

NECESSITY TO TRANSFORM THE SCIENTIFIC RESEARCH PROCESS IN HIGHER EDUCATION INSTITUTIONS IN EL SALVADOR

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Scientific research is a process which is implemented to build new knowledge aimed at generating innovative processes that lead to the solution of problems and needs that affect the development of countries. For this reason, nations such as Germany and the United States of America have reached higher levels in all fields by incorporating research, which has allowed them to develop in social and productive spheres.

In Europe, mainly, countries have implemented an instrument named the «Oslo Manual»¹, which is a guide for measuring and studying scientific and technological activity, its first edition from 1992 focused on the manufacturing industry. The second, carried out in 1997, extended its application to the services industry; and the third, from 2005, provided guidance to governments in adapting their innovation policies.

The Oslo Manual is an important reference for the analysis and collection of data on technological innovation, which defines concepts and classifies activities that are part of the innovation process. Its update and use contribute to the implementation of a technological culture that is currently under constant development.

It states that the typical links between companies, suppliers, and customers are expanded from within the innovation processes into other relationships with research centers, higher education institutions, and public and private entities in the economy and in general life.

Therefore, institutions that are actors in the economic, creative, and social spheres, both private and public, and most importantly, universities, have the responsibility to develop knowledge that facilitates the enhancement of productivity in order to improve the quality of life for the inhabitants of their surroundings.

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In El Salvador, efforts are being made to generate new knowledge through research. Nevertheless, we must ask ourselves if these are truly related to the necessities and issues of social, economic, and productive actors in the country, considering that the research process must be fundamentally oriented towards finding solutions within a specific context.

Proper planning and management of research should start with strategic planning that guides it in accordance with the needs and issues of sectors and actors within a specific context and reality.

Therefore, a research line should be aimed at anticipating the selection of topics and fundamental areas by identifying, prioritizing, and precisely determining aspects of specific interest for each context. This will enable research project initiatives to generate knowledge that satisfies the needs of the country's economic and productive sector).

Each year, Higher Education Institutions (HEIs) in El Salvador carry out a significant number of research projects as part of graduation processes, both at the undergraduate and post-graduate levels, ensuring that their topics align with the Sustainable Development Goals (SDGs) established by UNESCO. However, these topics are not consulted with members of the country's productive sectors, who are the target population and beneficiaries of such research.

This connection is essential to achieve empowerment that enhances their innovative capacity and, with it, achieve the economic and social development of the country, with its own technologies or adapted ones to our own reality. Otherwise, the results obtained are not applied, and if they are, they are limited to a very small context, without ever becoming generalized.

Currently, HEIs strive to encourage their professors to engage in research activities by offering additional economic incentives on top of their regular salaries, however, these activities become an additional burden for which they were never contracted. On the other hand, the primary teaching responsibility rests on professionals whose employment agreements were established under hourly rate terms, leaving them with insufficient time for research.



In that regard, it is necessary for each HEI to implement changes in the hiring requirements for faculty members, in a way that the responsibilities of professor and researcher are separated and the necessary spaces are provided for the fulfillment of both activities.

In addition, it is important that each HEI has a research and knowledge transfer unit, which effectively links the institution to the various sectors of the productive and developmental life of the country, with the purpose of identifying in a clear and precise way the problems that affect each sector and focus research efforts to find a solution to them. Generally speaking, the developed world refers to this approach as the university-production relationship.

Bibliographic references

1. OECD. Oslo Manual 2018: Guidelines for Collecting, Reporting and Using Data on Innovation. 2023. The Measurement of Scientific, Technological and Innovation Activities, OECD. 2023. Available at: <https://www.oecd.org/science/oslo-manual-2018-9789264304604-en.htm>

