The Convergence Of Entrepreneurship And Technology: Driving Innovation In The Digital Age

Dr. Segundo Cesar Tapia Cabrera[1], Dr. Alex Miguel Hernández Torres[2], Mgtr. Felicitas Eumelia Tapia Cabrera[3], Dra. Cecilia Eugenia Mendoza Alva[4], Dra. Nancy Aida Carruitero Ávila[5].
Dr. Luis Santiago García Merino[6]

[1]ORCID https://orcid.org/0000-0003-1798-2437
Universidad Nacional de Tumbes
[2]ORCID https://orcid.org/0000-0002-5682-2500
alex.hernandez@upn.pe
Universidad Privada del Norte
[3]ORCID https://orcid.org/0000-0003-0483-446X
Universidad Nacional de Tumbes
[4]ORCID https://orcid.org/0000-0002- 3640-2779
Universidad Cesar Vallejo
ceciliae@ucvvirtual.edu.pe
[5]ORCID https://www.orcid.org/0000-0002-5138-6519
Universidad Privada Antenor Orrego
[6]ORCID: https://www.orcid.org/0000-0001-9392-2474
Universidad Católica Los Ángeles de Chimbote
Instituto de Investigación, Innovación Ciencia y Tecnología

Summary

A documentary review was carried out on the production and publication of research papers related to the study of the variables Entrepreneurship, Technology and Innovation by Latin American institutions. The purpose of the bibliometric analysis proposed in this document was to know the main characteristics of the volume of publications registered in the Scopus database during the period 2017-2022, achieving the identification of 215 publications. The information provided by this platform was organized through graphs and figures categorizing the information by Year of Publication, Country of Origin, Area of Knowledge and Type of Publication. Once these characteristics have been described, the position of different authors towards the proposed theme is referenced through a qualitative analysis. Among the main findings made through

this research, it is found that Brazil, with 81 publications, was the Latin American country with the highest scientific production registered in the name of authors affiliated with institutions of that nation. The Area of Knowledge that made the greatest contribution to the construction of bibliographic material referring to the study of the variables Entrepreneurship, Technology and Innovation, was Social Sciences with 110 published documents, and the Type of Publication most used during the period indicated above were Journal Articles with 62% of the total scientific production.

Keywords: Entrepreneurship, Technology, Innovation, Digital Age.

1. Introduction

In today's ever-changing digital age, the promotion of entrepreneurship and technology has become a dynamic and transformative force shaping the economy, society and people's aspirations. This era is characterized by a perfect blend of innovation and connectivity, where innovative technologies and entrepreneurial efforts intertwine to redefine traditional norms and pave the way to unprecedented opportunities.

The convergence of entrepreneurship and technology, the art of identifying and seizing opportunities to create value, has found a new image in the digital age. With the ubiquity of internet connections, mobile devices and the proliferation of online platforms, aspiring entrepreneurs now have a virtual playing field to generate ideas, develop and execute their own globally. Barriers to entry have been drastically lowered, allowing people from different backgrounds to turn their innovative concepts into a tangible reality. From e-commerce companies and app-based solutions to AI-powered startups and sustainable technology companies, entrepreneurship is exploding in an era of possibilities. This unlimited digital capacity.

The basis of this entrepreneurial renaissance is the rapid evolution of technology. Technological advancement has transcended traditional boundaries, affecting industries and society at an unprecedented rate. From artificial intelligence and machine learning to blockchain and the Internet of Things, these innovations not only reshape the way business is done, but also foster an environment for new ideas and creative disruption. This symbiotic relationship between

entrepreneurship and technology has created transformative business models, enabling startups to scale quickly and establish businesses to reinvent themselves in the face of digital disruption.

Governments, organizations and stakeholders around the world recognize the essential role that entrepreneurship and technology play in economic growth and social progress. Initiatives that drive innovation, provide access to capital, and foster a beneficial ecosystem for startups are becoming increasingly prominent. In addition, the combination of entrepreneurship and technology has the potential to address pressing global challenges, from healthcare and education to environmental sustainability and beyond. Collaborative efforts between the public and private sectors are paving the way for innovative solutions that have the potential to reshape entire industries and improve the quality of life globally. For this reason, this article seeks to describe the main characteristics of the compendium of publications indexed in the Scopus database related to the variables Entrepreneurship, Technology and Innovation by Latin American institutions, as well. As the description of the position of certain authors affiliated with institutions, during the period between 2017 and 2022.

2. General objective

Analyze from a bibliometric and bibliographic perspective, the elaboration and publication of research works in high-impact journals indexed in the Scopus database on the variables Entrepreneurship, Technology and Innovation, during the period 2017-2022 by Latin American institutions.

3. Methodology

This article is carried out through a research with mixed orientation that combines the quantitative and qualitative method.

On the one hand, a quantitative analysis of the information selected in Scopus is carried out under a bibliometric approach of the scientific production corresponding to the study of Entrepreneurship, Technology and Innovation.

A qualitative perspective, examples of some research works published in the area of study indicated above, starting from a bibliographic approach that allows to describe the position of different authors towards the proposed topic. It is important to

note that the entire search was performed through Scopus, managing to establish the parameters referenced in Figure 1.

3.1 Methodological design

Figure 1. Methodological design
Source: Authors.

3.1.1 Phase 1: Data collection

Data collection was executed from the Search tool on the Scopus website, where 215 publications were obtained from the choice of the following filters:

TITLE-ABS-KEY (entrepreneurship, AND technology, AND innovation) AND PUBYEAR > 2016 AND PUBYEAR < 2023 AND (LIMIT-TO (AFFILCOUNTRY , "Brazil") OR LIMIT-TO (AFFILCOUNTRY , "Mexico") OR LIMIT-TO (AFFILCOUNTRY , "Colombia") OR LIMIT-TO (AFFILCOUNTRY , "Chile") OR LIMIT-TO (AFFILCOUNTRY , "Peru") OR LIMIT-TO (AFFILCOUNTRY , "Venezuela") OR LIMIT-TO (AFFILCOUNTRY , "Ecuador") OR LIMIT-TO (AFFILCOUNTRY , "Costa Rica") OR LIMIT-TO (AFFILCOUNTRY , "Argentina") OR LIMIT-TO (AFFILCOUNTRY , "Puerto Rico") OR LIMIT-TO (AFFILCOUNTRY , "Uruguay") OR LIMIT-TO (AFFILCOUNTRY , "Cuba") OR LIMIT-TO (AFFILCOUNTRY , "Bolivia"))

- Published documents whose study variables are related to the study of Entrepreneurship, Technology and Innovation.
- Limited to the years 2017-2022.
- Limited to Latin American countries.
- Without distinction of area of knowledge.
- Regardless of type of publication.

3.1.2 Phase 2: Construction of analysis material

The information collected in Scopus during the previous phase is organized and subsequently classified by graphs, figures and tables as follows:

- Co-occurrence of words.
- Year of publication.
- Country of origin of the publication.
- Area of knowledge.
- Type of publication.

3.1.3 Phase 3: Drafting of conclusions and outcome document

In this phase, we proceed with the analysis of the results previously yielded resulting in the determination of conclusions and, consequently, the obtaining of the final document.

4. Results

4.1 Co-occurrence of words

Figure 2 shows the Co-occurrence of keywords found in the publications identified in the Scopus database.

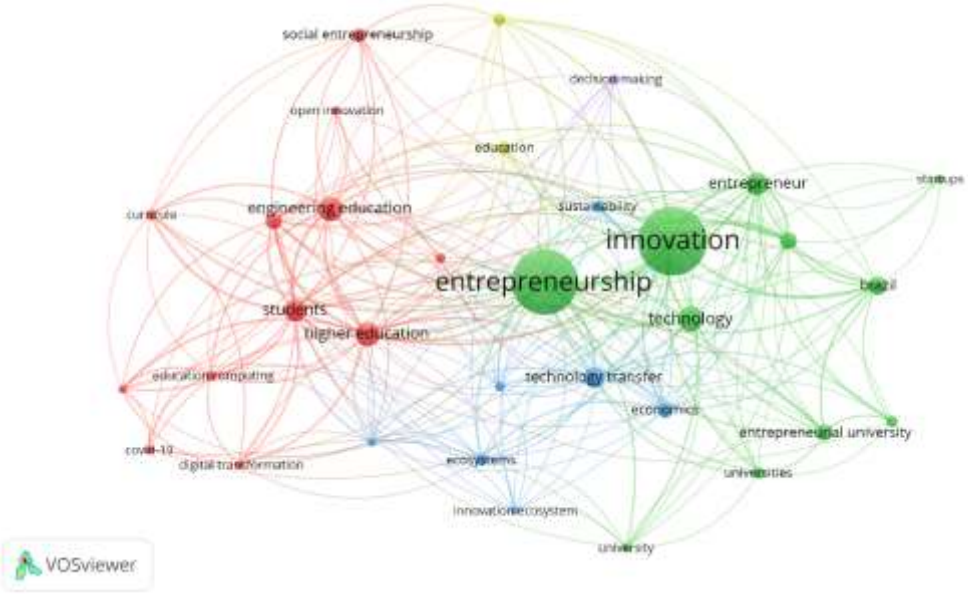

Figure 2. Co-occurrence of words
Source: Own elaboration (2023); based on data exported from Scopus.

Entrepreneurship was the most frequently used keyword within the studies identified through the execution of Phase 1 of the Methodological Design proposed for the development of this

article. Innovation is also among the most frequently used variables, associated with variables such as Technological Transformation, Sustainability, Technology, Innovation Ecosystems. As we navigate this era of digital transformation, it becomes increasingly important to delve into the many aspects of driving entrepreneurship and technology in today's digital age. This exploration will delve into the strategies, trends, challenges and opportunities that define this dynamic landscape, providing insights into how societies can harness the power of ingenuity, human and technological capabilities to drive an innovative and inclusive future.

4.2 Distribution of scientific production by year of publication

Figure 3 shows how scientific production is distributed according to the year of publication.

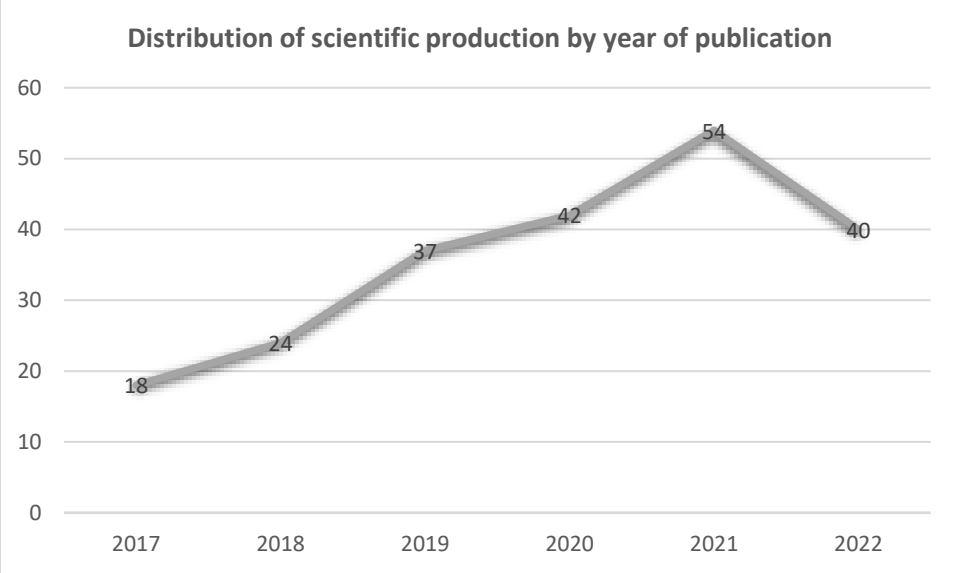

Figure 3. Distribution of scientific production by year of publication.

Source: Own elaboration (2023); based on data exported from Scopus

Among the main characteristics evidenced by the distribution of scientific production by year of publication, a level of number of publications registered in Scopus is notorious in the years 2021, reaching a total of 54 documents published in journals indexed in said platform. The above can be explained thanks to articles such as the one entitled "The entrepreneurial ecosystem of Guadalajara, Jalisco, Mexico: its emerging companies and entrepreneurial employees of technological base and fast

growth" The purpose of this article is to analyze the Business Ecosystem of Guadalajara Jalisco, Mexico (EEZMG) through its emerging technology-based and fast-growing companies and their 'entrepreneur-employees', their growth dynamics and interactions, as well as exploring the factors that impact their growth. , and discover the policies or programmes that have the greatest impact on its development. Therefore, using as an analytical framework the "Entrepreneurial Ecosystem Model" proposed by Stam (2015), this research applied a mixed research method through in-depth and semi-structured interviews with entrepreneurs, key informants and influencers. The study has confirmed the 'employee-entrepreneur' hypothesis and their ambition about job creation that had been predicted by previous research. In addition, the study shows that both the "institutional framework" and the "systemic conditions" have created a "productive enterprise" that promotes "value creation" and, in addition, entrepreneurs have capacities to develop, globalize and strengthen the ecosystem. Following the conclusions, the study provides some implications for policy design and the cumulative development of entrepreneurial ecosystems.(Vargas, 2022)

4.3 Distribution of scientific production by country of origin.

Figure 4 shows how scientific production is distributed according to the nationality of the authors.

Figure 4. Distribution of scientific production by country of origin.

Source: Own elaboration (2023); based on data provided by Scopus.

Within the distribution of scientific production by country of origin, records from institutions were taken into account, establishing Brazil, as the country of that community, with the highest number of publications indexed in Scopus during the period 2017-2022, with a total of 81 publications in total. In second place, Mexico with 52 scientific documents, and Colombia occupying the third place presenting to the scientific community, with a total of 30 documents among which is the article entitled "The role of green process innovation that translates green business orientation and proactive sustainability strategy into environmental performance" this article aims to analyze the mediating role of green process innovation in relationships of the green business orientation and the proactive strategy of sustainability with environmental performance. Design/methodology/approach: The authors analyze data from 81 Brazilian agricultural technology startups (AgTechs) using partial least squares structural equation models (PLS-SEM) and qualitative comparative fuzzy set analysis (fsQCA). Findings: The results show that green process innovation assumes an important role in AgTechs, promoting complete mediations between green business orientation and proactive sustainability strategy with environmental performance. There are two ways in which AgTechs can achieve high environmental performance. In both, green process innovation is a central condition, while green business orientation or proactive sustainability strategy is a complementary condition. Research limitations/implications: This study demonstrates how internal elements (green business orientation, proactive sustainability strategy, and green process innovation) improve environmental performance. This responds to calls to explore what elements translate green business orientation and proactive sustainability strategies into environmental performance, highlighting the mediating role of green process innovation. Practical implications: The findings are useful for AgTechs founders and managers to find ways to manage sustainable technological advancement and cleaner production in agribusiness. Originality/value: This study analyzes the interface between sustainable entrepreneurship, strategy and innovation in promoting the environmental

performance of AgTechs in an emerging economy country.(Frare, 2022)

4.4 Distribution of scientific production by area of knowledge

Figure 5 shows the distribution of the elaboration of scientific publications from the area of knowledge through which the different research methodologies are implemented.

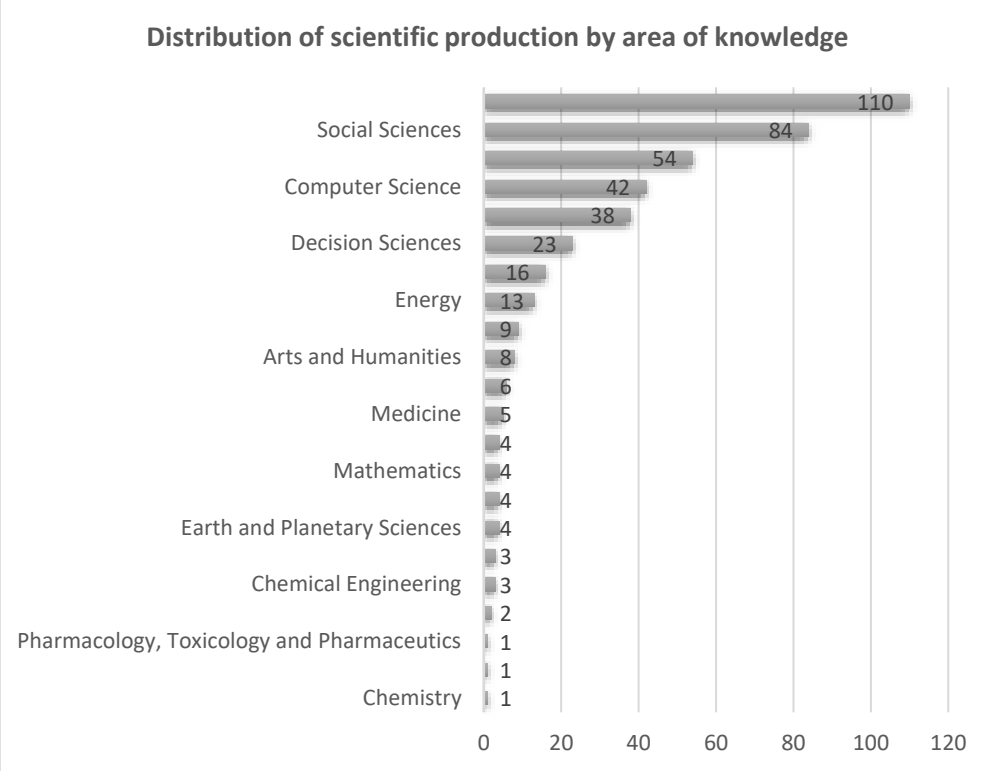

Figure 5. Distribution of scientific production by area of knowledge.

Source: Own elaboration (2023); based on data provided by Scopus.

Business, Management and Accounting was the area of knowledge with the highest number of publications registered in Scopus with a total of 110 documents that have based their methodologies Entrepreneurship, Technology and Innovation by Latin American institutions. In second place, Social Sciences with 84 articles and Engineering in third place with 54. The above can be explained thanks to the contribution and study of different branches, the article with the greatest impact was registered by the area of Business, Management and Accounting entitled "Entrepreneurial vision and Brazilian system of evaluation of higher education" This article aims to propose a

performance measurement system to evaluate the key aspects of business activities in Brazilian universities. Design/methodology/approach: This study was developed in two phases. Both phases consisted of a survey sent to Brazilian universities (public, private and non-profit) whose technology transfer offices (TTOs) had contributed to the annual report of the Ministry of Science, Technology and Innovation (MCTI, 2015), which evaluates the implementation of the Innovation Law. Multiple correspondence analysis was used for response analysis. Findings: A set of 13 indicators and 13 characteristics of the organizational structure of the institutions was identified in order to evaluate the level of development of entrepreneurship activities. Limitations/implications of the research: The main limitation of this study is related to the low quality of survey responses. It was not possible to qualitatively validate all selected indicators. This is because universities are not yet organized internally, because higher authorities do not enforce data collection and processing based on existing legislation. Originality/value: The results of this study, with the definition of indicators, can be used to inform public policies for the stimulation of entrepreneurship in other countries and regions.(Almeida, 2022)

4.5 Type of publication

In the following graph, you will observe the distribution of the bibliographic finding according to the type of publication made by each of the authors found in Scopus.

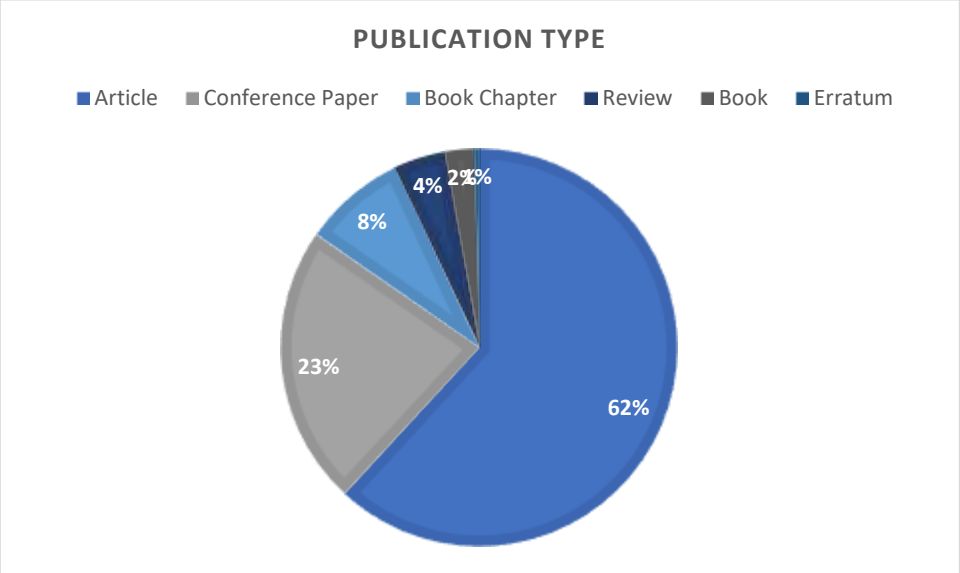

Figure 6. Type of publication.

Fountain: Own elaboration (2023); based on data provided by Scopus.

The type of publication most frequently used by the researchers referenced in the body of this document was entitled Journal Articles with 62% of the total production identified for analysis, followed by Session Paper with 23%. Chapter of the Book are part of this classification, representing 8% of the research papers published during the period 2017-2022 in journals indexed in Scopus. In this last category, the one entitled "Relevance of ICTs in short food channels" stands out This article analyzes the trajectory of social appropriation of ICTs in the short circuits of commercialization of agroecological foods from the case study Tu Raíz, an enterprise in the southeast of the province of Buenos Aires. In addition, it is proposed to reflect on its actions in the face of the Social, Preventive and Mandatory Isolation imposed by the COVID-19 pandemic. Concepts from Communication Theory and Sociology of Innovation are used, understanding ICT as communication technologies that are socially constructed. Following a qualitative methodology, interviews are conducted, physical spaces are observed and digital spaces are analyzed. Based on the trajectory of the case study, we try to reflect on the importance of ICT in this type of venture, while allowing us to visualize how its expansion is favored during the pandemic in those cases that have already been working with ICTs.(Santini, 2022)

5. Conclusions

Through the bibliometric analysis carried out in the present research work, it was established that Brazil was the country with the largest number of records published for the variables Entrepreneurship, Technology and Innovation by Latin American institutions. with a total of 81 publications in Scopus database. Similarly, it was established that the application of theories framed in the area of Business, Management and Accounting, business convergence and technology driven by the digital age has catalyzed a paradigm shift in the way we create, develop and experience business today. This phenomenon not only accelerates the pace of innovation, but democratizes access to resources and knowledge that were previously inaccessible. As entrepreneurs leverage technology tools to realize their vision, barriers to entry are lowered, enabling more diverse voices and solutions in the marketplace. However, this

exciting entanglement also comes with significant challenges. The pace at which technology evolves can challenge entrepreneurs to keep up and constantly adapt. In addition, digitalisation raises ethical and social issues that need to be addressed rigorously to ensure a sustainable and equitable process. Ultimately, the convergence of entrepreneurship and technology in the digital age speaks to people's ability to innovate and transform. As we move towards this new horizon, it is imperative to foster collaboration across sectors ranging from academia to industry to government, to maximize the benefits of this synergy. In doing so, we will be able to harness the full potential of technology as a driver of positive change, shaping a future where creativity, innovation and entrepreneurship will continue to drive improvement across our society.

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