Brazilian Universities – Problems, COVID-19 & Efforts

Universidades Brasileñas – Problemas, COVID-19 y Esfuerzos

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ABSTRACT

It is necessary to know the state of the brazilian universities. In this paper the general objective was determine the situation of brazilian universities: Problems, COVID-19 & efforts. Methodology, in this research, 36 documents have been selected, carried out in the period 2016 - 2021; including: scientific articles, review articles and information from websites of recognized organizations. The keywords used in the searches were: Brazilian universities and COVID-19. Results, brazilian universities stand out for the great effort they make in the training of researchers, as well as in the publication of numerous scientific articles and patent registration. Each year they manage to rank better in the Latin American and international rankings. Conclusions, brazilian universities have been affected by the pandemic, largely due to the ineffective response of the current government. Therefore, it is necessary for the university community to work in coordination to overcome this critical situation. Brazilian universities are an important example for the rest of Latin American universities, due to their outstanding position in international rankings and their continuous effort in scientific research.

Keywords: Brazilian universities, COVID-19.

RESUMEN

Es necesario conocer el estado de las universidades brasileñas. En este trabajo el objetivo general fue determinar la situación de las universidades brasileñas: problemas, COVID-19 y esfuerzos. Metodología, en esta investigación se han seleccionado 36 documentos, realizados en el período 2016 - 2021; incluyendo: artículos científicos, artículos de revisión e información de sitios web de organizaciones reconocidas. Las palabras clave utilizadas en las búsquedas fueron: universidades brasileñas y COVID-19. Resultados, las universidades brasileñas se destacan por el gran esfuerzo que realizan en la formación de investigadores, así como en la publicación de numerosos artículos científicos y registro de patentes. Cada año logran posicionarse mejor en los rankings latinoamericanos e internacionales. Conclusiones, las universidades brasileñas se han visto afectadas por la pandemia, en gran parte debido a la respuesta ineficaz del gobierno actual. Por tanto, es necesario que la comunidad universitaria trabaje de forma coordinada para superar esta situación crítica. Las universidades brasileñas son un ejemplo importante para el resto de universidades latinoamericanas, por su destacada posición en los rankings internacionales y su continuo esfuerzo en la investigación científica.

Palabras clave: Universidades brasileñas, COVID-19.

1 INTRODUCTION

Brasília is the capital city of the Federative Republic of Brazil. The current COVID-19 situation: 30 671 new cases, 20 645 537 confirmed cases, 576 645 confirmed deaths (WHO, 2021).

Figure 1. Map of Brazil.

Source: UNESCO (2021)

In this paper the general objective was determine the situation of Brazilian universities: Problems, COVID-19 & efforts.

Between 2003 and 2014, eighteen new federal universities were created—a growth of 40 percent—and 173 campuses were established, primarily in regions with little assistance from federal universities—a growth of 117 percent (Borges & Sobral, 2020).

According to a survey by Inep, which was released in 2017, there are 296 public higher education institutions and 2,152 private, in Brazil. In all of the 27 States, there are Federal and State universities (DWIH São Paulo (2018).

In 2018, there were 199 universities enrolling 53 percent of tertiary students. About half of them are public, including 63 federal universities (universidades federais), 40 state universities (universidades estaduais) and 4 municipal universities (universidades municipais) (World Education Services, 2019).

With regard to education, the remote learning is used as an alternative to keep the students active, minimizing the consequences that the policies of social isolation has been had on academic activities (Spalding, Rauhen, Vasconcellos, Vegian, Miranda, Bressane, Salgado, 2020).

2 METHODOLOGY

The research presents a qualitative-interpretative design, of a documentary type, which specified the selection procedure and the data recording (Barrero y Rosero, 2018).

In this research, 36 documents have been selected, carried out in the period 2016 - 2021; including: scientific articles, review articles and information from websites of recognized organizations. The keywords used in the searches were: Brazilian universities and COVID-19. For the selection of the documents, the following criteria were used: the year of publication, belonging to the research and being a reliable source. After reading each document, the data was entered into the bibliographic matrix, which is used to catalog the documents according to categories, which are presented in table 1.

Table 1. Bibliographic matrix

Name	Type	Objectives	Conclusions

Source: Adapted from Barrero & Rosero (2018).

3 RESULTS

3.1 PROBLEMS

The interaction of universities, industries and governments is essential. In the absence of this linkage in Brazil, it is virtually impossible to perform translational research, that is, to take the results from the bench to the bedside, and from there to the healthcare system (Rosa, da Silva, Pacheco, C. et al., 2021).

According to the Ministry of Education, 38 of Brazil's 69 state universities have suspended their activities entirely, while 21 are teaching remotely and 12 are partially open. The ministry estimates that, of the more than 1.1 million students attending federal institutions, about half have had their learning suspended (McKie, 2020).

In Brazil, fewer than a quarter of all students dedicated three hours or more a day to school activities in September, a study by several nongovernmental organizations showed. Almost 5 percent of students in primary school and more than 10 percent of high school students reported in January that they had dropped out of school (Human Rights Watch, 2021).

It is observed that the internationalization of Brazilian higher education system is still incipient and that HEIs are scarcely proactive in the development of institutional policies to receive and in leveraging the opportunities offered in the process (Neves & Barbosa, 2020).

Particularly, it aims to analyze the internationalization process of Brazilian universities made visible in their institutional mission statements. The institutional sites of 62 universities were analyzed, though the term "international" was found in only 7 mission statements (Furtado, Finardi, Salles & Taquini, 2020).

Continuous changes in Brazilian federal universities have affected the lives of workers in these institutions (Borges, Barros & Magalhães, 2020).

The main findings revealed that the quality and size of university operations stand out increasingly to improve the academic performance of students, especially for those who attend a public university (Morais, Betarelli, Pinto & Vieira, 2121).

We also find a negative relationship between regional economic development and patenting outcomes. In contrast, we determine that universities located in regions with higher levels of economic and innovative activity generate more licensing agreements (Soares, Torkomian & Seido, 2020).

Some problems in Brazilian Universities have increased due to the pandemic. Therefore, it is necessary for the university community to work in coordination to overcome this critical situation.

3.2 COVID-19

Brazil is the fifth largest country in the world, and it has more than 211 million inhabitants, and about 20% of them living in the state of São Paulo, the venue of the first and majority of SARS-CoV-2 cases in the country. The second country in the world in the number of cases, Brazil is the 13th country in COVID-19 lethality, considering the number of deaths of COVID-19 per million inhabitants (Carmona, 2020).

Figure 2. Tracking COVID-19 in Latin America

Source: Gonzalez, Harrison, Hopkins, Horwitz, Nagovitch, Sonneland & Zissis (2021)

In figure 2, it was observed the AS/COA Online tracks confirmed COVID-19 cases in the region.

Since the first recorded case of COVID-19 on February 26, 2020, Brazil has seen an exponential growth in the number of cases and deaths. The national testing approach has been insufficient to correctly use this tool in the support of containing the epidemic in the country (Kameda, Koichi et al., 2021).

The COVID pandemic is ravaging Brazil, where it has killed nearly 400,000 people, a death toll exceeded only by the U.S. (Mineo, 2021).

The Covid-19 pandemic has had significant social impacts, such as the sudden interruption of basic education activities in Brazil, due to the need for social isolation (Silva, Silva, Tinôco, Araújo, Venâncio, Sanches, Freire and Lazaretti, 2021).

The challenging situation began in a fragile political moment in Brazil. The Brazilian president has been completely despicable, disregarding the gravity of the situation, acting against mitigation strategies, and disseminating false news (Preiss, 2020).

Keeping students learning under Covid-19 pandemics imposes challenges to education never seen in Brazil. It starts by its size: more than 47 million students are outside school to contain the virus (Lautharte, 2020).

Brazilians living in families with children and adolescents were the most affected by reduced incomes, food insecurity and hunger. The research also found that most children and adolescents continued to have access to education at home, but 9 percent were excluded (UNICEF, 2020).

Nevertheless, viral infection has been detected in the university campuses, while simultaneously, we have seen a steady increase in the cases of COVID-19 and overloaded hospitals, leading to some tragic outcomes (Lopes, 2021).

Health-related higher education in Brazil should focus on reassessing and prioritizing their policies and protocols and the future plan should include distance learning (Peloso, Ferruzzi, Mori, Camacho, Franzin, Margioto & Freitas, 2020).

After the WHO declared the COVID-19 pandemic, the Federal University of Paraíba suspended all on-site teaching, research, and service activities. For the return to teaching activities, the use of information and communications technology resources for distance learning was recommended (Peres, Karen Glazer et al., 2020).

Brazil is one of the countries most affected by the pandemic in Latin America and the world. This affects its university population and community in general. The inadequate government management to face this pandemic stands out.

3.3 Efforts

Furthermore, there is a select group of elite universities; USP, Unicamp, Unesp, UFRJ, UFMG, Unifesp and UFRGS who regularly position in the world's top 500 across different rankings. These seven institutions form the backbone of Brazil's university research system (Metricas.edu, 2020).

Some Brazilian universities make significant efforts to improve their position in international rankings.

Figure 3. QS World University Rankings 2022

↑ Rank	↓ University	↓ Overall Score
=121	Universidade de São Paulo São Paulo, Brazil	55.9
219	Universidade Estadual de Campinas (Unicamp) Campinas, Brazil	41.3
=369	Universidade Federal do Rio de Janeiro Rio de Janeiro, Brazil	30.3
=434	Universidade Federal de São Paulo São Paulo, Brazil	26.7
=492	UNESP Sao Paulo, Brazil	24.2
651-700	Pontifícia Universidade Católica do Rio de Janeiro Rio de Janeiro, Brazil	-
651-700	Universidade Federal de Minas Gerais Belo Horizonte, Brazil	-
751-800	Universidade Federal do Rio Grande Do Sul Porto Alegre, Brazil	-
801-1000	Pontifícia Universidade Católica de São Paulo São Paulo, Brazil	-
801-1000	Universidade Federal de Pernambuco (UFPE) Recife, Brazil	-

Source: QSTOPUNIVERSITIES (2021).

The evaluation of scientific activity is essential for the construction of S&T indicators. The rapid expansion of Brazilian scientific output published internationally in recent years makes this type of assessment necessary at both national and regional levels, since there is great diversity among regions in Brazil (Chittó-Stumpf, Souza-Vanz, Mielniczuk de Moura & Caregnato, 2017).

The proposal, now before the state's legislature, calls for the three major academic institutions—the University of São Paulo, the University of Campinas, and São Paulo State University—to transfer money in their long-term reserve accounts to the state government to help avoid deficits created by the COVID-19 pandemic (Amigo, 2020).

Lastly, we find that universities that adopted affirmative action policies with explicit racial criteria experienced an increase in the enrollment of Black students whereas universities that adopted race-neutral policies had no significant changes in the racial profile of their students (Schwambach & Arends-Kuenning, 2019).

This article assesses the patent portfolio of Universidade Federal Fluminense (UFF), which is located in State of Rio de Janeiro in Brazil and currently consists of the largest Brazilian research university in terms of the total number of enrolled undergraduate students (Marcuzzo do Canto, Akiyoshi & Brandao, 2019).

Although there are some differences among research areas, the most important explanatory variable was the publication record of the researcher before doctoral graduation, reinforcing the role of a solid academic formation in terms of research experience (Diniz-Filho, Fioravanti, Bini & Rangel, 2016).

Such behavior seems to have co-evolved along with improvements in the national institutional environment, leading to expectations that academia can become strategic in shaping the catching-up conditions in Brazil for the coming years (Brandão, Rücker & Vonortas, 2019).

The university's innovation policy is based on promoting interaction and learning between entities from the academic, business and government institutional spheres (Universidade Federal Fluminense, 2021).

Unicamp accounts for 8% of academic research in Brazil, 12% of national postgraduate studies and maintains the leadership among Brazilian universities in terms of patents and the number of articles per capita published annually in journals indexed in the ISI database /WoS (Unicamp, 2021).

Brazilian universities stand out for the great effort they make in the training of researchers, as well as in the publication of numerous scientific articles and patent registration. Each year they manage to rank better in the Latin American and international rankings.

4 CONCLUSIONS

Brazilian universities have been affected by the pandemic, largely due to the ineffective response of the current government. Therefore, it is necessary for the university community to work in coordination to overcome this critical situation.

Brazilian universities are an important example for the rest of Latin American universities, due to their outstanding position in international rankings and their continuous effort in scientific research.

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