

REVIEW ARTICLE

The role of universities in fostering entrepreneurship: strategies and best practices

ABSTRACT

Today, entrepreneurship is crucial for economic growth and innovation. Therefore, we seek to analyze the role of universities in fostering entrepreneurship and to learn about strategies and good practices to promote entrepreneurship among students. To this end, a multimodal systematic review was conducted. The results highlight that integrating entrepreneurship into the curriculum, providing financial support and access to resources, establishing incubators and co-working spaces, networking with industry and local entrepreneurial ecosystems, and offering mentoring and business advice are effective strategies to promote entrepreneurship among university students. In addition, five key elements are identified to create an enabling environment for successful entrepreneurship: fostering an entrepreneurial culture, providing education and training, offering financial support, and establishing partnerships for mentoring and business advice. It recommends allocating resources, implementing mentoring programs, fostering interdisciplinary cooperation, knowledge transfer and collaboration with business and civil society, and continuously evaluating and improving entrepreneurship policies. In short, it offers a comprehensive view of the role of universities in promoting entrepreneurship and provides recommendations for its promotion.

Keywords: Entrepreneurial spirit; Universities; Business development; Entrepreneurship; Entrepreneurial mindset.

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INTRODUCTION

Entrepreneurship has become a key driver of economic growth and innovation in today's world (Aranibar *et al.*, 2022a). Today, Peru has more than 1,159,373 students at the undergraduate level alone (TUNI.pe Sistema de Información Universitaria, n.d.). In this context, universities play an essential role in fostering entrepreneurship and the entrepreneurial spirit among their students, as well as in promoting the creation and development of new businesses (González and Mocha, 2017). The ability of universities to cultivate entrepreneurship and provide the necessary skills and support is crucial to foster creativity, entrepreneurship, and future success (Redondo *et al.*, 2022).

In the management field, entrepreneurship refers to the ability to identify opportunities, take risks, and take action to create value and achieve innovative results, which involves a proactive mindset focused on achieving goals and seeking creative solutions to problems (Lazo *et al.*, 2020). In addition to this concept, entrepreneurial initiative stands out, which refers to the willingness and ability to generate ideas and put them into practice (García *et al.*, 2020). Thus, it is mentioned that both terms tend to be erroneously used as synonyms, since their relationship and the need to promote an entrepreneurial culture generate distortions, but differ in their meaning (Sánchez *et al.*, 2016).

Among the theories and approaches related to the promotion of entrepreneurship at university, the theory of entrepreneurial human capital stands out, which emphasizes the importance of knowledge, skills and experience of individuals as key factors for entrepreneurship (Abbas, 2018). In the university context, this includes strengthening academic education, developing entrepreneurial skills, and fostering creativity and problem-solving skills. Similarly, the focus of entrepreneurship education is on teaching entrepreneurial skills and incorporating entrepreneurial principles and concepts into the academic curriculum (Cho and Lee, 2018), with the aim of developing competencies such as opportunity identification, strategic planning, risk management, and leadership skills.

Boza *et al.* (2020) recognize that in order to create an environment conducive to entrepreneurship at the university, effective strategies and programs need to be implemented. This may include integrating entrepreneurship into the academic curriculum by creating specific courses and programs for the development of entrepreneurial skills. In addition, it is important to provide financial support and access to resources for university entrepreneurs (Recalde *et al.*, 2022), as well as to establish incubators and coworking spaces as entrepreneurial ecosystems in the university. On the other hand, networks and connections with the local industry and entrepreneurial ecosystem play a crucial role by providing opportunities for collaboration and learning (Segura *et al.*, 2019). Palomeque and Loor (2022) also highlight mentors and business advice as valuable resources for student entrepreneurs, providing them with guidance and support during their entrepreneurial development process.

Therefore, this paper will focus on the analysis of three key aspects: the role of the university in fostering entrepreneurship, the analysis of strategies and best practices in fostering entrepreneurship, and the evaluation of the impact and related challenges. It is worth mentioning that a multimodal systematic review methodology was used to gather information from articles in indexed databases and official national and international documents, thus ensuring a broad perspective in the development of this research.

PURPOSE OF THIS PAPER

The aim of this literature review is to analyze the role of the university in promoting entrepreneurship, focusing on the analysis of strategies and best practices implemented in different educational institutions. It will explore the various ways in which universities can promote entrepreneurship, from its integration into the academic curriculum to the creation of specific programs and the provision of financial resources and business support. In doing so, it aims to provide a comprehensive and up-to-date view of the role of the university in promoting entrepreneurship and to offer academics, practitioners and policy makers a solid basis for

designing and implementing effective strategies at the university level.

ARGUMENTATIVE REVIEW

The role of universities in fostering entrepreneurship

Universities play an important role in fostering entrepreneurship through a variety of initiatives and resources. The integration of entrepreneurship into the academic curriculum, the provision of specific programs and courses, financial support and access to resources, incubators and coworking spaces, networks and links with industry, as well as business advice and mentoring, are key elements in fostering this spirit among students. The types of university involvement in fostering student entrepreneurship are shown in Figure 1.

An effective way for universities to promote entrepreneurship is to integrate entrepreneurship into the academic curriculum (Veléz *et al.*, 2020), which means designing and offering courses and topics related to entrepreneurship in different disciplines and areas of study. These courses may cover topics

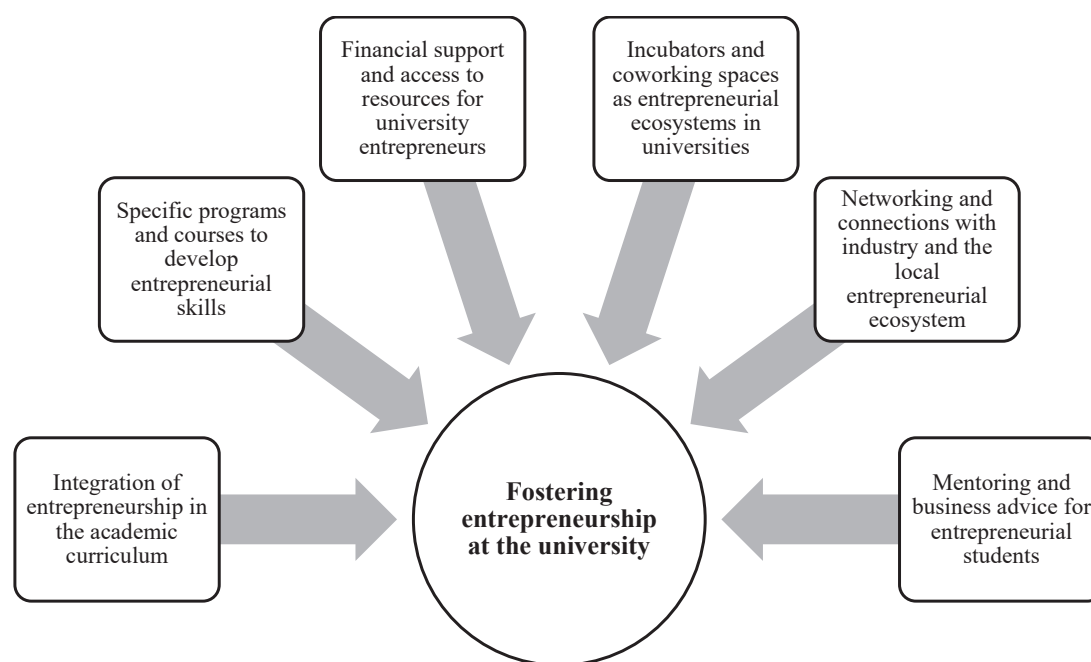
such as entrepreneurial ideation, business plan development, financial management for entrepreneurs, marketing, and business strategy. Integrating entrepreneurship into the academic curriculum allows students to acquire fundamental knowledge about the business world and develop practical skills needed to start and manage their own businesses.

In addition to curriculum integration, specific non-formal education programs and courses can be offered that focus on the development of entrepreneurial skills (Ahmed *et al.*, 2021). For example, workshops, seminars, and training programs that deepen entrepreneurial principles and provide opportunities to apply knowledge in real entrepreneurial projects. These programs can also involve entrepreneurs and industry experts as lecturers or mentors, giving students the opportunity to learn from experienced professionals in the business field (Nicholls *et al.*, 2022a).

On the other hand, it can play a crucial role in providing financial support and access to resources by creating investment funds to support student entrepreneurial projects, facilitating

Figure 1

Types of university involvement in promoting university entrepreneurship.



Note. Prepared by the author, 2023.

loans or grants, and establishing scholarship programs for outstanding entrepreneurs (O'Donnell, 2022). In addition, universities can form strategic alliances with financial and venture capital organizations to expand funding opportunities for university entrepreneurs, not to mention access to resources such as workspace, technology equipment, laboratories, and specialized libraries that support the development and implementation of entrepreneurial ideas (Pittaway *et al.*, 2020).

At the same time, incubators and co-working spaces are physical environments that provide support and resources to university entrepreneurs; they are created to foster collaboration, knowledge sharing, and interaction with other entrepreneurs and industry professionals (Redondo *et al.*, 2022). In this way, universities can create their own incubators or partner with external incubators to provide students with access to these entrepreneurial ecosystems, advice, training, and connections to mentors to help them develop their ideas in a supportive and stimulating environment (Karahan *et al.*, 2022).

Similarly, universities can play an important role in establishing networks and connections with industry and the local entrepreneurial ecosystem (Kiran and Bose, 2022). These relationships can provide opportunities for student entrepreneurs to interact with professionals, entrepreneurs, and industry leaders. On the one hand, this is done by organizing events, conferences, and entrepreneurial fairs where students can network, present their ideas, and receive constructive feedback from experts in the field. On the other hand, these collaborations can provide opportunities for internships, joint projects and mentoring by experienced professionals, which enriches students' entrepreneurial education and gives them a practical insight into the business world.

In this regard, it should be reinforced that the role of mentors and business advice is invaluable in fostering entrepreneurship (Nicholls and Maxheimer, 2022b). Universities can establish mentoring programs in which successful entrepreneurs or experienced professionals provide guidance and advice to student entrepreneurs through their knowledge, experience

and contacts, and provide strategic guidance in the development and implementation of entrepreneurial ideas. Entrepreneurial advisory services can also be provided within the university and remotely or virtually (Chan *et al.*, 2022); without the need for an incubator, they can provide technical assistance, advice and support in key areas such as strategic planning, business model development, financial management and marketing.

By providing these opportunities, universities can cultivate an entrepreneurial culture, foster innovation and economic growth, and prepare students to meet the challenges of the business world.

Analysis of strategies and best practices in promoting entrepreneurship

Over the years, various strategies have been implemented and best practices have been identified that have proven effective in promoting entrepreneurship in universities. The following are five essential points for developing an environment conducive to the creation and growth of successful ventures.

Entrepreneurial Culture

According to Vélez *et al.* (2020), creating an entrepreneurial culture is fundamental to fostering entrepreneurship. This includes raising awareness of entrepreneurial opportunities, encouraging creativity and innovative thinking, and celebrating entrepreneurial successes. Universities should develop awareness programs, events and activities that foster an entrepreneurial mindset at all levels of the institution (Morales *et al.*, 2022).

Education and training

The inclusion of entrepreneurship education courses and programs in the academic curriculum is essential to provide students with practical skills and knowledge in entrepreneurship (Ahmed *et al.*, 2021); this should include aspects such as business idea generation and evaluation, strategic planning, financial management and marketing. In addition, efforts should be made to provide additional training opportunities, such as workshops and mentoring programs, to strengthen students' entrepreneurial skills (Nicholls *et al.*, 2022b). In this section,

Chan *et al.* (2022) point out that there is no need or obligation for face-to-face work.

Assessment and continuous improvement

Maula and Stam (2020) argue that conducting periodic evaluations of the impact of entrepreneurship promotion strategies and adjusting them according to the results and needs identified is a requirement for adequate entrepreneurship promotion. Secundo *et al.* (2021) add that this feature is essential to face controversial times and, consequently, sustainability.

Interdisciplinary collaboration

Encouraging collaboration between different disciplines and schools within and outside the university is key to fostering innovation and creating disruptive entrepreneurial solutions (D'Este *et al.*, 2019). This promotes a diversity of perspectives and provides space for creativity. Formulating joint programs, organizing interdisciplinary events, and collaborating on projects are effective strategies to foster this collaboration (Aranibar *et al.*, 2022b).

Knowledge transfer and collaboration with the business sector.

Establishing strong partnerships with businesses and other organizations is beneficial to students and the university, as well as to society (Kiran and Bose, 2022). As these interactions promote a type of learning different from formal and create a stronger link with society, some extended practical learning, such as internships or mentorships, is plausible.

Result evaluation, impact and challenges

As part of the analysis of the effectiveness of the policies and practices implemented, it is imperative to evaluate outcomes and impacts to identify positive facts and possible challenges (Bauman and Lucy, 2021). To measure results and impact, appropriate metrics and methods should be used, such as the number of startups created, job creation, economic growth, and/or student and alumni satisfaction (Maula and Stam, 2020). In addition, it is essential to evaluate knowledge transfer and collaboration with the business sector. This evaluation can be done through different approaches such as surveys, interviews, analysis of quantitative

and qualitative indicators, and monitoring of entrepreneurial success stories, which allow collecting data on students' participation in entrepreneurial activities, development of skills and competencies, emergence of new enterprises and their contribution to economic development both at the individual level and in the business environment in general (Bakry *et al.*, 2022).

However, as expected, the implementation of entrepreneurial strategies at the university level may face various challenges and obstacles (Perez, 2012). Some of them are lack of financial resources, resistance to institutional change, gap between theory and practice, lack of interdisciplinary support, and lack of student participation (Aranibar *et al.*, 2022a). In addition, there may be cultural and normative barriers that hinder the adoption of entrepreneurial approaches in the academic curriculum and in the mindset of the university community (Morales *et al.*, 2022). These challenges and barriers need to be addressed in a comprehensive manner to ensure the success of entrepreneurial strategies at the university level.

In general, in order to address these outcomes and impacts and meet the challenges, it is necessary to constantly evaluate and adapt the strategies for promoting entrepreneurship, periodically analyzing their impact and adjusting them according to the results and needs identified. Addressing these points will strengthen the university's entrepreneurship strategies and promote an environment conducive to creation and growth.

CONCLUSIONS

This study has examined the role of universities in promoting entrepreneurship, as well as related policies and good practices, and assessed their impact and the challenges they face. It identified six university roles related to entrepreneurship: integrating entrepreneurship into the academic curriculum, providing specific programs and courses, financial support and access to resources, incubators and co-working spaces, networks and links with industry, and business advice and mentoring. Several barriers were identified that need to be addressed comprehensively to ensure the success of entrepreneurial strategies at the university level,

such as scarcity of financial resources, resistance to institutional change, gap between theory and practice, lack of interdisciplinary support, and lack of student participation.

In terms of strategies, it was found that building an entrepreneurial culture, interdisciplinary collaboration, knowledge transfer, collaboration with the business sector, and evaluation and continuous improvement are effective strategies to promote entrepreneurship in universities.

Finally, it is recommended that universities allocate adequate resources and encourage interdisciplinary collaboration for the development and implementation of entrepreneurship programs. In addition, universities are urged to build alliances with the business sector and civil society, strengthen entrepreneurship training, create support networks and establish investment funds, scholarships and competitions to support entrepreneurial projects.

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Conflicts of interest

The author has no conflicts of interest to declare.

Author contributions

Edgar Romario Aranibar Ramos (lead author): Conceptualization, data curation, formal analysis, funding acquisition, research, methodology, project management, resources, software, supervision, validation, data visualization, writing (original draft, review, and editing).