

# The ecosystem for entrepreneurship of the Centro Universitario de Ciencias Económico Administrativas of the University of Guadalajara

VÍCTOR AGUILAR PEÑA<sup>1</sup>  
FEDERICO CURIEL PÉREZ<sup>2</sup>

## Abstract

In recent years, the concern for developing entrepreneurship in educational systems, especially in universities, has become more relevant and has been proposed as an effective solution to the problems of lack and precariousness of employment. However, is there any evidence to support such confidence? The objective of this paper was to review the case of CUCEA. In order to carry out the study, we first built an ecosystem with the areas that are responsible for developing entrepreneurship competence in students of undergraduate programs. We identified the disciplines of economics and administration as the areas of knowledge that should primarily contribute to the formation of entrepreneurship and innovation competencies and finally we conducted semi-structured surveys to those responsible for the areas of the ecosystem. The findings were as follows: although the ecosystem has sufficient elements to fulfill its mission, two problems were identified that prevent it from doing so: one epistemological and the other managerial. The epistemological or knowledge problem is to be found in the predominant paradigm in the teaching of economic science, the neoclassical paradigm, and the claudication of those responsible for it to modify it and continue to meet the demands of the market and thus, its reproduction. The management paradigm corresponds to the lack of an integral project to develop entrepreneurship and innovation, which causes different visions among the actors and duplication of actions.

*Key words:* Public university, Higher education, Social entrepreneurship.

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<sup>1</sup> Department of Economics, Cucea, University of Guadalajara. Email: [aguilar@cucea.udg.mx](mailto:aguilar@cucea.udg.mx). ORCID: <https://orcid.org/0009-0004-4931-7225>.

<sup>2</sup> Department of Economics, Cucea, University of Guadalajara. Email: [curiel@cucea.udg.mx](mailto:curiel@cucea.udg.mx). ORCID: <https://orcid.org/0000-0001-5363-4822>.

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## EL ECOSISTEMA PARA EL EMPRENDIMIENTO DEL CENTRO UNIVERSITARIO DE CIENCIAS ECONÓMICO ADMINISTRATIVAS DE LA UNIVERSIDAD DE GUADALAJARA

### Resumen

En los últimos años la preocupación por desarrollar el emprendimiento en los sistemas educativos y en especial en las universidades, ha cobrado mayor relevancia y se ha planteado como una solución eficaz ante los problemas de la falta y precariedad en el empleo. Sin embargo, ¿existen evidencias que respalden tal confianza? El objetivo del presente trabajo fue revisar el caso del cucea. Para la realización del estudio primeramente construimos un ecosistema con las áreas que tienen bajo su responsabilidad el desarrollar la competencia de emprendimiento en los alumnos de los programas de pregrado. Identificamos las disciplinas de economía y administración como las áreas del conocimiento que primordialmente deben contribuir a la formación de las competencias de emprendimiento e innovación y por último realizamos encuestas semiestructuradas a los responsables de las áreas del ecosistema. Los hallazgos fueron los siguientes: aunque el ecosistema posee los elementos suficientes para cumplir con su cometido, se identificaron dos problemas que lo impiden: uno epistemológico y el otro de gestión. El epistemológico o de conocimiento se encuentra en el paradigma predominante en la enseñanza de la ciencia económica, el neoclásico y, la claudicación de sus responsables a modificarlo y seguir atendiendo las demandas del mercado y con ello, su reproducción. El de gestión corresponde a la falta de un proyecto integral para desarrollar el emprendimiento e innovación, lo que ocasiona visiones diferentes entre los actores y duplicidad de acciones.

*Palabras clave:* Universidad pública, Educación superior, Emprendimiento social.

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### 1. Introduction

Economic history shows us that one of the most important actions to generate economic growth is entrepreneurship. Entrepreneurship is understood as the capacity of people to generate and/or develop new strategies for the production of goods and services to satisfy our needs. In general terms, entrepreneurship can have two origins: one intrinsic to the individual and the other acquired and/or developed professionally in an educational system. Although both have a positive impact on the generation of a better standard of living, the one that

interests us is the professionally developed entrepreneurship; therefore, it is important to know the results that universities are obtaining.

In recent years, the concern for developing entrepreneurship in educational systems has become more relevant mainly due to three phenomena: 1) the effects on employment of the current economic model called “neoliberalism”, 2) the Fourth Industrial Revolution and its development of technologies such as ia, idiot, big data that have transformed and generated new professions and 3) the effects of the Pandemic covid-19 on the economy have contributed to aggravate employment problems. The response to this situation of scarcity of traditional employment, new jobs and growth of the working-age population has been to promote entrepreneurship, either as a result of government educational policies or as an initiative of higher education institutions (HEIs) themselves. It is therefore important to review the actions and results that the ies have had in their objective of promoting entrepreneurship and innovation. It is in this context that we place the present work to learn about the case of the Entrepreneurship Ecosystem of the Centro Universitario de Ciencias Económico Administrativas of the University of Guadalajara.

Some of the questions we set out to answer are: what is the conceptualization of entrepreneurship and innovation with which the ecosystem operates? Are entrepreneurship and innovation treated as soft or hard competencies in the curriculum of the Administration and Economics programs? What is the treatment given to entrepreneurship and innovation in other educational programs? Is the purpose sought through entrepreneurship and innovation to generate productive organizations with the current market logic or does it transcend it and generate “social enterprise” and thus contribute to solving current problems?

To meet this objective we conducted a qualitative research based on the descriptive-inferential method based on a case study where we collected through semi-structured interviews the opinions of key informants responsible for the design and implementation of the academic aspects that contribute or should contribute to the construction of entrepreneurship through the training of economists and managers, directly and indirectly to other educational programs (transversal competencies) and the generation and application of knowledge on this topic.

## **Development**

### *The resurgence of the entrepreneur figure*

In truth, it is not that entrepreneurs have not existed in our societies, or that their role in the economic system has not been important; what we are trying to point out is that in recent years there have been at least three phenomena that have placed the entrepreneurship-innovation binomial in the focus of attention of governments, companies, universities and the social sector. All these actors agree that promoting this binomial will help

solve the employment problem, generate new companies and generate sustainable development. We will now address each of these phenomena in order to contextualize the analysis of the case of the CUCEA ecosystem.

1. Globalization and its economic facet of Neoliberalism.
2. The Fourth Industrial Revolution.
3. The COVID-19 Pandemic.

### *2.1.2. Globalization and its economic facet of Neoliberalism*

For Beck (1998), globalization is “the processes by virtue of which sovereign nation states intermingle and interweave through transnational actors and their respective probabilities of power, orientations, identities and various interweavings” (p. 34). Globalization has different dimensions that it is important to distinguish, namely: the dimension of communication techniques, ecological dimensions, economic dimensions, work organization, cultural dimensions, civil society, etc. (Ibid. p. 40). There is agreement that the most controversial is the economic dimension.

This interweaving of interests has allowed the market logic to be established almost globally, based essentially on obtaining profitability in all economic activity, regardless of the erosion of minority rights. Although certain social movements have arisen (social responsibility, incorporating the workers' sector into the objectives of companies, among the main ones), they have been insufficient to reduce the negative effects of globalization: poverty, migration, overexploitation of natural resources, etc.

One of the undesired results of globalization, Beck mentions quoting Bauman, is that: “globalization and localization are not only two moments or faces of the same coin; they are at the same time driving forces and forms of expression of a new polarization and stratification of the world population into globalized rich and localized poor” (Ibid. p. 88). Thus, the rich are those who can locate themselves and enjoy the advantages from anywhere in the world, while the poor cannot move and are chained to their place. The reciprocal dependence between rich and poor has been broken, in this second modernity the rich no longer require the poor as the possibility of capitalism without work is developed.

Bauman (2018) enunciates a series of undesired results of globalization, one of the main ones is the breaking of the honeymoon between capital and workers, presided over and attended by the capitalist state. This has been brought about, according to this author, by the unilateral breakup of the bosses, facilitated by the State's dismanagement of its power to restrict the greed of capitalists and of the structural framework and social fabric that allowed the defense of the interests of the working class (Ibid., p. 90).

Escalante (2015) makes an excellent documentation of the history of Neoliberalism from its birth in 1938 with the Lippman Colloquium to the present day. For him, Neoliberalism “is an intellectual program, a set of ideas about society, economy, law, and it is

a political program, derived from those ideas” (p. 17). This intellectual program constructs a narrative of life in which the market is attributed the infallible capacity to be the regulating and organizing mechanism of optimal economic decisions that will guarantee the best possible use of resources and thus the highest level of well-being that we can achieve. Perhaps the action that has contributed most to this conception of the market is that of elevating the discipline of economics to a hard science. This implies that, if the method of economics is the same as that of the exact sciences, the economic results of the free operation of the market cannot be questioned because they are the best that can be achieved and, therefore, states should not apply economic policies that impede its free functioning.

It is easy to deduce that the construction and globalization of this narrative that governs all spheres of life almost at a global level could not have been built, operated, much less legitimized, without a political project implemented by the State. Therefore, we must understand that the dismantling of the welfare state, to which Bauman refers, means that a new state was built to legislate in favor of the neoliberal project.

The result of neoliberalism that we are most interested in highlighting is the preeminence of the financial factor over the labor factor, which has caused not only the reduction of employment, but also the precarization of existing work. This market logic has managed to transfer to governments, universities and society in general the idea that they are to blame for the unsatisfactory economic results and with it, greater pressure on the need to generate entrepreneurship-innovation as a mechanism to alleviate these results.

### *2.1.3 The Fourth Industrial Revolution<sup>3</sup> and Employment*

Perhaps one of the technologies that make up the Fourth Industrial Revolution that has generated the most controversy due to its impact on employment is Artificial Intelligence (ia). This technology is having at least three effects on employment: 1) the disappearance of jobs corresponding to activities that can be systematized by this technology, 2) the precariousness of employment due to the disappearance of jobs with little specialization, which will lead to an oversupply of labor and therefore people willing to work for lower wages and in worse social security conditions and, 3) the generation of new jobs with specialized qualifications, which will require changes in job security policies by governments and the updating and generation of new professions to educational systems and universities in particular.

The OECD Employment Outlook 2023 (Reuter. July 11, 2023) mentions that some of the effects of the ia on employment are:

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<sup>3</sup> To learn more about the Fourth Industrial Revolution see: Schwab, Klaus (2016). *La Cuarta Revolución Industrial*, Debate, México. Luis Joyanes Aguilar (2017). *Industria 4.0. La Cuarta Revolución Industrial*, Alfaomega, México.

- More than 27% of jobs in the oecd depend on skills that could easily be automated and thereby disappear from the labor market,
- Three out of five workers surveyed acknowledge fearing job loss, however, despite anxiety about the arrival of ia, two-thirds of workers already working with ia stated that their jobs have become less dangerous or tedious,
- It recognizes that, although these changes are not yet present and widespread, they can be expected to occur in the medium term; It therefore recommends that governments should help workers to prepare for and benefit from the opportunities offered by the Ia.

In this sense, it is advisable to review the actions being taken by our universities and, if they are not sufficient, to recommend the necessary measures.

#### *2.1.4 The covid-19 pandemic and employment*

Undoubtedly, the pandemic of covid-19 had effects on all facets of the human being: health, education, economy, employment, recreation and a long etcetera.

The International Labor Organization, in its study World Employment and Social Outlook, Trends 2023 (International Labor Organization. 2023), states that:

- “Lack of access to employment, poor job quality, inadequate remuneration and gross inequalities are just some of the scourges that undermine social justice” (Ibid., p. 5).
- In addition to the Pandemic, the study recognizes the new geopolitical tensions, the conflict in Ukraine and the obstruction of supply chains as causes of the deterioration of the global outlook for labor markets, creating the conditions for an episode of stagflation (Ibid. P. 13).
- As business investment contracted, especially in small and medium-sized enterprises, which are the predominant ones in our countries, real wages eroded and pushed workers back into informal employment (Ibid. p.12).
- The situation of young people (15 to 24 years old) is more serious. Their unemployment rate is three times higher than that of adults (over 25 years of age). More than one in five young people (23.5 percent) neither work nor study nor receive training (Ibid. p.13).
- Expected employment growth is not encouraging either. World employment is expected to grow by 1.0% in 2023, a slowdown from 2.3 percent in 2022. For 2024, the situation is no better, with an expected growth of 1.1% (Ibid. p.13).
- Despite the employment rate growth of 56.4% in 2022, it will be insufficient, as almost half a percentage point will be missing to recover the level of 2019 (Ibid. p.14).

In the particular case of Mexico, the Instituto Mexicano para la Competitividad, A. C. Published in 2020 a study on the effects of COVID-19 on the Mexican labor market (Instituto Mexicano para la Competitividad. 2020) and concludes that:

- 2.3 million jobs lost during the pandemic have yet to be recovered to return to the employment levels registered at the beginning of that year (2020).
- Informal workers have been the most affected by unemployment. However, it is also the group in which jobs have recovered the fastest.
- Young people and older adults have experienced the strongest impact in terms of unemployment, but this is more evident among formal workers.
- For women, the recovery in employment is stagnating. In the case of men, it continues to advance.
- Low-income jobs were the most affected and, in the case of formal employment, their level of recovery is still lagging.

We can conclude that the three phenomena discussed above have a direct impact on employment at least in:

- Reduction and precarization of employment by prioritizing the financial factor over the labor factor,
- Reduction of employment by prioritizing the profit strategy based on cost reduction via personnel layoffs,
- Oversupply of labor without a corresponding demand, due to the precarization and reduction of jobs,
- Disappearance of employment by automating the functions of jobs of lower professional quality and specialization,
- Lower employment generation with new productive processes that require new competencies and skills,
- Reduction of employment due to the closing of companies by Pandemic-Acceleration of new online businesses by Pandemic.
- Acceleration of new online business by Pandemic.

All of the above has led to the Entrepreneurship-Innovation binomial being present in government policies, universities, companies and society in general; however, as Vernaza (2020) warns:

Most of the academic or institutional works consulted for this research present the subject from an optimistic perspective, in which it seems that a parallel world is constructed where innovation and entrepreneurship would be a solution applicable to any business or individual problem, with guaranteed success and where the qualities, aptitudes, attitudes and personal initiative of the innovator or entrepreneur are more important than the material, legal and institutional conditions and circumstances that make them possible. (p. 2).

Therefore, the question is: what is the Centro Universitario de Ciencias Económico Administrativas of the University of Guadalajara doing in this regard? The analysis is presented below.

### **3. The CUCEA Entrepreneurship Ecosystem**

#### *3.1 Conformation of the University of Guadalajara*

Before starting with the presentation of the Entrepreneurship Ecosystem, we consider it convenient to present a general profile of the University of Guadalajara.<sup>4</sup>

The University of Guadalajara, located in the state of Jalisco, is the second largest public institution of higher education in Mexico, after the National Autonomous University of Mexico. The academic model with which it currently operates was approved in 1994 with its Organic Law, its main characteristics are:

- It is constituted as a Network with presence in all regions of the state of Jalisco,
- It is integrated for its academic and administrative operation in thematic and regional university centers. The thematic centers are those that organize and administer their academic programs, based on related areas of knowledge or fields of professional practice, and the regional centers organize and administer their academic programs, in response to multidisciplinary regional needs. The former are located in the Guadalajara Metropolitan Area and the latter, preferably in the regions of the state of Jalisco.
  - The thematic metropolitan centers are
    - Centro Universitario de Arte, Arquitectura y Diseño (CUAAD),
    - Centro Universitario de Ciencias Biológicas y Agropecuarias (CUCBA),
    - Centro Universitario de Ciencias Económico Administrativas (CUCEA),
    - Centro Universitario de Ciencias Exactas e Ingeniería (CUCEI),
    - Centro Universitario de Ciencias de la Salud (CUCS)
    - Centro Universitario de Ciencias Sociales y Humanidades (CUCSH)
  - The regional centers are
    - Centro Universitario de los Altos in Tepatitlán,
    - Centro Universitario de la Ciénega in Ocotlán,
    - Centro Universitario de la Costa in Puerto Vallarta,
    - Centro Universitario de la Costa Sur in Autlán de Navarro,
    - Centro Universitario de Lagos in Lagos de Moreno,
    - Centro Universitario del Norte in Colotlán,
    - Centro Universitario del Sur in Ciudad Guzmán,

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<sup>4</sup> For additional information, please visit the official website of the U de G: <https://www.udg.mx/>



- Centro Universitario Tonalá in Tonalá,
- Centro Universitario Valles in Ameca
- Centro Universitario Tlajomulco in Tlajomulco
- Centro Universitario Tlaquepaque in Tlaquepaque
- Centro Universitario Chapala in Chapala
- University centers are made up of Divisions and Departments:
  - The Divisions, are the academic-administrative entities that group a set of Departments,
  - The Departments are the basic academic units, where the university functions of teaching, research and dissemination are organized and administered.
- Some numbers as of 2023:
  - Total number of students 329,641
  - Students in higher education 142,714
  - High school students 186,927
  - Undergraduate programs
    - 6 TSU
    - 124 bachelor's degree
  - Graduate programs
    - 65 specialty
    - 117 master's degree
    - 51 doctorate
  - Educational quality
    - 140 accredited undergraduate educational programs
    - 32 educational programs with international accreditation
    - 2,779 researchers
      - 1,983 researchers members of the SNI
      - 2,627 professors with prodep profile
  - Human resources
    - 28,182 total personnel
    - 17,680 academic staff
    - 2,068 full-time professors
    - 2,769 full-time researchers

### **3.2 The CUCEA Entrepreneurship Ecosystem**

The CUCEA case study was chosen because it possesses the elements conducive to the analysis of entrepreneurship:

- It declares in its mission its commitment to entrepreneurship: CUCEA is an ecosystem of education, innovation, research, entrepreneurship and social commitment that

inspires the talent of young people, prepares them integrally in a global and sustainable environment and encourages their critical thinking, creativity, leadership and responsibility to provide solutions to the social, economic and productive problems of the state of Jalisco, Mexico and the world. (University of Guadalajara, CUCEA,(s.f.) p. 33.

- Is the thematic university center responsible for the generation, transmission and application of knowledge in the economic and administrative disciplines, particularly the two disciplines most directly related to the formation of entrepreneurship: Administration and Economics,
- It has the Departments of Administration and Economics responsible for the generation, transmission and application of knowledge in these disciplines,
- It offers degrees in Management and Economics,
- It has three research centers that study entrepreneurship:
  - Center of innovation for the acceleration to economic and social development,
  - International Center for Social Innovation for Development,
  - Institute for the development and innovation of technology in small and medium-sized enterprises,
- It is home to the UNESCO Chair for Social Innovation and Entrepreneurship.

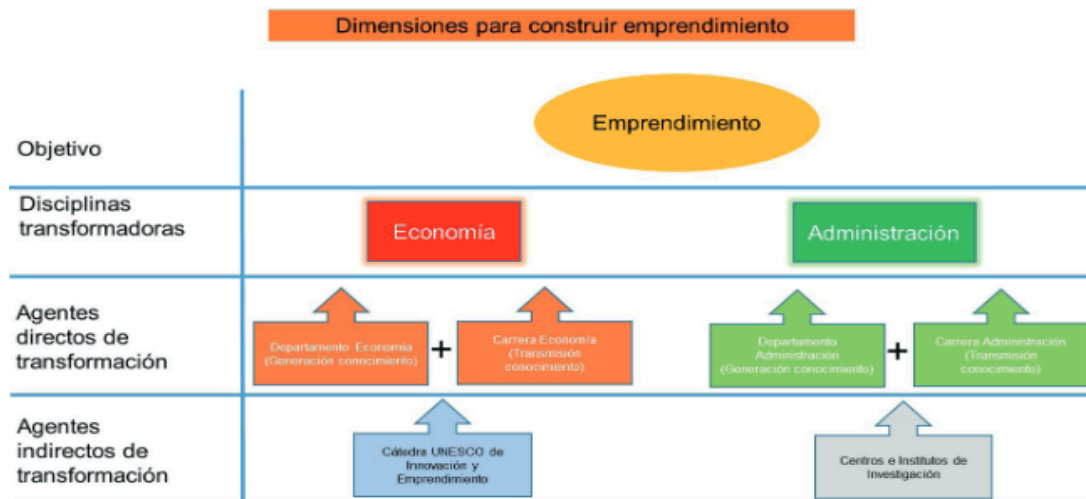
All these elements constitute the Entrepreneurship Ecosystem (see figure 1).

To facilitate our analysis, we divide the Ecosystem into direct agents of transformation and indirect agents. The direct agents are the disciplines of Economics and Management, as they are the ones whose objective is to build Entrepreneurship, and for this purpose we reviewed the Economics and Management educational programs and interviewed career coordinators and department heads.

On the other hand, the indirect agents are the research centers and institutes for entrepreneurship and the UNESCO Chair, as they contribute to the formation of entrepreneurship in a cross-cutting manner.

*Figure 1*

#### Ecosystem Dimensions for building Entrepreneurship



Source: own elaboration

## 4. Results

### 4.1 Direct agents of transformation

#### 4.1.1 The Economy

We have already mentioned that the main facet of neoliberalism is economic, as it establishes the fundamental concepts and practices of the current economic model in which all organizations develop, whether for profit or not. However, it is convenient to highlight the importance of economics in the current stage that a large part of humanity is living: neoliberalism. This "narrative" that currently dominates practically the whole world has its origin in economic science and was conceived and guided by a group of intellectuals and businessmen with a vision of the world that should regulate all political, social, cultural, educational and economic practices: the free will of the market (Escalante, 2015).

Consequently, the role of economists is fundamental, both in their role within the organization and at the governmental level, as well as in their role as communicators and generators of opinion and in the academic field as researchers and teachers. Therefore, what is taught or not taught in economics schools plays a fundamental role for universities to contribute to overcome the current economic model and build a more equitable and fairer one.

In the interviews conducted with the coordinator of the economics program and the head of the economics department, we sought to find out whether the vision of economics that prevails at CUCEA corresponds to the neoclassical school or whether it develops alternative theories of greater social justice.

#### 4.1.1.1 Coordinator of the economics program

The bachelor's degree in economics taught at CUCEA seeks to "train professionals of high quality and social commitment, specialized in the analysis and design of economic models that can be applied in the optimal allocation of physical, financial and human resources in both the public and private sectors, positively influencing better decision making aimed at achieving local, regional and national sustainable development.

The above under the principles of social solidarity, respect for human dignity, care for the environment and citizen co-responsibility".

The Coordinator of the economics program mentions that there is no particular subject that contributes to training in social enterprise and only in the subject of Project Formulation and Evaluation, depending on the experience and interest of the professor who teaches it, some practical cases can be carried out with this logic. As possible causes he identifies that the predominant theoretical approach in the curriculum is the neoclassical theory and, although the teacher is free to guide certain topics, it does not happen because they are not trained in these economic theories.

Although the need to incorporate these and other changes is recognized, CUCEA the academic process for updating study plans and programs establishes dates and criteria, which make it impossible to manage these issues with the flexibility required to incorporate changes in a timely manner. In addition, the training and updating of teaching personnel is established, in most cases, with other objectives and parameters.

#### *4.1.1.2 Head of the Economics Department*

The CUCEA regulations establish that the departments will be the basic academic units, where the university functions of teaching, research and dissemination in each of the disciplines within their competence are organized and administered.

Therefore, the departments are the neural point for the advancement of the theories that integrate the disciplines of their competence, their updating, the incorporation of new theoretical approaches, the contents of the subjects and the training and performance of the academic personnel.

The head of the department told us that, in practice, business logic predominates, the issue of social cost (poverty) has not been incorporated into the technical analysis and, therefore, the issue of social enterprise has very little place, only the social reputation of the company is addressed in order to generate more profits, it is only marketing, face-lifting.

In the economics curriculum there is a subject on the history of economic thought that could address these issues, but it is taught in the last semesters and it is already difficult to modify the neoclassical indoctrination.

Another problem is the reluctance of students to address these issues because they see them as not very marketable in the professional market. The neoclassical approach has

become very ideologized and it is more difficult to change it. Today's students were born and have lived in a single, neoclassical way of thinking.

On what can be done, he comments that the main key is to get employment, Marxism in his time did not progress because there was only employment in universities. Hence, neoclassical thinking was installed in the universities and currently this approach prevails. As long as there is no regime change to bring about these changes, it is very difficult for universities to initiate them. If there is no demand, schools will not develop these subjects because they will lose market and competitiveness.

The current system that measures quality reinforces this practice, since it requires universities to admit only the best candidates and thus climb their position in the rankings and thus influence the market.

#### *4.1.2 Administration*

The other discipline that has a direct effect on the construction of Entrepreneurship is Management. Administration has in its objectives the task of entrepreneurship and it is one of the competencies that the graduate in administration must possess. In this sense, we consider it convenient to review the progress of this topic in the construction and transmission of knowledge.

##### *4.1.2.1 Head of the Administration Department*

The head of the administration department recognizes and assumes the responsibility of his department in the subject of entrepreneurship. He mentions that entrepreneurship should be a specialization of the graduation profile for the administration career and for the rest of the educational programs, students should have a clear knowledge of entrepreneurship and have the possibility of developing it if they so decide.

In this sense, there are three main actions that the department has carried out:

1. Constitution of the Academy of Innovation and Entrepreneurship, as a collegiate space that brings together research professors who are experts in the subject. It is worth mentioning here that the department only has authority over the professors assigned to that department, so there may be researchers working on these topics, but they cannot formally integrate them into this Academy.
2. As a result of the work of this Academy, the subject called "Development of entrepreneurs" was generated, which seeks the development of the entrepreneurial spirit for the creation of business strategies that provide competitive advantages; it has as objectives:
  - a. Generate a culture of entrepreneurship for the design of companies with an ethical and socially responsible approach,

- b. To develop creativity for the innovation of business alternatives,
- c. Formulate a viable business plan to satisfy needs in the market, and
- d. Identify rights and obligations in the design and operation of organizations.

However, one of the drawbacks to develop entrepreneurship in all educational programs is the lack of competence of the department head, since the career coordinators, who depend on the Academic Secretariat, are responsible for these decisions; which has caused that the subject is not taught in all programs and the semester in which it is taught is not the desirable one to provoke the relevant knowledge in the student.

Of the 14 undergraduate educational programs and their relationship with entrepreneurship we found:

a. Six programs establish entrepreneurship in their mission; but only the Administration, Gastronomic Business Management, Information Technology and Tourism programs establish it as a hard competency; that is, that the student learns to start a business.

b. Likewise, it is these same educational programs that expressly establish entrepreneurship in their graduation profile.

c. There are 12 educational programs that teach the subject of Entrepreneurship Development. However, 5 of them teach it in the 8th semester, 3 in the 5th, 2 in the 4th, 1 in the 6th and 1 in the 7th.

1. A strategy was designed for students to develop entrepreneurship competency, consisting of<sup>5</sup>:

- a. Entrepreneurial diagnosis. A diagnosis will be applied in the first and last semester in order to observe the evolution of the entrepreneurial culture, as well as the areas of opportunity since high school,
- b. Methodology for entrepreneurship. A methodology for entrepreneurship will be adopted in CUCEA, which will be taught in the subject Entrepreneurship Development (DESEM) in the second semester,
- c. Follow-up. The follow-up of the deseM projects will be linked to a methodology of intensive accompaniment for their validation in the Laboratory of Innovation and Entrepreneurship (LINE),
- d. Incubation. The International Center of Entrepreneurial Excellence will incubate the validated projects for their development, providing technical assistance,
- e. A biannual event will be held on entrepreneurship and technology.

#### **4.2 Indirect agents of transformation**

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<sup>5</sup> It is important to note that this strategy works incompletely and only for management students.

We have already mentioned that indirect agents are those who are not responsible for teaching functions, but complement the formation of entrepreneurship competencies in students through their research and dissemination functions.

#### *4.2.1 Innovation Center for Accelerating Economic and Social Development (CIADEyS)*

The purpose of the Center is to design, create and promote initiatives, projects and innovation programs that foster the acceleration of the economic development of organizations, companies and social or economic groups, oriented towards the harmonious and balanced development of society, through the search for cutting-edge solutions of the so-called 4th Industrial Revolution, fostering scientific, technological and social entrepreneurship at regional, national and international levels.

Its owner told us in the interview that the innovation and entrepreneurship they work with are focused on solving social problems, but under the principle of profitability.

Regarding the work towards the training of undergraduate students, he recognizes that it has not been developed, since they have worked mainly with master's and diploma students, advising them on the business models to be developed.

The three main works with impact that have been carried out are: 1) Advocacy in public policies of the environment, 2) Dissemination of the topic of social innovation and entrepreneurship and 3) Linking with communities by advising on projects that solve social problems.

#### *4.2.2 International Center for Social Innovation for Development*

The general objective of the Center is to coordinate human talent to promote social development through the organization, education and training of human resources; research, operation and development of social innovation programs, as well as the creation of collaboration networks and the generation of public policies.

As in the previous case, the interviewee informed us that the type of entrepreneurship and social innovation they deal with are social projects, but with the principles of profitability; that is, they do not manage “social enterprises”. In their work they emphasize with the students that social projects can be altruistic and humanitarian without renouncing profitability, that they can seek a triple impact: economic value, social value and environmental value. They should work with Michael Porter's concept of shared value, which, in addition to economic value, can also generate social/shared value.

Unlike CIADEYS, this center is working with students in the administration program on business projects, and is currently working on a strategy to expand it to the rest of the undergraduate educational programs.

#### *4.2.3 Institute for the Development of Innovation and Technology in Small and Medium-size Enterprises (IDITPYME)*

This institute specializes in advising, consulting and business development for small and medium-size enterprises, offering comprehensive consulting services to define strategies that contribute to improved performance.

The program we are interested in highlighting is called “Hospital pyMe”.

This program was born during the Pandemic covid-19 to support all those businesses that faced serious problems, mainly those originated by the lack of applications to operate online.

This program does integrate students in diagnostic and consulting activities, but under the guidance of experts. Among its main impacts during the Pandemic are:

- 503 entrepreneurs advised,
- 110 advisors who provide free guidance and tools to entrepreneurs,
- 1,000 hours of counseling provided,
- 125 students receiving professional training,
- 150 people involved in promoting the Hospital pyMe as a business support platform.

Two social projects deserve special mention:

- Inclusion focus: in alliance with the “Cuenta Zapopan” program of the municipality of the same name, 30 entrepreneurs with disabilities are advised.
- GENDER focus: in alliance with the Secretariat for Substantive Equality between Women and Men (SISEMH) and “Hecho con Amor” (Made with Love), support is provided to women entrepreneurs in their business plans.

#### *4.2.4 UNESCO Chair in Social Innovation and Entrepreneurship*

The Chair was created as an initiative to generate and promote knowledge on entrepreneurship and social innovation. The functions of the Chair are to generate linkages, knowledge through research and disseminate knowledge on the subject.

The sub-coordinator commented that the topic of social innovation is relatively new, starting at the end of the 40s of the last century. The concept of social entrepreneurship is somewhat controversial in the literature; some say that it is a sustainable way of solving a problem, but social entrepreneurship is limited to the non-generation of profits, of profitability, and if they are generated, they must be reinvested in the business.

For others, social entrepreneurship is not at odds with the concept of traditional business; the important thing is that it solves a social problem and if it generates wealth as a result, nothing happens.

For our interviewee, there is no dilemma between the traditional concepts of innovation and entrepreneurship and their recent “social” adjectivation, as they are guided by



the Sustainable Development Goals (SDGs); thus, any project that is generated as long as it meets one of the goals will be considered to have a social impact.

To date, they are working with the Department of Administration on the design of the contents of a specialized block for the Bachelor's degree in Administration.

Regarding what the profile of the entrepreneur should be, he comments that if there is a profile, it has to do with personal values, since in the end these are what dictate the good, the bad and the desirable to the person. We would seek to identify and balance their perception of doing good and their interest in making money. She mentions the case of the master's degree in social innovation and welfare management: "almost all of them are activists, so we have a hard time making them understand that entrepreneurship must also be a business, if they want to rescue puppies all their lives, they must solve the problem of resources to continue doing it; it is hard to convince them of this". He continues: "For me, the profile of a social entrepreneur is a collectivist profile, but with sufficient technical skills to develop a profitable project".

Finally, he comments: "It is important to make a very clear distinction between social entrepreneurship, socially responsible business and altruism.

The student must be able to differentiate them in order to know what he or she intends to do professionally. The difference between social entrepreneurship and altruism is that the latter is stopped whenever you want, but the productive activity that generates the resources is not eliminated.

On the other hand, social entrepreneurship implies that if you want to stop doing social work, the economic unit will cease to exist, since this was its mission, its reason for existence.

There are student groups dedicated to the promotion of social entrepreneurship, which, although they do not belong to the university itself, are housed here at the university".

Faced with the challenge of incorporating the subject in all the undergraduate educational programs at the CUCEA, he says: "It is institutionally necessary to take actions so that all degree programs incorporate the subject of social innovation (to begin with) or an ods subject in a compulsory manner, like any other subject.

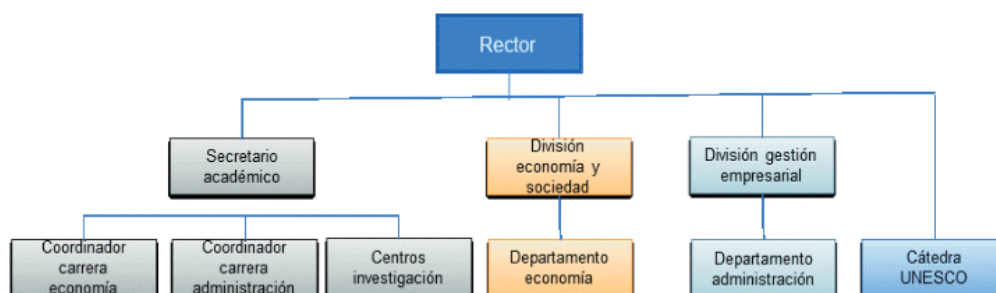
The Chair has tried to influence this; however, as a Chair we do not have the regulatory powers to take these actions to design or modify the contents of certain subjects".

## **5. Conclusions**

A positive aspect is that cucea's entrepreneurship ecosystem has all the necessary elements to develop entrepreneurship competencies in undergraduate students and thus contribute to the development of innovative productive organizations. However, the obstacle to develop a synergy in the ecosystem is difficult to overcome due to the existing command structure; that is, the coordinators of educational programs and heads of research centers report to the

Academic Secretary, the Department Heads are under the authority of the Division Directors and these report to the Rector of the Center, and the Chair reports directly to the Rector of the Center (see Figure 2).

Figure 2.  
Hierarchical relationships of those responsible for the ecosystem



At least two problems arise from this:

1. The absence of a Project for the venture that specifies the objectives and roles of each and every one of the actors.
2. The existence of different lines of authority hinders their cooperation and with them the results.

This generates two costs:

- The impossibility of extending IDITPYME's good practices to the other research centers, and -The lack of integration and exploitation of the results.
- The lack of integration and use of the work done by the UNESCO Chair in the ecosystem.

A serious problem in developing entrepreneurs who build business units for the construction of fairer societies is the resistance of those responsible for the discipline of economics to include alternative theories to the neo-liberal model and thus form in economists a more equitable and fairer alternative vision of the current economic model is highly questionable, just because it is a public university. Its main argument is that its main function is to train for what the market demands and, moreover, students are looking for: the neoclassical approach.

The actions developed by the discipline of administration to develop the profile of the entrepreneur are important but insufficient. For the administration career, it would be necessary to incorporate to the curriculum additional subjects to that of Entrepreneurship Development. In addition, for the rest of the educational programs it could be sufficient, but it is necessary to integrate it transversally to meet the learning objective; that is, to agree on the semester in which it is more pertinent to teach it, and perhaps complete it with subjects from the optional block in the curriculum.

The research centers analyzed present the problem that, although their creation documents assign different functions to each of them, in practice their activities are similar. Therefore, it would be convenient to review whether it is necessary to have more than one

entity responsible for this function and, if so, to put it into practice; otherwise, they should be merged.

A case of success worthy of replication is the case of IDITPYME. It is a consolidated organization in business consultancy and advisory services, and the case of the Hospital pyMe operates with real companies and situations, so the experience acquired by the students is the perfect complement to their professional training. Perhaps the only regrettable aspect is that the students it incorporates do not represent a significant percentage of the total undergraduate enrollment, so the possibility of replicating the model in other disciplines and professional fields should be analyzed.

Finally, the UNESCO Chair has made achievements that contribute to the dissemination of entrepreneurship and innovation; however, at the moment it has not been able to achieve transversality to all areas of CUCEA and thus its impact is limited.

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