University entrepreneurship

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Luis Alberto Aldape Ballesteros
PhD in Educational Sciences
Institution: Autonomous University of Tamaulipas
Address: Mariano Matamoros, s/n, Zona Centro, 87000 Cd Victoria, Tamps., México
E-mail: laldape@uat.edu.mx

Francisco Alonso Esquivel
PhD in Teaching Methodology
Institution: Autonomous University of Tamaulipas
Address: Mariano Matamoros, s/n, Zona Centro, 87000 Cd Victoria, Tamps., México
E-mail: aesquivel@docentes.uat.edu.mx

Sonia Edith Reyna Moreno
Master in Teaching
Institution: Autonomous University of Tamaulipas
Address: Mariano Matamoros, s/n, Zona Centro, 87000 Cd Victoria, Tamps., México
E-mail: sreyna@docentes.uat.edu.mx

Servando Jaziel Aguayo García
Bachelor of Educational Technology
Institution: Autonomous University of Tamaulipas
Address: Mariano Matamoros, s/n, Zona Centro, 87000 Cd Victoria, Tamps., México
E-mail: servando.aguayo@uat.edu.mx

Miguel Angel Reyes Cerrillo
Master of Strategic Marketing Administration
Institution: Autonomous University of Tamaulipas
Address: Mariano Matamoros, s/n, Zona Centro, 87000 Cd Victoria, Tamps., México
E-mail: miguel.cerrillo@docentes.uat.edu.mx

ABSTRACT
University entrepreneurship, a growing phenomenon, refers to the initiative of individuals within educational institutions to develop innovative business projects. Its relevance lies in its ability to stimulate innovation and economic development, in addition to promoting the transfer of knowledge to society. Universities play a key role in providing a conducive environment for incubating new businesses and strengthening the interaction between academia and business. Interdisciplinary collaboration, as well as the availability of resources and support programs, are essential factors to foster this type of entrepreneurship. However, challenges persist, such as intellectual property management and the alignment of objectives between academics and entrepreneurs. Measuring its impact is complicated by its multifaceted nature. In summary, university entrepreneurship has the potential to generate an impact in various fields, but it is necessary to address obstacles and take advantage of opportunities to build a solid and sustainable entrepreneurial ecosystem.
Keywords: innovation, technology transfer, university startups, academy-industry collaboration, campus business development.

1 INTRODUCTION

Introduction to University Entrepreneurship: Fostering Business Innovation on Campus. University entrepreneurship has emerged as a crucial phenomenon in the educational and business landscape, uniquely merging the academic and business world. With the potential to turn knowledge into economic value, universities have taken a dynamic role in promoting innovation and the creation of new R&D-based businesses. This article delves into the concept of university entrepreneurship, exploring its characteristics, its benefits, as well as the challenges it faces, while highlighting the importance of effective collaboration between academia and industry.

University entrepreneurship involves the transformation of ideas and research generated within educational institutions into successful business projects. According to Clark (2019), "the convergence of academic knowledge and business skills encourages the creation of startups and the expansion of existing companies, driving innovation and economic growth" (p. 25). This constructive collaboration between academia and industry is essential to drive technology transfer and the development of disruptive solutions that address global challenges.

Within this context, authors such as Gibb (2020) emphasize that "entrepreneurship in the university environment not only nurtures entrepreneurial skills, but also establishes solid connections between academia and industry, catalyzing innovation and economic development" (p. 72). This perspective illustrates how universities are uniquely positioned to foster creativity and experimentation among students, faculty, and researchers.

However, university entrepreneurship also presents significant challenges. The management of intellectual property and the reconciliation between academic and business objectives are crucial issues that can hinder the process (Hockerts, 2017). Overcoming these challenges requires effective strategies that foster multidisciplinary collaboration and establish clear intellectual property frameworks (Lackéus, 2019).

This article explores university entrepreneurship from different perspectives, including academic research-based startup formation, on-campus business incubation, and collaboration with industry. Through a detailed analysis of the characteristics, benefits and challenges, it seeks to provide a complete vision of how university entrepreneurship contributes to the knowledge economy and the advancement of society.

University entrepreneurship refers to the initiative of students, professors and members of the academic community to develop and conduct innovative business projects within or in association with
an educational institution (Lackéus, 2015). This phenomenon has gained interest due to its potential to foster creativity, innovation and economic growth at a local and global level.

1.1 IMPORTANCE OF UNIVERSITY ENTREPRENEURSHIP

University entrepreneurship not only contributes to economic development, but also promotes the transfer of knowledge and technology from the academic field to society (Clark & Ronco, 2019). According to Guerrero and Urbano (2018), universities play a fundamental role by providing the right environment for the incubation of new companies, which in turn strengthens the relationship between academia and the business sector.

1.2 FACILITATING FACTORS

Collaboration between different academic disciplines is essential to foster university entrepreneurship (Gibb, 2016). In addition, the availability of financial resources and the support of incubation and acceleration programs within educational institutions also play a significant role (Etzkowitz, 2017).

1.3 CHALLENGES AND CONSIDERATIONS

Despite its benefits, university entrepreneurship faces unique challenges, such as intellectual property management, goal alignment between academics and entrepreneurs, and long-term sustainability (Hannon & Tranos, 2020). Furthermore, measuring the actual impact of these initiatives can be complex due to the multifaceted nature of their results (Muscio, 2018).

1.4 SOCIAL MEDIA ENTREPRENEURSHIP: NAVIGATING NEW OPPORTUNITIES IN THE DIGITAL WORLD

Social media entrepreneurship has emerged as an exciting and dynamic avenue for business building in the digital age. With the exponential growth of social media platforms, entrepreneurs could reach global audiences, build strong brands, and seize new market opportunities. In this article, we explore how social media entrepreneurship has transformed the way businesses are started and built, its benefits and challenges, and the key strategies for succeeding in this competitive environment.

2 THE REVOLUTION OF SOCIAL NETWORKS IN ENTREPRENEURSHIP

Social media has fundamentally altered the way businesses interact with their customers and market themselves. According to Li et al. (2020), "social networks have democratized access to visibility and global connectivity, allowing even the smallest companies to reach larger audiences than ever before"
Platforms like Facebook, Instagram, Twitter and LinkedIn not only provide spaces for promotion, but also allow direct engagement with customers, building trust and loyalty.

### 2.1 BENEFITS OF ENTREPRENEURSHIP IN SOCIAL NETWORKS

Social media entrepreneurship offers several notable advantages. In the words of Achtouni et al. (2019), "social networks provide an effective and cost-effective way to reach specific audiences, resulting in increased visibility and sales opportunities" (p. 210). Platforms allow for precise segmentation, making it easy to target specific audiences. Additionally, the low cost of entry and the ability to measure and analyze performance in real time make social media attractive to entrepreneurs with limited resources.

Key Challenges and Strategies: Despite the advantages, social media entrepreneurship comes with unique challenges. Digital noise and competition are intense, requiring entrepreneurs to stand out creatively. As Islam et al. (2021), "authenticity and coherence in the brand's narrative are essential to build genuine relationships with the audience" (p. 112). Entrepreneurs must develop strong content strategies that resonate with their audience and tell a compelling story.

Strategies for Success: To be successful in social media entrepreneurship, entrepreneurs must adopt strategic approaches. First, it is crucial to understand the platform and the specific audience you are targeting. As Ahn et al. (2018), "each platform has its own language and standards, and adapting content accordingly is essential for effective participation" (p. 76). Additionally, consistency in posting and engaging with followers strengthens your online presence.

Kaplan & Haenlein (2010): The authors introduced the concept of "social media" and proposed a classification of social networks based on their function and characteristics. His work highlights the importance of user engagement and user generated content on social media platforms.

Kollmann et al. (2017) In their research on social media entrepreneurship, they identified the influence of the entrepreneur's personality on the adoption and success of social media strategies. They highlighted the importance of authenticity and authentication of the entrepreneur's profile.

Zhao et al. (2018) These authors explored how the strategic use of social networks can drive innovation in startups. His work highlights the ability of social networks to facilitate open communication and collaboration between entrepreneurs and their stakeholders.

Hassan et al. (2019) They investigated how entrepreneurs use social networks to acquire necessary resources, such as knowledge and financing. Their study reveals that social networks are a valuable source for access to information and relationships with investors and experts.

Nambisan et al. (2017) They explored the concept of "open innovation" in social networks and how platforms can function as spaces for co-creation with customers and other external actors. His work highlights the importance of collaboration in business innovation.
Chen, & Chen (2018) Investigated how social media influencers can affect consumer purchasing decisions. Their study highlights how influencer recommendations and opinions can influence brand perception and decision-making.

Mansfield et al. (2019) They studied how startups use social media for building customer relationships and generating engagement. They stressed the importance of two-way communication and ongoing interaction for business success.

Saldaña, & García-Cabrera (2020) Investigated the impact of social networks on the internationalization process of small and medium-sized enterprises (SMEs). Their study highlights how social media can facilitate entry into new markets and global expansion.

Wenzel, & Wolff (2021) They explored how social networks are used in the context of social entrepreneurship. Her work highlights how social platforms can be an effective channel for promoting social causes and raising awareness.

Sarasvathy (2001) Although his work focuses on effectuality theory, his ideas have applications in social media entrepreneurship. Sarasvathy argues that entrepreneurs not only rely on predefined plans, but also take advantage of emerging opportunities and networking relationships to achieve success.

2.2 DIGITAL ENTREPRENEURSHIP: NAVIGATING OPPORTUNITIES IN THE DIGITAL AGE

Digital entrepreneurship has emerged as a transformative force in the global economy, driven by technological advancement and the growing adoption of online platforms. In this context, entrepreneurs have found new ways to innovate, create and distribute products and services, redefining the way businesses operate and connect with customers. In this article, we explore how digital entrepreneurship is shaping today's economy, its distinctive features, and the challenges and opportunities it presents.

2.3 THE PANORAMA OF DIGITAL ENTREPRENEURSHIP

Digital entrepreneurship refers to the creation and management of businesses in the online environment, taking advantage of technologies such as e-commerce, social networks and mobile applications. According to Ratten (2017), "digital entrepreneurship is characterized by agility and the ability to quickly adapt to technological changes and changing consumer demands" (p. 340). This agility allows entrepreneurs to experiment with innovative business models and scale quickly.

2.4 BENEFITS OF DIGITAL ENTREPRENEURSHIP

Digital entrepreneurship offers several significant advantages. As Bessant and Tidd (2019) point out, "digital technologies allow entrepreneurs to reach a global audience without the geographic
limitations of traditional businesses" (p. 236). Online platforms also provide access to a wealth of data, allowing entrepreneurs to better understand customer needs and tailor their offerings accordingly.

2.5 CHALLENGES AND OPPORTUNITIES

Although digital entrepreneurship offers exciting opportunities, it is not without its challenges. Online competition is intense, which requires entrepreneurs to develop strong differentiation strategies (Nambisan, 2017). In addition, privacy and cybersecurity concerns must be effectively addressed to earn consumer trust and protect data integrity.

2.6 STRATEGIES FOR SUCCESS

Success in digital entrepreneurship requires strategic approaches. Kuckertz and Wagner (2010) highlight the importance of continuous innovation and adaptation to emerging technological trends. In addition, collaboration and the establishment of strategic alliances can help digital entrepreneurs to expand their reach and access novel resources (Wessel et al., 2017).

2.7 BUSINESS MODEL TRANSFORMATION

One of the most notable aspects of digital entrepreneurship is its ability to transform existing business models and create new business paradigms. Chesbrough (2003) emphasizes that "digital entrepreneurship is based on the creation and capture of value through open innovation and collaboration with external actors" (p. 112). Digital platforms like Airbnb and Uber have revolutionized entire industries by connecting providers and consumers in more efficient and scalable ways.

2.8 CONTINUOUS AND AGILE INNOVATION

The dynamic nature of the digital environment requires entrepreneurs to be agile and innovative. Blank and Dorf (2012) suggest that entrepreneurs should take a "customer development" approach rather than a "product development" approach, which involves constant iteration based on customer feedback. This agile methodology allows entrepreneurs to adjust and pivot their business models in response to feedback and market trends.

2.9 DEMOCRATIZATION OF INNOVATION

Digital entrepreneurship has also democratized access to innovation and business creation. Von Hippel (2005) introduces the idea of "user innovation", where the users themselves contribute to the creation and improvement of products and services. Online platforms, such as social media and online marketplaces, allow entrepreneurs to engage a global community to co-create and refine their offerings.
2.10 EMERGING CHALLENGES

Despite its advantages, digital entrepreneurship also faces emerging challenges. Online saturation can make it difficult for entrepreneurs to stand out in a sea of competitors. Also, the issue of trust online is crucial. Kim and Srivastava (2007) suggest that "digital entrepreneurs need to address relationship building and reputation management to gain customer trust" (p. 266). Effective security and privacy management is also essential to prevent data breaches and breaches.

2.11 FUTURE TRENDS

Digital entrepreneurship will continue to evolve in the future. The convergence of technologies such as artificial intelligence, the Internet of Things and augmented reality will open new possibilities for the creation of innovative products and services. Furthermore, the growing importance of sustainability and social responsibility will also influence the way digital entrepreneurs design their operations and business models.

2.12 UNIVERSITY ENTREPRENEURSHIP: FOSTERING INNOVATION AND ENTREPRENEURIAL CREATION IN THE ACADEMIC ENVIRONMENT

University entrepreneurship is a phenomenon that has gained relevance in recent years due to its potential to promote innovation and business creation from university campuses. In this context, educational institutions play a crucial role by providing the right environment and the necessary resources for students and academics to transform their ideas into successful business ventures. In this article, we explore the distinctive features of university entrepreneurship, its benefits and challenges, as well as effective strategies for its promotion.

2.13 CHARACTERISTICS OF UNIVERSITY ENTREPRENEURSHIP

University entrepreneurship is characterized by the intersection between the academic and business worlds, where members of the university community participate in the creation and development of new companies based on research and innovation. According to Clark (2019), this phenomenon implies "the transformation of knowledge into economic value through the creation of new companies or the expansion of existing ones" (p. 25).

2.14 BENEFITS OF UNIVERSITY ENTREPRENEURSHIP

The integration of entrepreneurship in the university environment offers a series of benefits both for individuals and for society in general. In the words of Gibb (2020), "entrepreneurship in higher education not only creates opportunities for the development of business skills, but also strengthens the
connection between academia and industry, driving innovation and economic growth” (p. 72). In addition, the creation of startups from academic research can accelerate the transfer of technology and knowledge to the market (Smith et al., 2018).

2.15 CHALLENGES AND STRATEGIES
Despite the obvious benefits, university entrepreneurship faces unique challenges. The reconciliation between academic and business objectives, as well as the management of intellectual property, are crucial issues (Hockerts, 2017). To overcome these challenges, institutions can establish clear intellectual property policies and foster a culture of multidisciplinary collaboration (Lackéus, 2019).

2.16 IMPLICATIONS FOR HIGHER EDUCATION
University entrepreneurship has significant implications for higher education. Universities must adapt their curricula to include training in entrepreneurship and business skills (Fayolle et al., 2019). Likewise, incubation and acceleration programs within universities can provide the necessary support to transform ideas into viable companies (Guerrero & Urbano, 2021).

3 METHODOLOGY
The descriptive quantitative methodology with surveys is a rigorous and structured approach to analyze the phenomenon of university entrepreneurship. This approach makes it possible to collect objective and measurable data that provides a detailed understanding of the attitudes, perceptions, and behaviors of individuals involved in entrepreneurship in academic settings.

Research Design: Sample Selection: A representative sample of students, professors and other members of the university community who are directly or indirectly related to entrepreneurship is chosen. Selection may be based on criteria such as faculty, level of study, and area of specialization.

Questionnaire Design: A structured questionnaire consisting of closed questions and measurement scales is developed. The questions can address topics such as the perception of the entrepreneurial culture in the university, access to resources, motivations to undertake and perceived challenges.

Questionnaire Validation: The questionnaire is subjected to validity and reliability tests to ensure that it accurately and consistently measures the variables of interest. This may include pilot testing and internal consistency analysis.

Data Collection: The questionnaires are distributed among the participants identified in the sample. This can be done in printed format or through online platforms, ensuring the confidentiality and anonymity of the participants.
Data Analysis: Once the responses are collected, the data analysis proceeds. Descriptive statistical techniques, such as frequencies, percentages, and measures of central tendency, are used to summarize and present the results in a clear and concise manner.

Objectivity: The quantitative methodology is based on objective and measurable data, which reduces bias and subjective interpretation.

Generalization: Results can be generalized to a larger population if a representative sample is selected, and a robust design is followed.

Comparability: The data collected can be compared with similar research or future studies, contributing to the advancement of knowledge in the field.

Efficiency: Standardizing the questions and answers in the questionnaires allows for efficient and consistent data collection.

Ethical Considerations: It is crucial to guarantee the privacy and informed consent of the participants. Ethical guidelines must be followed and approval from a research ethics committee must be obtained, if necessary, especially when managing sensitive data.

4 CONCLUSION

In conclusion, the descriptive quantitative methodology with surveys emerges as a solid and valuable approach to investigate university entrepreneurship from various perspectives. Through a rigorous and structured design, this methodology provides a detailed understanding of the attitudes, perceptions and behaviors of the actors involved in entrepreneurship within the academic environment.

The careful selection of a representative sample is essential to ensure the validity and generalizability of the results. By encompassing students, professors and other members of the university community, a comprehensive vision of how entrepreneurship is lived and perceived within the institution is obtained. This makes it possible to identify patterns and trends, as well as differences in opinions between diverse groups.

The questionnaire design, with closed questions and measurement scales, offers a standardized approach that facilitates comparison of results with similar research and future studies. However, it is essential to assess the questionnaire for validity and reliability to ensure that the questions accurately measure the variables of interest.

Data collection, whether in print or online, must be done with the highest respect for the privacy and informed consent of the participants. Ethical considerations are essential, and any sensitive data must be managed with extreme caution and in compliance with relevant regulations and research ethics committees.
The data analysis, through descriptive statistical techniques, allows to summarize the results in a clear and objective way. Measures of central tendency, frequencies, and percentages provide a quantitative view of participant responses. These analyzes can provide valuable information about how individuals perceive the entrepreneurial culture at the university, the challenges they face, and the resources available to support their initiatives.

The descriptive quantitative methodology with surveys is a powerful vehicle to shed light on university entrepreneurship and its many facets. It provides a solid foundation for making informed decisions and designing strategies that foster the development of an entrepreneurial culture within academic institutions. By better understanding the perceptions and needs of the stakeholders involved, universities can contribute more effectively to economic growth and the advancement of innovation in society.

**RECOMMENDATIONS**

University entrepreneurship, which represents the convergence between the academic and business fields, has become a phenomenon of growing importance. Its ability to stimulate innovation and promote the creation of new companies from the research and knowledge generated in educational institutions makes it a key engine for economic development and technology transfer. In this context, recommendations are presented to promote and promote university entrepreneurship.

First, universities must establish a dedicated support infrastructure that ranges from entrepreneurship training programs to physical incubation and acceleration spaces. Furthermore, it is essential to encourage multidisciplinary collaboration, creating bridges between different faculties and departments to promote interaction between students and academics with diverse perspectives.

Second, intellectual property policies must be clear and equitable, ensuring that both researchers and the institution benefit fairly from the business results derived from university research. This implies the development of transparent agreements and effective management of technology transfer.

Third, entrepreneurship education must be incorporated into university curricula. Giving students the opportunity to acquire entrepreneurial skills and understand key entrepreneurship concepts strengthens their ability to transform ideas into viable businesses.

In addition, universities can establish strategic alliances with industry and the business sector, which facilitates access to resources, mentors, and financing opportunities. This also contributes to a greater orientation towards market needs and the generation of innovative solutions.

In summary, university entrepreneurship offers a valuable path for promoting innovation and economic growth. To maximize their potential, educational institutions must implement strategies that encompass
training, collaboration, intellectual property policies, and industry engagement. These recommendations will help create a favorable environment where ideas can be transformed into successful companies, benefiting both the university community and society in general.
REFERENCES


