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LEGAL BASIS FOR COOPERATION BETWEEN HIGHER EDUCATION INSTITUTIONS AND THE SOCIOECONOMIC ENVIRONMENT – OPPORTUNITIES OR BARRIERS FOR THE DEVELOPMENT OF RELATIONS BETWEEN UNIVERSITIES AND EXTERNAL PARTNERS

ABSTRACT

Higher education institutions (HEIs) operate in a specific legal, economic, and social context. Therefore, both areas of their activity, i.e., education and research, must consider the current needs of the socioeconomic environment. In this way, higher education institutions can fulfil their mission: providing top-quality education and scientific activity, shaping civic attitudes, participating in social development, and creating an innovation-based economy.

Cooperation between universities and the socioeconomic environment is not a new phenomenon. The formation of the concept of the university confirms that certain political, economic, and social conditions influenced what universities were like. It has not changed, and issues concerning cooperation with external stakeholders are increasingly included in normative acts constituting the higher education system. The article will present basic legal solutions within the sources of generally applicable law concerning the cooperation of higher education institutions with the external partners in Poland and selected countries.

At the same time, an attempt will be made to answer the significance of the presented legal solutions for shaping the relations of higher education institutions, especially universities, with external stakeholders.

The article is based on a literature review. It focuses on cooperation models as well as opportunities and barriers to developing relations between universities and external partners. The methodology used in the study includes searching relevant databases, applying inclusion and exclusion criteria, extracting and synthesizing data, and analyzing and interpreting the

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synthesized information. The review includes foreign and Polish literature to ensure a fuller understanding of the national context. The proposed approach has not yet been the subject of detailed analysis in the literature, especially in higher education law.

Keywords: higher education institution, university, legal basis, socioeconomic environment, opportunities, barriers

1. INTRODUCTION

The development of modern society increasingly calls for symbiotic relationships between higher education institutions (HEIs) and the socioeconomic environment in which they exist. This interdependence forms the foundation for mutually beneficial outcomes, including knowledge exchange, collaborative research, technology transfer, and economic growth. However, the legal basis for cooperation between these entities can sometimes create opportunities or barriers that affect the relationships between universities and external partners.

The collaboration between higher education institutions and the socioeconomic environment has become increasingly important in recent years as universities seek to contribute to innovation, economic growth, and societal development (Etzkowitz & Leydesdorff, 2000).

This paper examines the legal basis for cooperation between HEIs and their socioeconomic counterparts, shedding light on the opportunities and challenges that emerge from these regulatory structures. Key aspects such as intellectual property rights, contractual agreements, data protection, and liability concerns will be analyzed to offer a comprehensive understanding of the legal landscape that governs the interactions between universities and their external partners.

By delving into the nuances of the legal environment, it can provide valuable insights that can inform the development of policies and strategies to enhance the effectiveness of these relationships. Ultimately, this exploration will help inform the development of policies and strategies that can enhance the effectiveness of these relationships, fostering a more dynamic and innovative ecosystem for academia and the wider society.

The legal basis for these collaborations is a critical factor that shapes the nature and effectiveness of partnerships between universities and external partners, such as businesses, non-profit organizations, and government agencies (Brundenius et al., 2017). Understanding the legal basis for cooperation between higher education institutions and the socioeconomic environment can help identify the opportunities and barriers to developing relations between universities and external partners, informing the design of policies and practices that foster innovation, knowledge transfer, and sustainable development.

The methodology employed in this paper involves a comprehensive search of relevant databases, the application of inclusion and exclusion criteria, data extraction and synthesis, and analysis and interpretation of the synthesized information. The literature review also incorporates Polish literature to provide a more comprehensive understanding of the national context. Based on the analysis and interpretation of the literature, potential research gaps and future directions for the study of the legal basis for cooperation between higher education institutions and the socioeconomic environment were identified.

By employing a systematic review methodology, this article aims to provide a comprehensive and rigorous analysis of the literature on the legal basis for cooperation between higher

education institutions and the socioeconomic environment, highlighting the opportunities and barriers for the development of relations between universities and external partners, and suggesting areas for future research.

The literature review on the legal basis for cooperation between higher education institutions (HEIs) and the socioeconomic environment reveals a wide range of perspectives and research findings that help to understand the opportunities and barriers to developing relations between universities and external partners. It refers to general issues and specific areas such as Intellectual Property Rights (IPR), contractual agreements, data protection and privacy, liability issues, regulatory landscape, and policy implications.

Intellectual property rights (IPRs) are a key aspect of the legal basis for cooperation between higher education institutions and the socioeconomic environment, as they influence the allocation of rights, benefits, and responsibilities between universities and their external partners (Hanel, 2006; Foray & Lissoni, 201; Bessen & Maskin, 200; Etzkowitz, 2008; Mowery et al., 2004; Knop, 2017).

Contractual agreements between higher education institutions and external partners are another important component of the legal basis for cooperation, as they define the terms, conditions, and responsibilities of the parties involved (Göransson et al., 2009; Lockett et al., 2003; Wright et al., 2008; Sikorski, 2011).

Liability issues, such as indemnification, insurance, and dispute resolution, are also critical considerations in negotiating contracts, as they can influence the risk perceptions and willingness of partners to engage in collaborative activities (Hertzfeld et al., 2006); Ranga & Etzkowitz, 2013; Zawadzka-Pak, 2016).

Cooperation between universities and external partners is regulated by national and international legal frameworks, such as the European Union's General Data Protection Regulation (GDPR) and national laws governing intellectual property, privacy, and data protection (Kuner, Bygrave, & Docksey, 2019; Dove, 2018; Daries et al., 2014; European Commission, 2018).

Sweeney (2013) highlighted the potential for data breaches and the importance of implementing robust data protection mechanisms to safeguard research participants' privacy. In the Polish context, Górski (2015) analyzed the legal aspects of data protection in university-industry collaborations, particularly focusing on the General Data Protection Regulation (GDPR) and its implications for research.

The broader regulatory landscape and policies governing the cooperation between HEIs and external partners significantly impact the development of these relationships (Marginson & Considine, 2000). They explored the effects of government policies on university-industry partnerships, arguing that supportive regulatory environments can facilitate stronger collaborations (Geuna & Muscio, 2009; Gołębiowski et al., 2008).

As the literature review suggests, understanding the legal basis for cooperation between higher education institutions and the socioeconomic environment is vital in fostering successful collaborations. The reviewed research offers valuable insights into the unique challenges and opportunities faced by institutions and their partners, which can inform the development of policies and practices to maximize the benefits of university-industry partnerships. Future research could focus on evaluating the effectiveness of different regulatory frameworks and contractual arrangements in promoting innovation and knowledge transfer, as well as

exploring how new technologies and data-driven approaches can help to address privacy and liability concerns in collaborative research.

2. MODELS OF COOPERATION

Universities have long been central to advancing knowledge, innovation, and economic development (Kusiak et al., 2020; Mazurkiewicz & Żyła, 2019, Zawadzki, 2015). However, in recent years, there has been increasing recognition of the importance of collaboration between universities and external partners, such as industry, government, and non-profit organizations. Such collaboration can take various forms, depending on the partnership's nature, the parties' goals, and the resources available. It could include joint research and development projects, technology transfer agreements, and university-industry partnerships (Cooke et al., 2007; Geuna & Muscio, 2009). These cooperation models can create value for universities and external partners by facilitating knowledge and technology transfer, creating opportunities for commercialization and entrepreneurship, and contributing to social and economic development (Perkmann et al., 2013). However, they can also face challenges like limited funding, intellectual property disputes, and difficulty coordinating research objectives and priorities (Howells, 2006).

Joint research and development projects involve collaboration between universities and external partners on a specific research project, with shared goals and resources (Cooke et al., 2007). Such projects can provide opportunities for universities to expand their research capabilities and access funding while also contributing to the development of new products, services, and technologies. For external partners, such projects can provide access to expertise, facilities, and networks while also enabling the commercialization of research results. However, joint research and development projects can also face challenges, such as coordinating research objectives, managing intellectual property rights, and allocating funding and resources.

Technology transfer agreements involve the licensing or transferring of technology from universities to external partners, such as industry or start-ups, for commercialization purposes (Geuna & Muscio, 2009). Such agreements can provide opportunities for universities to generate revenue from their research while also contributing to developing new products and services. Such agreements can provide access to cutting-edge research, technology, and expertise for external partners while enabling new businesses and jobs. However, technology transfer agreements can face challenges, such as managing intellectual property rights, negotiating licensing fees, and ensuring effective communication and collaboration between parties.

Open innovation and open science have emerged as important paradigms in research and development, emphasizing the need for increased transparency, accessibility, and collaboration in producing and disseminating knowledge (Chesbrough & Bogers, 2014; Fecher & Friesike, 2014). Investigating the implications of open innovation and open science for university-industry cooperation can help identify new opportunities and challenges, particularly regarding intellectual property, data sharing, and collaboration models. Further research could examine the adoption of open innovation and open science principles in the Polish higher education landscape and their impact on university-industry partnerships.

University-industry partnerships involve long-term collaboration between universities and industry to develop joint research programs, technology transfer activities, and training

and education programs (Perkmann et al., 2013). Such partnerships can provide opportunities for universities to access funding and resources while also contributing to developing new products, services, and technologies. For industry partners, such partnerships can provide access to cutting-edge research, technology, and expertise while enabling new businesses and jobs (Barczak & Kalinowski, 2015). However, university-industry partnerships can face challenges, such as managing intellectual property rights, ensuring effective communication and collaboration, and aligning research objectives with commercial priorities.

The impact of university-industry cooperation on regional development, particularly in fostering innovation, economic growth, and job creation, is another area of interest (Arbo & Benneworth, 2007). Investigating the regional impacts of these collaborations can help policymakers and institutions identify the factors that contribute to successful partnerships and develop targeted strategies to promote regional development. Further research could examine the role of university-industry cooperation in regional development in Poland, considering the unique challenges and opportunities different regions face.

The role of intermediary organizations, such as technology transfer offices, incubators, and accelerators, in facilitating cooperation between higher education institutions and the socioeconomic environment remains an essential topic. These organizations can help bridge the gap between academia and industry, providing support and resources that enable effective partnerships (Rothaermel et al., 2007). Further research could explore the role of intermediary organizations in the Polish context and assess the factors that contribute to their effectiveness in fostering university-industry collaborations.

National and international policies can shape the landscape of university-industry cooperation, influencing the incentives, funding mechanisms, and overall dynamics of these collaborations (Gulbrandsen & Slipersæter, 2007; Chellaraj et al., 2008). Investigating the impact of national and international policies on university-industry cooperation can help identify the factors that support or hinder these relationships and inform the development of more effective policy frameworks. Future research could examine the role of European Union policies, such as Horizon Europe, and national policies in the Polish context, exploring their implications for university-industry cooperation.

Analyzing the factors contributing to successful cross-border collaborations can provide valuable insights for institutions and partners seeking to expand their networks and access new opportunities. Further research could investigate the role of cross-border collaborations in the Polish context, considering the legal, cultural, and institutional factors that influence these partnerships.

3. LEGAL BASIS FOR COOPERATION

3.1. Cooperation between universities and external partners is regulated by national and international legal frameworks, such as the European Union's General Data Protection Regulation (GDPR) and national laws governing intellectual property, privacy, and data protection (Kuner et al., 2019; Dove, 2018). Such legal frameworks can pose challenges for cooperation, as they may impose restrictions on data sharing, technology transfer, and commercialization of research results. However, they also provide a basis for cooperation by establishing standards and guidelines for ethical and responsible conduct, which can enhance the trust and confidence of partners in university research.

Cooperation between universities and the socioeconomic environment is crucial to promoting innovation and economic growth in Poland. In recent years, there has been a growing interest in the potential benefits of such cooperation for universities and external partners, such as businesses, non-governmental organizations, and government agencies.

3.2. The legal basis for cooperation between universities and the socioeconomic environment in Poland is established by the Act of 20 July 2018 – Law on Higher Education and Science. Article 4 of this law states that one of the objectives of higher education is “developing and disseminating knowledge, culture and art, as well as introducing them into social and economic life practice”. In addition, the law includes provisions regarding cooperation between universities and the business environment, such as Article 12a, which sets out the principles of cooperation with entrepreneurs and procedures for dealing with research results that are subject to intellectual property protection, and Article 49a, which regulates the establishment and operation of innovation and technology transfer centres by universities, and defines their tasks and responsibilities in terms of technology transfer and commercialization of research results.

Moreover, Poland has established specific legal regulations regarding the commercialization of research results, such as the Act on the Protection of Intellectual Property Rights, which sets out the rules for obtaining patents, trademarks and industrial designs, and the Act on Innovation Activity, which regulates the support system for innovative activity in Poland.

These legal regulations create opportunities for cooperation between universities and external partners and provide a framework for developing relationships that promote innovation and economic growth in Poland. However, challenges and barriers to developing such relationships, such as differences in priorities and funding sources, need to be addressed further to facilitate cooperation between universities and the socioeconomic environment.

The legal basis for cooperation between universities and the socioeconomic environment in Poland creates opportunities for collaboration that can promote innovation and economic growth. Universities can benefit from such cooperation by accessing external funding sources, developing partnerships with businesses and other organizations, and creating opportunities for their students to gain practical experience in the workplace. On the other hand, external partners can benefit from access to university resources, such as research expertise, facilities, and intellectual property (Jakóbczyk-Gryszkiewicz & Wiśniewski, 2019; Skowronek-Mielczarek & Jelonek, 201; Łukiewicz & Matuszak-Flejszman, 2019).

There are also specific initiatives in Poland that aim to promote cooperation between universities and the business environment. For example, the National Centre for Research and Development has established several programs that provide funding for joint research projects between universities and industry partners. In addition, the Polish Agency for Enterprise Development supports the technology transfer and commercialization of research results through its Technology Transfer Centers program.

Despite the legal basis for cooperation and the opportunities, there are still barriers to developing relationships between universities and the socioeconomic environment. One of the main barriers is the lack of mutual understanding between universities and external partners, particularly regarding differences in priorities and funding sources. Additionally, the bureaucratic and administrative procedures required for collaboration can be complex

and time-consuming, which may deter some potential partners (Jakóbczyk-Gryszkiewicz & Wiśniewski, 2019).

In conclusion, the legal basis for cooperation between higher education institutions and the socioeconomic environment in Poland provides a framework for developing relationships that can promote innovation and economic growth. While there are still barriers to be overcome, there are many opportunities for universities and external partners to collaborate in mutually beneficial ways. Further efforts are needed to facilitate and encourage such cooperation and promote a better understanding of the benefits of partnerships between universities and the socioeconomic environment.

3.3. In Germany, the legal basis for cooperation between HEIs and external partners is primarily governed by the Higher Education Framework Act (*Hochschulrahmengesetz*, HRG) and the individual state laws on higher education (*Landeshochschulgesetze*, LHG). These laws promote knowledge and technology transfer between universities and industry, providing a supportive legal framework for collaboration (Polt et al., 2001, p. 13). The German Patent Act (*Patentgesetz*) also plays a crucial role in regulating the ownership and exploitation of intellectual property rights (IPRs) resulting from university-industry collaborations (Czarnitzki et al., 2015).

3.4. French higher education institutions and their external partners are subject to a complex legal framework that includes the Code of Education (*Code de l'éducation*), the Research Code (*Code de la recherche*), and the Intellectual Property Code (*Code de la propriété intellectuelle*). These laws encourage and regulate the cooperation between universities and external partners, providing a solid foundation for partnerships (Lissoni et al., 2000). The French "CIFRE" system (*Conventions Industrielles de Formation par la Recherche*) further supports collaborations by offering tax incentives to companies that employ PhD students to conduct research in partnership with universities (Muscio & Vallanti, 2014).

The legal framework for cooperation between HEIs and external partners in the United Kingdom is shaped by the Higher Education and Research Act (HERA) of 2017, which established UK Research and Innovation (UKRI) to oversee and coordinate the funding and regulation of research and innovation activities. The UK's intellectual property rights (IPRs) regime, governed by the Patents Act of 1977 and the Copyright, Designs and Patents Act of 1988, provides a clean and supportive environment for university-industry collaborations (Hughes & Kitson, 2012).

3.5. In Italy, the legal framework for university-industry cooperation is defined by the University Reform Act (*Legge 240/2010*) and the Industrial Property Code (*Codice della Proprietà Industriale*). The University Reform Act promotes knowledge and technology transfer between universities and external partners. At the same time, the Industrial Property Code establishes the rules for the protection and exploitation of IPRs resulting from these collaborations (Balconi et al., 2004). Italian regional innovation policies also significantly support university-industry partnerships (Muscio & Vallanti, 2011).

3.6. Spain's legal framework for cooperation between HEIs and external partners is shaped by the Organic Law on Universities (*Ley Orgánica de Universidades*) and the Spanish Patent Law (*Ley de Patentes*). The Organic Law on Universities encourages universities to partner with external entities and engage in knowledge transfer activities. At the same time, the Spanish Patent Law governs the ownership and exploitation of IPRs resulting from university-industry collaborations (López-García et al., 2018). The Spanish government also supports university-industry collaborations through its National Plan for Scientific Research, Development and Technological Innovation (*Plan Nacional de Investigación Científica, Desarrollo e Innovación Tecnológica*), which includes funding schemes for joint research projects between universities and companies (Jiménez-Sáez et al., 2014).

3.7. The legal basis for cooperation between higher education institutions and the socioeconomic environment varies across Europe, with each country having specific regulations and policies. However, the common goal among these countries is to facilitate collaboration between universities and external partners to promote innovation and economic growth. While there are challenges and barriers to this type of cooperation, such as differences in priorities and funding sources, many countries have made significant efforts to overcome these obstacles and foster successful partnerships. As the world becomes increasingly interconnected and competitive, the role of universities in driving innovation and economic development will only become more important. It will be crucial for policymakers and stakeholders to continue supporting and strengthening these relationships.

CONCLUSION

The legal basis for cooperation between higher education institutions and the socioeconomic environment is complex and multifaceted, with various opportunities and barriers to developing relations between universities and external partners. By examining the relevant literature, including the Polish context, and identifying potential areas for future research, stakeholders can better understand the factors that contribute to successful collaborations and work towards creating an enabling environment for innovation and knowledge transfer.

Examining various aspects of collaborations, including intellectual property rights, contractual agreements, data protection and privacy, liability issues, the regulatory landscape, intermediary organizations, regional development, collaboration models, national and international policies, and cross-border collaborations, stakeholders one can better understand the factors that contribute to successful partnerships. Through continued research, policymakers, institutions, and partners can work together to create an enabling environment for innovation, knowledge transfer, and sustainable development.

The role of university governance and internal policies in shaping the nature and effectiveness of cooperation between higher education institutions and the socioeconomic environment is an important area to consider (Clark, 2004). The organizational culture, decision-making processes, and incentives within universities can significantly impact their ability to engage with external partners and pursue collaborative opportunities. Future research could explore the role of university governance and internal policies in the Polish context, identifying best practices and areas for improvement that can help foster stronger university-industry collaborations.

These additional research areas emphasize the complexity and multidimensional nature of cooperation between higher education institutions and the socioeconomic environment. By examining the role of university governance, internal policies, open innovation, and open science, we can further understand the factors contributing to successful university-industry collaborations. Incorporating insights from the Polish context and comparing them to international perspectives can help inform the development of policies and practices that foster innovation, knowledge transfer, and sustainable development in an increasingly interconnected world.

Collaboration between universities and external partners, such as industry, government, and non-profit organizations, can offer a range of benefits, including access to funding and resources, innovation, and economic development. However, such collaboration can also face significant barriers, including managing intellectual property rights, aligning research objectives with commercial priorities, and ensuring effective communication and collaboration between parties.

One of the main barriers to cooperation between universities and external partners is the management of intellectual property rights (Dove, 2018). Intellectual property rights can be complex and vary across countries and industries, making it difficult to negotiate acceptable agreements with all parties. Another barrier is the alignment of research objectives with commercial priorities (Perkmann et al., 2013). Universities may focus more on basic research and academic goals, while industry partners may focus more on applied research and commercial outcomes. This misalignment can make it difficult to establish common goals and priorities. A third barrier is ensuring effective communication and collaboration between parties (Geuna & Muscio, 2009). Organizations may have different cultures, communication styles, and expectations, creating misunderstandings and conflicts.

Despite these barriers, there are also significant opportunities for cooperation between universities and external partners. One opportunity is access to funding and resources (GUS, 2018). External partners can provide funding for research, access to specialized equipment and facilities, and other resources that may not be available within universities. Another opportunity is innovation (Cooke et al., 2007). Collaboration between universities and external partners can lead to the development new products, services, and technologies that may not have been possible through independent research. Economic development is a third opportunity (Kusiak et al., 2020). Collaboration between universities and external partners can contribute to the growth of local and regional economies by creating new businesses, jobs, and industries.

Cooperation between universities and external partners offers opportunities and challenges, depending on the specific context and goals of the partnership. Managing intellectual property rights, aligning research objectives with commercial priorities, and ensuring effective communication and collaboration are key barriers to successful cooperation. However, access to funding and resources, innovation, and economic development are potential benefits of successful collaboration. By understanding these barriers and opportunities, universities and external partners can collaborate to create effective partnerships that contribute to social progress, economic development, and innovation.

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