INTELLECTUAL CAPITAL IN THE LITERATURE FROM 2020 TO 2024

Maria del Rosario Molina Gonzalez[1*]
Universidad de Sonora, Mexico

Cruz García Lirios[2]
Universidad Autónoma de la Ciudad de México

***Corresponding Author:** Maria del Rosario Molina Gonzalez

ABSTRACT

The pandemic, in the educational field, was attacked by anti-COVID -19 policies that focused their attention on the confinement of distancing of people in order to move towards the virtual classroom. The impact of distance and asynchronous training strategies on the formation of intellectual capital is the objective of this paper. A documentary, cross-sectional and exploratory study was carried out with a selection of sources indexed to international repositories, considering a search by keywords in the period from 2020 to 2024. A structure of networks was found that were configured based on their proximity between nodes and edges. The findings were discussed in relation to the consulted literature, recommending the extension of the data.

Keywords: *Higher Education Educational Innovation; Transformational Leadership Model; OECD Member Countries; TIC.*

INTRODUCTION

As of February 2024, the pandemic has claimed the lives of eight million, although governments agree that atypical pneumonias would increase the figure to 20 million (WHO, 2022). Anti-COVID -19 policies are distinguished by following an epidemiological traffic light (PAHO, 2022). In red, confinement is recommended, as well as distancing and the use of preventive devices such as face masks or alcohol gel (OECD, 2022). In green, lack of confinement is recommended, but with measures to prevent infections, diseases and deaths, among which immunization stands out (SSA, 2022). In both scenarios, innovative entrepreneurship is a response from society to the health and economic crisis. The Gross Domestic Product contracted by up to 8% and entrepreneurial opportunities in retail trade emerged.

The educational system in Mexico, at the higher level, shows a greater presence of private Higher Education Institutions (HEIs) compared to public HEIs. Being Mexico City, the entity with the most private HEIs, followed by the State of Mexico and the state of Puebla. While it is the state of Veracruz, which registers the highest percentage of public HEIs, followed by Mexico City and the State of Mexico.

On the other hand, make a comparison of the distribution of HEIs, both public and private, with other countries of the Organization for Economic Cooperation and Development (OECD) structured under a scheme that favors public financing of the education sector, over others, such as the health sector; o balanced financing; It is observed that Mexico is among the countries that allocate the most public financing to the education sector; However, at the same time, it is at the same level as the Czech Republic, a country that allocates more financial resources to the area of health. In addition, it is at a lower level than Canada, which has a balanced system of financing in education and health.

From the above it can be deduced that, although Mexico occupies intermediate places in the OECD lists, it is considered a type of financing in health and education. However, to include other indicators of educational quality, such as educational innovation, research, collaboration, and availability of talent or competitiveness, the country ranks lower than Brazil, Chile, Costa Rica, and Puerto Rico. Rich. Synthetically it is possible to say, considering the indicator of competitiveness and talent training, both public and private HEIs, located in Mexico in poor quality indices compared to other OECD member countries, and even the Latin American region.

The hypotheses related to the theoretical, conceptual and empirical trajectories around innovative entrepreneurship are based on the premises: 1) The health and economic crisis generated retail trade opportunities that the literature recorded in developing countries; 2) In Mexico, the opportunities for commercialization of retail products were oriented towards innovation rather than towards the optimization of resources; 3) The literature reported from 2010 to 2022 an increase in process innovation and optimization of resources; 4) Process innovation explains the type of venture that retail commerce developed to reduce the impact of the pandemic; 5) Process innovation focused on the diversification of retail trade in localities rather than in cities; 6) The municipalities and communities innovated in their pastry production to attract regional tourism.

The modeling of innovative entrepreneurship follows the following hypotheses: a) There are significant differences between local retail trade opportunities with respect to regional or national trade opportunities; b) There are significant differences between retail business opportunities at the local level; c) There are significant differences between the opportunities for process innovation with respect to the opportunities for optimizing resources; d) There are significant differences between the innovations of local processes with respect to regional or national ones.

The rational choice paradigm that assumes the ability to collect and process enough information for decision making that reduces costs while increasing benefits led to the theory of human capital, which aims to explain the relationship of dependency between the citizens considered and named as "talents" or "Human Capital" and the design and implementation of public policies, in which the educational and health fields are all crucial factors for the correct development of the so-called Human Capital (Arias, 2021). For, Human Capital is the result of combining educational policies, educational systems and IES, seeking to promote people's capacities (in the form of emotions, speeches, skills and knowledge) oriented towards entrepreneurship, innovation, productivity and competitiveness.

In other words, human capital is the result of an educational training process that is made up of two aspects: on the one hand, there are the academic training opportunities generated by the State, and on the other, there are individual capacities (cognitive and contextual).). Consequently, those with more educational training and

experience in the processes will be considered *talented* (Lazarte, 2021). This is so because knowledge and skills are perfected and accumulated to provide solutions in public management and administration.

Finally, it is emphasized that in the case of educational quality indicators, such as research, collaboration and innovation, they not only determine human capital, but also the place that they play in key sectors of the economy, explain the development of a country, since it is these talents who will carry out the management and administration of public assets and resources (Sparano , 2017).

Within the framework of the information society and socio-digital networks, the management of the State and the self-management of the community have differentiated in terms of objectives, tasks and goals. In this sense, the social sciences have built comprehensive models such as socio-state co-management consisting of; 1) the **diagnosis** of the social representations of the State and the citizenry indicated by the establishment of a public agenda on security-sustainability, 2) the **dissemination of** information on trust, commitment, entrepreneurship, innovation and satisfaction as determining factors of the social representations of the State and of the citizens; 3) the **evaluation** of the diffusion of the determining factors of the representation of the State and the citizenship.

Innovative entrepreneurship studies warn; 1) the administration of a traditional culture and leadership as the guiding axis of the academic programs; 2) the establishment of an agenda focused on knowledge management, entrepreneurship and innovation; 3) strategic alliances between universities and companies as the central axis of professional training; 4) multidisciplinary collaboration networks.

Studies related to entrepreneurship establish: 1) The synergy between Higher Education Institutions and micro, small and medium-sized enterprises (MIPYME); 2) The establishment of knowledge networks between universities, technological institutes, research centers and industries; 3) The formation of scientific, technological and industrial agendas prior to the multidisciplinary academic exchange; 4) The framing of topics such as technoscience, nanotechnology and digital entrepreneurship; 5) The formation of talents and leaderships.

Innovative entrepreneurship refers to civil initiatives and citizen proposals on security and sustainability in order to integrate such amendments into the political agenda, government policies, crime prevention programs and delivery strategies. justice and sustainability (Valverde, 2019).

However, the construction of a civil agenda or social self-management supposes the informative dissemination of the demands and resources, opportunities and capacities, since it is the digital networks that question the public agenda -Trolling-, or, rather, strengthen it - Stalking , Trending - (Yepes et al., 2019). Therefore, cyberpolitical entrepreneurship refers to the intensive use of Information and Communication Technologies, as well as electronic devices for the establishment of an agenda with respect to trolling, stalking or the tendency towards a political figure or process. . This is the case of voting intentions or elections.

The relationship between the State and citizenship, mediated by an agenda in which education, science and technology are central issues of human development, supposes; 1) the influence of contexts, sources, audiences and devices on public opinion; 2) the establishment of symbols from which the impact of citizens on public policies is interpreted; 3) the representation of the progress indicated by strategies, discourses and styles of knowledge; 4) the intensive use of electronic devices for the diffusion of innovations; 5) the barriers to digital entrepreneurship identified in audience styles such as *stalker* , *troller* or *buller* .

The specified model included hypotheses related to opportunities in crisis, resource optimization and process innovation, constructs and indicators for each of these, all related to the trajectories of the correlations between the variables (Velazquez et al., 2016). Study in relation to other models of leadership and use of electronic devices, identified the scope and limits of the specified model, as well as the possible integration in future research. A comprehensive model for the study of digital entrepreneurship would include leadership and psychological variables around the acceptance, adoption and intensive use of Information and Communication Technologies (ICT).

Based on the theoretical, conceptual and empirical review, it was possible to establish a model for the study of cyberpolitical entrepreneurship (Barba and Viteri, 2016). The proposal includes four explanatory hypotheses of the trajectories of the dependency relationships between the factors established as determinants in the literature consulted.

The model includes hypotheses of correlation trajectories between the variables used by the state of knowledge to explain 1) the establishment of an agenda in educational, scientific and technological matters; 2) professional

training of human capital, talents and leadership; 3) knowledge networks around strategic alliances between universities and for-profit organizations; 4) the quality of educational processes and products in terms of evaluation, accreditation and certification; 5) barriers that inhibit and/or stimulate entrepreneurship and digital innovation.

The model assumes that there is a close relationship between values and motives since then (Catacora, 2015). If the entrepreneurship is guided by cooperative values and is intrinsically motivated, then it is an altruistic style that does not seek to maximize benefits over costs. Although entrepreneurship is the result of expected benefits but interrelated with the belief that opportunities are increasingly scarce, it is determined by traditions, uses and customs deeply rooted in productive and innovative sectors. This is how values, beliefs, perceptions, motives and knowledge anticipate the appearance of dispositions in favor of innovations given the scarcity of opportunities. If such provisions are in favor of an innovative culture that coexists with the authoritarianism of traditional leaderships, consequently, decision-making will favor innovative entrepreneurship. Precisely, the balance in favor of benefits over costs not only reflects the rational choice of human capital or the perspective of talents and leadership, but also predicts the emergence of a lifestyle with dispositions inherited from the academic or work culture. and dispositions learned from trials of more successes than failures.

In this way, the establishment of an agenda in higher education, science and technology, at the local level, consists of the orientation of cooperation, the beliefs of scarcity of opportunities, the perceptions of areas of opportunity that will determine intrinsic reasons such as the the need to be informed about the alternatives for prosperity in knowledge networks, as well as the provisions to know and acquire skills that define entrepreneurial decisions and generate proposals, agreements and co-responsibilities within academic groups (Charles et al., 2019) .

Values, beliefs and perceptions related to needs, expectations, demands, opportunities and resources available for safety and sustainability as determinants of attitudes, motives and knowledge of entrepreneurship indicated by Trolling (aggression), Stalking (espionage) and Trending (promotion). Values, beliefs and perceptions that determine attitudes, motives and knowledge that influence the intention to undertake (López and de la Garza, 2019). Indirect determination of values, beliefs and perceptions of entrepreneurship through attitudes, motives and knowledge that determine intentions.

Method

A non-experimental, cross-sectional and exploratory study was carried out with a non-probabilistic selection of sources indexed in international repositories such as Academia, Copernicus, Dimensions, Dialnet, Ebsco, Latindex, Frontiers, Google Scholar, Microsoft Academic, Redalyc, Publindex, Scopus, Zenodo and Zotero, considering the period from 2020 to 2024 and the search by keywords: “Human Capital”, “entrepreneurship” and “COVID-19”.

The systematic review inventory was used, which includes the evaluation of expert judges (45% women and 55% men; M = 43.2 years and DE = 6.45 years; M = 4 '987.00 USD monthly income and DE = 234.00 USD); on the theme.is guaranteed by contract based on the Helsinki protocol for pre-experimental studies. The data was captured in Excel and processed in JASP version 15. Non-parametric statistics were used to estimate the centrality, agglomeration and the network of relationships between the findings reported by the consulted repositories.

The parameters were estimated according to the formulas of neural networks in order to be able to explain the input of information, the processing and the learning of the agents. In the case of the network for the formation of intellectual capital and innovative entrepreneurship, the model makes it possible to notice the hegemony of the nodes. Such a demonstration is relevant in the scenario of the pandemic and anti-COVID-19 policies focused on confinement and social distancing, as well as the impact of surrounding information on indexed journals (Altaee et al., (2016).

Results

The centrality parameters that explain the relationship between the findings reported in the literature regarding innovative retail entrepreneurship. It is inferred that the results found in the literature review are limited to innovative entrepreneurship as a response to the health crisis in localities during the period from 2020 to 2024 (see Table 1).

Table 1. Centrality of the findings reported in the literature from 2020 to 2024

Variable	Betweenness	closeness	Strength	expected influence
Garcia	-1,109	-1,715	-1,564	0.331
Carreón	-0.833	-0.552	-0.499	0.899
busts	0.962	0.333	-0.126	0.951
hernandez	-1,109	-2,132	-1,867	0.145
valdes	-0.971	-1,239	-1,092	1,720
gutierrez	-0.419	-1,079	-1,352	0.309
Mejia	-1,109	-2,282	-2,302	0.188
Blond	-1,109	-1,479	-1,514	0.736
ambrosio	-0.557	-0.422	-0.347	1,738
lilies	0.133	0.303	0.320	-1,279
Guillen	-0.833	0.533	0.861	-0.394
Corner	1,928	-0.139	-0.276	-0.336
Quiroz	-0.971	-0.180	-0.424	-0.666
ornelas	0.133	-0.305	-0.341	-0.102
spinoza	1,100	0.831	0.918	0.321
Morales	-0.833	-0.188	-0.424	0.603
aguayo	-0.281	0.458	0.489	1,175
Huntsman	1,376	0.963	0.712	-1,672
Lopez	1,652	0.997	1,193	-0.922
castro	-0.695	0.563	0.576	-0.605
Mendez	-0.419	0.417	0.477	0.640
Mendoza	-0.005	0.898	0.947	-1,646
Elizarraras	-1,109	0.421	0.495	-0.514
saddlers	0.409	0.881	1,026	-1,894
grove	1,238	1,271	1,289	0.752
ramirez	1,514	1,020	0.700	0.135
vazquez	1,100	1,131	1,122	0.355
velazquez	-0.143	0.448	0.455	-1,737
Moon	0.962	0.245	0.549	0.768

Source: Prepared with study data

However, the centrality parameters are complementary to the clustering statistics. Table 2 shows the grouping of the findings related to innovative entrepreneurship in retail trade as a strategy in the face of the pandemic. It can be appreciated that the literature registers findings grouped in a threshold that considers them to belong to process innovation rather than resource optimization.

Table 2. Grouping of the findings reported in the literature from 2020 to 2024

Variable	Barrat [a]	Onnela	WS[a]	Zhang
Aguayo	0,000	0.286	0,000	1,080
ambrosio	0,000	-0.085	0,000	-0.185
Busts	0,000	-0.088	0,000	-0.492
Carreón	0,000	-0.113	0,000	-0.508
Castro	0,000	0.515	0,000	1,517
Elizarraras	0,000	0.439	0,000	1,810
Spinoza	0,000	0.910	0,000	0.474
Garcia	0,000	-1,491	0,000	-1,283
saddlers	0,000	1,114	0,000	0.184
Guillen	0,000	0.768	0,000	1,303
gutierrez	0,000	-1,372	0,000	-1,783
hernandez	0,000	-1,853	0,000	-1,925
Lilies	0,000	0.628	0,000	-1,065
Lopez	0,000	1,136	0,000	0.657
Moon	0,000	0.460	0,000	0.275

Mejia	0,000	-2,546	0,000	-1,779
Mendez	0,000	-0.021	0,000	1,100
Mendoza	0,000	1,184	0,000	0.270
Huntsman	0,000	0.371	0,000	1,122
Morales	0,000	-0.331	0,000	0.010
Ornelas	0,000	-0.085	0,000	-0.087
Quiroz	0,000	-0.283	0,000	-0.285
ramirez	0,000	0.759	0,000	-0.669
Corner	0,000	-0.264	0,000	0.257
Blond	0,000	-1,459	0,000	-0.162
Grove	0,000	1,228	0,000	0.566
valdes	0,000	-1,202	0,000	-1,230
vazquez	0,000	1,154	0,000	0.609
velazquez	0,000	0.239	0,000	0.218

[a] Coefficient could not be standardized because the variance is too small.

Source: Prepared with study data

The centrality and grouping parameters allowed establishing the network of relationships between the findings, among which those reported by journals indexed to Scopus stand out. In other words, innovative entrepreneurship around retail marketing was a central theme on the research agenda. Therefore, innovative entrepreneurship is relevant for the reactivation of the local economies of study, even when no axis or topic of discussion predominates.

Discussion

The contribution of this work to the state of knowledge lies in the specification of a model for the study of entrepreneurship considering:

I. The context of few opportunities and abundance of initiatives that, however, are disconnected from the agreements and joint responsibilities between citizens and the State;
II. Business development policies limited to MSMEs that force them to merge or ally with multinationals;
III. The absence of a culture of social and organizational entrepreneurship ignored by an ideology of corporatism where profits do not exceed costs;
IV. Knowledge networks established in professional or social service practices, but without monitoring by the university or the company; e) the dissociation between theoretical subjects with respect to professional practices;
V. The confinement of disciplines and the lack of multidisciplinary systems.

However, the educational institution has been the prevailing barrier that not only inhibits, but also minimizes any initiative or proposal that contradicts its principles of reproduction of the differences between talents and leadership based on:

- Unilateral or majority decisions against dissident groups
- Predominance of the climate relationship over the task climate
- Direction and control from traditional leaderships
- Preservation of processes that have not always been efficient, efficient or effective.

The institutional framework determines entrepreneurship directly through financing policies and resource distribution, but indirectly the institutional framework has a greater dissipative effect because it determines the priorities of an institution among which entrepreneurship and innovation are not central issues on the institutional agenda because they allude to change and the quality of processes and products.

Once the institutionality has penetrated the academic spheres, its reproduction is imminent. Through the teaching-learning process, as well as the extracurricular process, the agenda is established as a legacy of the public agenda. That is, if public opinion is immersed in issues established by the traditional media, then student, teacher or administrative opinion will also be influenced by those same issues.

Institutionality generates academic exclusion when those who do not follow the guidelines of educational policies and, as a result, their voice and vote will be considered peripheral in the discussion of the central issues established by the media and disseminated in the classroom and others. university spaces.

Therefore, in the face of what can be called institutionalism, dissident groups organize themselves in collaborative spheres and knowledge networks in order to counteract the effects of the agenda on professional training, professional practices and social service, although a disconnection prevails between academic objectives and business purposes and two types of entrepreneurship emerge; one mediated by traditional cultures and leadership styles that limit innovations, but reinvent institutionality, and the other mediated by information technologies that promote proposals, agreements, and joint responsibilities.

However, only a few enterprising Internet users can build a personal agenda that is contrary to the institutionalist agenda. Since Internet use is limited, only those with the resources and funding are eligible to set a personal agenda in the classroom and elsewhere.

Consequently, digital entrepreneurship is subject to a context that limits its emergence as an alternative to set the agenda and build collaborative networks.

Culture had no direct or indirect influence on innovation strategies, but instead developed a model in which decisions and behaviors were closely related to capabilities. Skills and knowledge as determinants of innovative entrepreneurship on the Internet are based on transformative and leadership cultures where there are no differences between talents and leaders. In other words, if knowledge management has an impact on talent proposals, then institutional administration is out of the creation and innovation process.

The institutionalist administration, being replaced by technological risks and threats from Internet communities, guides an undertaking related to the legitimization of the State as a knowledge manager. In this sense, the effects of risks and threats on innovative entrepreneurship are reflected in the privacy and identity of talents. As *stalkers*, *trollers* and *bullers intensify* , institutionality is reduced to a minimum to such a degree that smear propaganda, identity theft or bullying of surfers are the issues that govern the university, its strategic and prospective alliance of entrepreneurship and innovation.

Conclusion

The contribution of this work to the state of knowledge lies in the specification of a model that includes three explanatory hypotheses of the trajectories of relationships between the determining factors of entrepreneurship in its Trolling, Stalkeo or Trending modality, but unlike social entrepreneurship that implies the construction of a public agenda based on empathy, commitment, innovation and cooperation, cyberpolitical entrepreneurship assumes that civil initiatives and proposals are generated from mistrust and aggression towards their authorities, in the same way as through monitoring or support for political figures or processes.

However, mass communication studies show two logics that consist of the credibility of state propaganda and the verifiability of its achievements disseminated in the media, aspects that the model does not include, but that must be considered in scenarios of government or government reports. electoral contest.

Since the specified model aims to anticipate entrepreneurship as a result of institutional administration and knowledge management, entrepreneurship and innovation, its empirical contrast is recommended.

The specification of the model establishes the differences between teachers, students and administrators with respect to the evaluation, accreditation and certification of the quality of academic processes and products, as well as anticipates knowledge management, entrepreneurship and innovation scenarios.

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