

Strategies in Brazil's Higher Education and its Reflections

Jamerson Viegas Queiroz¹, Christian Luiz da Silva², Dory E. S. da S. Almeida³,
Fernanda Cristina Barbosa Pereira Queiroz⁴, Nilton Cesar Lima⁵, Gustavo
Henrique Silva de Souza⁶, Marciano Furukava⁷, Eduardo Lopes Marques⁸

¹Professor, Universidade Federal do Rio Grande do Norte, Brazil.

²Professor, Universidade Tecnológica Federal do Paraná, Brazil.

³Professor (in memoriam), Universidade Federal do Rio Grande do Norte, Brazil.

^{4,7}Professor, Universidade Federal do Rio Grande do Norte, Brazil.

⁵Professor, Universidade Federal de Uberlândia, Brazil.

⁶Professor, Instituto Federal do Norte de Minas Gerais

⁸Professor at the Federal University of Viçosa

Abstract— This article aims to identify the strategies used federal the institutions of higher education (IFES) located in the north-northeast of Brazil and its effect on the General index of courses (IGC) developed by the Instituto Nacional de Estudos e Pesquisas Educacionais Anísio Teixeira (INEP). The methodology used consisted of a Survey among all the IFES 22 located in Northern and northeastern Brazil, evaluated by the IGC in the period between 2007 and 2011. The results show that the strategies that influenced the positioning of IFES evaluated in the IGC are scaling, monitoring of processes by means of indicators and information systems; the systematic assessment of faculty; systematic awareness of students with regard to the importance of National Examination performance of students (ENADE); the policy of support for the residence of students through scholarships; as well as the creation and excellent functioning of coordination of the MEETING (program support the restructuring plans and expansion of Federal Universities); as well as the Commission Own assessment - CPA; logo should be considered in the planning of IFES.

Keywords— Evaluation and regulation; University Management; College Ranking; Higher Education.

I. INTRODUCTION

The management level of enterprises and the economic well-being of a society are, in principle, dependent on the quality of university education. Although they are classified as learning organizations, universities, paradoxically are hard environments change (HAVLICEK and PELIKAN, 2013). On the one hand, these institutions expose significant advances in the formation of (future) managers, on the other, the University Management adopts for itself, in many cases, a model of choosing leaders based on erudition of these in certain disciplines or in educational curriculum to the detriment of their potential managerial and leadership skills.

Havlicek et.al. (2006) point out that the University should behave as a “learning organization” and implement

the corporate education that offers to third parties within their own environment. In this design, some countries tried to make alterations relevant occidental have, through the implementation of “managerial” elements in University environments (LEWIS, 2005; COLCLOUGH, 2010; YI, 2011), fact verified in Brazil, especially from the enactment of law No. 10,861 of April 14, 2004, which established the National Evaluation System of higher education - SINAES.

The latter has for objectives the central orientation of the expansion of the offer of education; the ID of the merit and value of the institutions, areas, courses and programs, on the dimensions of teaching, research, extension, management and training; as well as improving the quality of higher education in Brazil. According to data published by the Ministry of education (e-MEC), the Brazilian higher

education currently has 245 universities, being private, 143 public State and federal 63 39, however, only 17.1% of young people of 18 to 24 years attend or have already completed higher education in Brazil (IBGE, 2011).

To the achievement of the goals set, the scope of SINAES is based on the central pillars of the institutional evaluation of courses and students (BRAZIL, 2004). Its structure comprises several instruments, such as the Census of higher education, institutional assessment, the National Examination performance of Students – ENADE, the Preliminary Concept of Course -CPC, and the concept of the Coordenação de Aperfeiçoamento de Pessoal de Nível Superior - CAPES, which establish the General index of courses – IGC.

It is important to emphasize that the implementation of the IGC, in the year 2007, occurred simultaneously to the launch of the program in support of restructuring plans and expansion of Federal universities (REUNI), established by Decree No. 6,096, April 24, 2007, as an integral part of the educational development plan (EDP) in recognition of the strategic role of Federal universities to the economic and social development of the country.

In short, the REUNI consists of a program whose measures aim to ensure universities the necessary conditions for the expansion of access and permanence in higher education; ensure quality through academic innovations; promote articulation between the different levels of education, integrating the undergraduate, graduate, basic education and vocational and technology education; as well as improve the utilization of human resources and the infrastructure of federal institutions of higher education.

The dimensions of the program include the expansion of the offer of places in higher education; academic curricular restructuring; pedagogical renewal; intra-and inter-institutional mobility; social commitment of the institution; and graduate support the development and qualitative improvement of undergraduate courses, having as main goals: the gradual elevation of the completion rate of the average undergraduate Presential to 90%; gradual elevation of the student/teacher ratio to 18 students to 1 teacher; minimum 20% increase in undergraduate enrollment; and the period of five years from 2007 for the fulfillment of the goals, with intake forecast of additional financial resources necessary for the fulfillment of the targets set by the institution, including significant investments in expansion,

renovation and improvement of the physical area of the universities as well as the progressive binding budget increment to the stages provided for in the plan.

Put the representativeness of SINAES and REUNI for the development of higher education in Brazil, the present study develops from yearning to relate the strategies, plans and actions developed by the federal institutions of higher education - IFES with their respective results on the IGC, so that at the end of the study, best practices can be listed to support the management of higher education in Brazil.

The relevance and timeliness of the theme still ratify while in that the legal obligation imposed on IFES as the evaluation and adjustment of higher education, as well as the benefits and penalties arising from such reviews.

It put, the purpose of this article is to identify the strategies used by IFES and its effect on the scores obtained and subsequent IGC ranking continuously from the analysis of data collected in official databases. It is still a secondary goal of this study, to verify a possible relationship between the results obtained by the IFES in the IGC and the actions arising from the REUNI.

For both, this article is structured in the following order: in addition to this introductory character section, section 2, named “Theoretical” presents the theme of the assessment of higher education and the University rankings, as well as discusses in order minudential the National Evaluation System of higher education in Brazil and the pillars on which it is based. Section 3 is intended to present the procedures and steps for the development of this survey. In turn, section 4 exposes results obtained in the research, in the form of strategies adopted for each of the four groups of analysis: (a) institutional self-assessment processes; (b) the performance of students in ENADE; (c) the preliminary concept of course; and (d) the concept CAPES; Finally, section 5 deals with the final considerations of the study, success of the references cited in the article.

II. EVALUATION AND ADJUSTMENT OF HIGHER EDUCATION

The debate on the quality and performance of higher education systems has been greatly stimulated by the annual publication of the Shanghai Jiao Tong University Academic Word Ranking of Universities (ARWU), which compares the

performance of universities worldwide and which has as its main rival the UK's Times Higher Education Supplement (THES), which similarly has attracted the attention of the world to conduct research with the same purpose. Intentionally or not, the University rankings are a public tool that comprises political discourse about National University systems (SAISANA, D'HOMBRES E SALTELLI, 2010; LUKMAN, KRAJNC E GLAVIC, 2010).

Martínez-Torres and Díaz-Fernández (2013), add the "Performance Ranking of Scientific Papers for World University", directed by Higher Education Evaluation and Accreditation Council of Taiwan (HEEACT ranking), both cited previously as part of the three most popular rating systems currently. To the same authors, the three programs vary with regard to the methodology; however, all of them are strongly impacted by research conducted at universities, in particular, by the publication of scientific articles indexed in databases ISI (Institute for Scientific Information).

Given to the repercussions of such rankings, the debate about these happen spontaneously, especially in academia, in which, studies are examining the indicators they use. In this construct, Van Raan, 2007, affirms that the ARWU measures the excellence of the past and not the present, then, tends to favor large English-speaking institutions, by the fact of basing primarily on search performance, disregarding other important dimensions of University life as teaching.

Alike thoughts have Taylor and Braddock, 2007 and Marginson, 2007 s regards the THES. For them, to be made up of at least questionable aspects (experts ' opinions), indicators of reputation can be "mere symptoms of excellence", inclined to favor the old institutions.

For Sáfon (2013), such rankings are accused to distract the attention of the SBI from its most important factors (research, teaching, and extension), given the need to change their behavior as a function of a performance improvement in these.

On the other hand, David Hand, President of the Royal Statistical Society, stresses such rankings are not and never will be perfect, however, are certainly better than nothing (HAND, 2004).

Regardless of the different opinions on the subject have, however, certainty for all interested in the subject that such rankings brought the debate discussion minimally on

the performance of universities, including in this article, when discussing the assessment of higher education in Brazil.

As said, the Sistema Nacional de Avaliação da Educação Superior – SINAES was created by law No. 10,861 of April 14, 2004 aiming to identify merit and value areas, institutions, courses and programs, on the dimensions of teaching, research, extension, management and training, as well as improve the quality of higher education, guide the expansion of supply and finally promote the social responsibility of the Brazilian INSTITUTIONS of HIGHER EDUCATION.

To fulfill its mission, the SINAES uses various evaluation tools aimed at, therefore the evaluation of institutions of undergraduate and graduate courses and the performance of students, evaluating all aspects that revolve around these three axes through the following evaluative tripod: 1- Institutional assessment, which operates through the accreditation and reaccreditation of institutions of higher education; 2 – Evaluation of courses, which splits in courses in their permits and renewals of recognitions recognition; 3- National examination performance of Students – ENADE, which is part of the calculation of the Overall Index of courses (IGC), the most important indicator for the analysis proposed in this article and whose composition will be more detailed below.

Currently, for the assessment of IES, has ten parameters SINAES dimensions: 1) mission and the Institutional development plan (PDI); 2) policy for undergraduate and graduate education, research, extension and the respective forms of operationalizing, including procedures for stimulating academic production and research scholarships, tutoring and other modalities; 3) social responsibility of the institution, which is considered especially with regard to its contribution towards social inclusion, economic and social development, environmental protection, cultural memory, artistic production and cultural heritage; 4) communication with society; 5) personnel policies, Faculty careers and its improvement, professional development and their working conditions; 6) the organization and management of the institution, especially the operation and representativeness of the collegiate, their independence and autonomy in relation to the maintainer, and the participation of segments of the University community in decision-making; 7) physical infrastructure, especially that of teaching and research, library information

resources and communication; 8) planning and evaluation, especially in relation to processes, results and effectiveness of institutional self-assessment; 9) policies for service to students; and 10) financial sustainability, bearing in mind the social significance of continuity of the commitments in the provision of higher education.

With regard to courses, assessments of SINAES take into account the didactic-pedagogical organization, Faculty profile, and physical facilities of the institution evaluated, whereas the information collections are performed through the Census of higher education, the register of institutions and courses of their own Committees of assessment (CPA), created in higher education institutions (IES) with the assignment to drive the internal evaluation processes of the institution, of systematization and gathering information.

The system proposes an institutional evaluation composed of self-evaluation, external evaluation, and census cadastre. The first articulates a self-study according the General roadmap proposed in national level, plus specific indicators, educational, institutional design, cadastre and Census and whose must contain all the information and other evaluative elements contained in the common national basic roadmap, qualitative analysis and administrative actions, political, educational and scientific-technical higher education institution intends to undertake as a result of the self-assessment process, identification of the means and resources necessary to carry out improvements, as well as an assessment of the successes and mistakes of the assessment process itself, while the second follows the same script, being, however, performed by external members, belonging to the academic and scientific community, recognized for its capabilities in their areas and comprehensive understanding of university institutions.

In turn, the census is a collection of data about higher education with the aim of offering to the academic community and society in General detailed information on the situation and the major trends in the industry. Such collection has by reference the General guidelines laid down by the Decree of April 4, 2008 6,425 and gathers information about higher education institutions, their undergraduate Presential or distance, sequential courses, vacancies offered, subscriptions, registrations, freshmen and seniors, plus information about teachers, in different forms of academic organization and administrative category. These data are collected from the filling in of questionnaires, part by higher education institutions (IES) and another by importing data

from the system e-MEC, the following data consistency checking and reopening of the Census system for Conference and validation by IES. Once the census, the data are disseminated and published statistics.

Lastly, the IGC, also called institutional quality index is an indicator of quality of institutions of higher education, which considers, in its composition, the quality of undergraduate and graduate students (MSC and PhD). With regard to postgraduate courses uses the concept of the Coordenação de Aperfeiçoamento de Pessoal de Nível Superior (CAPES) whereas with regard to the graduation of the Preliminary Concept is used of course (CPC) that besides the performance of students in ENADE considers information about faculty, infrastructure and didactic-pedagogical organization, weighted with data from Census Bureau of higher education and socioeconomic questionnaire replies of ENADE, so how has special relevance indicator in determining the level of quality of the Brazilian INSTITUTIONS OF HIGHER EDUCATION.

In its last edition (2011) were evaluated 18,346 of 2,136 courses, universities, colleges and universities, according to data from the Ministry of education.

In its composition, according to Banerjee et al. (2009), 40% of the final result is determined by the performance of students in ENADE, 30% by the indicator of Difference among the performances observed and Expected IDD, 11% by the educational resources, facilities and infrastructure, 12% for the percentage of professors with doctorate and finally 7% by the number of teachers with full dedication to IFES. Thus, according to the same authors, 81% of the composition of the institutions note the IGC under the student performance in ENADE and IDD (and provision of educational resources), while the other 19% is the percentage of doctors and teachers with full-time, whose information comes from evaluation based on information provided directly by IES.

III. METHODOLOGY OF RESEARCH

In terms of methodological framework this research, while research problem approach is classified as quantitative and qualitative; as to the nature of the objective, how exploratory and descriptive; and about the media Prism research constitutes a Survey.

It was determined as universe of interest of this research the twenty-two federal institutions of higher

education in the northern and northeastern regions evaluated by the IGC in the period between 2007 and 2011. Still determined by sampling goal the entire universe, it is appropriate to classify this research as census area.

Table 1 demonstrates the amount of Brazilian universities, properly classified (public and private) in their

Table 1: Brazilian universities by type and Region

Type	North	Northeast	South	South-East	Mid-West	Total
State Public	6	14	9	7	3	39
Federal Public	10	18	11	19	5	63
Private	37	7	24	55	20	143
Total	53	39	44	81	28	245

Source: From authors.

The research took place in three stages. Initially a documental search, which yielded useful information to guide the elaboration of the instrument of data collection and definition of variables (strategies) analyzed. Once observed at three institutions with the highest performance in the IGC in 2011, the Universidade Federal do Rio Grande do Norte – UFRN, the Universidade Federal de Pernambuco – UFPE, and the Universidade Federal do Ceará – UFC was executed a first round of semi-structured interviews objectified lifting variables (main strategies developed by the institution for each column of the IGC) to compose the data collection instrument.

At the end of the first round of interviews highlighted the following variables:

- i. continuous and systematic Awareness of importance of ENADE with teachers;
- ii. Continuous and systematic awareness of importance of ENADE along to students;
- iii. Continuous awareness and systematic from importance of ENADE along on the managers;
- iv. Continuous and systematic adjustment of the data of Sense;
- v. continuous and systematic Evaluation of teachers by students;

respective geographical regions. The IFES in Brazil totaling 63, of which 28 are located in the North-Northwest. It is important to point out that in this study were evaluated the institutions evaluated by the IGC in the period between 2007 and 2011, which totals 22 institutions.

- vi. Continuous and systematic training of the teaching staff;
- vii. Permanent improvement of infrastructure;
- viii. Permanent adjustment of Collection reports-CAPES;
- ix. Development of strategies to encourage scientific publication;
- x. structure and culture of management and monitoring of indicators;
- xi. Use of integrated informational System;
- xii. Commission assessment Itself - CPA with systematic action;
- xiii. Auto-continuous and systematic institutional assessment;
- xiv. Institutional strategy with focus on CPC, IGC, ENADE.

Identified the variables, we proceeded to the second stage of the research. In this, to evaluate the use of the strategies now cited a questionnaire was used with a three-point ordinal scale, with valuations of 0; 1; and 2 to assess each of the fourteen strategies listed. For all variables the corresponding option the valuation referred to 0 the absence of use of the strategy under review; the option 1 referred to the partial use of the strategy (in implementation); and the option to use 02 full tariff strategy.

The data were collected through face-to-face visits effect by the authors during the first half of 2013. It added that the questionnaires were applied with leaders and technicians in pre-set schedules.

The third stage of data collection took place by a documentary research carried out on the basis of the data published on the portal of the Instituto Nacional de Estudos e Pesquisas Educacionais Anísio Teixeira – INEP.

To analyze the effects of the strategies used by the IFES in the IGC, was used to search multiple statistical regression technique. For Hair et al. (1995), multiple statistical regression technique should be used when the researcher wishes to examine the effects of independent variables or explanatory (strategies of IFES), on a dependent variable or reply (IGC).

According to Johnson and Wichern (1988), multiple statistical regression technique develops an equation which allows for explanation of the dependent variable from the set of independent variables, as the following equation:

$$y = \beta_0 + \beta_1x_1 + \beta_2x_2 + \beta_3x_3 + \dots + \beta_nx_n + \varepsilon$$

Being y the dependable variable, which in the work is the IGC of each IFES; $x_1 \dots x_n$ are independent variables; $\beta_0 \dots \beta_n$ are the coefficients of regression associated to the independent variable; ε corresponds to the error term. The coefficients $\beta_0 \dots \beta_n$ can be interpreted as the contribution of each independent variable to explain the dependent variable.

According to Maddala (1992) the technique in question is suitable when the researcher seeks to explain a metric dependent variable, however, the dependent variables that compose the regression model can be binary or metrics. As these work strategies of the IFES were analyzed only as Yes, no, and On deployment, it was established that when the implementation of the strategy would be assigned the value 2, not achievement would be assigned the value 0 and when I was on deployment the value 1.

According to Maddala (1992) using the coefficient of determination (R-squared), which can be defined as the ratio of the variance of the dependent variable that is explained by the independent variables, can calculate the regression model accuracy. The value of this coefficient can vary between 0 and 1, and the closer to 1 the larger the explanatory power of the regression model.

Ownership of the data obtained by the IFES, a multiple regression was performed to analyze the impact of each strategy in the IGC of IFES. For the years 2009, 2010 and 2011, note that the correlation between independent variables and the dependent variable, represented by the R-multiple, is 79,52%, 74,40% and 67,52%. For the same periods, the explanation power of the regression model, represented by the R-square, is 63,24%, 55,35% and 45,59%.

In short, in order to meet the objectives mentioned above the following methodological steps were executed:

1. Literature review: extensive research in the literature about the University management, University ranking, evaluation systems of higher education and relevant Brazilian legislation;
2. Exploratory research: empirical research aspects and variables included in the theoretical foundation in order to identify together the IFES teachers and technicians directly linked to institutional assessment;
3. Descriptive research: sample Definition, of the instrument and the data collection procedures regarding the motivations and characteristics of institutional evaluation process;
4. Data collection about the IFES in various reports, interviews with technicians and managers through questionnaire, face-to-face form;
5. Analysis of data and preparation of the final report: the information collected was evaluated the correlation and impacts inherent in the strategies of the IFES with the outcome of the IGC following the making of the final report.

IV. RESULTS OF RESEARCH

This section aims to expose the results obtained with the search, so that from these discussions in the sphere of established goals once can be proposed. Based on firm the perception of the reader in the relations established, it seems appropriate to mention that this study aims to identify the strategies used by IFES and its effect on the scores obtained and subsequent IGC ranking continuously.

The results presented in this chapter were tabulated by the authors from data published on the portal of the Instituto Nacional de Estudos e Pesquisas Educacionais Anísio Teixeira – INEP, as well as from the data collected by the

IFES object of this research 22, more specifically next to their respective Commissions Own assessment and/or Pro-Reitoras of planning or organ with the same function.

their respective concepts in the IGC-continuous in the period between 2007 and 2011, listed according to their result obtained in the last year of the evaluation.

With regard to the results obtained in the IGC, table 2, below, lists the exposed IFES surveyed and the evolution of

Table 2: Evolution of the IGC continuum between the IFES of the north-northeast.

	IFES	Region	2007	2008	2009	2010	2011
1 st	Universidade Federal do Rio Grande Do Norte	Northeast	3,38	3,40	3,41	3,49	3,66
2 nd	Universidade Federal de Pernambuco	Northeast	3,53	3,56	3,50	3,69	3,55
3 rd	Universidade Federal do Ceará	Northeast	3,27	3,29	3,30	3,40	3,52
4 th	Universidade Federal de Campina Grande	Northeast	3,11	2,94	2,97	3,09	3,48
5 th	Universidade Federal Rural do Semi-Árido	Northeast	2,61	2,78	2,90	3,50	3,43
6 th	Universidade Federal da Paraíba	Northeast	3,05	3,05	3,13	3,28	3,41
7 th	Universidade Federal da Bahia	Northeast	3,30	3,25	3,19	3,33	3,33
8 th	Universidade Federal do Recôncavo da Bahia	Northeast	1,76	1,97	2,06	3,22	3,09
9 th	Universidade Federal Rural de Pernambuco	Northeast	2,72	2,86	2,98	3,34	3,08
10 th	Universidade Federal de Sergipe	Northeast	2,90	2,56	2,56	2,74	2,99
11 th	Universidade Federal do Piauí	Northeast	2,88	2,82	2,81	2,83	2,98
12 th	Universidade Federal Rural da Amazônia	North	2,64	2,40	2,39	2,75	2,97
13 th	Universidade Federal do Maranhão	Northeast	2,65	2,66	2,59	2,80	2,96
14 th	Universidade Federal do Pará	North	2,52	2,47	2,63	2,76	2,96
15 th	Fundação Universidade Federal do Vale do São Francisco	Northeast	N/A	N/A	3,12	2,9	2,84
16 th	Fundação Universidade Federal de Tocantins	North	2,41	2,42	2,44	2,59	2,84
17 th	Universidade Federal de Alagoas	Northeast	2,46	2,58	2,62	2,72	2,81
18 th	Universidade Federal de Roraima	North	2,58	2,63	2,46	2,66	2,81
19 th	Fundação Universidade Federal de Rondônia	North	2,84	2,92	2,73	2,77	2,75
20 th	Universidade Federal do Amazonas	North	2,80	2,76	2,65	2,68	2,69
21 st	Universidade Federal do Amapá	North	2,12	2,03	2,05	2,06	2,56
22 nd	Universidade Federal do Acre	North	2,60	2,74	2,69	2,64	2,55

Source: From authors.

In view of the above, it is possible to verify that the Universidade Federal do Rio Grande do Norte – UFRN occupies the first position in the IGC between institutions located in the regions understood in the object scope of this work, followed by Universidade Federal de Pernambuco – UFPE He held such placement by the year 2010.

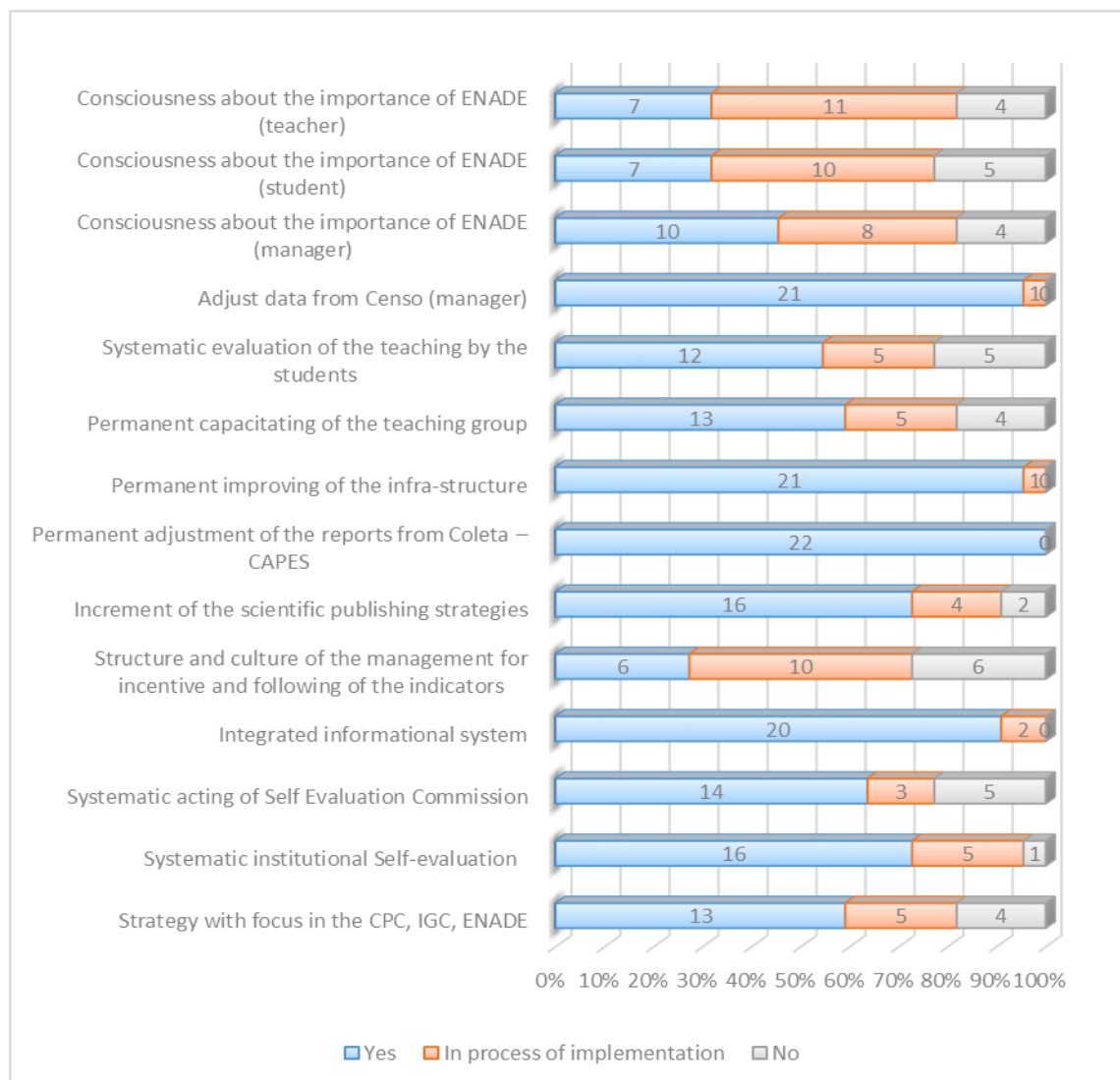
It is worth mentioning that the eleven best positioned, according to the IFES data presented are located in the northeastern region, being the Universidade Federal Rural da Amazônia - UFRA the institution best positioned in the IFES in the North of the country and the 12th when considered both regions.

Another highlight is the fact that the significant improvement of the score obtained by Universidade Federal de Campina Grande – UFCG that ranked in fourth place, according to the data collected.

Initial descriptive analyses expose that among the IFES surveyed, fourteen presented positive variation in their concepts; seven showed a negative variation in the concept obtained in the year 2010; and one remained unchanged concept.

The chart 01, in turn, summarizes the results related to the use of search strategies.

Chart 01 – Strategies adopted by IFES.



Source: From authors.

Under preliminary analysis are the results permanent adjustment-related surplus of collecting reports-apes, the permanent improvement of the infrastructure, the adjustment of census data, the systematic institutional self-evaluation and the use of informational systems integrated. Therefore, according to research data, constitute the most used strategies for IFES.

Such a finding is relatively expected analysis, since the provision of information in the Collection-Capes, the adjustment of census data and the achievement of institutional self-evaluation annually, are mandatory for the IFES. On the other hand, the results related to the improvement of the infrastructure is directly linked to the REUNI, which in turn had accession to all the participants of this study IFES, whereas the use of integrated systems of information constitutes an indispensable action facing the growth of structure of IFES.

With regard to institutional self-assessment, it is important to consider the importance of reading the data in conjunction with the actions of the CPA. With regard to the use and monitoring of indicators in management, have, according to the survey, only six institutions that in fact they do use in a consolidated manner indicators of University management; and ten others in the implementation phase. This fact reinforces the bureaucratic character of the self-evaluation in some IFES, considering that such a requirement is based in 10 dimensions or indicators that in theory, should be constantly monitored, so, direct the actions of the institutions.

Soon, in the face of this construct, it permitted the reading of the self-evaluation process can be used, most of the surveyed institutions only on the basis of the legal obligation, losing on purpose to constitute a not continuous process improvement development plan of the institution. In other words, the institutional assessment is a management tool capable of providing a holistic view of the institution and the interrelationship between the parts that compose it.

The items relating to the evaluation of teaching by students and permanent training of the faculty are very similar, once 12 universities have already implemented the first action and other 13 adopted the second strategy, and it is necessary to point out that only 8 institutions perform the two actions previously cited jointly, that is, there are situations in which they adopted the strategy of evaluation of teachers by students, without however occur docent training program and

vice versa, and clear the complementarity that exists between such actions.

As regards the increase of scientific publication have assumed that the most used by the IFES surveyed concerns the imposition of periodicals in the institution itself, diverging from the universities best positioned that in addition to this strategy have used the incentive for publication in journals and international conferences, including with financial assistance to authors, including students, to participate in events as well as the payment of publication fees.

In spite of the existing correlation, the use of strategies with a focus on CPC, IGC and ENADE will be examined against the items related to awareness of teachers, students and administrators on the importance of ENADE. The IFES surveyed 13 claimed to adopt indicators focused strategy mentioned above, however, of these, only 7 carry out awareness among teachers and students and 10 make it along on the managers.

The analysis of the data, allows to assert that universities cited das13, only 6 are awareness of teachers, students and administrators jointly.

Finally, it is worth mentioning that the IFES surveyed, Universidade Federal do Rio Grande do Norte – UFRN, is the one to adopt all the IFES strategies that patterned the present research, a fact that may therefore place it as the University best positioned among the surveyed.

The strategies adopted by Universidade Federal do Rio Grande do Norte

Created in June 25, 1958, UFRN has been dedicated to train professionals to meet the demands of society of North of Rio Grande do Sul in different areas of knowledge, showing, since the last decade, a visible improvement in their teaching activities (undergraduate and graduate), research and extension, according to the IGC.

With the implementation of the restructuring measures provided for in the program of support to restructuring plans and expansion of Federal universities (REUNITE), significant expansion and improvement in the quality of their academic activities, considering that the UFRN has 37,540 students enrolled in the various levels of education offered. 139 undergraduate courses are offered on-site, 52 academic Masters courses, 6 Professional Masters courses and 30

doctoral and research developed by 1422 doctors and masters through 382 194 research groups (source: Informational Systems of UFRN).

By joining the REUNI, UFRN undertook to carry out a planned changes and participatory, having as support studies, diagnoses and outcomes of institutional self-evaluation, which is one of the pillars for the improvement of indexes of institution, namely, the operation of the Commission evaluation Itself proactive - CPA, established formally in the year 2004 and UFRN composed of 14 members representatives of teachers, students, technical and administrative servers, as well as by civil society representative (member of the State Board of education) with the support of 4 Institutional Advisors with considerable experience in the area of education.

Still on the REUNI's stand out that proposal from the UFRN contemplated all the dimensions of the program, namely, expansion of the offer of Public higher education, Academic Restructuring-Pedagogical Renewal curriculum of higher education, Intra-and Inter-institutional Mobility; Social commitment of the institution and graduate support the development and qualitative improvement of undergraduate courses, with clearly defined targets and indicators and duly accompanied by Commission formally designated for this purpose composed of general coordination, a pedagogic-academic coordination and administrative coordination. This Commission itself became part of the technical team of the Dean of undergraduate studies Pro, being responsible for the management of restructuring, expansion and academic from the systematic evaluation of the results of the implementation of new courses, the expansion of existing courses and academic changes desired.

All this action framework required obviously large volume of investments in improving the infrastructure of the institution, purchase of new equipment and edifications that totaled R \$ 81,818,847, with a total of 37.73 works that included laboratories, University restaurant, auditorium for large events, buildings for new courses, libraries, clinics, expansion of the building of the deanery, blocks of classrooms, classrooms and teachers, enlargements of departments, halls of residence and central blocks of the production of didactic material, as well as resizing of its establishment plan, which included the hiring of 344 teachers and 120 technical and administrative servers and mid-tier 327, with magnification of 140Funções Functions – FG and

29 Direction Positions – CD, that student assistance grants to allies, master 's, doctoral, postdoctoral, visiting professor and other costing items totaled R\$182.757.188,96.

The CPA from UFRN in carrying out its activities, according to their Coordinator continued actions adopted 3 other points from UFRN in conjunction with the actions of the met with decisive impact for obtaining of results in the IGC, namely: definition, monitoring and action on the indicators of the institution, teaching evaluation systematically and systematic awareness of students regarding the importance of ENADE. The first includes the actions of student assessment, evaluation of faculty qualification, evaluation of institutional conditions, whereas the SINAES, CAPES assessment indices and other data of INEP, being relevant the fact of institutional self-evaluation process UFRN already constitutes a consolidated project in the institution, in which the CPA is responsible for all the processes that make up the internal evaluation.

In this process are used for data collection instruments composed of two questionnaires, one being filled by students-through which they analyze the performance of the teacher in the classroom and their own performance in the discipline, especially in terms of dedication-and another by professor, through which he has the opportunity to describe the physical infrastructure placed at your disposal by the Department/Centre and critique their own performance while for the course evaluation is considered a discipline within the framework of pedagogic project, as well as its articulation with the research and extension.

The data collection is carried out through the currently cited integrated system of academic management from UFRN-SIGAA, without which a student is not allowed to perform enrollment costs/, as well as non-realization on the part of the teacher constitutes a solution for consolidating Tuma.

After all the processing, the data are available on own system with filter options and consolidation Centre, Department and Course, consisting the average obtained by each professor, student assessment, along with the position and dispersion measures included in the result, while the departments/academic units carry out discussions of result of evaluating teaching in plenary session to propose the necessary measures for improving the quality of undergraduate education in relation to their respective teachers.

As regards institutional indicators, it is noteworthy that 88 related indicators are monitored the situation teaching and technical-administrative employees, students, teaching, research, extension, infrastructure and university hospitals, complex task, however greatly facilitated by informational systems of the institution, currently shared with several other federal universities and other organs of the federal public administration, being, such systems also responsible for results obtained from UFRN.

Finally, it is worth noting that to enhance teaching, learning processes through greater qualification of teachers, improving the physical structure and guarantee of the permanence of students through scholarships and other actions would be naturally expected significant improvement of the results of the students, however, awareness of these, on the importance of the examination and for the institution to maximize the result achieved.

V. DISCUSSION AND CONCLUSIONS

With regard to the proposed objectives for the work can be said to have been complied with, in so far as the strategic actions of the IFES surveyed were compared to the results obtained in the General index of courses. The method used has exposed to be effective in producing parameters for analyses and comparisons, providing subsidies for the understanding of the case studied.

The survey results showed that the scaling, monitoring through indicators and information systems, as well as the consequent achieving the goals agreed at the REUNI, are strategies whose use must keep consistent with the institutional self-assessment.

With regard to performance-related goals of students in ENADE and performance on the concept of the CPC and CAPES were patents existing relations between the results presented by the institutions and actions: systematic assessment of faculty; systematic awareness of students with regard to the importance of ENADE and; the policy of support for the permanence of students through scholarships and other programs are allies to improve the physical structure obtained with the REUNI.

It is important score, that the results obtained by the best institutions still must be positioned the creation and excellent functioning of coordination of the REUNI, as well as of the Commission evaluation - CPA Itself, given the importance of systematic control of the indicators and targets

related to the aforementioned strategic actions. While still de-emphasizing the contribution of informational systems of IFES for this control.

That said, it can be concluded that strategies evaluated in this study presented a direct repercussion on the results observed in the General Index-generated ranking of courses should therefore be considered in the planning of IFES.

REFERENCES

- [1] Bittencourt, H. R., Casartelli, A. O., & Rodrigues, A. C. M. (2009). Sobre o Índice Geral de Cursos (IGC). *Avaliação*, Campinas; Sorocaba, SP, 14(3), 667-682. doi: 10.1590/S1414-40772009000300008.
- [2] BRASIL (2004). *Lei 10.861*, de 14 de abril de 2004.
- [3] BRASIL (2007). *Decreto nº 6.096*, de 24 de abril de 2007.
- [4] Colclough, C., & De, A. (2010). The Impact of Aid on Education Policy in India. *International Journal of Educational Development*, 30(5), 497-507. doi: 10.1016/j.ijedudev.2010.03.008.
- [5] Hair, J. F., Jr., Anderson, R. E., Tatham, R. L., & Black, W. C. (1995). *Multivariate Data Analysis*, Macmillan Publishing Company: New York.
- [6] Hand, D. (2004). *Measurement Theory and Practice: The World through Quantification*. Hodder Arnold Publisher, 332 p.
- [7] Havlicek, J., Hron, J., & Ticha, I. (2006). Knowledge Based Higher Education. *Agricultural Economic*, 52(3), 107-116.
- [8] Havlicek, J., & Pelikan, M. (2013). The Globalization of Higher Education – Be Responsible and Survive the Changes. *International Education Studies*, 69(4), 217-224. doi: 10.5539/ies.v6n4p217.
- [9] Johnson, R. A., Wichern, & Dean W. (1988). *Applied multivariate statistical analysis*. 2ed. New Jersey: Prentice Hall International.
- [10] Lewis, T., Marginson, S., & Snyder, L. (2005). The Network University? Technology, Culture and Organisational Complexity in Contemporary Higher Education. *Higher Education Quarterly*, 59(1), 56-75. doi: 10.1111/j.1468-2273.2005.00281.x.
- [11] Lukman, R., Krajnc, D., & Glavič, P. (2010). University ranking using research, educational and environmental indicators. *Journal of Cleaner Production*, 18(7), 619-628. doi: 10.1016/j.jclepro.2009.09.015.
- [12] Madalla, G. S., (1992). *Introduction to Econometrics, second edition*. New York: Macmillan Publishing Company.
- [13] Marginson, S. (2007). Global university rankings: implications in general and for Australia. *Journal of Higher Education. Policy and Management*, 29 (2), 131-1442. doi: 10.1080/13600800701351660.

- [14] Martínez-Torres, M. R., & Díaz-Fernández, M. C. (2013). A study of global and local visibility as web indicators of research production. *Research Evaluation*, 22(3), 157-168. doi: 10.1093/reseval/rvt003.
- [15] Safón, V. (2013). What do global university rankings really measure? the search for the X factor and the X entity. *Scientometrics*, 97(2), 223-244. doi: 10.1007/s11192-013-0986-8.
- [16] Saisana, M., D'Hombres, B., & Saltelli, A. (2010). Ricketty numbers: Volatility of university rankings and policy implications. *Research Policy*, 40, 165–177. doi: 10.1016/j.respol.2010.09.003.
- [17] Taylor, P., & Braddock, R. (2007). International university ranking systems and the idea of university excellence. *Journal of Higher Education Policy and Management*, 29 (3), 245–260. doi: 10.1080/13600800701457855.
- [18] Van Raan, A. F. J. (2007). Challenges in the Ranking of Universities. In: Sadlak, J., Cai, L. N. (Eds.), *The World-Class University and Ranking: Aiming Beyond Status*. UNESCO-CEPES, Bucharest.
- [19] Yi, L. (2011). Auditing Chinese Higher Education? the Perspectives of Returnee Scholars in an Elite University. *International Journal of Educational Development*, 31(5), 499-508. doi: 10.1016/j.ijedudev.2011.03.003.