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Transformación y Desafíos de la Internacionalización en las Universidades Privadas Mexicanas: hacia un Modelo de Cuarta Generación

Challenges of Internationalization in Mexican Private Universities: Towards a transformation to a Fourth Generation Model

Transformação e desafios da internacionalização nas universidades privadas mexicanas: rumo a um modelo de quarta geração

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Resumen

La presente investigación tiene como propósito identificar la perspectiva, los métodos y las acciones que han emprendido las Instituciones Privadas de Educación Superior en México para valorar el impacto de su internacionalización en la formación de sus estudiantes, considerando la oferta académica de dichas instituciones para compararla con los programas más exitosos a nivel internacional y determinar su avance hacia el concepto de universidades de cuarta generación cuyo modelo dinámico e innovador que integra nuevas tecnologías, interdisciplinariedad y conexión con el mundo real. Se respaldó la investigación en un método mixto que combinó información cualitativa y cuantitativa obtenida de las clasificaciones más reconocidas tanto en el ámbito nacional; *Mextudia* y *El Universal*, como en el internacional; *Forbes* y *QS*, pues ambas consideran la experiencia académica de los estudiantes, el éxito obtenido en cuanto a su ocupación, el tiempo y el endeudamiento que

les tomó graduarse y si ello les produjo alguna distinción posterior. Asimismo, este trabajo visualiza la internacionalización no solamente como un aspecto de movilidad académica para estudiantes y docentes, sino también, en cuanto al impacto que ésta tiene para la integración del conocimiento científico teórico-práctico, la adopción de estrategias para contribuir en los espacios que la educación superior pública no alcanza a cubrir y finalmente, para encontrar la mejor manera en la que ésta puede contribuir al desarrollo de una comunidad social y económicamente sostenible.

Palabras Clave: Internacionalización, ranking, calidad educativa, educación superior decuarta generación.

Abstract

The purpose of this research is to identify the perspective, methods, and actions that Private Institutions of Higher Education in Mexico have undertaken to assess the impact of their internationalization on the training of their students, considering the academic offer of these institutions to compare it with the most successful programs at the international level and determine their progress towards the concept of fourth generation universities whose dynamic and innovative model integrates new technologies, interdisciplinarity and connection with the real world. The research was supported in a mixed method that combined qualitative and quantitative information obtained from the most recognized classifications both at the national level; *Mextudia* and *El Universal*, as well as in the international market; *Forbes* and *QS*, as they both consider the academic experience of the students, the success obtained in terms of their occupation, the time and debt it took them to graduate and whether this produced any subsequent distinction. Likewise, this work visualizes internationalization not only as an aspect of academic mobility for students and teachers, but also, in terms of the impact it has on the integration of theoretical-practical scientific knowledge, the adoption of strategies to contribute in the spaces that public higher education does not cover and, finally, to find the best way in which it can contribute to the development of a community socially and economically sustainable.

Keywords: Internationalization, ranking, quality of education, fourth generation University.

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Resumo

O objetivo desta pesquisa é identificar a perspectiva, os métodos e as ações que as Instituições de Ensino Superior Privadas do México têm empreendido para avaliar o impacto de sua internacionalização na formação de seus alunos, considerando a oferta acadêmica dessas instituições para compará-la com os programas de maior sucesso internacional e determinar seu progresso em direção ao conceito de universidades de quarta geração, cujo modelo dinâmico e inovador integra novas tecnologias, interdisciplinaridade e conexão com o mundo real. A pesquisa foi apoiada por um método misto que combinou informações qualitativas e quantitativas obtidas das classificações mais reconhecidas tanto em nível nacional; Mextudia e El Universal, como no internacional; A Forbes e a QS consideram a experiência acadêmica dos alunos, seu sucesso no emprego, o tempo e a dívida que levaram para se formar e se isso levou a alguma distinção subsequente. Da mesma forma, este trabalho visualiza a internacionalização não apenas como um aspecto da mobilidade acadêmica de alunos e professores, mas também em termos do impacto que ela tem na integração do conhecimento científico teórico-prático, na adoção de estratégias para contribuir com os espaços que o ensino superior público não consegue cobrir e, finalmente, para encontrar a melhor forma de contribuir para o desenvolvimento de uma comunidade social e economicamente sustentável.

Palavras-chave: Internacionalização, classificação, qualidade educacional, ensino superior de quarta geração.

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Introduction

The internationalization of higher education institutions faces multiple difficulties, including the increasing cost of implementation. In Latin America, where 55% of higher education is taught in private universities, it is essential to evaluate the effectiveness of the investment to justify more specific and strategic support (Quinteiro, 2020). *Likewise, according to Porter's (2001) model, internationalization is a key factor in the competitiveness of universities in their transition to third or fourth generation institutions* , which is the university of the future: more flexible, connected and focused on technology, where you not only study, but also learn to solve real problems with innovation, artificial intelligence and teamwork. For Gacél-Ávila and Rodríguez-Rodríguez (2018, p. 15) , "it is one of the main trends in tertiary education in the world, as it transforms it to respond to the demands of a global, multicultural and highly competitive society"; The authors add that in Latin America

and the Caribbean, the global implementation process has lacked systematic information. This trend was endorsed by UNESCO and IESLAC at the Third Regional Conference on Higher Education for Latin America and the Caribbean (CRES 2018), which focused on the topic of Higher Education, internationalization, and regional integration in Latin America and the Caribbean. This was considered a key factor in transforming the training of professionals and citizens who work with a shared, global vision in favor of regional development through more sustainable practices. Various issues faced in Latin America were thus raised, including the need to consolidate regional cooperation through the recognition of degrees, diplomas, and competencies and the strengthening of regional academic integration, especially through collaborative networks. With this objective, the recommendation to include the global integration of teacher training processes in research, teaching-learning, and the curriculum emerged (UNESCO, 2021). In this context, a key aspect is compliance with higher education quality indicators, which are divided into two aspects: the quality criteria measured by accrediting bodies and the application of international university classifications (international university rankings). In Mexico, accrediting bodies are concentrated in three major organizations that evaluate the quality of higher education institutions (HEIs) in terms of internationalization: the Council for Higher Education Accreditation (COPAES); the Interinstitutional Committees for the Evaluation of Higher Education (CIEES); and the Federation of Private Mexican Higher Education Institutions (FIMPES). Each of these organizations measures different elements and levels of internationalization in higher education institutions (HEIs), which coincide in several aspects, as shown below:

Table 1. Main indicators requested by accreditation bodies in matters of internationalization

Indicators that measure:	COPAES	CIEES	FIMPES
Internationalization of academic programs	X	X	X
Student and academic mobility	X	X	X
International Collaboration and Research	X	X	X
Foreign Language Offer	X	X	NA
Diversity and international perspective	X	X	X
International cooperation agreements	X	X	X

Source: Prepared by the authors based on information from 2024 published on the websites of the accrediting bodies: COPAES, CIEES, FIMPES.

Although the indicators vary in their names, they ultimately overlap in the categories described above. Both COPAES and CIEES have a section titled "Internationalization" within the guide, while FIMPES's internationalization indicators are found in several of its sections. As can be seen in Table 1, the three quality accreditation bodies agree on five of the concepts they measure, with the only difference being the availability of double-degree programs and international competency certifications.

Based on the above, the aforementioned indicators are defined, as well as the actions that a HEI can consider to integrate internationalization actions into its programs.

The internationalization of both the curriculum (CIEES), academic programs (COPAES) or the educational offer (FIMPES), according to the definition made by the Organization for Economic Cooperation and Development (OECD), is understood as "a curriculum ... whose content and form seeks to prepare students to achieve professional and social success in an international and multicultural context, designed for both national and foreign students" (Henao and Samoilovich , 2010, p. 1), in addition to being the main vehicle for the transfer of *knowledge, attitudes and skills.* Talking about internationalization of the curriculum implies an incorporation of topics of global importance; a treatment of multiculturalism within its study plans, as well as concrete strategies to transform the curricular contents, conclude Henao and Samoilovich (2010), which improves the understanding that students have of their profession, their communication and collaboration in different contexts.

Student and academic mobility (COPAES, CIEES, and FIMPES) is a set of initiatives that seek to allow students and faculty to temporarily relocate to other universities. It is known as academic exchanges, whether for students or faculty, with the goal of developing skills for international, intercultural, and global learning.

The indicator for international collaboration and research (COPAES, CIEES, FIMPES) consists of the signing of agreements, participation in research networks, and academic production in conjunction with other foreign HEIs. In this regard, accrediting bodies also include the indicator for foreign languages (COPAES, CIEES) offered by the educational program or university, as the case may be, but only in quantitative terms, as well as the number of students participating in it. These indicators generally focus on teaching English , as it is the most important language in the world.

Another recognized indicator is attention to diversity and the international perspective (COPAES, CIEES, FIMPES), which considers the proportion of international students,

international faculty, and actions to promote and disseminate multicultural spaces. It is also worth noting the international cooperation agreements (COPAES, CIEES, and FIMPES), which are more of a quantitative indicator and measure the impact they have or have had on student development to validate the graduate profile.

International university rankings

Jiao University Tong of Shanghai published the first international university ranking, called the Academic Ranking of World Universities (ARWU). Its purpose was to encourage Chinese universities to offer high-quality education, based on six indicators: the number of alumni and staff members with Nobel Prizes or *Fields Medals* ; the number of frequently cited researchers according to *Clarivate* ; the number of articles published in science and nature journals; and the number of articles indexed in *Science. Citation Index* or *Expanded* and *Social Sciences Citation Index* ; and finally the per capita performance of a university (Shanghai Ranking, 2024).

These ranking systems based on specific indicators have gained significant importance in terms of social perceptions of university quality. In this sense, the rankings do not necessarily reflect the quality offered by the educational institution, but they do influence a new student's choice of university.

The indicators considered in each ranking seek similar dimensions to those required by accreditation bodies; however, they break down educational quality in greater detail based on international programs, faculty quality, research output, student mobility, as well as student-faculty ratios, citations per article, budget allocated per professor, and doctorates awarded relative to the number of academics.

For their part, Gacel-Ávila and Rodríguez-Rodríguez describe the Regional Observatory on Internationalization and Networks in Tertiary Education (OBIRET) system as " *a virtual information system and a space for reflection, study, debate and training that operates under the coordination of the International Institute for Higher Education in Latin America and the Caribbean of the United Nations Educational, Scientific and Cultural Organization (UNESTO-IESALC)* " (2018, p.13), which highlights the following concepts:

Internationalization of professional experience: This section considers international mobility. According to Gacel-Ávila and Rodríguez-Rodríguez, it is essential to prepare students by taking into account the differences they will encounter in the destination country, in terms of education, social, cultural, and coexistence, so that the transition is easier and the

experience more meaningful. In Latin America and the Caribbean, more than 80% of institutions prepare their students with an international academic experience.

International enrollment: This refers to the placement of students from the undergraduate level to the advanced technical level. According to Gacél-Ávila and Rodríguez-Rodríguez (2018), only 0.3% of students participating in academic exchange programs within the HEIs interviewed completed an academic exchange or research stay. This category also includes hosting students from other countries.

Strategic alliance and international cooperation: among the concepts analyzed by OBIRET, interregional programs that promote interregional collaboration stand out (Gacél-Ávila and Rodríguez-Rodríguez, 2018).

Internationalization of Research: This is a knowledge dissemination strategy reflected in the publication of scientific articles in indexed journals, used by some institutions, as well as the use of some rankings as an index to measure academic quality. According to Gacél-Ávila and Rodríguez-Rodríguez (2018), there is little information regarding this area, although some higher education institution classifiers consider it a reference concept.

Third and Fourth Generation Universities

For his part, Wissema (2009), in his work “Towards Third Generation Universities,” argues that these institutions are facing strong changes; that is, they are transforming from being “science-based and government-funded institutions to being 'international knowledge centers', called Third Generation Universities or 3GUs” (p. 1). Wissema analyzes various aspects : the historical development of universities, technology-based companies, *technostarters* , and the funders of new companies and young businesses; that is, the main partners of 3GUs (Wissema , 2010a). Furthermore, among the challenges of Third Generation Universities is the change in organizational structure, from vertical to matrix, given the interdisciplinary approach that higher education requires today; that is, the functional organization of companies, with cross-functional teams and their potential coordination for planning and decision-making.

This is achieved through radical changes in management, making business units responsible for their users and shifting them toward a user-oriented culture. Marketing these business units could generate synergies of great interest to the economic sectors in which they operate. Finally, human resources management in HEIs faces significant challenges, such as overcoming the practice of appointing university directors based on their degrees and academic achievements, underestimating their administrative capabilities. Wissema (2010b)

focuses on the case of Humboldt University in the Netherlands, which is considered a second-generation university, and how it has begun its conversion process, following the example of Cambridge University in England.

The exact characteristics of fourth-generation universities are still being defined, although they fit into the progress of university development: " *the most significant difference is that these universities have a much more marked strategic focus and are able to proactively shape their environment* " (Pawlowski , 2009; cited by Lukovics and Zuti , 2013, p.11).

According to Tito Crissen (2024) " *A third generation university focuses on innovation, close collaboration with industry and active commitment to regional and global problems, generating a significant impact on its environment* ", in this way " *the transfer of technology, knowledge and active collaboration with external actors to promote economic development* " is achieved (Crissen , 2024). These are therefore universities with an entrepreneurial vision thanks to the transformation of their academic culture and organizational structure (Clark, 1998; cited by Crissen , 2024). Crissen also points out that there are four fundamental axes that are developed in a third generation university: third generation universities not only teach and generate knowledge, but also apply it in society through innovation and technology transfer.

A third-generation university has three cross-cutting axes that reinforce its mission and vision, adapting to the new demands of the global and technological context: Flexibility in the administration and academic structure of the university, to adapt its programs to the requirements of its environment, the market and the participants, for example, through the use of face-to-face and online instruction, both simultaneous and in consultation; Life Project, that is, that participants consider their professional training as part of an approach with beneficial citizenship from the moment they join the university that allows for "socio-emotional" development as part of the curriculum so that their professional goal is to consider what they know how to do with what they are passionate about, developing both technical skills and personal performance in their academic training; finally, the institution's income that is the result of its participation in co-financing projects that allow "innovation with business acceleration, patent licensing, collaborations with industry, and the creation of *start -ups* and *spin- offs* " (Crissen , 2024).

According to Uribe and Treviño (2023), fourth-generation universities constitute a promising response to the need for transformation, since they present several fundamental characteristics. Fourth-generation universities have: innovative methodologies that promote

practical empirical learning; programs with which the participant can define their training path; digital platforms and other technologies that favor pedagogy; multidisciplinary knowledge and collaborative networking that promote research; internships and projects in conjunction with companies and organizations; exchanges and globalization of studies, a result of the internationalization of the educational experience; flexible structures and agile management that facilitates adaptation to the needs of the continuously changing environment; a commitment to sustainable development, ethics and social responsibility; and finally, "networks and knowledge ecosystems between universities, companies, government and communities" (Uribe and Treviño, 2023).

Table 2, published in July 2021 by *Steinbuch et al* . (p. 252), shows a comparison of the characteristics of third- and fourth-generation universities:

Table 2. Main differences between Third and Fourth Generation Universities

University of	3rd Generation	4th Generation
Aim	Education, research and use of know-how	Education, open to innovation (research)
Paper	Value creation	Facilitate the generation of value in the academic and productive environment
Method	Interdisciplinary sciences	Innovation with several actors
Human capital	Professionals	Professional scientists
Orientation	Global	Ecosystem
Language	English	English
Organization	Institutes and centers	Innovation spaces
Administration	Professional	Disruptors

Source: Steinbuch, 2021

Examples of third-generation universities include the Massachusetts Institute of Technology (MIT), Stanford University, the University of Berkeley, the École Polytechnic Federale de Lausanne , the Korean Institute of Science and Technology , the University of

Twente , in the case of Mexico and Latin America, examples of third generation universities would be the National Autonomous University of Mexico, the National Autonomous University of Nuevo Leon, the University of Sao Paulo, the University of Chile and the Pontifical Catholic University of Chile, the perspective they handle on the issue of internationalization is reflected in exchange programs, joint research with foreign institutions, attracting international students, and offering programs taught in English.

Regarding the methods and actions developed at these universities in the area of global integration, the most notable are student exchange programs, research collaborations, the promotion of international conferences and seminars for their students, the dual degree programs they offer, as well as the attraction and mobilization of international students.

As for fourth generation universities, examples would be Georgia Tech , Arizona State University, the University of Southern California, the University of Auckland, Singapore Technological University and Nanyang Technological University , in the case of Mexico and Latin America, the Monterrey Institute of Technology, the Ibero-American University, the University of the Andes, the University of Costa Rica and the San Andrés University of Argentina, the perspective they handle regarding internationalization is more focused on large-scale online learning, collaboration in international networks of universities, the use of micro credentials and transnational continuing education programs, as well as the personalized and flexible learning they offer, the level of use of ICT for teaching and learning (which is higher than normal), the development of 21st century skills creativity, critical thinking, collaboration, among others), and the promotion of entrepreneurship, innovation and research. The methods and actions proposed by fourth-generation universities, in addition to those proposed by third-generation universities, include offering MOOC courses to students around the world, using virtual platforms to improve interaction between students and teachers worldwide, promoting micro-credentials to accredit specific competencies, allowing for flexible and personalized paths, using virtual and augmented reality within their classes, and managing academic social media platforms to promote better communication between students and teachers, such as *LinkedIn* or *ResearchGate* .

Materials and methods

This research was conducted through a systematic literature review, based on the analysis of primary and secondary sources. Searches were conducted in specialized databases such as *Scopus* , *Science Direct* (Elsevier), *World Wide Science* , using terms related to internationalization, third and fourth generation universities, as well as university rankings published between 2021 and 2024, in academic publications and international standards. Institutional websites of the aforementioned universities were also consulted to identify policies, programs, methods, and actions previously related to internationalization. The data obtained were organized and analyzed using thematic categorization techniques. No interviews, questionnaires, or other data collection tools were used, since the information used comes from published sources.

To carry out the analysis of the degree of internationalization of Private HEIs (IESP), the most important national and international rankings were examined, condensing the information obtained in tables 1, 2 and 3. The work consisted of studying the variables, organizing the data and identifying patterns and trends.

Forbes produces two rankings: one based on data from QS (Ungureanu , 2019) and Scopus (Ungureanu , 2021) to evaluate universities, and another that measures the impact of these on their students based on various databases.

The Forbes ranking of universities comes from the Center for College Accessibility and Productivity (CCAP), which uses ten factors adjusted to five categories, with pre-established weights, none exceeding 20%, which are mentioned below (Forbes, 2013):

Student satisfaction (10%)

Student retention rates from first to second year (10%)

Postgraduate Success (5%)

Student Salaries according to Payscale.com (20%)

Alumni listings in Who's Who in America (15%)

Student Debt (15%)

Four-year debt burden for a typical student borrower (15%)

Four-year graduation rate (5%)

Competitiveness awards (5%)

The CAAP determines which factors are included and the weights assigned to evaluate each of those factors; ratings are objective and impartial from then on.

The quality of higher education institutions, as measured by rankings like these, isn't the only criterion students consider when choosing a university. Students vary in taste, preferences, academic abilities, and financial circumstances. Therefore, the best school for each student also depends on other specific considerations regarding their professional development. A best-value ranking relates institutional quality to costs measured by tuition and fees.

For its part, Forbes seeks another ranking, the QS. This regional ranking considers five basic criteria:

- Impact and productivity of research.
- Teaching commitment.
- Employability.
- Online impact,
- Internationalization (since its 2016/17 edition).

The proposed methodology includes performance indicators contextualized to the region and the impact that internationalization has had on the HEI. It also includes key indicators from other rankings, such as employer opinion, the HEI's reputation, and the number of students served by each faculty member. Table 3 shows the different international rankings of private higher education institutions.

Universities are thus evaluated according to the following factors and weights of the global ranking:

Academic Reputation (30%): *QS* conducts an annual survey to assess the perceptions of academics around the world regarding the quality of teaching and research at top universities. This survey has become the largest of its kind in the world, providing an unprecedented measure of sentiment within the academic community. This year, the survey garnered more than 80,000 responses globally. To measure this factor, the quality of teaching, the level of graduate employability, the research conducted within the university, and the social perception of the institution were considered.

Table 3. International rankings of private higher education institutions

Higher Education Institution in Mexico	QS World University Rankings	2024	2023	Overall Score QS World	QS Latin American University Rankings	Overall Score QS Latin America	ARWU Academic Ranking of World Universities	THE Times Higher Education
Monterrey Institute of Technology	184	184	170	47.6	4	95.4	801-900	601-800
Ibero-American University (IBERO)	691-700	696	726	n/a	42	56.9		
Autonomous Technological Institute of Mexico (ITAM)	651-660	656	776	n/a	44	56.7	401-500*	
University of the Americas Puebla (UDLAP)	951-1000	976	901	n/a	55	51		
Anahuac University Mexico	566-776	776	626	n/a	74	47		1501+
Pan American University (UP)	661-670	666	546	n/a	68	47.8		1501+
Anahuac University	771-780			n/a				1501+
Autonomous University of Guadalajara	1001-1200	876	901	n/a	41	57.9		601-800
* Score Relative to Academic								

Subjects, Economics								

Source: Prepared by the authors based on information published in 2024 on the websites of the accrediting bodies

The rankings mentioned use a combination of perception surveys, institutional data and bibliometric metrics **,** depending on each approach. *QS* and *THE* They integrate academic reputation surveys, employability indicators and university data, while *ARWU* It is based primarily on bibliometric metrics and academic achievements.

Employer Reputation (20%): Based on the QS Employer Survey and administered to over 40,000 respondents, this metric asks employers to identify the institutions whose graduates are the most competent, innovative, and effective. This survey is the largest of its kind in the world and measures the actual performance of graduates. The assessment is based on the performance, attitudes, knowledge, and problem-solving skills of incoming professionals, which contribute to the prestige of employers.

The teacher-student ratio (10%) evaluates the number of teachers in proportion to the number of students. A smaller group size per teacher often results in more personalized instruction, improving educational quality and student satisfaction by fostering greater interaction and individualized attention.

Staff (10%): This section measures the proportion of faculty members who have earned a doctorate. This is considered to be the highest level of specialization in their field, which provides students under their care with the opportunity to learn in diverse contexts. It also provides opportunities to participate in research projects and connect with the productive sector. These activities are not exclusive to the degree but are more common among faculty members with a doctorate. It is worth mentioning that the two previous indicators, the faculty-student ratio and the number of staff members with a doctorate, are frequently linked to the quality of higher education institutions.

Web Impact (5%): This indicator focuses on institutional effectiveness and the HEI's use of new technologies. It uses data from the Web Ranking of Universities (www.webometrics.info). It is important to mention that this section does not measure the excellence indicator, which is already included in the research metrics.

In this sense, understanding how *Scopus operates* in its rankings is very important, ensuring that those who consult it have accurate and reliable information about their institution. *Scopus* is a citation and abstract database independent of those that generate the

evaluations. For Forbes rankings, *Scopus* provides information on the following three indicators:

International Research Network (10%): This indicator assesses the degree of international openness in terms of research collaboration for each institution assessed and is calculated using the *Margalef Index,* frequently used in environmental sciences to produce a score measuring the diversity of an institution's research collaborations with other institutions in different parts of the world.

Citations per Article (10%): This indicator evaluates the impact of each institution's research in the authors' area of knowledge.

Faculty Published Works (5%): This measure refers to the number of articles published by each faculty member; it is measured through research productivity rates.

In a second phase of this research, a documentary review of reports, academic journal articles, and university websites was conducted. A review was undertaken of variables such as teaching quality, research, employability, the ethnic and cultural diversity of students and faculty, and the internationalization of the curriculum.

Results

The Regional Observatory on Internationalization and Networks in Tertiary Education (OBIRET) aims to analyze and disseminate trends and characteristics of higher education internationalization in Latin America and the Caribbean. Its purpose is to serve as a tool for universities to design, implement, and evaluate internationalization policies and programs in the region. Specifically, OBIRET developed the Regional Network for the Promotion of the Internationalization of Higher Education in Latin America (RIESAL) with funding from the European Commission's Erasmus/Capacity Building in Higher Education (CBHE) program.

The concepts evaluated by *QS* are:

- Relationship between students and teachers
- Proportion of international students
- Academic reputation and ranking position
- Perception among employers
- Presence of international students in the rankings
- Research production related to ranking position

Mextudia ranking is the result of combining the positions of various publications in recognized rankings, such as El Universal, El Economista, Reforma , *4icu and Reader's Digest* , which considers multiple factors in its analysis .

El Universal's ranking is compiled with the advice of prestigious institutions, such as UNAM and Colegio de México, among others. It considers various factors, such as surveys of professors at the institutions evaluated, surveys of employers regarding the academic background of their employees, and official data from the Ministry of Public Education (SEP) and the National Association of Universities and Higher Education Institutions (ANUIES) .

The newspaper El Economista offers a more robust ranking for Mexico. It publishes the results of the main public and private universities annually. Thirty percent of the ranking is based on faculty evaluations, 20% on research output, 15% on reputation among employers, 10% on international prestige, and 5% on the number of accredited programs . In addition, all universities are considered.

Four International Colleges & Universities (*4icu.org*) evaluates the online visibility of universities with web traffic metrics, using tools such as *Alexa, SimilarWeb , and Moz* . Similarly, the *Reader's College Guide Digest* bases its ranking on an IPSOS survey that measures the perception of universities among students, alumni, faculty, and employers. However, this ranking favors private universities over public ones, as it is based on perceptions of quality, popularity, and marketing, making it more subjective .

Mextudia , in turn, offers informative profiles of the main Mexican universities. Each year, it receives more than 20,000 inquiries from students and academics interested in its educational offerings. It also uses various metrics to measure the popularity of these institutions and create a recognition index for each university (Mextudia , 2024).

Discussion

From the analysis of Mexican universities in international rankings, it is evident that these do not always reflect the strengths and characteristics of the institutions evaluated . As noted, universities such as the Monterrey Institute of Technology, the Ibero-American University, the Autonomous Technological Institute of Mexico, the University of the Americas Puebla, the Anáhuac University and the Pan-American University show differentiated profiles in terms of their areas of specialization and their pedagogical orientations. On the other hand, Ordorika and Rodríguez-Gómez (2011) examine the impact of rankings on Latin American universities and agree that international indicators do not

always reflect the strengths of private universities. These differences question the validity of the exclusive use of global rankings to evaluate the academic performance and contribution of these institutions to society .

As Gerard (2021) suggests, the expansion of private institutions has promoted three dynamics: strong enrollment growth, the stratification of private higher education, and a reinforced social hierarchy aimed at improving graduates' quality of life. In this sense, internationalization has been another element in the stratification of higher education institutions and in the perception of their social value in the labor market; however, it does not uniformly reflect the quality of the academic programs they offer . Additionally, the analysis reveals a plurality of approaches within the Mexican private higher education system, where some universities stand out for their orientation toward innovation and entrepreneurship (e.g., Tecnológico de Monterrey), while others prioritize social research or social sciences and economics programs (e.g., Universidad Iberoamericana and ITAM, respectively). This aspect questions the homogeneity with which the results of international rankings are treated and their universal applicability, since the parameters evaluated do not necessarily reflect the diversity of institutional missions.

Another relevant aspect is the relationship between internationalization and the institutional maturity of private higher education institutions (PHIs) in Mexico . Although these universities can be classified into different generations (first, second, third, or fourth), it is not clear whether the indicators used in the rankings accurately reflect their level of institutional maturity. This suggests the need for a more in-depth analysis that includes the development of new metrics adapted to the Mexican context and that allow for a more precise assessment of the evolution and consolidation of these institutions within the global higher education system . However, it is also important to consider Altbach's (2013) reflection on the creation of alternative metrics that make it possible to visualize the actions undertaken by universities in a non-Anglo-Saxon context.

Similarly, the religious orientation of some of these institutions in Mexico, such as Anáhuac University and Pan-American University, highlights an aspect that is rarely considered in traditional rankings: the impact of philosophical values and principles on educational formation. This leads us to reflect on how institutional missions influence the construction of academic communities and the definition of graduate profiles, which can have direct implications for the perception of educational quality and the international profile of universities. In conclusion, current rankings omit key contextual factors for understanding

the specificities of the Mexican education system. This highlights the need to develop assessment tools more appropriate to the regional reality, which recognize the diversity of approaches and missions within the university system.

From the review of universities and international rankings, it is clear that what is measured in them does not necessarily reflect the strengths and intrinsic characteristics of the institutions.

Conclusions

While there are rankings that classify HEIs and assign them specific generations, there is still a need to ensure transparency and consistency in these evaluation systems. It is evident that in some cases there is a lack of clarity regarding the methodologies used to calculate the published scores. To make progress in this regard, it is crucial to establish a monitoring and evaluation system that standardizes the measurement of HEIs' progress in terms of their internationalization. This uniformity would allow Mexican institutions to compare themselves more effectively with their international peers, which have demonstrated how internationalization significantly contributes to the social and economic development of their communities. In this way, we could more accurately identify which institutions in Mexico are advancing in the rankings described and, therefore, are evolving at their corresponding generational level.

Although there are rankings that classify Higher Education Institutions (HEIs) and assign them specific generations, work is still needed to ensure consistency and transparency in these evaluation systems. It is evident that, in some cases, there is a lack of clarity in the methodologies used to calculate the published values. To make progress in this area, it is essential to establish a monitoring and evaluation system that standardizes the measurement of HEIs' progress in relation to their internationalization. Standardizing these criteria would allow Mexican institutions to more effectively compare themselves with international universities, whose internationalization strategies have demonstrated a significant impact on the social and economic development of their communities. This would make it possible to more accurately identify which institutions in Mexico are advancing in the rankings and, consequently, evolving within their corresponding generational level .

Future lines of research

There are several lines of research for the near future that stem from this study. One of them is the analysis of the impact of this international integration on the employability of graduates from Mexican universities, with the goal of evaluating how the strategies implemented by these institutions have influenced their graduates' professional development and whether they have contributed to their success in the workplace. It is possible to analyze each of the elements that make up internationalization and measure their impact individually, as well as their level of participation. This information could be triangulated with the graduates' professional performance to assess the cost-benefit of investing time in these activities, for both students and universities.

It is important to consider that this study can be conducted through a longitudinal analysis of graduates who have participated in mobility programs, microcredentials , or other initiatives, comparing these factors with their professional performance.

On the other hand, conducting a comparative study considering graduates from third- and fourth-generation universities and their performance as professionals or the perception of their professional performance by employers would provide new information on the effectiveness of these professions. This would help improve practices to integrate internationalization into the curriculum more effectively.

Another aspect to highlight is the need for studies that demonstrate, with objectivity and statistical rigor, the relationship between rankings and the level of generational maturity of HEIs . These studies should include an evaluation of the impact that HEIs have achieved in their local communities and in the regional development of the states where they are located. As Uribe and Treviño (2023) mention, it is essential to align university strategies with the UN Sustainable Development Goals (SDGs) to address challenges such as climate change, new professional careers and specializations generated in HEIs, including: renewable energy engineering, cybersecurity professionals, data science, as well as smart city design, environmental economics, among others. “The adoption of a model like the fourth generation will allow us to train the comprehensive talents that the region needs, democratize higher education, connect more strongly with SMEs and communities, and incubate innovative solutions that improve the quality of life of millions of people” conclude Uribe and Treviño (2023).

Another important point is to evaluate how fourth-generation universities generate knowledge through collaboration and guarantee equitable access for potential participants ,

as well as lead innovation projects resulting from intersectoral collaboration between universities, industries, civil society and government in the search for technological solutions that generate social impact (Uribe and Treviño, 2023). Thus, by sharing information, publications and educational resources, IESPs contribute to the democratization of knowledge, and innovation is enabled in which stakeholders collaborate inter-institutionally on technological development projects with social benefit and in particular for vulnerable communities, affirm Uribe and Treviño (2023).

It would be beneficial for both public and private organizations to conduct objective assessments of this impact to better understand how this progress can be monitored and leveraged in educational institutions. This information could be crucial for continuously improving the quality of educational services that private HEIs offer to Mexican society as a whole and, likewise, for determining whether private HEIs are less, more, or as internationalized as public HEIs around the world and in Mexico.

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