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University-Industry Cooperation, from the Viewpoint of Top-Level Management in Albanian Companies

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Abstract: *Economic development is conditioned upon many actors, where the cooperation of higher education institutions with industry and business plays an important role. Companies are highly interested in the "primary product" of higher education, in the sense of knowledge that benefits students, the absorption of talents, but also in the product of scientific research, patents, start-ups, etc.*

This paper aims to measure the perception of the top-level managers in Albanian companies regarding the challenges and barriers that appear in university-industry cooperation. Through a qualitative analysis, based on the questionnaire of the KALCEA[3] project (Erasmus + CBHE) in a sample of 27 large and medium-sized companies, an attempt has been made to investigate the main factors that increase this cooperation as well as the factors that hinder it. An important role is also paid to the identification of factors that motivate companies and the challenges they will have to face. The findings of the paper are of interest to the industry, universities and politicians and focus mainly on the mentality and culture of cooperation.

1. INTRODUCTION

Higher Education in Albania has for several years undergone a series of reforms in the ongoing efforts to implement the Bologna System and align with the European system of higher education.

Genuine scientific research and applied research are challenges that, in addition to the quality of education and scientific research funds, require a cultural approach and mentality within universities that ask for change and, like any change, encounter resistance and require a strategic approach.

Ad hoc experiences and models exist, but they must be implemented and contextualized with persistence and creativity, to obtain a product that has value and contributes to the national economy. The most recent Albanian law on higher education gives more autonomy to Departments and this can be a good start to facilitate academic entrepreneurship with a connection to the industry (https://arsimi.gov.al/wp-content/uploads/2018/07/AKTET_NENLIGJORE.pdf).

Historical evidence around the world shows that collaborations between universities and industry have given life to many successful discoveries over the years, and there are excellent examples of fruitful collaboration between universities, industry partners and startups (Gann et al., 2018).

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To the question "Why do people value the cooperation between universities and industry?", world-renowned researchers have given the following five reasons (Elsevier, 2021):

- Better potential for impact on society;
- Better outcomes and student opportunities;
- Increase in funding;
- Potential for economic development;
- Use of government programs for financing.

OECD countries have implemented a set of financial, "soft" and regulatory instruments to support the transfer of knowledge from university to industry. The financial instruments include grants for innovation and R&D, tax incentives with a focus on collaboration, and grants for doctoral and postdoctoral students. Regulatory instruments include the regime of intellectual rights (IP), regulations required by student spin-offs, sabbatical periods and mobility schemes for staff; soft instruments include the readiness to build network events (OECD, 2019).

This paper aims to analyze how Albanian companies perceive university-industry collaboration and explore the factors that influence it.

The objectives of this study are:

- to observe the current state of cooperation between companies and universities;
- to observe the purpose of the cooperation of companies with the university;
- to observe the influencing factors, barriers, challenges and results of this cooperation;
- to observe the factors that motivate companies to cooperate with universities.

The research question addressed in this paper is: *What is the approach of Albanian companies toward cooperation with universities and research centers?*

The methodology used is qualitative, based on the questionnaire conducted in WP1 of the Erasmus + CBHE KALCEA project. The questionnaire was answered by 27 top-level managers of large and medium-sized Albanian companies, who were selected from a database of the authors of the paper based on the approach these companies have in cooperation with the academy.

The results of this research can be the basis for research in larger samples, grouped according to the sectors of the economy and where the academic product and the opportunities for impact are more inherent. It remains an important factor, the mentality and culture to build bridges of cooperation and to believe in partnership, private and government funds in support of research at universities.

2. LITERATURE REVIEW

The role of the university has changed over time, university-industry collaboration is not a new phenomenon, but it became more visible around the 1970s, and since that moment it has been accepted by governments and policymakers (Vedovello, 1998). Knowledge is a requirement for economic development, universities are deemed as important centers for learning and innovation for industries in advanced economies. Universities are also competing towards meeting the demand for basic knowledge and skilled human resources (Hall & Rosenberg, 2010). The universities in developing economies are expected to meet the local demand for knowledge-based economies which would bring about socio-economic development.

There are the accepted models of university-industry collaboration: Linear model, Mode 2 framework and Triple Helix framework (Nkrumah, 2015).

Linear model - argues that universities play a major role in economic growth and for that reason, government funding of basic research should be increased (Fagerberg et al., 2005).

Mode 2 framework - argues that the University-Industry interactions should be complemented by interactions with other institutions. It seeks to champion the interconnectedness of a network of several actors in the national innovation system (Fagerberg et al., 2005).

Triple helix model - each actor of the system has to play a specific role while working in close synergy with others: universities produce new knowledge and technologies that can have an industrial application; government acts as a public entrepreneur in addition to its traditional regulatory role in setting the rules of the game; venture capital and large companies act as engines of innovative systems, bringing capital, managerial skills, and a network of relationships that foster the development of innovative businesses (Ankrah & Al-Tabbaa, 2016).

3. RESEARCH METHODOLOGY

The authors of this paper, within the project Erasmus + KALCEA, have conducted a complete study on university-business cooperation, seen from the perspective of both parties. This paper presents part of the study carried out on businesses in Albania, which aimed to analyze how Albanian companies perceive their cooperation with universities and to explore the factors that positively affect it and those that hinder it. With this goal in mind, the authors have decided to observe as objectives:

- The current state of cooperation between companies and universities;
- The purpose of cooperation between companies and the university;
- Influencing factors, barriers, challenges and the results of this cooperation;
- Factors that motivate companies to cooperate with universities.

The research question in this paper is: What is the approach of Albanian companies toward cooperation with universities and research centers?

The methodology of the paper is qualitative; the questionnaires distributed to more than 30 businesses were used as a research instrument, in line with WP1 of the KALCEA project. The questionnaire is composed of 20 closed questions with multiple choices.

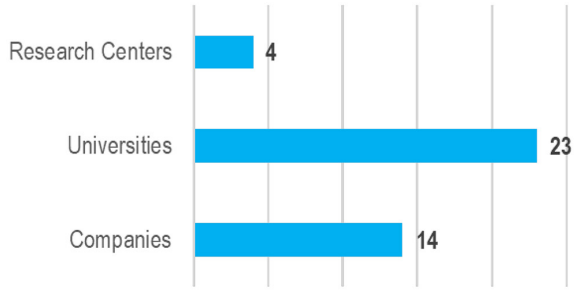
The questionnaire was answered by 27 managers of large and medium-sized Albanian companies, who were selected from a database of the authors of the paper based on the approach the former have in cooperation with the academy. As a limitation of the work, one can see the limited number of responses from business top-level managers, despite the large and mid-scale companies that have answered. It should be clarified that the authors have tried to measure the perception of the top-level managers of important companies in the country; 63% of the companies in the sample are large and mainly they have a rather serious approach to cooperation with universities.

It should be taken into consideration that 98,3% of Albanian businesses are SMEs, 1,7% are large enterprises (with over 50 employees), 86,6% of enterprises are service producers and their

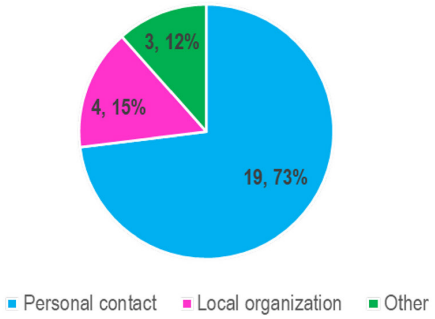
interaction with universities is mainly only for the employment of students (INSTAT, 2021). The sample of businesses consists of 93% private companies; 7 companies have over 500 employees; 4 companies have 200-500 employees; 6 companies have 50-200 employees and 10 companies have less than 50 employees. The respondents are company top-level managers, 44% of them have over 15 years in company management, while 81% of them have over 15 years in management positions.

4. FINDINGS

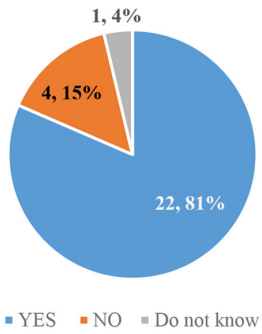
Business top-level managers have answered a series of questions, divided into categories within the same topic. To the question of who the initiator for university-industry cooperation among universities, companies and research centers should be, 85% of them perceive the university and about 50% of them perceive the companies (Figure 1.a).



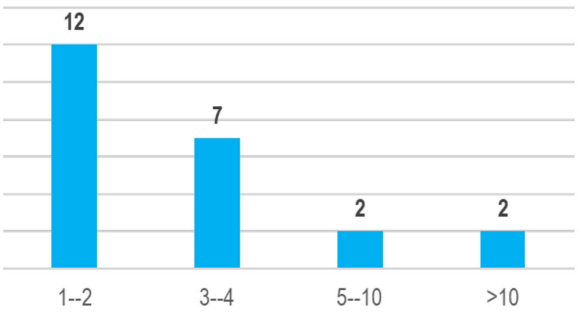
a) Initiator of cooperation



b) Mechanisms for promoting cooperation with universities



c) Cooperation of the company with universities



d) The number of universities that companies cooperate with

Figure 1. University-Industry cooperation
Source: Own research

Regarding cooperation mechanisms, the most useful is that of personal contacts, 81% of managers admit that currently their companies have cooperation with universities (Figure 1.c), 44% of them cooperate with 1-2 universities and 26% cooperate with 3-4 universities (Figure 1.d).

Regarding the purpose of cooperation with universities referring to 4 indicators: Education, Research Work, Monetization and Shared Interest, the results are presented in Figure 2. The perception of university-industry cooperation in *education* has priority internships and the employment of students, then open lectures at the university. Cooperation seems limited in relation to the design of curricula. As far as scientific leadership in the master's and the doctoral cycle is concerned, there is currently an obstacle in the Law of Higher Education, a formal barrier that can be overcome if there is a will to cooperate in concrete and incentive projects.

Regarding *shared interests*, it appears that for companies it is a priority the use of common assets and then participate in each other's boards, and the third choice remains the use of grants and scholarships. Regarding the *research work*, the first choice is cooperation in the research work. Regarding *monetization* as the first choice is seen – the application of the results of the research work.

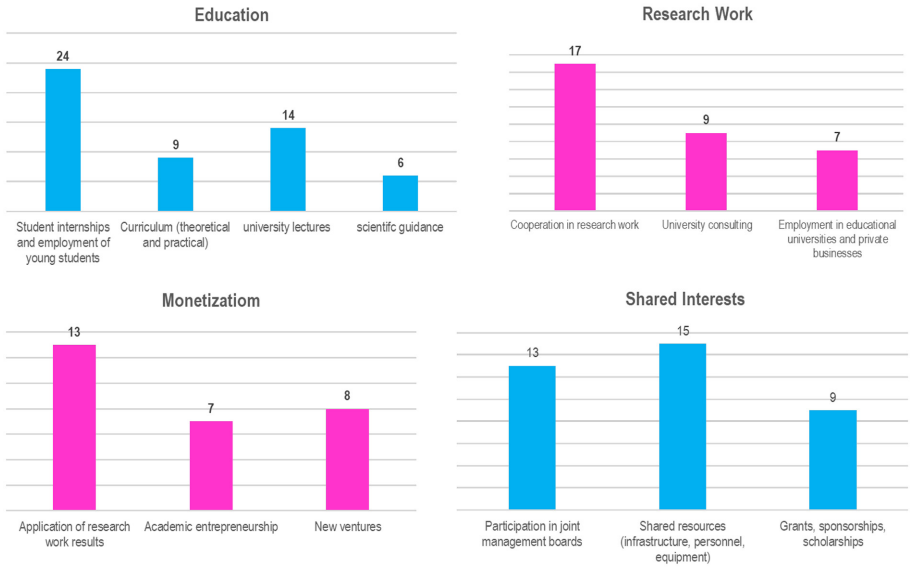


Figure 2. The purpose of cooperation with universities
Source: Own research

When company managers were asked about the results of cooperation with universities currently or in the last three years, the answers obtained are presented in figure 3.

Figure 3. The results of cooperation with the university in the last 3 years
Source: Own research

As can be seen from Figure 3, the most important result of university-industry cooperation seems to be the employment of students, then the creation of new connections between University and Industry and the third choice are suggestions from universities and businesses for problems to be addressed. The current model of cooperation looks far from the triple helix model.

Company top-level managers were asked to identify the 5 factors that mostly influence the growth of cooperation with universities. The distribution of responses is shown in Figure 4.

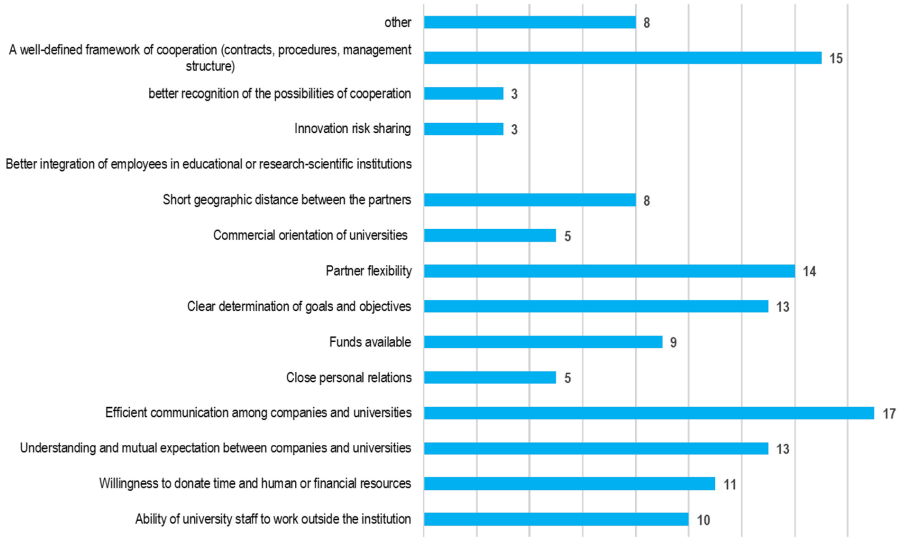


Figure 4. Factors that have the greatest influence on the increase of cooperation with universities

Source: Own research

From figure 4 we can see that the 5 most important factors that influence university-industry cooperation are: *Efficient communication among companies and universities; A well-defined framework of cooperation (contracts, procedures, management structure); Partner flexibility; Clear determination of goals and objectives / Understanding and mutual expectations between companies and universities; Willingness to donate time and human and financial resources.*

Next, company top-level managers were asked about the top 5 barriers that limit business collaboration with universities. The distribution of the responses is presented in figure 5.

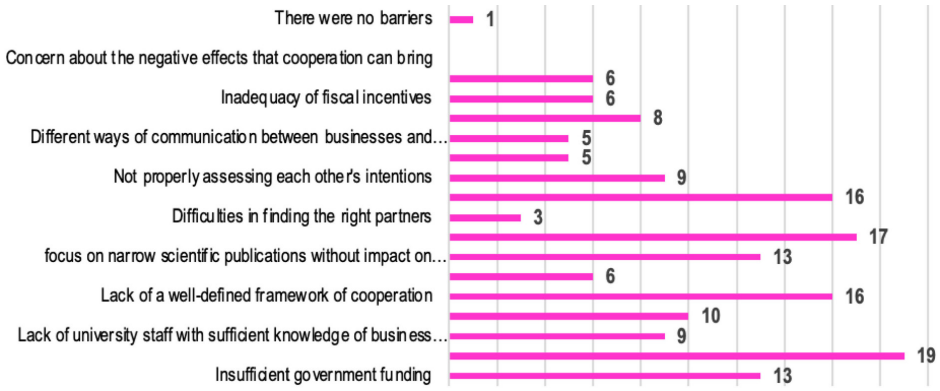


Figure 5. The main barriers that limit the cooperation of businesses with universities

Source: Own research

As one can see in figure 5, the 5 main barriers that limit the cooperation of businesses with universities are perceived: Insufficient private funds; Ignorance of the opportunities that come from cooperation; Lack of common vision/ Lack of a good cooperation scheme- defined; Insufficient government funds; Failure to properly evaluate each other's goals/ lack of recognition by university staff of the real needs of business and its development inside and outside the country.

Industry collaboration with universities certainly has its challenges, thus company top-level managers were asked about these challenges (figure 6).

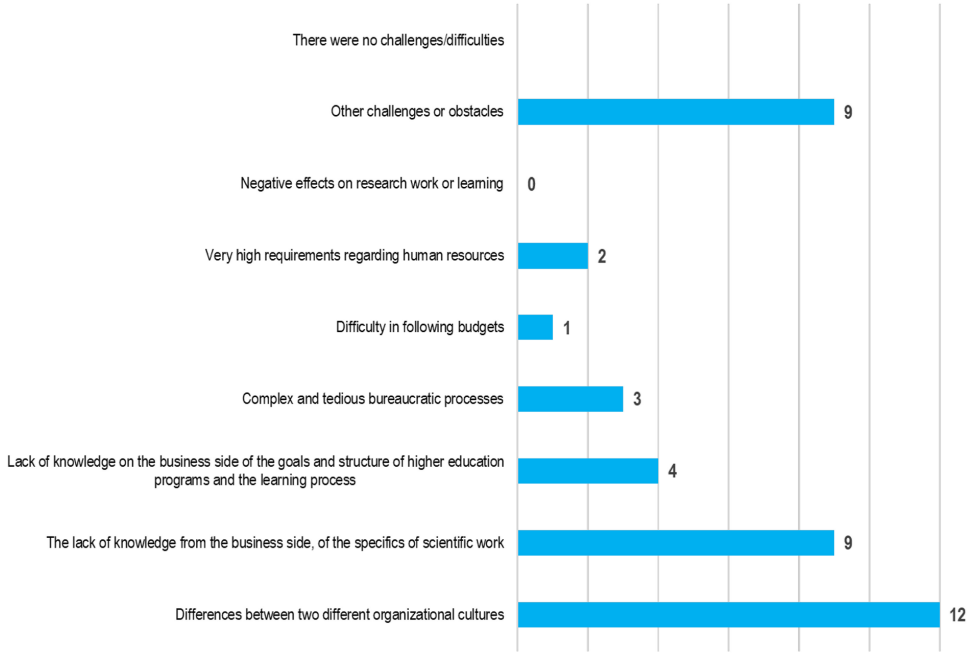


Figure 6. Challenges during cooperation with universities

Source: Own research

The challenges that are perceived as most important to be faced by businesses are: differences between two organizational cultures; Lack of knowledge on the business side of the specifics of research work; and other challenges or obstacles.

The last question is about the factors that can motivate companies to cooperate with universities as shown in figure 7.

Figure 7. Factors that motivate companies to cooperate with universities

Source: Own research

Factors perceived to motivate companies to cooperate with universities and research centers are: *Improving business reputation; Positive impact on society; Improving the professional skills of employees through training; Improving innovative capacities; Benefiting from access to new technologies and knowledge.*

5. CONCLUSION

Since 2004, with the signing of the Bologna Agreement, Albanian universities have been involved in an important process of change and transformation, which, on the one hand, needed to transform the system in accordance with the Bologna process, and on the other hand, internationalize and make them competitive within the country, in the region and beyond. The newest law on Higher Education, in addition to increasing university autonomy, also presents a challenge for scientific research and the generation of funds by universities trying to approach to the implementation of the Triple Helix model in cooperation with the government and industry.

The study carried out through a methodology based on the Erasmus + CBHE KALCEA project, focused on the data collected through a questionnaire with the leaders/managers of 27 important companies in Albania, led to the following conclusions:

The model of cooperation between universities and industry seems to be close to the Mode 2 framework: cooperation exists, but it is mainly focused on the interest of companies for internships and the employment of students (of course also finding talents).

Business representatives perceive that universities should be the primary initiators of cooperation between parties (85%) and only 50% of them see the industry as the initiator of this cooperation. Regarding shared interests, it seems that the priority remains the use of common assets, the last choice remains that of supporting students and staff with grants and scholarships. The results of this research can be the basis for research in larger samples, grouped according to the sectors of the economy and where the academic product and the opportunities for impact are more inherent.

Based on the factors that the industry perceives as more important in cooperation with universities, is suggested that universities should find the right communication channels and build efficient cooperation schemes. It should also be considered that from a strategic point of view, in the lecturer's employment contract or in the performance evaluation schemes, weight should be given to contract jobs with industry and sabbaticals in industry.

The cultural difference between universities and industry is considered a challenge that must be taken into consideration by universities to establish sustainable cooperation. The research work that takes place at the university should be aimed at having as much application as possible in the industry because that is the only way to increase the interest of the industry. The motivation of the industry to work with universities can be inspired through common projects that create an image and social impact first, then through the training of the industry's staff and the creation of spaces for innovation and further access to knowledge and new technologies.

References

Ankrah, S., & Al-Tabbaa, O. (2016). Universities—industry collaboration: A systematic review. *Scandinavian Journal of Management 31(3)*, 387-408.

Elsevier. (2021). *University-industry collaboration: A closer look for research leaders.* Retrieved from www.elsevier.com: https://www.elsevier.com/research-intelligence/university-industry-collaboration

Fagerberg, J., Mowery, C., & Nelson, R. (2005). *The Oxford handbook of innovation.* New York: Oxford University Press.

Gann, D., Eisenberg, J., & Montresor, F. (2018). *3 ways to nurture collaboration between universities and industry.* Retrieved from World Economic Forum: https://www.weforum.org/agenda/2018/11/3-ways-to-nurture-collaboration-between-universities-and-industry/

Hall, H., & Rosenberg, N. (2010). *The Handbook of the economics of innovation.* London. Boston: Elsevier B.V.

https://arsimi.gov.al/wp-content/uploads/2018/07/AKTET_NENLIGJORE.pdf

https://kalcea.com/

INSTAT (2021). *Regjistrat e biznesit-2021.* Tirana: http://www.instat.gov.al/media/10065/regjistrat-e-biznesit-2021.pdf.

Nkrumah, J. K. (2015). UNIVERSITY-INDUSTRY COLLABORATION: COMPARATIVE ANALYSIS ON SCIENCE, TECHNOLOGY AND INNOVATION POLICY. *GRIPS.*

OECD. (2019). *University-Industry Collaboration New Evidence and Policy Options.* https://read.oecd-ilibrary.org/science-and-technology/university-industry-collaboration_e9c1e648-en#page1.

Vedovello, C. (1998). Firms' research and development activity and intensity and the university–enterprise partnerships. *Technological Forecasting and Social Change, 58*, 215-226.