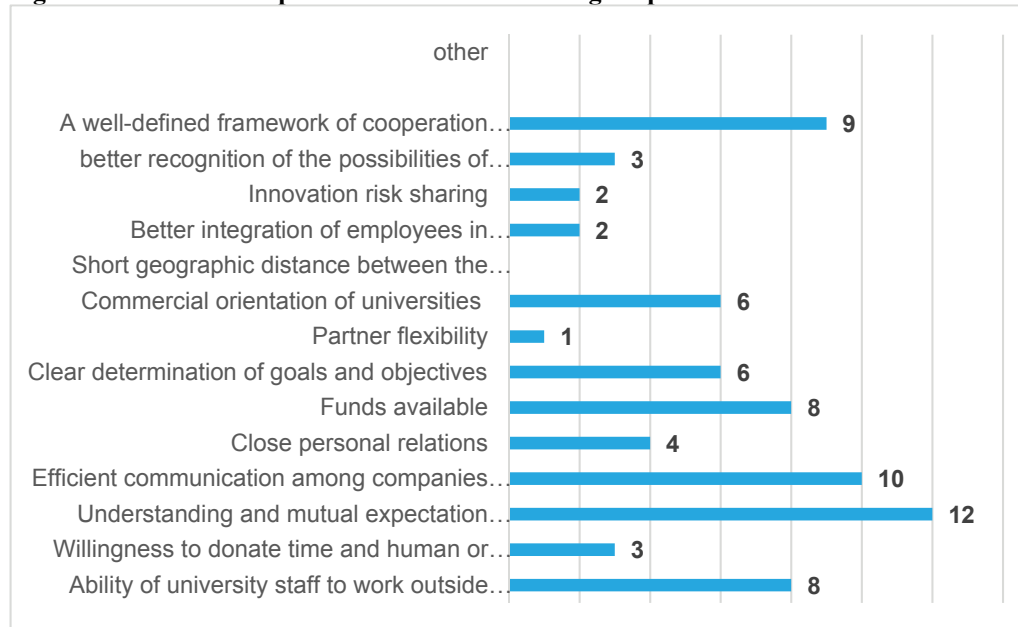
Figure 11. The results of cooperation from the university side in the last three years

Asked about the results of the cooperation between the university and the business at the state or in the last three years, high management staff (fig. 11) claims that the main result stands for the opportunity provided for the employment

of students (while this factor is constant and traditional for universities) followed by the opportunities that the industry offers to improve the curriculum, visits to the company premises and new connections. The respondents perceive that the existing cooperation is still far from establishing an entrepreneurial university. Thus, the use of research results for the development of new products, the integration of research groups with industry, testing the results in practice, modification of research results in practice and the benefit of new contracts seems to be with little interest. It is important to note that private businesses do not seem interested in financing research; thus, no research funds are being provided by this sector.

Figure 12 shows the 5 most important factors affecting the cooperation between the university-industry/research centre. Answers show that the most rated factors include common understanding and expectations between universities and companies; efficient communication; a well-defined cooperation framework (contract, procedure, management structure); valuable funds; the ability of the university staff to work outside of it.

Figure 12. Five most important factors in increasing cooperation with business and research centres



The next question concerns the 5 main barriers hindering business cooperation with universities. It is clearly seen that the leaders of universities perceive insufficient government funds as the most important factor hindering this cooperation. In addition, the lack of a common vision, the complex and tiring procedure, and the focus only on scientific publications with little or no impact on practice are ranked as important. Other reasons worth mentioning are insufficient private funds; lack of a well-defined cooperation framework; lack of trust between university staff and business representatives; failure to properly assess each other’s intentions; etc.

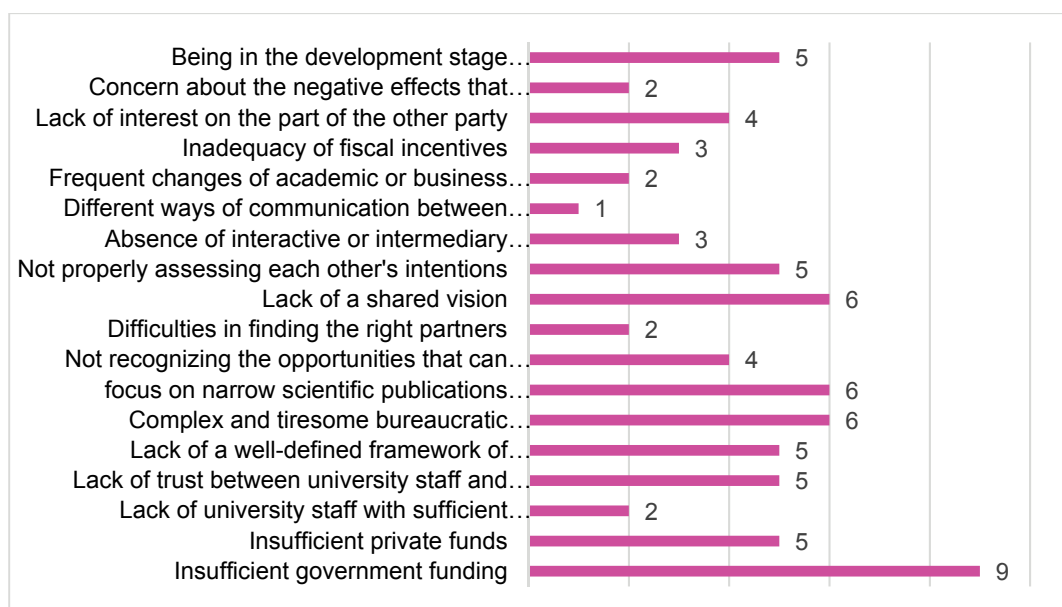


Figure 13. The five main barriers that hinder the cooperation of universities with businesses

Figure 14 shows how high-management university staff perceive the challenges of the university in cooperation with companies. The most important challenges are the lack of theoretical knowledge from the business side, differences between two different organisational cultures, and lack of knowledge on the business side of the goals and structure of higher education programs and the learning process.



Figure 14. University challenges in cooperation with companies

Cooperation between universities and business requires, among others, the commitment of the academic staff. The literature shows that this factor is sometimes considered more important than licenses or patents. As seen in fig.15, the most important factors that motivate academic staff to cooperate with industry are the possibility of founding various projects, the opportunity to be part of innovations, technologies and technological novelties and the opportunity to increase personal reputation. As an additional factor, respondents added the necessary support from high management staff of universities, establishing the connection with businesses as a strategic priority and providing financial autonomy at the department level.

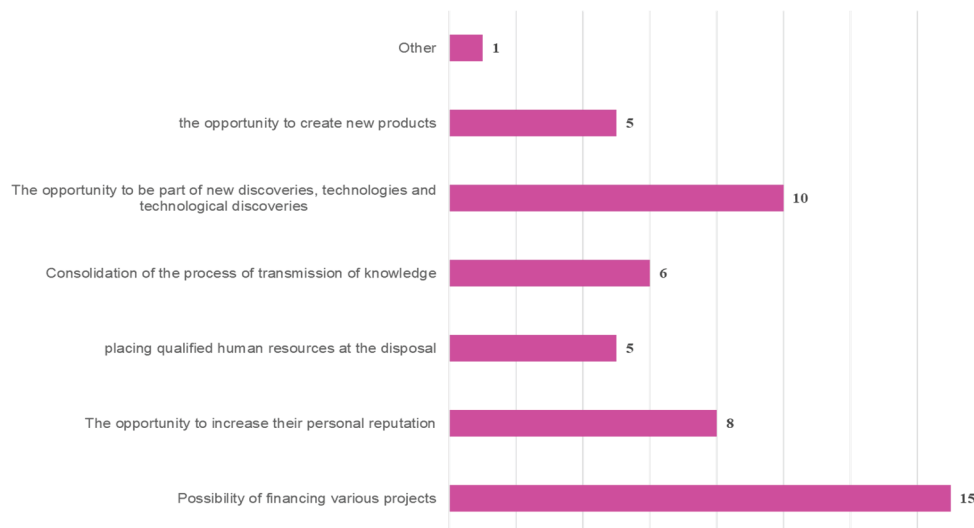


Figure 15. Factors that motivate academic staff to cooperate with businesses

Figure 16. a provides insights on adapting the academic programme to business needs. (Figure 16.a), while figure 16.b. shows a modification of the academic programme driven by academic research. Having said this, university managers seem to perceive that business needs and being orientated toward scientific research can be a reason for adopting academic curricula. The measure is controversial, from 5%-50% in case (a) and 10%-40% in case (b). Although this paper tries to measure perception, many of the answers are driven by the Ministry of Education and Sports instructions, based on the Law on Higher Education, reflecting the need for scientific input in lecturers and syllabi [3].

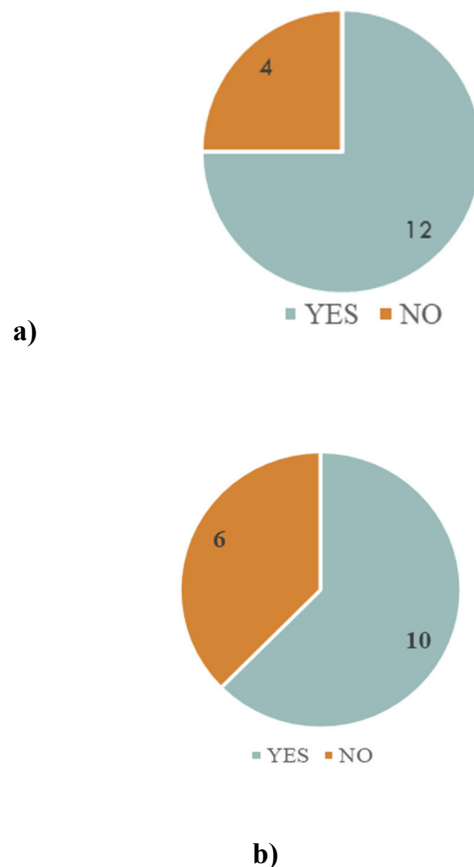


Figure 16. Curriculum modifications

5. Conclusions & Recommendations

One of the significant challenges of the current high education system is demonstrating the capacity to adapt to societal changes and its emerging economic demands. Nowadays, in higher education institutions in Albania, the biggest challenges are internationalisation, connection with industry, commercialisation of knowledge and academic entrepreneurship. After the detailed analyses of results collected from questionnaires, the following conclusions can be drawn:

- Although the high management staff of universities think that there is a system that boosts cooperation with businesses and that the university's proactive role is important, the existing model of managing universities in Albania is far from the entrepreneurial university model. Instead, the main reason lies in the cooperation of universities and industry is the internships and employment of students, which is a typical characteristic of the traditional model of universities.

- Only 50% of universities' high management staff consider academic entrepreneurship an option for monetisation. Companies still seem little to not interested in the product of the scientific work produced by universities. This mirrors the lack of funds invested by the industry toward academic scientific research.
- The most important factors that lead university-industry cooperation are the established relationship between two institutions and how it is managed in the long term, the funds provided and the professional competencies of the academic staff. In addition, a new perspective is considered on using shared resources and cooperation in applications for grants, sponsorships, and scholarships.
- The main barriers that hinder the cooperation of the university with the industry are related to insufficient public and private funds, lack of a common vision and underestimation of each other's goals, focus only on scientific publications with no link to practical cases, etc.;
- The most important challenges that universities need to address to boost cooperation with the industry are the improvement of the quality of academic research, an easy and user-friendly platform for the industry where businesses can 'search' or order academic research, the capacity building of the academic staff, investing in establishing an institutional culture that reflects the entrepreneurial university and is proactive.

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