

# **THE ROLE OF UNIVERSITIES IN REGIONAL DEVELOPMENT: THE CASE OF THE STATE UNIVERSITY OF CEARÁ (UECE), BRAZIL.**

## **Introduction**

Universities can play a key role in promoting regional development, but as the concept of regional development, the contribution of universities is a diversified and complex phenomenon (VARGA and ERDŐS, 2019). Due to this complexity, some studies have been developed to try to understand the relationship of universities with regional development, covering theories such as Innovation Clusters and Networks, Regional Engagement, Civic University, Entrepreneurial University, Triple Helix, among others.

For believing that the State University of Ceará (UECE) can be defined as an Entrepreneurial University that encompasses the Triple Helix, the focus of this study will be on these two theories. According to Etzkowitz and Zhou (2017), the university taken as entrepreneurial defines its institutional strategy, participates in the creation of joint socio-economic development projects at the regional level, in addition to incorporating traditional critical functions. With this, while, to develop such development, there is the junction between university, industry, and government, the so-called "Triple Helix" occurs.

Created on March 10, 1975, through Decree No. 11.233, the UECE has as its mission "to produce and disseminate knowledge and train professionals to promote sustainable development and quality of life in the region" (UECE, PAGE 19, 2018). Thus, the objective of this paper is to discuss the role of the UECE for regional development. For this, part of the available theoretical reference and secondary data will be used, taken from official documents, such as the Institutional Development Plan, Management Report, and the catalog "UECE in numbers"<sup>1</sup>, collected through the institution's website.

The justification for the research is given by the literary contribution of the role of universities for regional development, besides the importance of the State University of Ceará for Brazil, in which, according to the *Times Higher Education* through *The Impact Rankings 2021*, the UECE is ranked 92nd in the world and 4th in Brazil in "Quality Education", besides being indicated as one of the best universities in *Latin America and the Caribbean* by the *Latin America University Rankings 2021*.

## **The State University of Ceará and the promotion of regional development**

The role of the UECE for regional development will be discussed through the policies that make up the institution's pedagogical project. Thus, the analysis will be divided into five parts, namely: administration; undergraduate, graduate, and research; extension; and technological innovation.

---

<sup>1</sup> Statistical data released annually on programs, courses, and projects managed at the university.

## *Administration*

Being part of the Pro-Rectorate of Administration, the UECE's administrative policy has as its mission to support the development of institutional activities that encompass the three primary axes: Teaching, Research, and Extension. To do this, it proposes, defines, plans, and executes measures that encompass the human, financial, technological, and administrative dimensions of the university.

In 2019, UECE had 1119 higher education faculty members and about 380 technical-administrative servers. In addition, there are more than 500 employees providing labor services coming from outsourced companies, thus constituting a source of high employment generation and, consequently, economic growth. For example, in 2020 there were renovations and constructions, such as the Renovation and Expansion of the UECE's Center of Excellence in Entrepreneurship, which was done by a third-party company for more than R\$ 1.7 million (approximately EUR 340 thousand); the Completion of the Center for Environmental Studies; the Construction of the University Restaurant of the College of Education, Sciences, and Languages; as well as the construction of the New Campus of the College of Education.

Just for illustration, the budget limit statement in 2020 for these works and projects was more than R\$ 306 million (approximately EUR 60 million). These works come from state and federal public resources, in which most of the time there is the hiring of outsourced companies. With this relationship, many workers and employees are employed, mainly residents of the community or city where the works are executed, thus generating employment and local income.

## *Undergraduate, graduate, and research*

As part of the Pro-Rectorate of Graduation, the UECE's graduation policy is based, among other aspects, on the creation of courses that refer to the development demands of the Ceará State and that consider the transformations of the labor market, academic policy, and social responsibility. Distributed to more than 30 courses, the number of students graduating from UECE between 2008 and 2019 was 23396, in which, despite not having concrete data on the insertion of these students in the labor market, it can be stated that this number represents great importance for regional development, especially in a still-developing state like Ceará, because once graduated there is a greater chance of getting a job, in addition to the growth of social capital and knowledge generated with these studies.

Besides the "traditional" courses, the UECE provides its students with special national and international undergraduate support programs. These programs are not part of the physical structure of the university and have external funding. Internationally, the university has programs such as "Sciences Without Borders", "International Graduation Program", and international agreements with several universities around the world, including Hungary, through the "Undergraduate Student Agreement Program". On a national level, we highlight the programs that provide scholarships financed by state and municipal bodies and private initiatives, as is the case of the "Institutional Program of

Scholarships for Initiation to Teaching", and the "Academic Monitoring Program Tutorial Education Program". Besides, funded by the Federal Government of Brazil, the UECE has programs such as the "Support Program for Higher Education and Indigenous Graduation", "National Plan for Education Teacher Training", among others.

Concerning UECE's post-graduation policy, linked to the Pro-Rectorate of Post-Graduation and Research, it aims to develop the quality of teaching through specialized training and research that meets mainly the socio-economic and cultural demands of Ceará. Academic performance data showed that between 2009 and 2019 UECE awarded more than 3900 diplomas to students in master's and doctoral courses, with this number jumping from 55 diplomas in 2009 to more than 550 in 2018.

In addition to undergraduate courses, there are several technological, scientific, and innovation development programs at UECE, and in 2017 there were more than 160 research groups registered in the Platform of the National Council for Scientific and Technological Development of the Federal Government of Brazil. Among these programs it is worth highlighting the "Program for Initiation in Technological Development and Technological Innovation-PIBITI/CNPq", the "Scientific and Technological Initiation Program-ICT/ FUNCAP". These numbers reflect UECE's research potential in society, mainly with the insertion of technological and innovation mechanisms.

One of the great achievements of the research promoted by UECE today is the development and production of the vaccine against Covid-19. In partnership with the State Government of Ceará and the Oswaldo Cruz Foundation, and with immunologist professor Izabel Florindo Guedes, the project consists of one more Triple Helix interaction. It is up to the university to provide the physical space and personal capital for the management, care, and safekeeping of the animals related to the vaccine's test phases, in addition to lectures on the care with Covid-19. The private initiative will provide the laboratory infrastructure for the execution of the research activities, and the Government of Ceará will provide the financial resources for the project's execution.

### *Extension*

Linked to the Pro-Rectorate of Extension, the policy at the UECE has as reference the university's General Regime and Management Plan, as well as the Brazilian National Extension Plan. The UECE tries to integrate teaching and research with the interests of society and the local community, involving institutions (public or private) in fundamental objectives, such as promoting technical and specialized knowledge to minority social groups, covering priority areas (health, environment, technology, among others).

There are several extension actions promoted annually by UECE, such as extension courses and projects, institutional and local community services, fairs, study weeks, among others, in which the extension activities range from Scientific Initiation projects to Language Center and Veterinary Hospital. In 2019 alone, more than 175,000 people were benefited, which does not refer only to students and employees. The UECE's extension projects serve the entire population, especially the needy community, in which

a link is created between society and the university core and, consequently, promotes local socio-economic development.

One of the great actions promoted by the State Government of Ceará in partnership with the UECE was the creation of the Ceará University Hospital. Located on the institution's campus, this action was planned by the Secretary of Health of the State of Ceará through the State Government's Health Modernization Platform, thus promoting a University-State association. With an investment of R\$275 million (approximately EUR 52 million) from the Government of Ceará, the building will have more than 650 beds, 7 floors, and a helipad for serious cases. This work, besides the importance of the University-State interaction, consists in a historical landmark of development and service to the local community.

### *Technological innovation*

The UECE's Technological Innovation policy, through the UECE's Technological Innovation Center (NIT-UECE), ensures licensing, patent registration, as well as commercialization of research and innovation prospection. Starting in 2007, the NIT-UECE aims, among others, to facilitate the link between the university and society, through developed technologies and the propagation of innovation.

One of the mechanisms of UECE's innovation policy is incubation, in which since 1997 (two years after its creation) there was already a business incubator at the university, but only in 2011, its regulation occurs. Created by Resolution No. 814-CONSU of September 29, 2011, the Business Incubator and Technological Development Center of the State University of Ceará - INCUBAUECE, aims to transform ideas coming from the university into sustainable and innovative enterprises, seeking socioeconomic development through technological innovation. For this it offers countless services, such as business orientation, consulting, training, and provides physical space for companies.

To better illustrate the numbers of this innovation center, the NIT-UECE signed, in addition to numerous lectures and services to the community, 31 cooperation contracts between the university and private enterprise in the period from 2010 to 2019. In 2019, for example, INCUBA-UECE served more than 30 potential entrepreneurs coming from the university and the local community. Moreover, despite the Covid-19 pandemic, partnerships were made in 2020 with the Municipal Government of Fortaleza, through the Municipal Secretariat for Economic Development - SDE, in which six companies were served in the incubation program, mainly in Biotechnology, in addition to other partnerships with universities, public institutes, government, and private initiative, thus forming the Triple Helix.

### **Conclusions**

This research aimed to present how the State University of Ceará proposes and behaves towards society, as well as analyze its role in regional development. For this, a brief history of the university was shown, and how the UECE currently behaves in matters such as social and economic responsibility, as well as statistical data of projects,

programs, partnerships, and courses managed at the university. The methodology consisted in part of the theoretical framework available, and secondary data taken from official documents, such as the Institutional Development Plan, Management Report, and the catalog "UECE in numbers", collected through the institution's website.

With the proposed work, it is noted that the UECE has been striving to contribute to regional development while bringing, from its mission, the principles, and values in respect of diversity and the environment, and the quest to reduce social disparity. The university participates in various ways in the socio-economic dynamics of the State of Ceará, either through the generation of employment and income, but also through the propagation of knowledge and technological advances.

The State University of Ceará is an entrepreneurial university, as it creates mechanisms to support innovation, technological development, and the entrepreneurial spirit of its students and faculty. In addition, the university is a fundamental part of the Triple Helix of Ceará, because through partnerships with the State Government and private initiative it promotes programs and projects for society, through research, development of incubators, and inclusive activities. Therefore, it is concluded that the State University of Ceará is of great importance in terms of the development of the state-regional community.

## REFERENCES

ETZKOWITZ, H.; ZHOU, C. **The triple helix: University–industry–government innovation and entrepreneurship**. Routledge, 2017.

FUNDAÇÃO UNIVERSIDADE ESTADUAL DO CEARÁ – FUNECE. Relatório de Gestão 2020. Fortaleza - Ceará, 2021. Available in: <<http://www.uece.br/institucional/relatorios-de-gestao/>>. Accessed in: 05/01/2022.

UNIVERSIDADE ESTADUAL DO CEARÁ – UECE. UECE em números. Available in: <<http://www.uece.br/institucional/uece-em-numeros//>>. Accessed in: 12/01/2022.

UNIVERSIDADE ESTADUAL DO CEARÁ – UECE. Plano de Desenvolvimento Institucional: 2012 - 2016 / Universidade Estadual do Ceará. — Fortaleza: EdUECE, 2014.

UNIVERSIDADE ESTADUAL DO CEARÁ - UECE. Plano de desenvolvimento institucional: 2017 – 2021 / Universidade Estadual do Ceará. - Fortaleza: EdUECE, 2018.

VARGA, A.; ERDŐS, K. (Ed.). **Handbook of universities and regional development**. Edward Elgar Publishing, 2019.