Systematic Analysis of Institutional Internationalization and Research Policies of Prioritized Institutions of The RCI (Colombian Network to Internationalize Higher Education)

Liliana Álvarez-Ruiz¹, Monica Herazo Chamorro², Tania Lafont–Castillo³, Luisa Echeverría-King⁴, Heyder Páez-Logreira⁵, Marisela Restrepo-Ruíz⁶ and Patricia Mendivil-Hernández⁷

Abstract

The internationalization of research is the process that allows the execution of research actions in cooperation, linkage and integration among higher education institutions, IES, which also responds to the needs of social reality. Therefore, the objective of this study was to analyze the institutional policies of internationalization and research of priority institutions of the Colombian Network for the Internationalization of Higher Education (RCI). The methodology of the study was qualitative, case study and documentary type, since higher education institutions such as Universidad de la Guajira, Universidad de la Costa CUC and ITSA University were taken and a documentary analysis was made of their internationalization policies where developed internationalization strategies and comparative and prospective analysis were identified with the support of MAXQDA software, with which categories were identified and represented graphically, The results revealed categories of analysis of the internationalization and research policy such as visibility, promotion strategies, mobility, talent attraction, training, dissemination, resources and incentives. In conclusion, the current dynamics demands collaboration and joint work among nations, even more so in the post-pandemic context, and the internationalization of research is conceived as a strategy inherent to higher education institutions, which enriches scientific production through the exchange and transfer of knowledge and good practices.

Keywords: Internationalization, Research, Policies, Higher Education, Mobility

INTRODUCTION

Globalization makes a continuous pressure on internationalization where the educational field is not an exception, as it is directly influenced by the internationalization of research. In the university environment, internationalization requires modifications in both, the institutional and the pragmatic culture; it means, Higher Education Institutions (HEIs) must make a recognition of their strengths and weaknesses in order to strengthen the services that may be of interest to the international community, have a constant information technology, and updated communication; as well as timely management of international networks, programs and projects with international foundation. In the same sense, the pragmatic modifications refer to having a qualified human talent, indicating that there must be an academic staff with scientific capabilities and mastery of second language proficiency, and also the importance of flexible curricula, i.e., they should be built from an international perspective that guaranteeing quality. Other significant aspects of internationalization are the research and extension of HEIs, economic consistency, and technological capacity, which is measured through the possession of updated and advanced laboratories. (Correa and Andrade, 2012).

According to the above, in the case of the internationalization of research, it is of vital importance that it responds to the needs of social reality in a fast, efficient and agile way, looking for social welfare; however, the

¹ Department of Education, Corporación Universitaria del Caribe-CECAR. Sincelejo, Colombia. Orcid: https://orcid.org/0000-0002-8163-8879

² Department of Education, Corporación Universitaria del Caribe-CECAR. Sincelejo, Colombia. <u>https://orcid.org/0000-0003-4193-8321</u> E-mail: monica.herazo@cecar.edu.co

³ Department of Education, Corporación Universitaria del Caribe-CECAR. Sincelejo, Colombia. http://orcid.org/0000-0002-4223-7407

⁴ Department of Education, Corporación Universitaria del Caribe-CECAR. Sincelejo, Colombia. https://orcid.org/0000-0002-8862-6686

⁵ Department of Education, Universidad Simon Bolivar. Barranquilla, Colombia. http://orcid.org/0000-0002-4223-7407

⁶ Department of Education, Corporación Universitaria del Caribe-CECAR. Sincelejo, Colombia. https://orcid.org/0009-0005-7755-9253

⁷ Department of Education, Corporación Universitaria del Caribe-CECAR. Sincelejo, Colombia.

response must take into consideration the researcher's ethics, the order or systematicity of the research process and the research policies; and the practicality of the students, teachers and researchers, as well as the global dynamics (Correa. world dynamics (Correa and Andrade, 2012). Ramirez (2009, quoted in Correa and Andrade, 2012) states that one way to internationalize research is through educational marketing, because it is used as a tool to investigate the demanded programs by national and international clients and to develop attractive strategies according to their needs.

Authors such as Sebastián (2019) consider that international cooperation is the main foundation for the internationalization of research; therefore, it is a key element in the strategies and instruments of scientific policy of both countries and HEIs. For this reason, researchers such as Marginson (2020) argue that international collaborations between researchers are not driven by national scientific policies, but by the interest of the researchers themselves, in this sense, the scientific agenda is increasingly determined from an international perspective. In the same vein, Oregioni (2015) argues that collaboration between researchers and HEIs in the countries of the same region and outside have gained relevance in recent years, therefore, he has taken on the task of measuring cooperation by means of two instruments that allow the measurement of the link between researchers at an international level, which contemplate participation in joint projects or networks for the production of new knowledge and indicators of scientific activity.

The previous statement, is also expressed by Correa and Andrade (2012), who consider that the international visibility of research is achieved through the linkage in networks that enjoy recognition or

the creation of research networks, as well as through the establishment of international promotion offices and by participating in international innovation and development consortia. For Correa and Andrade (2012), the mobility of teaching and research staff, as well as their participation in scientific events and publication in international indexed journals, are not activities that guarantee the internationalization of research, due to they are considered as parallel and contiguous in university processes, but they must be linked to the activities just mentioned.

Among other strategies for the internationalization of research, is the existence of a policy and an institutional commitment and funding to the international collaboration (Adapa, 2013). One of them, already expressed is the high-level training aimed at researchers with internal and external resources, as well as the expansion of the researcher's relational capital for which it is necessary to be linked to academic and research networks (Sebastián, 2019). There is also the articulation with the diaspora for the building capacities and the search for mobility opportunities (Echeverría and Prieto 2021). For Sebastián (2019) one way to internationalize research is to know and manage alliances with organizations that promote the internationalization of research such as multilateral organizations, United Nations agencies and programs, embassies, and cooperation agencies.

Attempting to internationalize education has many problems among which are the disarticulation between research and internationalization. The existence of national regulations or protocols for the exercise of research often affects international collaboration because they are not aligned (De Wit and Altbach, 2021). Another factor is that network-working dynamics can become asymmetrical, favoring nodes located in large cities and disadvantaging those on the periphery; so, in the network's framework is conducted research that is not aligned with social issues (Loray, 2016). One aspect to consider is the absence of institutional support programs for the participation in calls for proposals (Gacel-Ávila and Rodríguez-Rodríguez, 2017) and another problem variable is that the measurement instruments of international research do not take into account the products that arise from international cooperation, especially from informal collaboration, since they focus primarily on publications (Oregioni, 2015).

Another factor that hinders the internationalization of research is the new role of universities in modern society, given that as they are an actor in the system, they must relate with different sectors, especially the corporate sector, with which they are often distant.

The National Ministery of Education (2017) holds that research of internationalization is the process that let the execution of research actions in cooperation, vinculation and integration between higher education institutions (HEIs), which can be Colombian and from each part of the world. Thus, affirm that the process is contributing to the knowledge exchange, network establishment, and research projects, among others. Equally, Correa and Andrade (2012) propose that research internationalization can be the utilization of technological resources, whether patents or licenses developed by researchers, they also considered as forms of the technical-scientific cooperation process; the technology generation through research networks.

In turn, authors such as Hernandez (2008) assume the internationalization of research as a strategic action that directs knowledge generation processes, as well as the utilization of knowledge from international standards in which internal and external agents of the HEIs are linked.

Some alternatives of measuring the development of internationalization of research in universities is through bibliometric indicators such as scientific publications in co-authorship and participation in projects and networks (Oregioni, 2015), as well as the acquisition of external resources for the execution of research projects, the mobility of researchers and students, as well as the systematization of experiences (Adapa, 2013). Likewise, researchers such as Green (2012), argue that the contribution to solving local or global problems, the growth in the institution's income from commercial applications, awards, recognitions, and rankings of international activity are forms of internationalization of research; notwithstanding, Green is not unaware that other ways are to have a research staff with international experience, presentation at international congresses by professors, the development of international research projects and publications with international partners.

The Iberoamerican Network of Science and Technology Indicators - RICYT (2007), contemplates as ways to internationalize research, having researchers with PhDs, the citation of articles and achieving patents with international recognition.

METHODOLOGY

This study is qualitative. According to Fassio (2018), "qualitative research provides relevance to organizational process (Dynamic)" (p. 75).

This research is a multiple case study, which allows the researcher to explore differences within and between cases (Baxter & Jack, 2008); the goal is to replicate the findings in cases, therefore the cases must be carefully chosen so that the researcher can predict similar results in all cases (Yin, 2003). For this study, higher education institutions located in the Colombian Caribbean region and members of the Colombian Network for the Internationalization of Higher Education.

In this sense, the internationalization policies of three Colombian Caribbean institutions, immersed in a similar context, were reviewed.

Students' population, mainly from 1, 2 and 3 strata.

Located in the Colombian Caribbean.

Member of the Colombian network of higher education internationalization.

On the other hand, this research is documentary in nature. Documentary research is one of the qualitative research techniques in charge of collecting and selecting information about lectures, documents, journals, and books, among others (Reyes-Ruiz y Carmona, 2020). For this research, the following documents were reviewed:

Universidad de la Guajira (2016). Acuerdo No. 014 de 2016, por medio del cual se establecen las políticas de internacionalización de la Universidad de la Guajira. https://bit.ly/41Gvf7v

Universidad de la Guajira (2021). Acuerdo No. 003 de 2021, por el cual se actualiza el estatuto de investigación de la Universidad de la Guajira. https://bit.ly/3KTvTZj}

Corporación Universitaria de la Costa – CUC (2020). Acuerdo No. 1629 "por medio del cual se aprueba el modelo de internacionalización de la Corporación Universidad de la Costa CUC". https://bit.ly/3mqadcW

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ITSA (2020). Proyecto Educativo Institucional Institución Universitaria ITSA. https://bit.ly/3msxAmj

Analysis Plan

The internationalization policies of the institutions were analyzed to identify internationalization strategies developed by each institution. The categories were proposed using the inductive method, which considers the construction of theories based on the strategies stated in the internationalization policies of each Institution.

With the MAXQDA software support, categories were graphically represented. According to López (2002), content analysis implies the relevant documents reviewed for the study to extract the basic elements of a phenomenon and organize them into categories for its analysis.

Participants

This research took the HEIs as the subject of study:

Table 1 Higher Education Institutions.

Institution	Description
Corporación Universitaria de la Costa – CUC.	Non-profit. Private entity.
Institución Universitaria ITSA	Public institution of higher education of national order, attached to the National Ministry of Education.
Universidad de la Guajira	Official Higher Education Institution.

For the institutions' selection, the purposive sampling technique was used. This technique involves identifying and selecting subjects directly related to the object of study or the phenomenon of interest (Cresswell & amp; Plano Clark, 2011). Hernandez and Carpio (2019) argue that this type of sampling is used when there is easy access to the sample. The selected institutions have the internationalization policy published on the website and expressed interest in participating in the study.

UNIVERSIDAD DE LA COSTA - CUC

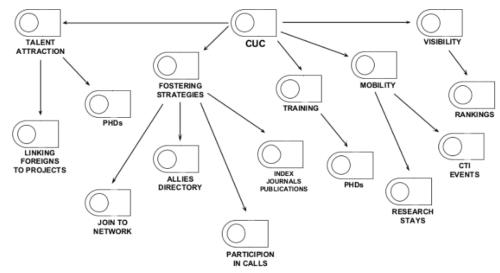


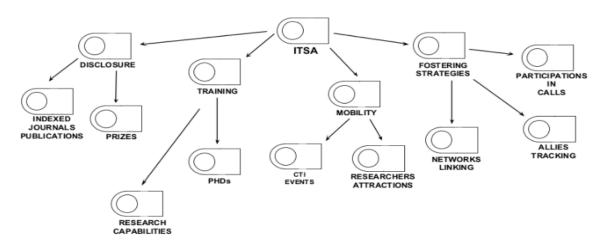
Figure 1. Categories' analysis Institution CUC with MAXQDA.

In the internationalization and research policy of Universidad de la Costa, five categories were found: visibility, promotion strategies, mobility, talent attraction and training. In terms of visibility, the participation of the institution in rankings to make research products visible and raise its prestige stands out. In the "promotion strategies" category, there is participation in international cooperation calls to leverage funds, creation of a directory of allies for collaborative work, publication in indexed journals, taking into account that they have a higher score for the categorization of groups and researchers in Colombia, and affiliation to networks. The category "mobility" includes research stays and participation in science, technology and innovation events, in which students and professors are considered. The category "attraction of talent" highlights the involvement of foreign students in institutional research projects and of PhDs with high production. Finally, under the training category, the training of doctors at the institutional level to raise high-level scientific production is exposed.

Policy excerpts:

"Participation of foreign students in research and university students in external projects" (Corporación Universitaria de la Costa - CUC, Acuerdo No. 1629 por medio del cual se aprueba el modelo de internacionalización de la Corporación Universidad de la Costa CUC,2020, P.67).

"Participation in international academic networks and associations or knowledge networks" (Corporación Universitaria de la Costa -CUC, Acuerdo No. 1629 por medio del cual se aprueba el modelo de internacionalización de la Corporación Universidad de la Costa CUC, 2020, P.37).



INSTITUCIÓN UNIVERSITARIA ITSA

Figure 2. Categories' analysis Institution ITSA with MAXQDA.

With regard to ITSA's research and internationalization policies, four categories stand out: dissemination, training, mobility and promotion strategies. The first category includes publication in indexed journals and participation in awards in recognition of the research work of the professors. The "training" category focuses on research capacity building and the training of PhDs. The category "mobility focuses on participation in science, technology and innovation events and the attraction of researchers to strengthen research groups. As for the promotion strategies, are the linkage to research networks, the search for potential allies for the development joint projects and participation in international cooperation calls. of Policy excerpts:

"Support the participation of teachers, researchers and students in national and international events for the exhibition of scientific production" (ITSA, Proyecto Educativo Institucional Institución Universitaria ITSA, 2020, p. 84).

"To support the outgoing national and international mobility of members of research groups (ITSA, Proyecto Educativo Institucional Institución Universitaria ITSA, 2020, p. 84).

"Encourage the linking of the institution to International Research Networks" (ITSA, Proyecto Educativo Institucional Institución Universitaria ITSA, 2020, p. 84).

UNIVERSIDAD DE LA GUAJIRA

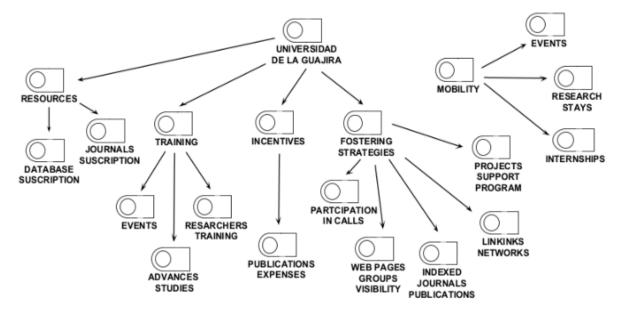


Figure 3. Categories' analysis institution UNIVERISDAD DE LA GUAJIRA with MAXQDA

As for the University of La Guajira, the internationalization and research policy has several fronts of action, described in the following categories: "resources", "training", "incentives has several action fronts, described in the categories: "resources", "training", "incentives", "promotion strategies" and "mobility", "promotion strategies" and "mobility". The resources category describes database and journal subscriptions as a means of consulting and strengthening quality research. Followed by the "training" category, which highlights the importance of events, the opportunity to undertake advanced studies, and research training to strengthen the competencies of professors in cutting-edge topics. The "incentives" category contains the publication costs that are assumed by the institution to raise the products of the researchers.

The category "promotion strategies" includes participation in international cooperation calls, visibility of the research groups on the web page as a window to contact potential allies, publication in indexed journals, affiliation to networks, and the design of a support program for the writing and accompaniment in the application and development of cooperation projects. Finally, the mobility category contains opportunities such as research stays, internships and attendance at events, which are central to internationalization management.

Policy excerpts:

"Linking external researchers to projects" (Universidad de la Guajira, 2016, p.8). "Support program for international cooperation projects" (Universidad de la Guajira, Acuerdo No. 014 de 2016, por medio del cual se establecen las políticas de internacionalización de la Universidad de la Guajira, 2016, p.8)

"Generate dynamics of participation and conformation of associations and networks with local, national and international impact" (Universidad de la Guajira, Acuerdo No. 014 de 2016, por medio del cual se establecen las políticas de internacionalización de la Universidad de la Guajira, 2021, p.12).

Financing the publication costs of research results (books, articles in physical or indexed journals, articles in physical or virtual indexed journals of national and international circulation, audiovisual production etc.)" (Universidad de la Guajira, 2021, p.12), (Universidad de la Guajira, Acuerdo No. 014 de 2016, por medio del cual se establecen las políticas de internacionalización de la Universidad de la Guajira, 2021, p.22).

DISCUSSION

The current dynamics demand collaboration and joint work among nations, even more so in the post-pandemic context caused by the SARS-COV virus that has exacerbated the challenges set out in the 2030 agenda. It is for this reason that the internationalization of research is conceived as an inherent strategy within the institutions, which enriches scientific production through the exchange and transfer of knowledge.

There are various strategies to boost the internationalization of research. (Qiang, 2003; Knight 2004) highlight joint research projects, participation in international conferences and seminars, published articles and papers, international research agreements, researcher and graduate student and mobility programs, and the acquisition of international research partners in a variety of fields. In addition, the attraction of young researchers and the development of research chairs in which policy advisors and experts at the national level are invited to participate. (Jacob and Meek, 2013) and working in international consortia (Tadaki and Tremewan, 2013).

In order for there to be synergy and articulation between the strategies described above, the institution should share commitment and articulation between the work of the internationalization office and research, as well as an internationalization office and research, and an appropriate organizational infrastructure (Green, 2005). In this way, it is possible to effectively manage projects, the execution of resources and the allocation of resources and the assignment of specific responsibilities to researchers. Other aspect to take into account is to account for projects that arise from the informal relationship between researchers. According to (Oregioni et al., 2015; Suasnábar et al., 2018) another aspect of great importance goes overlooked in international indicators for measuring the internationalization of research.

In terms of measurement instruments, international rankings are a prioritized alternative by university managers. However, the "dimensions and indicators used are obviously strongly biased in favor of certain fields of knowledge and certain geographic and linguistic regions" (Martínez, 2011, p.93). The rankings influence the design of indicators in universities for the sake of visibility, prioritizing collaboration with countries of the global north, leaving aside cooperation with countries of the global north, and leaving aside cooperation with countries of the global research teams should be strengthened, given the growth in international research funding and international research funding and scientific production. (De Witt and Altbach, 2021). According to the 5th IAU Marinoni global survey (2019), institutions in Latin America and the Caribbean develop very few research internationalization actions; and in most cases there is no one responsible for this strategy in the universities of the Latin American Region.

On the other hand, Gacel-Ávila and Rodríguez-Rodríguez (2017) emphasize that the majority of institutions in Latin America lack a program for accompanying professors in the application of cooperation calls. Another aspect to be strengthened is the attachment of professors to research networks (Sebastián, 2019). Research networks constitute academic research spaces for dialogue and the deepening of topics of interest, as well as a platform for researchers and academics to relate.

Likewise, the brain drain is a critical issue that affects higher education institutions, detracting high-level researchers from higher education institutions. Faced with this criticism, the European University Association (2010) recommends the development of institutional strategies such as promoting good governance, adopting transparent human resources policies and professional development programs, and providing benefits to university staff. Oregioni (2015) also highlights the gap between scientific production and relevance to social issues and the asymmetries of power presented in some work schemes of scientific cooperation networks.

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