

## Evolution of Latin American Higher Education Institutions' Commitment to the 2030 Agenda

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### Abstract

This study examines the evolution of Latin American higher education institutions' (HEIs) commitment to the 2030 Agenda, using their participation in the Times Higher Education Impact Rankings (THE-IR) as a key measure. The analysis covers 2019 to 2024, assessing the growth in participating HEIs and their performance in various Sustainable Development Goals (SDGs). The primary goal is to identify trends in HEI participation in THE-IR and evaluate their adoption of SDGs. A quantitative approach, using descriptive statistics, was applied. Data were sourced from THE-IR's official database, covering six years. Trend analysis and visualizations were conducted using specialized statistical tools. The findings indicate a steady increase in HEI participation, with strong results in Brazil, Chile, Colombia, and Mexico. The most frequently adopted SDGs include Good Health and Well-being (SDG 3), Quality Education (SDG 4), and Affordable and Clean Energy (SDG 7). While the commitment of Latin American HEIs to the 2030 Agenda is growing, it remains in the early stages. There is a clear need for greater institutional support and government policies to advance sustainability in education.

*Keywords:* 2030 Agenda, commitment, higher education institutions, Latin America, THE Impact Rankings.

## Introduction

The 2030 Agenda, adopted by the United Nations General Assembly in 2015, is a global action plan aimed at eradicating poverty, protecting the planet, and ensuring prosperity for all through 17 Sustainable Development Goals (SDGs). These goals address a wide range of social, economic, and environmental challenges, requiring the collaboration of all sectors of society, including higher education institutions (HEIs) (Arias-Valle & Coria Augusto, 2024; Salite et al., 2024a).

HEIs play a crucial role in implementing SDGs through education, research, and institutional practices (Filho et al., 2024; Okeke et al., 2023). However, in Latin America, HEIs show varied success in adopting sustainability frameworks. The Times Higher Education Impact Rankings (THE-IR) evaluate HEIs' commitment to sustainability by assessing their activities related to SDGs (Calderon, 2023). Previous studies have used THE-IR to analyze the evolution and performance of HEIs in terms of sustainability (Arias-Valle et al., 2024).

In the current context, the adoption of sustainability by various HEIs has taken on different aspects. For instance, Filho et al. (2023) provide a detailed description of HEIs' commitment to implementing the SDGs at the global level. Žalėnienė and Pereira (2021) have contributed to the debate by demonstrating that the geography of SDG implementation is notably heterogeneous. Zouh (2024) examines UK HEIs, concluding that these institutions implement sustainability in areas such as learning, research, external collaboration, and curriculum integration. In the case of Spain, this has been studied by Arias-Valle et al. (2021a, 2021b), who have examined the heterogeneity of sustainability incorporation in HEIs.

Legislation supporting sustainability in HEIs varies across Latin America. Brazil was the first to regulate university social responsibility (USR) with the 2004 law establishing the National Higher Education Assessment System (SINAES). Peru, Colombia, and Ecuador have also enacted laws promoting sustainable development in higher education. Mexico, Chile, and Argentina, although lacking specific mandates, promote comprehensive education and environmental protection through other legal frameworks.

This study seeks to answer the following research question: How has the commitment of Latin American HEIs to the 2030 Agenda evolved, as measured by their participation in THE-IR between 2019 and 2024? By providing a comprehensive analysis of HEIs' sustainability commitment evolution, the study offers insights into participation trends, strengths, and areas for improvement in adopting the SDGs across the region. Furthermore, this study aims to inform decision-makers in HEIs and policymakers about best practices and challenges in promoting the SDGs within higher education, ultimately driving a greater positive impact on society.

Additionally, aligning with international organizations like United Nations

Educational, Scientific and Cultural Organization (UNESCO) and International Institute for Higher Education in Latin America and the Caribbean (IESALC), HEIs must integrate sustainable policies into their mission. These policies should encompass student training in sustainability, institutional management frameworks, and strategic partnerships with both public and private sectors to maximize community impact (IESALC & UNESCO, 2021). This integration is essential for HEIs to effectively contribute to both global and local sustainable development goals.

## **Methodology**

The selected methodology is quantitative and aims to determine the evolution and performance of Latin American HEIs participating in THE-IR. The research study was approved by the Ethical Research Committee of the Institute for Sustainable Development at the Catholic University of Cuyo.

The study employs a quantitative-descriptive design. This design is selected because its objective is to determine the evolution and performance of Latin American HEIs in their participation in THE-IR and their adoption of the SDGs. The methodology follows a non-experimental scheme, as variables are not manipulated; instead, existing data are described and analyzed to identify patterns and trends. This approach is suitable for analyzing the evolution of Latin American HEIs commitment to the 2030 Agenda, using their participation in the THE-IR between 2019 and 2024 as an indicator.

The methodology adopted in this study is of a quantitative-descriptive design, which fundamentally aligns with the primary objective of the research: to determine the evolution and performance of Latin American HEIs participating in THE-IR, as well as to identify patterns and trends in their commitment to the 2030 Agenda from 2019 to 2024. Given that the study is based on a non-experimental design where variables are not manipulated, but rather existing data are described and analyzed, descriptive statistics is established as the most direct, effective, and appropriate method to achieve these purposes. This approach enables precise tracking of the progression of HEI participation and their adherence to the SDGs over time, as well as the identification of specific trends at the regional and country levels, thereby providing a clear overview of the observed situation and dynamics.

## **Research Design and Population**

The research is structured as a descriptive and cross-sectional study, which implies its aim to explore the current state and the evolution of commitment to sustainability over a specific period. A quantitative approach is utilized because the analysis requires the collection and examination of numerical data concerning institutional characteristics related to sustainability.

The target population comprises all Latin American HEIs that have participated in THE-IR between 2019 and 2024. This population selection is crucial for the objective of analyzing the evolution and performance within a specific context, ensuring that the results obtained are representative for describing the commitment to the 2030 Agenda over time.

## Variable Selection, Definition, and Data Collection

To fulfill the objective of analyzing the evolution of commitment, the selection and definition of variables is fundamental. These variables are designed to capture the institutional commitment to the 2030 Agenda and its visibility through participation in THE-IR. The justification for these variables is based on theoretical and methodological precedents that allow for a comprehensive analysis of the state of sustainability in higher education. Data were collected directly from THE-IR's official database, covering the period from 2019 to 2024. Below is the Table 1, presenting the key variables of this study:

**Table 1**

*Study Variables: Method of Measurement, Type, and Justification*

Variable	Method of Measurement / Definition	Type of Variable	Justification for Selection
<b>HEIs participating in THE-IR</b>	Number of Latin American institutions that register and submit data to the Times Higher Education Impact Rankings annually. The study seeks to determine the evolution and performance of these HEIs in the ranking <sup>2</sup> .	Quantitative	This is the <b>key measure</b> of HEIs' commitment to the 2030 Agenda <sup>3</sup> . It allows for identifying trends in HEIs' participation in THE-IR and evaluating their adoption of the SDGs <sup>1</sup> . The research focused on regional and country trends <sup>4</sup> .
<b>Country of origin of the HEIs</b>	The country from which each participating HEI originates. The research focused on country-level trends, primarily Brazil, Argentina, Chile, and Mexico, to examine growth patterns and the influence of policies on participation <sup>4</sup> .	Categorical (Nominal)	This allows for <b>classifying institutions by country</b> to identify geographical trends in participation and commitment. It is relevant for examining growth patterns and the influence of policies on participation.

*See next page for continuation of table*

*Continuation of Table 1*

Variable	Method of Measurement / Definition	Type of Variable	Justification for Selection
<b>Years (2019 to 2024)</b>	The specific time horizon covered by the study's analysis. The data covered a six-year period <sup>3</sup> .	Temporal (Range)	This establishes the <b>study's time horizon</b> , which is crucial for analyzing the "evolution" of HEIs' commitment to the 2030 Agenda <sup>5</sup> .
<b>SDGs to which each Latin American HEI commits</b>	Which specific SDGs are adopted by HEIs, as reported in THE-IR <sup>3</sup> . The analysis provides a comprehensive overview of the level of SDG adoption <sup>6</sup> .	Categorical (Nominal, with potential for binary multiple-response treatment)	This measures which specific Sustainable Development Goals are adopted by HEIs, allowing for <b>identifying areas of strength and weakness</b> in the integration of the 2030 Agenda <sup>6</sup> . It helps determine the best and worst-performing SDGs <sup>7</sup> .

## Results

### Regional Level Analysis

The analysis shows a declining trend in the proportional participation of Latin American HEIs in THE-IR. HEI participation increased from 55 in 2019 to 168 in 2024, though proportional representation dropped from 12 % to 9 %. This suggests that while HEIs are entering the rankings, their proportion is decreasing.

The descriptive statistics for Latin American HEIs' participation in THE-IR show an average of 118.5 institutions, a median of 125.5, and a standard deviation of 414.4, reflecting significant variability in annual participation. The high average and considerable standard deviation suggest positive growth, but year-to-year fluctuations indicate that this growth is neither constant nor uniform. This highlights the challenge of maintaining stable and increasing representation in THE-IR over time.

Regarding annual increments, an average of 23.5 with a standard deviation of 7.51 was observed. This suggests that, although there is positive average growth in the participation of Latin American HEIs, the variability in annual increments is notable. Some years show much higher or lower increases than the average, reflecting the complexity of these institutions' participation in the ranking.

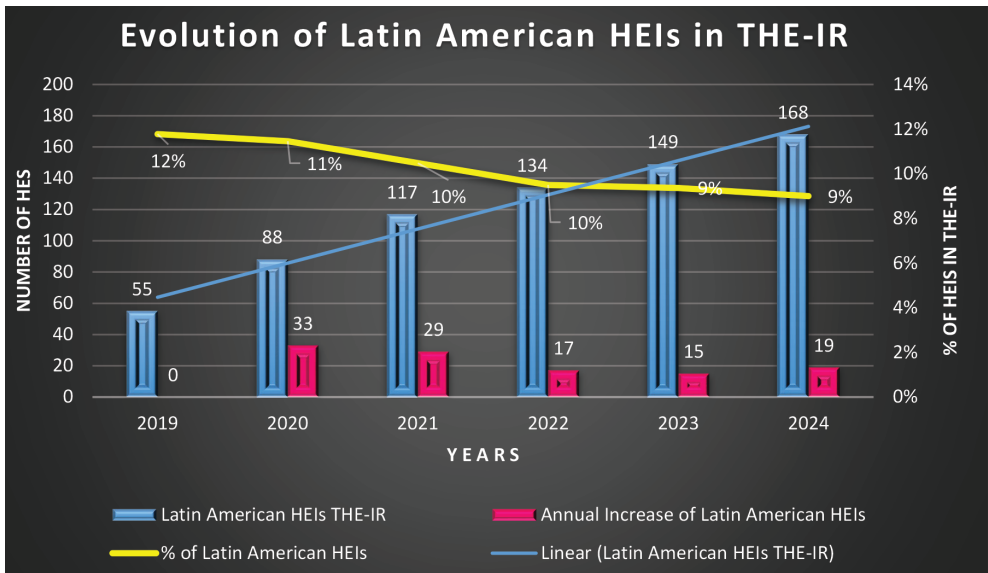
When observing the participation of HEIs in THE-IR at a regional level, significant differences emerge between Latin American countries. Brazil consistently leads with the highest number of institutions participating in the

ranking, reflecting a stronger commitment to the SDGs. Chile, Colombia, and Mexico also show steady growth in the number of participating HEIs, positioning themselves in the higher categories of SDG commitment. In contrast, countries like Paraguay, Haiti, and Venezuela have low or no participation, suggesting a lack of national policies or resources to support their HEIs in integrating the SDGs into their operations.

These disparities may be related to various factors, including the existence of specific public policies promoting sustainability in higher education, available funding for sustainability projects, and the level of priority that each country assigns to the 2030 Agenda. For instance, Brazil and Colombia have implemented national policies that incentivize universities to engage in sustainability initiatives, which translates into higher representation in THE-IR. Conversely, countries with fewer resources and governmental support face significant challenges in effectively integrating the SDGs into their university systems.

**Figure 1**

*Regional Analysis: Evolution of Latin American HEIs*



*Note: Developed by the authors*

### Country-Level Results

HEI participation increased annually, with steady growth from 2021 to 2024 (Figure 2). In terms of leadership, Brazil stands out by maintaining its position as the regional leader in the number of HEIs participating in THE-IR over several consecutive years. Chile, Colombia, Mexico, Ecuador, and Argentina all show

consistent increases in HEI participation, achieving strong positions by 2024.

When analyzing annual changes, some countries experienced notable variations in their performance. Argentina showed variable HEI participation across the years, with growth until 2024 and some declines in 2023. Panama, Cuba, and Jamaica participated with one HEI each in the last edition of THE-IR, showing positive performance in that specific year. Paraguay, Puerto Rico, the Dominican Republic, Uruguay, and Venezuela maintain low but consistent participation with positive performance. The remaining Latin American countries are classified as null, having no HEIs in THE-IR.

The general descriptive statistics for the participation of Latin American HEIs in THE-IR are as follows: general average: 6.97; general median: 2; general standard deviation: 2.64. These values reflect that, on average, each country has about 7 institutions in the ranking. However, most countries have significantly lower participation (median of 2), with some fluctuations in the number of institutions represented in THE-IR over the years. The range of participation in the ranking varies from one HEI, as in the cases of Haiti, Panama, and Jamaica, to 46 HEIs, as represented by Brazil, showing a wide variability in the total results during the analyzed period. In summary, these results highlight the diversity in country performance, with some standing out and others improving over the years.

**Figure 2**  
*Evolution of Latin American HEIs by Country*



*Note: Developed by the authors*

### **Evolution of Commitment to the 2030 Agenda**

In this stage, the integration of the 2030 Agenda in the region is analyzed. This analysis provides a comprehensive view of the level of SDG adoption by Latin American HEIs from 2019 to 2024 (Figure 3). Key highlights include:

- **SDG 3 (Good Health and Well-being):** There has been a continuous increase, rising from 37 HEIs in 2019 to 90 HEIs in 2024.

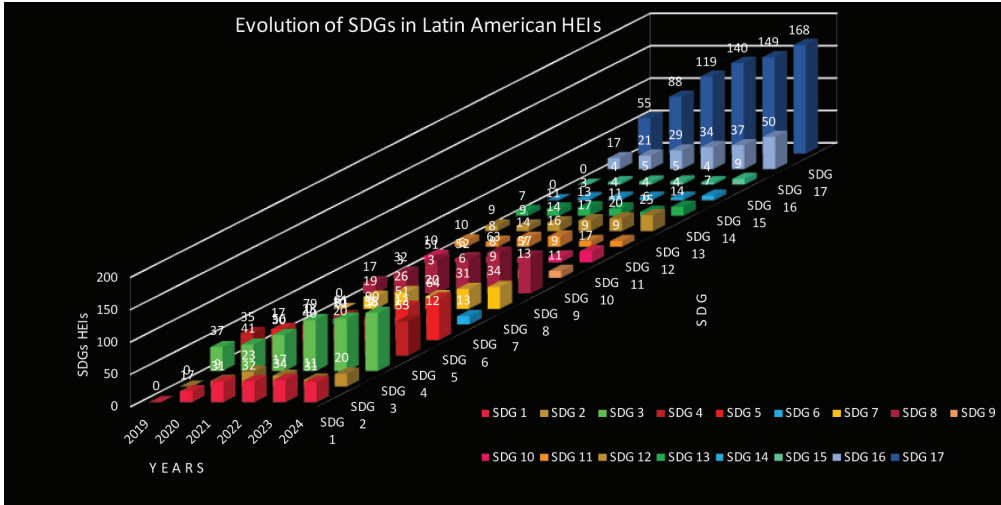
- SDG 4 (Quality Education): Also shows positive growth, reaching 61 HEIs in 2022.
- SDG 8 (Decent Work and Economic Growth): Exhibits progressive growth, reaching 63 HEIs in 2023.
- SDG 13 (Climate Action): Shows significant growth, reaching 14 HEIs in 2024.
- SDG 16 (Peace, Justice, and Strong Institutions): A continuous increase, reaching 50 HEIs in 2024.
- SDG 17 (Partnerships for the Goals): It has been steadily evolving, reaching 168 HEIs in 2024 (see Figure 3).

These results indicate a growing commitment by Latin American HEIs to adopt SDGs, reflecting a trend toward incorporating sustainable principles into their operations and activities. The detailed analysis of the evolution of each SDG provides a more comprehensive understanding of priority areas for sustainable development in the academic region. This allows for determining the best and worst-performing SDGs.

The descriptive statistics highlight SDG 17 with a maximum of 168 HEIs in 2024. Other high performers include SDG 3 with 90 HEIs in 2024, SDG 8 with 57 HEIs in 2024, and SDG 16 with 50 HEIs in 2023. On the other hand, the SDGs with the lowest performance include SDG 14 (Life Below Water) with a minimum of 7 HEIs in several years, where no HEIs applied for this SDG. Similarly, other SDGs with minimal values are SDG 1 (No Poverty) with 0 HEIs in 2019, SDG 6 (Clean Water and Sanitation) with 0 HEIs in several years, SDG 7 (Affordable and Clean Energy) with 0 HEIs in 2019, SDG 14 with 0 HEIs in several years, and SDG 15 (Life on Land) with 0 HEIs in several years.

Between 2019 and 2024, the average adoption of SDGs by Latin American HEIs was 17.3, with a standard deviation of 16.1. These statistical parameters provide central measures that offer a summarized view of the predominant trend in the region. The standard deviation, by indicating the magnitude of variation from the average, helps contextualize the breadth of diversity in adherence to the different SDGs over the years. This statistical analysis is crucial to understanding the consistency and variability in the incorporation of SDGs by Latin American HEIs during the mentioned periods.

**Figure 3**  
*Evolution of SDG Adoption by Latin American HEIs*



*Note: Developed by the authors*

## Discussion

The findings of this study reveal a persistent low proportional participation of Latin American HEIs in THE-IR, with an observed decrease from 12% to 9% between 2019 and 2024. This descriptive trend, which corroborates previous research on the limited inclusion of Latin American universities in international rankings (Bernasconi, 2015), does not manifest homogeneously across the region. Brazil’s consistent leadership in the number of participating HEIs, contrasted with minimal or no participation from countries like Paraguay, Haiti, and Venezuela, suggests a significant association between the presence of favorable governmental regulations for sustainability and HEIs’ performance in the ranking. This observed correlation validates the premise that the success of sustainability integration in HEIs largely depends on a supportive political and governmental environment (Žalėnienė & Pereira, 2021), necessitating the implementation of explicit policies and committed leadership at national and institutional levels (Lozano et al., 2013; Janssens, 2022). Additionally, the disparity in the adoption of individual SDGs, where high commitment is observed in areas such as Partnerships for the Goals (SDG 17) compared to lower performance in others (e.g., SDG 1, 6, 14, 15), evidences a fragmentation in the sustainability approach within Latin American HEIs (Teebken et al., 2022). This fragmentation underscores the challenge of achieving comprehensive and holistic integration of the 2030 Agenda without systemic support and robust national strategies.

This study presents the evolution of Latin American HEIs’ commitment to the 2030 Agenda as reflected in their participation in THE-IR. The findings observed

across various analyses indicate an incipient commitment of Latin American HEIs to adopting this agenda. This assertion is demonstrated by the 9 % representation of Latin American HEIs in the 2024 edition of THE-IR. The research is structured into three stages to analyze the evolution of commitment to the 2030 Agenda from different perspectives. The findings are presented alongside their implications.

The generalized trend of low participation in THE-IR by Latin American HEIs has already been analyzed by organizations such as the IESALC of UNESCO. IESALC has contributed with two important documents, one on guidelines for incorporating sustainability into Latin American HEIs and another providing a guide to integrating SDG 4 into HEIs. While these initiatives are valuable for Latin American HEIs, more effective actions are needed to ensure change in the region, as suggested by Vallaeys (2021).

Scavarda et al. (2023) emphasize the need to develop a specific conceptual framework for Latin American HEIs to embrace the concept of sustainability. In this sense, it is believed that this proposal may not be the most appropriate for the region due to the heterogeneity involved in adopting the 2030 Agenda for HEIs, as demonstrated by Teebken et al. (2022). Arias-Valle (2023) suggests that the most pertinent way to include sustainability in HEIs is to establish an action and support framework for implementing the 2030 Agenda through organizations such as the UN, UNESCO, and IESALC. This support process should involve the gradual integration of the 2030 Agenda using specific indicators.

The first implication is directed towards the leaders of international organizations that promote sustainability and education for sustainable development. It is suggested that they establish action plans to encourage the incorporation of the 2030 Agenda into Latin American HEIs. In this context, it is proposed to support the integration of the 2030 Agenda into countries and HEIs. This support involves activities such as workshops, training sessions, discussions, and critical analyses to foster reflection on the importance and benefits of aligning with the principles of the 2030 Agenda.

The findings at the country level do not significantly improve the general trend, with a few countries, such as Brazil, showing substantial numbers of HEIs participating in THE-IR (55 HEIs). However, the overall average participation is 9 HEIs per country. These results align with the research by Bernasconi (2015), who studied the behavior of Latin American HEIs regarding participation in international rankings. His conclusions show low participation rates of Latin American HEIs in these rankings.

Another study evaluating the performance of Latin American HEIs is by Bernasconi (2015), who concludes that specific rankings should be developed for this region. In this context, it is thought that this proposal may not be the most suitable for Latin American HEIs, especially because it is necessary to aspire to achieve comprehensive, holistic, and global approaches to the 2030 Agenda, as proposed by Holst (2023).

The specific case of incorporating the 2030 Agenda at the country level is an

interesting analysis conducted by Sach et al. (2019). They indicate that to achieve the SDGs and the Paris Agreement profound transformations are essential in all countries, requiring complementary actions from governments, HEIs, civil society, science, and businesses. In this context, to achieve a greater commitment from HEIs to sustainability, the country's commitment to the 2030 Agenda is crucial, as analyzed by Prego (2023). Therefore, it is important to have sustainable policies at the government level, as described in the literature review, which only a few Latin American countries possess.

Žalėnienė and Pereira (2021) emphasize that HEIs committed to the 2030 Agenda contribute to sustainable development, but the success of these efforts largely depends on supportive political and governmental environments. In this regard, Lozano et al. (2013) demonstrate how leadership at the national and institutional levels is essential for the effective implementation of the 2030 Agenda. Moreover, this commitment must be backed by regulations that establish sustainability implementation in the educational system in the long term, as argued by Janssens et al. (2022).

Salmi and D'Addio (2021) show that another alternative is financial aid programs promoting equity in higher education to develop policies that include the 2030 Agenda in HEIs. In this context, it is essential to strengthen and institutionalize university partnerships with governments and communities to achieve the SDGs, as studied by El-Jardali et al. (2018). For the integration of the 2030 Agenda to be comprehensive and holistic in the country, a national strategy is necessary, as advocated by Lozano et al. (2013) and Janssens et al. (2022).

The implications of this point highlight the need for explicit and implicit commitment from the government regarding the 2030 Agenda. Explicit commitment refers to regulations on adopting sustainability, as Janssens et al. (2022) argue. Implicit commitment involves the actions and attitudes required from leaders to implement the 2030 Agenda, as demonstrated by Lozano et al. (2013). This refers to having regulations on adopting the 2030 Agenda as government policy, appointing educational leaders who promote sustainability, and establishing regulatory frameworks that encourage HEIs to adopt the 2030 Agenda in their functions of management, teaching, research, and extension.

The findings from the analysis of SDGs indicate that Latin American HEIs are in an early stage of adopting the 2030 Agenda. These results confirm the research by Cardozo et al. (2021). Berchin (2021) suggests that HEIs have a fundamental role in transforming societies toward a more sustainable future. To achieve this, they must promote pathways to sustainable development by expanding and disseminating knowledge, building capacities through training, and working with local communities to increase their resilience.

The situation of Latin American HEIs represents an opportunity to strategically implement the 2030 Agenda into the educational system. In this sense, the suggested implication is to develop institutional policies that adhere to the 2030 Agenda, such as mission statements (Arias-Valle et al., 2021a, 2021b),

strategic plans (Fumasoli & Hladchenko, 2023), sustainability offices (Filho et al., 2019), sustainability reports (Junges et al., 2023), communicating commitment on the HEI website (Ghorbanzadeh & Sharbatiyan, 2024), including education for sustainable development (Arias-Valle & Marimon, 2024a), research (Pfeifer & Helming, 2024) and extension activities with sustainable values (Borsatto et al., 2024). These elements will support accreditation processes of HEIs, creating opportunities to participate in rankings like THE-IR, which evaluates commitment to sustainability.

In conclusion, this study has shown that the Latin American university system demonstrates a low commitment to the 2030 Agenda. These results may be due to several reasons, one of which may be the lack of support from international organizations for countries and HEIs (Arias-Valle, 2023). Another reason could be the absence of regulations promoting the adoption of the 2030 Agenda, among other situations. In this sense, the analysis of the obtained results reveals a significant association between the presence of favorable government regulations for sustainability and the performance of HEIs in that country. Countries like Brazil, Peru, Ecuador, and Colombia, characterized by implementing policies aimed at sustainability in the university environment, consistently show superior performance in this ranking. This phenomenon suggests a causal relationship between the adoption of pro-sustainability regulations and the academic and institutional success of HEIs in these contexts, as argued by Janssens et al. (2022).

This observed correlation can be explained by several factors. Shava et al. (2023) indicate that favorable sustainability regulations provide a regulatory framework that encourages HEIs to integrate sustainable practices into their core functions, such as teaching, research, and extension. As a result, these institutions tend to develop stronger academic programs that address contemporary environmental and social challenges, contributing to more comprehensive student training and the development of impactful research (Shava et al., 2023). The presence of these characteristics in HEIs not only positions them favorably in THE-IR but also demonstrates their firm commitment and capacity to address global challenges effectively (Calderon, 2023).

In this regard, the commitment to sustainability is manifested in the integration of sustainable practices across all dimensions of academic activity, from research to teaching, demonstrating a holistic and proactive approach to sustainability, as suggested by Holst (2023) and Holst et al. (2024). Moreover, the academic rigor with which these institutions address these issues not only ensures the quality of their contributions but also guarantees that their actions and results are relevant and significant in the global context (Shetty, 2024). Consequently, their outstanding performance in THE-IR is not only a reflection of their academic excellence but also of their ability to lead initiatives that promote a more sustainable and equitable future on a global scale, as demonstrated by Calderón (2023).

Based on the findings of this study, three future research areas are proposed

to address the identified challenges. To complement the current analysis, it is suggested to extend the study to a mixed-method evaluation that explores the actions and perceptions of HEIs regarding the integration of the 2030 Agenda. Another pertinent research area would be to assess how contextual factors, such as governmental policies, economic conditions, and socio-economic challenges, influence HEIs' commitment to sustainability. Additionally, detailed comparisons between countries and Latin American regions could be conducted to understand variations in commitment and identify best practices that can be shared.

The research findings reveal that although Latin American universities have been growing in their adoption of the SDGs, their commitment remains uneven across the region's countries. To improve this performance, it is crucial that universities not only adopt the SDGs internally but also collaborate with governments and international organizations to implement public policies that support this process.

UNESCO and IESALC recommend that university policies include clear strategies for implementing the SDGs, with an emphasis on forming inter-institutional partnerships and actively participating in global sustainability networks (IESALC & UNESCO, 2021). In this context, governments must play a key role by providing financial incentives, regulatory frameworks, and institutional support to enable universities to adopt the SDGs effectively. A comprehensive public policy approach that promotes sustainability through higher education would not only strengthen the role of universities in sustainable development but also enhance their global competitiveness and ability to generate tangible social impacts.

The differences in SDG adoption across the region demonstrate that HEIs in countries with clear supportive policies and adequate funding are better positioned to participate in international initiatives like THE-IR. To improve regional commitment to the SDGs, it is crucial for governments to develop public policies that promote sustainability and provide sufficient resources to universities. This will not only enhance participation in international rankings but also ensure that HEIs play an active role in achieving global sustainable development goals.

## **Towards an Integrated Approach to Sustainability in Higher Education**

Sustainability in higher education should not be confined to participation in global rankings such as THE-IR but rather understood as a structural and cultural transformation that reshapes teaching, research, and institutional governance. According to IESALC-UNESCO (2021), ESD fosters interdisciplinary learning, equipping students and educators with the tools to address 21st-century sustainability challenges.

Globally, Europe and North America have advanced sustainability integration

through government-led policies and academic networks (Janssens et al., 2022) quality frameworks and processes should support deep approaches to sustainable development in higher education. Research and initiatives that connect sustainable development, higher education and quality assurance (QA). In contrast, Latin America faces barriers such as limited funding, fragmented regulations, and weak institutional sustainability cultures (Calderón, 2023), hindering a systemic approach to SDG implementation in HEIs.

To bridge this gap, Latin American HEIs must adopt more collaborative strategies, engaging in partnerships with international networks, governmental agencies, and the private sector. A holistic approach to sustainability is required, where education, research, and social responsibility are fundamental pillars.

Research in the *Journal of Teacher Education for Sustainability* highlights key measures to strengthen SDG integration. First, ESD-focused teacher training ensures that sustainability principles are embedded into curricula and pedagogical practices. Climate change and sustainability education must extend beyond specialized courses, becoming transversal across disciplines (Zen et al., 2024). Second, interdisciplinary sustainability research must be encouraged. Higher education should move beyond traditional knowledge production and promote applied research with social and environmental impact (Bilbokaitė et al., 2024). Third, HEIs must foster a sustainability-driven institutional culture that moves beyond compliance with rankings, embedding sustainability as a guiding principle in their mission and policies (Salite et al., 2024b). Lastly, global academic partnerships are essential. The Catholic University of Cuyo in Argentina demonstrates how the University Social Responsibility, when integrated into sustainability strategies, enhances institutional impact (Arias-Valle & Marimon, 2024b).

Effective SDG implementation in higher education requires structural transformation, integrating ESD-based teacher training, interdisciplinary research, institutional sustainability culture, and international collaborations. These efforts will enhance the resilience and global engagement of higher education in the pursuit of sustainable development.

## **Challenges and Fragmentation in the Implementation of the SDGs in Latin America**

Sustainability integration in Latin American higher education presents structural and political challenges. Unlike Europe, where national policies and academic cooperation networks support SDG adoption, Latin America's approach remains fragmented and inconsistent (Žalėnienė & Pereira, 2021).

A key barrier is the absence of regulatory policies that mandate HEIs to incorporate SDGs into their curricula and management structures. Without standardized frameworks, sustainability efforts remain isolated initiatives dependent on institutional priorities rather than systemic approaches.

Additionally, limited financial support restricts long-term sustainability projects, as universities often prioritize operational expenses over sustainability initiatives.

Another significant issue is weak collaboration between universities and governmental bodies, resulting in disjointed sustainability efforts. While Brazil, Colombia, and Ecuador have introduced national policies promoting sustainable education, most Latin American countries lack structured mechanisms for consistent SDG integration in higher education.

To overcome these challenges, Latin American HEIs must strengthen alliances with governments, academic networks, and international organizations. Aligning higher education policies with global sustainability frameworks, particularly UNESCO's ESD initiative, can create a more cohesive and impactful sustainability strategy, ensuring HEIs play an active role in advancing the 2030 Agenda.

## **Study Limitations and Future Research Directions**

While this study quantitatively assesses Latin American HEIs' sustainability efforts through THE-IR participation, it has methodological limitations. The exclusive reliance on THE-IR data does not fully capture universities' sustainability initiatives, and the lack of qualitative analysis limits insights into institutional strategies and stakeholder perspectives. Additionally, political and economic disparities across the region likely impact HEI participation, an aspect not accounted for in this study.

Future research should adopt a mixed-method approach, integrating quantitative and qualitative analyses to explore stakeholder perceptions and institutional strategies. Comparative studies on SDG adoption across global regions could identify best practices applicable to Latin America. At the same time, further investigations should assess the effectiveness of governmental policies, funding mechanisms, and regulatory frameworks in supporting sustainability efforts. These avenues will enhance understanding of sustainability in higher education and inform evidence-based policy recommendations to strengthen HEI engagement with the 2030 Agenda.

## **Conclusions**

The critical analysis of the evolution of Latin American HEIs' commitment to the 2030 Agenda, as evidenced by their participation in THE-IR, reveals significant findings. The results indicate that Latin American HEIs are still in the early stages of committing to the 2030 Agenda. This conclusion is supported by data showing a decrease in their participation rate in THE-IR, from 12 % to 9 % over the analyzed periods, both of which are considered low.

Despite the efforts of organizations such as IESALC and UNESCO, and governmental initiatives, there remain challenges in effectively promoting the 2030 Agenda within Latin American HEIs. The results reflect a general downward

trend in participation in THE-IR, highlighting the need for more effective strategies tailored to the Latin American context of each country.

The study suggests the implementation of strategic actions to address these challenges. These actions include specific action plans from leaders of sustainability-promoting organizations and effective support at both national and international levels. The importance of explicit and implicit commitment from governments is emphasized. Clear regulations, committed educational leadership, and regulatory frameworks are essential to drive the implementation of sustainability in Latin American HEIs.

The analysis highlights the influence of political and governmental environments on HEI success. Despite challenges, SDG adoption in health, education, work, and climate action is growing. This progress suggests HEIs can become significant agents of change in the region.

The study stresses the need for renewed commitment and more effective actions from international organizations, governments, and the HEIs to successfully integrate the 2030 Agenda. Considering its diversity and unique challenges, sustainability must be addressed comprehensively and holistically, with specific focus and actions tailored to the Latin American region.

Despite the scientific rigor with which this research has been conducted, it is important to acknowledge its internal and external limitations that may influence the interpretation of the results. Internal limitations include data collected directly from the THE-IR website. Another limitation is the quantitative analysis, which, although providing precise statistical data, may not fully capture the complexity of the specific actions and initiatives undertaken by HEIs. Regarding external limitations, the particular socio-economic contexts of each country and region, which were not considered in evaluating HEIs in terms of integrating the 2030 Agenda, could also be highlighted.

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