

**Internationalization of Higher Education Institutions: proposition of a conceptual model from the role of the researchers**

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## **Introduction**

This article deals with the topic of Internationalization of Higher Education Institutions (IHEI), especially in its research dimension. The main motivation for the study is the role of researchers in the internationalization of the institutions in which they work, through the academic activities they perform. We therefore assume that there are determinants of the IHEI process, which are strongly related to the role of the researchers.

In addition, we believe that the IHEI study can contribute to the theories of International Business, due to the inherent characteristics of this type of organization. From a theoretical perspective, we see some peculiarities in these organizations, for example, those related to the motivators for internationalization. While traditional companies have a great motivator for market expansion and profit maximization, we find in the HEIs the presence of other motivators, such as the training of citizen students who are prepared to deal with global conflicts from an understanding of the culture of other peoples, the development of higher quality education resulting from the comparison with large universities spread across the globe, a comparison that is possible through internationalization, and the motivation resulting from a desire to participate in the international academic debate, in order to increase the contribution of HEI research in a global scenario (KNIGHT, 1994; RICHARDSON; MCKENNA, 2003; ALTBACH; KNIGHT, 2007; STROMQUIST, 2007). These peculiarities have made us opt for this object of study.

Also noteworthy are the rich and diverse ways in which an HEI can be internationalized, also known as HEI internationalization activities. Among them we can highlight the participation and publication of studies in international research networks (DEWEY; DUFF, 2009), the exchange of students, teachers and staff in general (COATES et al., 2014), the insertion of global curricula in the courses (VAN DAMME, 2001), the organization of courses and events abroad in partnership with other HEIs (KNIGHT, 2004) and the creation of camps in other countries (VAN DAMME, 2001). Such activities occur more frequently following the flow of developing countries to developed countries, but the opposite can also be seen, especially in the growing influx of students who see China as a potential destination (HUANG, FINKELSTEIN, ROSTAN, 2014).

The literature also highlights the different levels of analysis that should be considered when dealing with IHEI. Conceptual models such as those proposed by Knight (1994 and 2004), Elkin, Devjee and Farnsworth (2005), Paige (2005), Sanderson (2008), Dewey and Duff (2009), Maringe and Foskett (2010) and Gao (2015), bring together the global, regional, national, sectoral, institution, departamental and individual that involve the process of internationalization in higher education.

Individual and professional factors, such as age, gender, family history, academic achievements, preferences and attributions of students and researchers, are considered as individual analysis examples. At the institution level, considerations such as the academic discipline, the type of Higher Education Institution and, especially, the characteristics of its management are highlighted. At the national and regional levels, the context in which the academy is inserted, such as the size of the country, the language, cultural tradition and the political and economic situation are highlighted (ROSTAN; HUANG; FINKELSTEIN, 2014).

Despite these important approaches, the researcher's role in internationalization has been neglected in the literature, since few studies analyze to some extent the impact of these individuals on the internationalization of educational institutions, even though these are the main agents of IHEI (DEWEY; DUFF, 2009; ROSTAN; HUANG; FINKELSTEIN, 2014).

The existing models leave a gap by not deeply discussing the activities carried out by the researchers, among which stand out: publications, participations in congresses and international research groups, presentation of subjects abroad (and acting as visiting professor), participation in editorial boards and encouragement to student exchange (MIURA, 2006; CAPES, 2010; LAZZARINI, 2012; RODRIGUES; DUARTE; CARRIERI, 2012; CARNEIRO et al., 2015).

In order to fill this gap, and assuming that each international activity of the researcher leads to some degree of internationalization of the HEI in which it works, for the construction of this article we start with the following question: Do researchers' personal characteristics and academic activities affect the internationalization of their (Higher Education) institutions? In a broad sense, we also aim to stimulate researchers to seek international insertion and intend to provide subsidies for institutions to invest in the main catalysts of the IHEI process raised in the study.

In addition, three main contributions of this article, complementary to the literature are highlighted: (i) analysis of factors that can bring theoretical development from a theme and object little explored in the International Business community: the Internationalization of Higher Education Institutions; (ii) classification, based on an analytical review of the literature, of the different IHEI activities regarding the presence or absence of physical mobility by the agent; (iii) advancement of a conceptual framework about the determinants (regarding the researchers) and moderators of the process of IHEI.

Additionally, from the management point of view, we understand that the study of the determinants of internationalization is fundamental for HEI managers to focus their efforts on the main factors of this process, and this is a desired contribution by our research. The same is true for policy-makers, since this IHEI process can have positive consequences for countries, such as the development of education, the encouragement of tourism, the development of the labor market and the capacity of its citizens to understand and dealing with the culture of other peoples.

## **Conceptualization of IHEI**

The Internationalization of Higher Education Institutions (IHEI) has been gaining prominence in academic research, mainly due to the accelerated pace of globalization after the 1980s. Knight (1994), seminal author on the subject, states that IHEI has different meanings for different publics, and these differences were accentuated by the increase in the number of surveys. Teichler (2003) brings another reason for concept heterogeneity. The author argues that research related to internationalization and globalization are shaped by the values of the researchers involved, and that many of the research in the area is financed by agencies that promote internationalization. In other words, each institution tends to bring its own concept and its own vision of what internationalization means in the context of higher education, a phenomenon that is reflected in the research on the subject, demonstrating that the definitions have been motivated by different purposes (DE WIT , 2002; KNIGHT, 2004).

Arum and Van de Water (1992) were possibly the first authors to bring a concept about IHEI, defined by them as multiple activities, programs and services related to international studies, international educational exchange and international technical cooperation. The definition proposed by Knight (1994), two years later, was a milestone in the study of the thematic, since it expanded the multiple activities mentioned by Arum and Van de Water (1992) in three dimensions: (i) teaching, (ii) research and (iii) services of Higher Education Institutions.

The existence of these three dimensions is in line with what is presented by the Association of Universities and Colleges of Canada (KNIGHT, 1994). In the view of this entity there is a simple, unique and sufficiently comprehensive definition of the internationalization

of universities. It is a set of activities that aim to provide an educational experience with an environment that is truly integrated with a global perspective. As a consequence of this definition, we adopted in this study the premise that an HEI internationalizes whenever it contributes, from different activities, to the global education, from the geographic point of view. In this sense, Knight (1994) brings four classic approaches to dealing with IHEI concepts, which illustrates the complexity of the phenomenon, as Table 1:

Table 1 – Approaches to IHEI

<b>APPROACH</b>	<b>DESCRIPTION</b>
<b>PROCESS</b>	This approach sees IHEI as a process that integrates an international dimension or perspective to the institution's major functions. A wide range of activities, policies and procedures are part of this process, and terms such as conduction, integration, penetration and incorporation are often used to characterize this approach.
<b>ACTIVITY</b>	This approach describes internationalization in terms of categories or types of activities, such as curriculum, exchange of researchers and students, and technical cooperation.
<b>COMPETENCE</b>	This approach looks at internationalization in terms of developing new skills, attitudes and knowledge of students, researchers and other collaborators of the HEI, bringing, therefore, a human dimension, not focused on academic activities or organizational issues.
<b>ORGANIZATIONAL</b>	This approach focuses on the development of an organizational culture - including habits and customs - that values and supports international initiatives. Closeness to the process approach, but brings culture as the main focus.

Source: Knight (1994, p.3)

Regardless of the approach used by the studies, IHEI involves cooperation and physical mobility, knowledge transfer and international education (TEICHLER, 2003). Van der Wende (1997) has a broader definition, highlighting it as any and all efforts made to enable the institution to respond to the requirements and challenges related to the globalization of societies, economies and labor markets.

### **Dimensions of IHEI**

If, on the one hand, the authors differ in relation to the definitions and models of IHEI, on the other, there seems to be consensus in the literature about the activities that involve this process of internationalization. Dewey and Duff (2009), for example, classify four different types of activities: (i) teacher research and teaching, involving, for example, their participation in networks and events, such as academic conferences, international publications and performances as visitors; (ii) curriculum, through the introduction of international standards in the teaching plans of the institution's courses; (iii) study abroad programs: this type of activity may involve partnerships with other HEIs, for courses that allow exchange among those involved, sometimes in both flows; (iv) other areas of activity: in this category are activities such as student exchange, partnerships involving former students of HEIs working abroad and research groups between institutions.

According to Chinelato, Ziviani and Rodrigues (2015) and Rodrigues, Duarte e Carrieri (2012) the internationalization of education refers to activities such as organization, financing, international franchises, curriculum, research collaborations, joint ventures, campis creation in other countries and exchanges between academics, be they students or teachers. Another aspect of this internationalization can be measured by the publications made by the researchers abroad (CHINELATO; ZIVIANI; RODRIGUES, 2015; RODRIGUES; DUARTE; CARRIERI, 2012). From these examples, Table 2 presents a proposal for classification of the main IHEI activities found in the literature:

Table 2 – Classification of IHEI Activities

ACTIVITIES		CLASSIFICATION	
		With Compulsory Mobility ( <i>Border Crossing</i> )	Without Obligation of Physical Mobility ( <i>At Home</i> )
R E S E A R C H  T E A C H I N G  D I S S E M I N A T I O N	(1) Participation in international research networks (including projects funded by organizations from other countries)		✓
	(2) International scientific publications (with international co-authors or in periodicals and annals of international congresses or in a foreign language)		✓
	(3) Acting as a visiting professor, as a student, of courses such as postdoctoral studies abroad, participation in overseas examination boards and coorientations	✓	
	(4) Adapting the curriculum of HEI courses to international standards (language and international analysis)		✓
	(5) Accomplishment of courses abroad in partnership with foreign HEI (including partnerships for dual academic qualifications)	✓	
	(6) Participation and organization of international academic events (in the country or abroad)	✓	✓
	(7) Student exchange (immigration and emigration)	✓	✓
	(8) Exchange of teachers and other collaborators involved in research and teaching (immigration and emigration). It includes the hiring of teachers and foreign collaborators involved in teaching and research	✓	✓
	(9) Creation of units (academic campus) in other countries	✓	
	(10) Complementary international activities on campus (music, dance, readings, lectures and other events)		✓
	(11) Obtaining of international accreditations		✓

Source: Authors

In addition to the classification of activities between research, teaching and dissemination, it is also possible to classify them in relation to physical mobility (Border Crossing) or non-compulsory (At Home). As an illustration, there are activities that normally require physical displacement to be performed, such as participation in congresses, acting as visiting professor in foreign HEI and exchanges in general. In contrast, most of the IHEI activities do not necessarily require physical displacement to be performed: it is the so-called internationalization that can be performed "indoors" or "at home".

As examples found in the literature, the articles are published in international journals, the adaptation of the teaching plans to international standards and the reception of foreigners in general. Still on this topic, it is worth mentioning the activities (6), (7) and (8), classified of the two forms, because for them the presence or absence of physical mobility will depend on the intended flow in the process. As an example, the organization and conduct of academic events (6) will have physical mobility only if it occurs in another country; otherwise, it is an internationalization "at home".

It should be noted that the eleven IHEI activities mentioned in Table 2 are the most present in the literature. In Table 3 it is possible to verify the mention to these activities made by the articles on the subject that deal specifically with IHEI activities. To facilitate the visualization the activities were organized in codes, from 1 to 11 (following the numbering of Table 2), as follows:

Table 3 – IHEI Activities per Article

ARTICLE	TYPE OF IHEI ACTIVITY*										
	RESEARCH		TEACHING			DISSEMINATION					
	1	2	3	4	5	6	7	8	9	10	11
(TEICHLER, 1999)											
(VAN DAMME, 2001)											
(KNIGHT, 2004)											
(TEICHLER, 2004)											
(ELKIN; DEVJEE; FARNSWORTH, 2005)											
(PAIGE, 2005)											
(ALTBACH; KNIGHT, 2007)											
(DEWEY; DUFF, 2009)											
(ROSTAN; CERAVOLO; METCALFE, 2014)											
(ROSTAN; FINKELSTEIN; HUANG, 2014)											
(CUMMINGS et al., 2014)											
(COATES et al., 2014)											
(RODRIGUES; CARRIERI, 2012)											
(CHINELATO; ZIVIANI; RODRIGUES, 2015)											

Source: Authors (\* The codes mentioned in this table refer to the activities described in Table 2)

From Table 3 it can be seen that the 11 IHEI activities are recurrent in the literature, and that the three types of activities (publication, teaching and dissemination) are distributed in a similar way: although there are more possibilities of activities classified as dissemination, a smaller number of authors seem to treat this type of activity. As an example, there are number 10 - complementary international activities on campus (music, dance, readings, lectures and promotion of other events) - present in only two articles. Regarding the scope of activities, we highlight the work of Knight (2004), which addressed eight different internationalization activities.

### IHEI Levels of Analysis

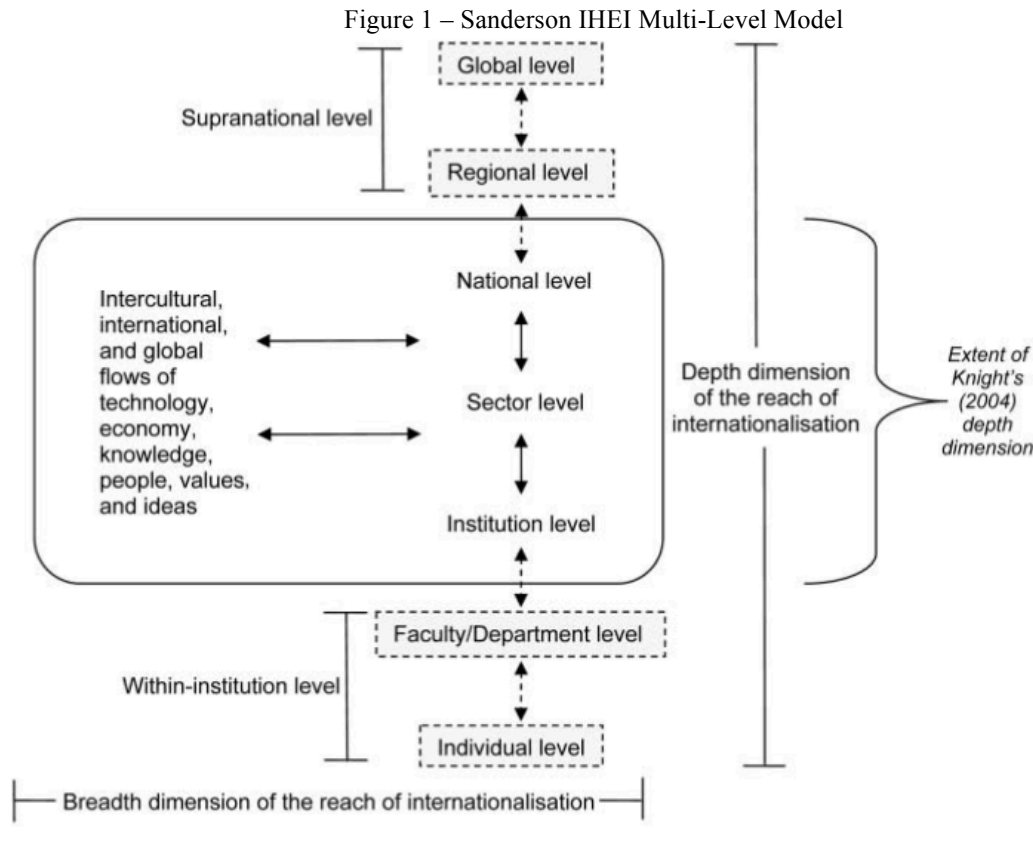
Two decades after the publication of his seminal work, Knight (2004) proposed a multilevel definition of IHEI, in order to clarify the understanding of the subject and to increase the attention and support of academic and political leaders on these activities, which, According to her, have been neglected by these publics, in proportion to the importance that the internationalization strategies have for their institutions. The author's main criticism at the time was based on the argument that without a precise definition of IHEI there is a practical difficulty in its operationalization (KNIGHT, 2004). From these arguments, the author brings, for the first time, a multilevel definition for IHEI:

What is critical is that the international dimension refers to all aspects of education and to the role it plays in society [...] internationalization at the national / sectoral / institution level is defined as the process of integrating the international, intercultural or global in purpose, functions and provision of post-secondary education (KNIGHT, 2004, p.2).

The author argues that an adequate definition on the subject must take into account different levels of analysis, such as the national, sectoral and institutional levels, and their different dimensions. On the dimensions proposed by Knight (2004), it is worth clarifying: internationalization refers to the relationship between different nations, cultures or countries. Taking this argument that the relationship between different cultures also brings us a type of internationalization, the author argues that there can be an internationalization "in the home", that is, within the country itself, community or even institution. For this phenomenon it gives

the name of interculturality. The global term, in turn, provides the idea that the IHEI should have a large geographic reach, that is, aim for a global reach.

In addition to Knight's work, Sanderson (2008) proposed a new multilevel model based not only at the national, sectoral and institutional levels, but also including the supranational level - this global and regional classification - and the intrainstitutional level, classified in departmental and individual, according to Figure 1:



Source: Sanderson (2008, p. 280)

The author argues that the original model proposed by Knight, by including only three levels of analysis, does not take into account how other levels may affect the process of internationalization in higher education. Sanderson (2008) argues that in the face of the speed of world globalization there are other key actors in this relationship, which for this reason should be included in the model. It is, according to him, a more dynamic and comprehensive process than that illustrated by Knight (2004). By way of illustration, Huang et al. (2014) emphasize that internationalization in higher education is influenced by economic, political and cultural disparities between regions, countries, educational systems, educational institutions, families and individuals, and thus a multidimensional process.

Eisenclas and Trevaskes (2003), Liddicoat (2003) and Sanderson (2008) argue that the definitions proposed by Knight (1994; 2004), although of fundamental importance for the advancement of IHEI, are very general, For this reason, have limited practical utility. Liddicoat (2003), for example, states that the model does not provide support for researchers seeking to internationalize their teaching practices. In this regard, the work of Sanderson (2008) brings an advance, considering other agents that influence the IHEI process.

## Determinants of IHEI: Barriers and Enablers

In the IHEI literature, a recurrent sub-theme refers to its barriers, which are found mainly in the levels of institution (i) and individual (ii), according to Table 4:

Table 4 – Barriers to IHEI

LEVEL	HINDRANCES
I N S T I T U T I O N	. Resistance of HEI to change to a culture of internationalization;
	. Lack of coordination with researchers and staff for the IHEI process;
	. Difficulty in developing consensus with staff on internationalization;
	. Absence of (monetary) resources for internationalization activities;
	. Absence of direct responsible persons who support international initiatives;
	. Administrative policies and procedures that discourage these activities;
	. Difficulty in cultivating diversity of international students in HEI;
	. Difficulty in measuring the equivalence of subjects for students and academic calendar;
	. Lack of recognition of HEI from international publications made by the researcher;
	. Lack of experience / history of HEI with internationalization (first activities);
I N D I V I D U A L	. Lack of knowledge of researchers about foreign journal proceedings;
	. Low participation of researchers in academic associations, meetings and journals;
	. Studies that only test existing international theories and limitations of the Management area;
	. Insufficient understanding of the foreign language;
	. Lack of clarity of the researchers on benefits/importance of internationalization;
	. Lack of knowledge of researchers and staff about the IHEI process.

Source: Authors

Within the institution level (i) the HEI resistance to change to a culture of internationalization is highlighted, in which the institution's values, norms and beliefs make this type of activity difficult (CHILDRESS, 2009a; CHILDRESS, 2009b; DEWEY; DUFF, 2009). In this category it is possible to cite barriers such as the lack of coordination on the part of academic managers about the IHEI process, also expressed by the lack of consensus among the managers (and the staff of the HEI in general) about what this internationalization means and, above all, about how it should be done (VAN DAMME, 2001; CHILDRESS, 2009b).

It is noted that this lack of understanding, which is enhanced by the lack of experience of the HEI with internationalization, generates administrative policies and procedures that discourage IHEI, both in teaching and research (TEICHLER, 1999, FIORIN, 2007, DEWEY; DUFF, 2009, CARNEIRO et al., 2015). As an example, Carneiro et al. (2015) highlight the low relationship between publications in international journals and the researcher's career projection, especially in latin institutions. The authors argue that the fact that they do not have good international publications in the context of certain HEIs does not prevent the researcher's career projection, which may discourage this type of strategy on the part of the academic. The authors also point out that the low salary difference between different career levels (in some institutions) tends to accelerate this discouragement by international research.

Another example relates to the reality of certain latin public universities, in which the researchers acquire stability after the approval in public competition. This situation makes the academic situation very comfortable, which tends to discourage its production of articles, especially international ones (due to the greater difficulty of publishing this type of work),



since publishing international articles will not affect the remuneration of the researcher nor his/her career situation (CARNEIRO et al., 2015).

The literature on the subject also highlights operational difficulties for internationalization. Among these difficulties is the lack of monetary resources and direct accountability that support IHEI. On this point, the existence of a center specifically responsible for this project is salutary, since international activities are, in general, more burdensome and bureaucratic for the institution than domestic activities (VAN DAMME, 2001; DEWEY; DUFF, 2009; CARNEIRO et al., 2015). Dewey and Duff (2009) also highlight the difficulty of cultivating the diversity of international students in the HEI, as well as measuring the equivalence of the subjects they attended, as well as other operational barriers to the IHEI, the latter being exacerbated by differences in the academic calendars of different countries.

Within the barriers at the individual level (ii), the literature highlights obstacles related to the researcher, especially in his research activities. As an example, the lack of knowledge about the editorial process of foreign journals is among one of the main reasons for the rejection of articles by these journals. Ferreira (2015) emphasizes that the authors often do not analyze the mission and the type of articles published by the journal, or even the norms of the journal (author guidelines), which hampers the publications of their studies at an international level.

Another very common reason for the rejection of articles by international journals is the realization of studies pertinent only to the context of the country in which the researcher works, with little applicability in global contexts. (RODRIGUES; DUARTE; CARRIERI, 2012; LAZZARINI, 2012). Fiorin (2007) points out that this difficulty is aggravated in the area of Management and in the field of Human and Applied Social Sciences, since, due to the inherent characteristics of these sciences, there are more studies with more immediate interference in the national or local reality than, for example, in Exact and Biological Sciences.

Another barrier, according to Carneiro et al. (2015), occurs when researchers have a low presence in associations and academic meetings outside their regions of origin and low participation in academic associations. The authors also point out that there is a low participation, for example, of latin researchers in the editorial boards of the main academic journals, which may hinder the exchange of information between researchers and, consequently, the insertion of these (and the HEI in which they work) in the international scene.

In addition, the authors argue that latino teachers have limited time to dedicate themselves to academic research and publications, as their teaching activities and consulting can be financially more advantageous and in some cases there is no financial support, be it of public or private origin, to cover the expenses inherent in the internationalization of researchers, such as: passages, stays, registration in congresses, translation of articles and complementary courses abroad (CARNEIRO et al., 2015).

Another important barrier for researchers, and much highlighted in the literature, is related to language. It is known that the language widely used in academic research is English, which has a very different writing, for example, from Portuguese and Spanish. If the researcher does not know how to adapt to this reality, he will have difficulty to express himself correctly in the international scenario (FIORIN, 2007; RODRIGUES; DUARTE; CARRIERI, 2012; CHOI; YANG; PARK, 2015; ROSTAN; HUANG; FINKELSTEIN, 2014; CARNEIRO et al., 2015).

In addition to the barriers already mentioned, there are also those caused by the researcher's lack of knowledge. For example, authors such as Childress (2009a) and Dewey and Duff (2009) emphasize that the lack of knowledge about the process and the internationalization strategies adopted by the HEI can generate a problem of coordination between the two parties. Ignorance is also present when the researcher does not master the

benefits and importance given by HEI to internationalization. By way of illustration, there are institutions that offer variable remuneration for each relevant international publication made by the researcher. In this case, the academic ignorance of international rankings - among them the Journal Citation Reports, Scimago and the Association of Business Schools - used by the HEI to define what is relevant can be seen as an obstacle to the IHEI process (TEICHLER, 1999).

In addition to the inherent obstacles to the IHEI process, the literature on the subject also highlights its catalysts (enablers), these being highlighted at the global level (i), but frequent in the literature mainly at the institution level (ii). On the first, there is the process of globalization, which, in one of its aspects, can be seen as increasing speed in the world flow of people, goods, services and information, thus highlighting as one of the main vectors of internationalization.

As an example of the accelerators of this process at the global level (i) are the General Agreement on Trade in Services (GATS) and the meetings of leaders of different countries to deal with the mobility of people through immigration and emigration policies (STROMQUIST, 2007; JACOB, MEEK, 2013; ROSTAN, HUANG, FINKELSTEIN, 2014). Van Damme (2001) also emphasizes the importance of organizations to instrument, regulate and classify IHEI activities, such as the Organization for Economic Cooperation and Development (OECD), an organization that promotes forums between countries to discuss global social problems, including those related to education and more specifically to the globalization of education (OECD, 2017). The catalysts at the level of institution analysis (ii) can be divided, together with their main authors, into subgroups, namely: a) existence of a governance structure, a center directly responsible for internationalization, a code of conduct for IHEI and of a specific plan for the IHEI with the participation of its stakeholders (VAN DAMME, 2001; STROMQUIST, 2007; DEWEY; DUFF, 2009; CHILDRESS, 2009b; CHILDRESS, 2009c); b) relationship and connections of HEI with companies, especially multinational companies, and presence of representatives of these on the board of HEI, with the purpose of stimulating the contact with market activity carried out abroad (STROMQUIST, 2007); c) budget forecasting (with the existence of a fund for private donations) and several monetary incentives specific to internationalization activities (VAN DAMME, 2001; DEWEY; DUFF, 2009; CHILDRESS, 2009c); d) stimulation of a culture of interdisciplinarity, collaboration in research, international knowledge for the disciplines and promoter of awareness and commitment on IHEI (DEWEY; DUFF, 2009; CHILDRESS, 2009a; BOZEMAN; FAY; SLADE, 2013; JACOB; MEEK, 2013; CHOI; YANG ; PARK, 2015; ROSTAN; HUANG; FINKELSTEIN, 2014; KWIEK, 2015).

## **Method and Data**

In this qualitative study we adopted as main methods the analytical review of the literature on Internationalization of Higher Education and the accomplishment of in-depth interviews, from an intentional sample and semi-structured script. This theoretical (i) and empirical (ii) approach allowed the reflection of concepts, relationships and categorizations on the IHEI, through the triangulation of data analysis.

As a theoretical basis (i) for the study, articles were searched in the first semester of 2017, in the Web of Science and Google Scholar databases, with the following terms in the titles of the academic articles: "Faculty Internationalization"; "Internationalization of Higher Education"; "Scientific Mobility"; "Cross-Border Education". As a return of the search, 102 articles were selected for the literature review. These articles were organized in folders and systematized in a spreadsheet, by means of the survey, mainly, of the activities of IHEI that presented, as well as the obstacles and catalysts of this process. After this systematization, in a second moment, and in an interpretative way, categories of analysis were extracted from the group of articles.

To serve as an empirical basis (ii) for proposing the desired conceptual model, we initially interviewed permanent researchers from master's and doctoral brazilian programs in Management, with concept six and seven (the highest grades in the ranking) by the triennial evaluation (2012-2014) of CAPES, a governmental institution responsible for evaluating brazilian programs regarding quality in general and internationalization. The selected researchers were chosen because the programs in which they operate are considered the most internationalized in the country (CAPES, 2013). Ten researchers from these programs (Eaesp, Fea and Ebape) and six other researchers (Insper, Hec, University of Georgia) with a notable international insertion (and indicated by the first) were interviewed too, using the snowball method of sample selection, therefore, 16 interviews, which occurred in the first half of 2016.

The interviews, carried out from a semi-structured script, had an average duration of 47 minutes and occurred in person, via Skype or by telephone. The elaborate script directed the interviews to the academic trajectory of the interviewee and to their perception about the internationalization of the brazilian researchers and, consequently, of the Higher education Institutions in which they work.

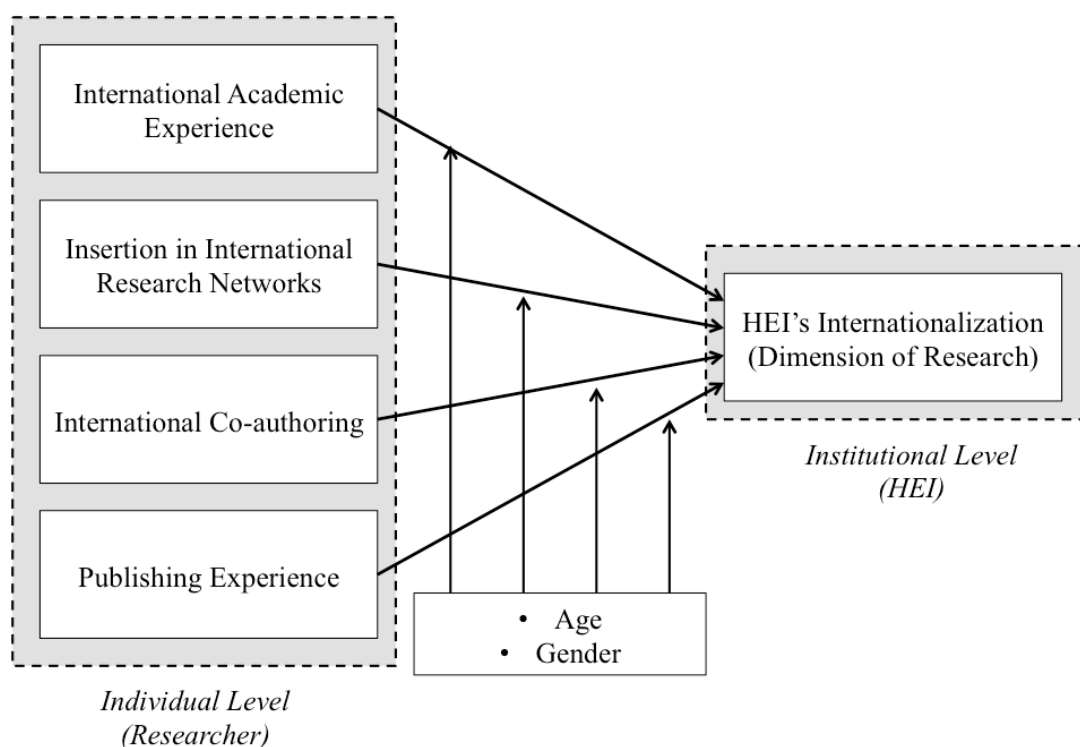
It is necessary to point out that Brazil was chosen to the study because is considered a new country in the academic research environment when compared, for example, to Western European countries and the United States, which evidences the need to increase its international insertion in the scientific debate (CAPES , 2010). This need for greater participation can be illustrated from Unesco data, which shows that only 2.9% of what is produced in the scientific world comes from Brazilian studies; As a basis for comparison, the United States produces 25.3% and China 20.2% of the world's publications (UNESCO, 2015).

We note, therefore, that the country's participation in the total of global publications is still low and that, therefore, several initiatives will be necessary to increase the dialogue between Brazil and other nations in various fields of knowledge, including Management. Due to this need of insertion, the postgraduate stricto sensu national programs of Management have sought - mainly from the last decade - to increase their global participation. For this purpose, we understand that a study with its main researchers is necessary and, for this reason, we carry out this research cut.

### **Conceptual Model of IHEI Based on the Role of Researchers**

Based on the systematization of the literature on Internationalization of Higher Education and the interviews conducted with researchers who experience this phenomenon in its most diverse manifestations, we present the following preliminary conceptual model, according to Figure 2:

Figure 2 – HEI Research Internationalization Model



Source: Authors

As a result of the study, the cross-referencing of the theoretical and empirical data pointed to four main categories of IHEI catalysts in their research field: (i) international academic experience, (ii) integration into collaborative networks (iii) international co-authoring and (iv) the research experience acquired by the researcher.

The international academic experience (i) of a researcher can be analyzed mainly through his years of study abroad - between undergraduate, master's, doctoral, post-doctoral and extension courses - acting as a visiting professor, orientations and examining boards in foreign institutions, participation in international academic events - including when it is part of the organizing body of the event - and academic awards obtained abroad (ALTBACH; KNIGHT, 2007; FIORIN, 2007; RODRIGUES; DUARTE; CARRIERI, 2012; CHOI; YANG; PARK, 2015; ROSTAN; HUANG; FINKELSTEIN, 2014; CARNEIRO et al., 2015).

These experiences enrich the researcher's global vision and, for this reason, are considered crucial for the internationalization of the institutions in which they operate, according to researchers interviewed:

I think it has a lot of relation (referring to IHEI) with the training of researchers already during the PhD. [...] is the time when you have time to expand, qualify, and improve your qualification. [...] there (abroad) you will establish bonds, so when you are a researcher already with doctorate completed, there you will have contact with methods that are being used more, or more valued by international journals, there you can complement the training in relation to theory and methods of interest (Interviewee 2).

The best advice I could give to future researchers would be as follows: abandons there (referring to the Doctoral course in Brazil) and come to do a doctorate here abroad (Interviewee 14).

I think the difference in internationalization lies essentially in the international background and experience of the researchers, in their history. Many have already

done the Ph.D. outside or have spent a lot of time doing PhD abroad (in sandwich period) and are in Brazil for personal reasons, which is my case (Interviewee 5).

Another important catalyst for IHEI results is participation in (ii) international collaborative research networks. By participating in international study groups, for example, researchers can get in touch with the current topics and the main methods within their area of action; with this, in addition to applying this knowledge in his works, the researcher disseminates this information in his institution of action, facilitating the IHEI in the field of research (RICHARDSON; MCKENNA, 2003; ALTBACH; KNIGHT, 2007; KWIEK, 2015; DINIZ et al., 2016).

It is also worth noting that empirical studies by Kwiek (2015) and Rostan, Huang and Finkelstein (2014) point to an increase in productivity in the researcher's publications resulting from his participation in research networks, expanding the boundaries of his publications, which can be illustrated by the interviewed researchers:

I think insertion is fundamental in research networks, in international contexts. It is not only the research network, it is in international contexts (Interviewee 4).

I think getting into networks is critical to knowing what people are really seeing, and what people are studying, and what is distressing staff, what is missing (Interviewee 3).

Look, I have some articles published in some books and I have some articles published in journals, but that are not in top journals. All of my international publications were based on networks and ties, a friend, someone who was in contact (Interviewee 15).

Publications in partnership with international co-authors (iii) are also catalysts of the internationalization result of researchers and HEIs. These partnerships may enable improvements in research, for example, on language adequacy and contextualisation comprehensiveness (DEWEY; DUFF, 2009; RODRIGUES; DUARTE; CARRIERI, 2012; CUMMINGS et al., 2014). Some of these gains are highlighted by researchers interviewed, as follows:

I have already had articles in partnership with international authors. The fact that you get known beyond the borders, outside Brazil, opens you more doors, even for my students. So, getting internationally recognized, I will have more opportunities to work in partnerships and I will also be able to open new fronts for my students (Interviewee 8).

My first international paper was a paper that came out of my doctoral thesis. It was published in [...], a good journal [...]. It does not have a stratospheric Impact Factor, but it has a great H-impact rating. I had already taken rejection in two other journals with this paper. I invited two coauthors and without them the paper would not have come out. I learned a lot. (Interviewee 13).

[...] What helped a lot in this internationalization process is that I have always tried to work together with colleagues from other countries. It's a bit more work, but it's very enriching, because you see a different view of what we have in Brazil, and, although it is more laborious, it is important, and I have had two publications as a result of these international activities. (Interviewee 3).

As the last major catalyst in the model is the experience in publications (iv) acquired by the researcher in his academic career, which involves, in addition to his own published work, participation as a member of editorial staff and reviewer of journals, as well as his participation and publications in scientific congresses. Part of the literature argues that the editorial process of foreign journals is different from those of Brazilian journals (for example) and that, for this

reason, having already experienced this reality previously, including through rejection of articles, facilitates the internationalization of the research (RODRIGUES; DUARTE; CARRIERI, 2012; CARNEIRO et al., 2015). In this same sense are the lines of researchers interviewed:

[...] has this thing of English, has the conventions, the language of the text that is fundamental, but you will only learn by doing, and it is good to read everything you can, for example, the Academy of Management Journal, which in 2011 and 2012 has a series of editorials in which different editors explain what they expect to have as good newspaper texts [...] (Interviewee 13).

When you start exposing your paper and it gets rejected and you get better, obviously people start to see you and recognize you and they know who you are. (Interviewee 15).

All the papers I published abroad (outside Brazil) were presented in two or three international congresses, at least different versions. And that's the great advantage of exposing your paper at international congresses: feedback. It's absolutely fantastic what kind of feedback you get. (Interviewee 12).

Following the propositions of Rostan, Huang and Finkelstein (2014) and Oliveira and Freitas (2016), age and gender are important factors that influence each of these catalysts and, consequently, the internationalization of HEI research. If, on the one hand, the greater age allows researchers to consolidate their knowledge and international networks, on the other hand, they tend to lose productivity in a marked way as they grow older, according to classic studies on the academic productivity cycle, Levin and Stephan (1991) and Oster and Hamermesh (1998). As a consequence, mature researchers in the academic cycle tend to contribute more to the internationalization of their institutions, which is the phase in which the 16 researchers interviewed in our study are found, thus corroborating the literature view.

Regarding the gender, Vabo et al. (2014, p.220) affirm, from an empirical study, that women face greater barriers to carry out international activities that require physical mobility (border crossing):

[...]Some of these barriers are related to marital status, spouse employment, and parental status: we found that women with stable relationships and with children are less likely to participate in international research collaborations when compared to male scholars.

As a consequence, there is a tendency for some women to focus on at home internationalization activities, that is, within their own country, which prevents them from exercising their full internationalization potential. For example, only three of the 16 researchers with a significant international performance are women, showing convergence in this respect with the findings of Vabo et al. (2014).

Based on the preliminary conceptual model presented, we tried to demonstrate the importance of the researcher as the main agent in the research internationalization result of the Institution of Education in which it operates, starting from the theoretical assumption that each internationalization activity of the researcher also generates, to some extent, the Internationalization of the Higher Education Institution in which it operates.

## **Final Remarks**

Taking into account the potential contribution of studies on Higher Education Institutions to the theories of International Business, and that the role of researchers, although widely recognized in literature as fundamental for this purpose, has been neglected by the studies and conceptual models of IHEI, we analyze in this article the impact of researchers' characteristics on the internationalization of HEIs in which they work.

To do this, we constructed an analytical review of the literature followed by interviews conducted with Brazilian researchers with a history of internationalization, with the purpose of triangulate the data analyzes and provide theoretical and empirical basis for the proposition of a conceptual model based on four fundamental catalysts.

From this method, we verified that the interviews brought convergent results with the literature regarding the main catalysts of IHEI; however, we note that there is greater attention by the authors to the importance of (ii) insertion in international collaborative research networks and (iii) international co-authoring in this process, to the detriment of (i) international academic experience and (iv) In publications acquired by the researcher, although both were recurrent in the answers of the interviewed academics.

Therefore, there is scope for future studies to explore, through a mixed methodology, the impact of the different types of researchers academic experiences for the internationalization of HEIs, in order to further clarify the understanding of the subject, even at the level of individual analysis (researcher). As a limitation of this study we highlight the absence of interviews with foreign researchers, which could enrich the triangulation of the data collected, based on different perceptions about the internationalization result.

Despite this limitation, we believe that this article contributed to stimulate researchers to seek international insertion, based on the different motivators and benefits classified in the study. As a managerial contribution directed at teaching institutions, we recommend priority investment in research networks with foreign institutions and in activities that enable the development of international research experiences for its main internationalization agents: the researchers.

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