



Penta Helix Collaboration in Higher Education

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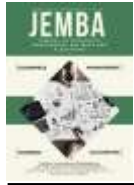
Collaboration, Penta Helix, Higher Education.

Abstract

The aim of this paper is to analyze penta helix collaboration in higher education. Universities are being faced with changes driven by innovation in science and technology, namely the industrial era 4.0 , making universities continue to encourage themselves to adapt and innovate to environmental changes in order to survive and exist in the journey of developing educational services. The research method used by literature studies (library research) is the basis of this paper. The analysis was carried out using qualitative descriptive analysis methods. Analysis results using the penta helix. First, from the government aspect, each university can collaborate internally and externally, namely with Central Government institutions, Provincial Regional Governments and Regency/City Regional Governments, of course as sub-ordinates of the structure of the Government of the Republic of Indonesia. Second, each university can collaborate with academics from various universities and study program associations. Third, on the aspect of society/ communities , Each university can collaborate with alumni and optimize the community service (PKM) section. Fourth, in the business aspect , each university can collaborate with relevant companies. Fifth , mass media is not only optimized internally like websites and other official accounts. However, there is a need for cooperation with other media as mediators to socialize and distribute educational programs

A. INTRODUCTION

Countries in the world realize that education is believed to have the ability to prepare human resources (HR). The educational process is expected to be able to provide guidance for the continuity of life in accordance with the nation's ideological and cultural values, to give each individual awareness of their "human" potential, and more than that, education must be able to stimulate individuals to use this potential in accordance with human values. Materially, education must be able to provide knowledge that advances and improves the quality of life, both on the scale of personal, social and state life (Hermanto, 2020).



Through education, the Indonesian nation will be able to plan and prepare educated personnel who have the ability to compete with other countries (Oktariana, 2007). Apart from that, it is realized that higher education institutions (PT) are educational institutions that play a very important role in developing quality human resources (HR) to meet development needs. The quality of higher education that is evenly distributed and in accordance with regional needs is important in regional development. Therefore, programs at HEIs must look at the benefits and future of students (Nikmah, 2015).

However, currently universities are faced with changes driven by innovation in science and technology. The development of education in the world cannot be separated from the development of the industrial revolution that occurred in the world, because indirectly changes in the economic order also change the education order in a country (Risdianto, 2019). The era of industrial revolution 4.0 is a time where the use of cyber in collaboration with manufacturing is widely implemented. This is demonstrated by increases in data volumes, computing power and connectivity, the emergence of analytics, capabilities and business intelligence; the emergence of new forms of interaction between humans and machines; and improvements in digital transfer instructions to the physical world, such as robotics and 3D printing (Lian, 2019).

To face the era of industrial revolution 4.0, learning is needed that can form a creative, innovative and competitive generation (Alfin, 2018). Today's increasingly tight competitive conditions force universities to continue to encourage themselves to adapt and innovate to environmental changes in order to survive and exist in the journey of developing educational services. Efforts that universities must make are to observe and anticipate trends that are occurring outside universities, namely the progress of competitors and the needs of prospective student customers (Nasution, L., & Ichsan, R. N, 2020).

In terms of quantity, universities in Indonesia continue to increase from year to year, this condition causes very tight competition, encouraging each university to be able to compete with other universities. Therefore, education providers must continue to strive to become the most superior institutions to increase the attractiveness of society. As an

implementation of its vision and mission, every higher education institution needs to make breakthroughs in facing higher education competition which is quite tight, tough and complex, one of which is by utilizing penta helix collaboration to create superior higher education institutions in various aspects. Excellent in the aspect of human resources, namely professional and qualified lecturers, superior in campus facilities and infrastructure, superior in the learning process, superior in study program accreditation, superior in the quality of graduates, and superior in other aspects.

The importance of collaboration between parties in achieving common goals by maximizing the pentahelix concept which involves many roles. Pentahelix or multi-party is an element of collaboration that combines various parties including, Academy, Business, Community, Government, and Media , or usually abbreviated as ABCGM. Pentahelix as an approach to the context of implementing education in Indonesia is thick with positive values passed down by Indonesian educational figures, namely Ki Hadjar Dewantara, where the approach introduced focuses on a continuous and connected educational process (Prasetyo, AB, Dzunurroini, L., Wirapermata, GS, Ramadhani, Z., & Wiredarme, W, 2022).

B. METHOD

Literature study (library research) is the basis of this paper, by conducting a study of international and national journals, as well as published literature. The analysis was carried out using a qualitative descriptive analysis method, namely discussing and explaining the situation and problems, then trying to analyze logically, systematically and consistently by studying in detail and in depth the problem.

C. RESULTS and DISCUSSION

1. Penta Helix Collaboration Concept

The background to the emergence of the pentahelix concept is built on two stakeholder governance models that emerged previously, namely the triplehelix concept and the quadranelix theory. Triplehelix theory, namely stakeholders between the government (

government), entrepreneurs (business) and academicians (Hadi , 2023). Meanwhile, the quadrahelix was added with the inclusion of another stakeholder, namely civil society. During its development, the penta helix stakeholders were then refined into 5 (five), namely mass media.

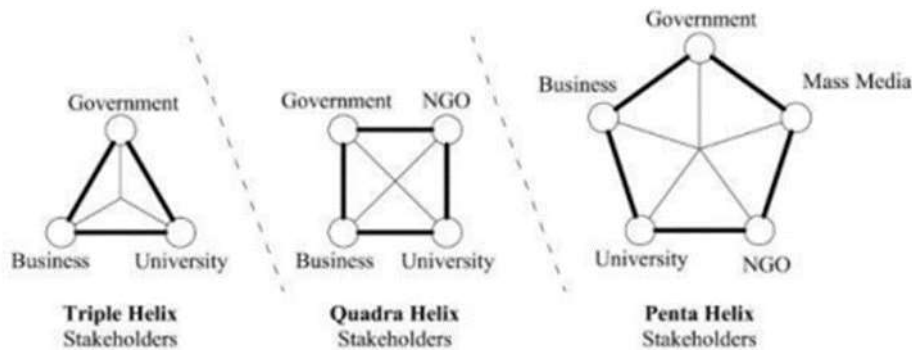
Table 1 Stakeholders of Triple Helix, Quadra Helix and Penta Helix

Triple Helix	Quadra Helix	Penta Helix
Government	Government	Government_ _
Business	Business	Business_ _
Academics	Academics	Academics (<i>University</i>)
	Public	Society (NGO)
		Mass Media (Mass Media)

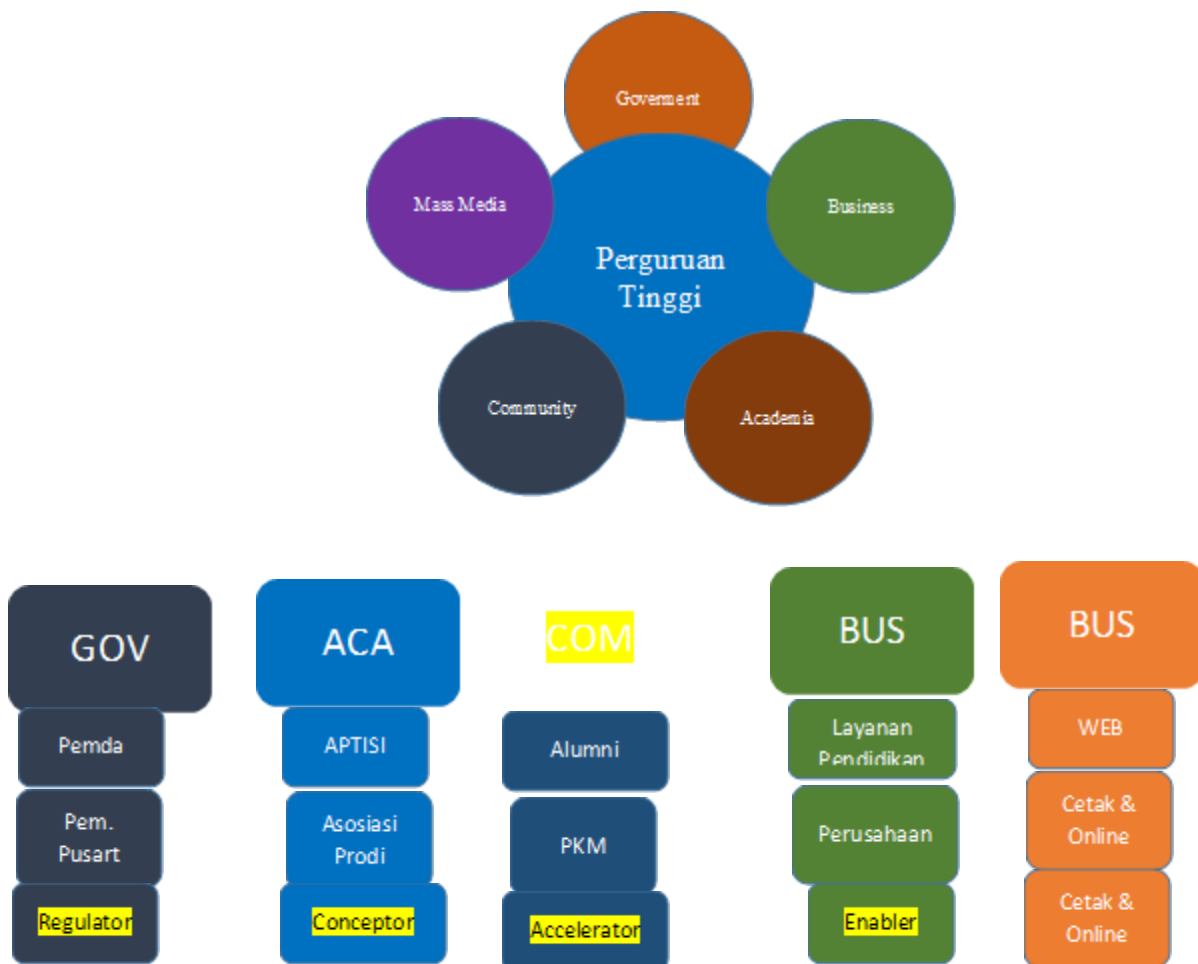
Source: Processed from various sources

Pentahelix collaboration is an inter-collaboration activity fields including academic, business, community, government, and mass media, or known as ABCGM, are assumed to be able to accelerate the development of the management potential of a higher education institution. Of the five elements of the pentahelix as sakeholders , the community element opens up opportunities for cross-configuration and networking discipline, and frees the concept of innovation from mere economic considerations and goals, but also involves creativity as part of the knowledge and innovation production process (Hadi, 2023). In mass media, elements play a significant role, although they remain independent elements or are not directly influenced by other elements in carrying out their parts or functions (Yunas, 2019).

2. Penta Helix Collaboration for Excellent Higher Education



From the previous description of the penta helix collaboration concept (a development of the triple and quadranelix), there are many potential uses for solving multi-stakeholder problems where stakeholders represent various interests in one location. It is hoped that the collaboration of these 5 (five) stakeholders can realize a policy that is supported by a variety of resources that interact with each other synergistically. In connection with the stakeholder governance of each university, the basic model of penta helix collaboration can be conceptualized in the following visual scheme.



The five stakeholder elements that can be collaborated at Al-Ghifari University can be described as attribution (strength, legitimacy, interest) based on the value of their role.

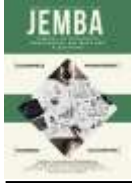
a. Government/Governance

The government has three roles at once in the pentahelix concept. Firstly, the government acts as a regulator and controller who has regulations and responsibilities in social change. In carrying out its role, the government must always involve all types of activities, such as planning, implementation, monitoring, control, promotion, financial allocation, licensing and others (Pada, 2022). In terms of attribution of power, legitimacy and importance, government groups as higher education stakeholders can refer to the institutions of the Central Government and Provincial Government, Regency/City Regional Government of course as sub-ordinates of the Government structure of the Republic of Indonesia.

Each tertiary institution can collaborate with various Departments/Agencies within the Regency/City Regional Government where the tertiary institution is located, in accordance with the interests of each faculty in the tertiary institution. Likewise, for the regional scope, you can collaborate with Departments/Agencies within the Provincial Regional Government, for example collaboration with the Department of Education, the Department of Tourism and Culture in terms of developing Sundanese culture, with the Department of Small Business Cooperatives in terms of developing student entrepreneurship, and with other Departments/Agencies. At the central level, the governance pattern of each university can coordinate internally and externally, to build communication and cooperation with various related ministries. For example, at the Ministry of Education, Culture, Research and Technology and other relevant ministries. The central government, through its related ministries, is responsible for managing the organization must be positioned as a regulatory source as well as having legitimate value.

b. Academics (University)

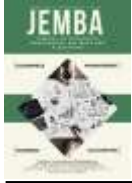
In the pentahelix concept, academics act as drafters who conduct research, help manage potential identification and development opportunities (Rahu, 2021). Academics are knowledgeable subjects and have relevant experience to be able to collaborate on higher education development. Based on their discipline and scientific vision, lecturers in higher



education are encouraged to continue to improve their professionalism and competence, lecturers who have master's degrees to continue on to doctoral degrees . Academics at each university continue to collaborate in the field of research, publishing national and international journals with academies at state universities and private universities in Indonesia, and universities abroad. Another step is that every university can participate directly in the development of the world of education and can respond quickly to any situation and condition. Then you can work together by participating in study program associations. Every study program in every tertiary institution can join a study program association so that it can collaborate with members and outside institutions in order to contribute to the policy of implementing the tridharma of higher education. This includes scientific development, for example curriculum preparation.

c. Society/Communities (NGO)

The community in the context of pentahelix collaboration contains a group of people who have the same interests and are relevant to the concept being developed. One of them is community service. The role of society/community is very important in seeing the quality of higher education , ensuring that a study program carries out its practices well. The close relationship between alumni is an added value for new graduates, especially for graduates who have not yet found a job . Every university should collaborate with alumni to open extensive connectivity or relationships and facilities that support alumni to get jobs. Apart from opening relationships, the role of alumni is also very much needed for the progress of higher education institutions , with input provided by alumni. Through this input, universities can evaluate what needs to be added and improved, so that in the future it will be even better, especially for the progress of each university. Then community service is the implementation of the practice of science, technology and arts and culture directly in society institutionally through scientific methodology as the dissemination of the Tri Dharma of Higher Education as well as noble responsibilities in an effort to develop community capabilities, so that it can accelerate the rate of growth in achieving national development goals. Every college can a Contribution can take the form of education to the community,



service to the community, real work lectures, integrated regional development, and development of research results. In an effort to equip students in the field of arts and culture, each university needs to collaborate with various arts and cultural communities in their region and in Indonesia, as well as holding arts and cultural events involving artists and cultural figures.

d. business World (Business)

Collaboration between universities and industry is very important in creating an inclusive and quality educational environment. Universities have a big task in providing quality education and research, as well as preparing graduates who are ready to work and understand the industrial world (Irianto, 2012). Meanwhile, industry has a responsibility to help create jobs and strengthen the country's economy. Each university can collaborate with relevant companies, this collaboration has significant benefits for both parties. For universities, collaboration with companies allows students to gain practical knowledge and experience that is relevant to the world of work. Through internship programs, industrial visits, or research collaborations, students can apply the knowledge gained on campus into real work contexts. This will help develop skills required by the industry and increase job opportunities after graduation. On the other hand, companies also benefit from collaboration with universities. They can play a role in forming an educational curriculum that suits current needs. By involving practitioners as guest lecturers or project supervisors, companies can ensure that college graduates have relevant skills and are ready for work. Apart from that, this collaboration can also open up opportunities for industry to recruit quality prospective employees directly from universities.

e. Mass Media (Mass Media)

Every university has and continues to develop its publication and communication media internally, such as in the form of websites or official accounts on several internet social media platforms, however, expanding collaboration with mass media players needs to continue to be pursued. In principle, attribution of interest is a link between media actors and universities . If the mass media needs fresh news materials and materials, then

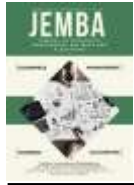
universities need mediators to socialize and distribute their educational programs. For example, collaborating with news portals, both print and electronic.

D. Conclusion

Based on the results of the presentation in the penta helix collaboration at tertiary institutions, the first five aspects of government, academics (university), society, business and mass media can be maximized to face the era of industrial revolution 4.0. Today's increasingly tight competitive conditions require every university to continue to adapt and innovate to changes in the environment in order to survive and exist in the journey of developing educational services in Indonesia nationally.

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