

KNOWLEDGE TRANSFER PROJECT 2018_2019 - EdTech in Brazil

For Innovation Norway Rio

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Introduction:

The objective of this knowledge transfer project (KTP) is to undertake a scan in selected markets of the EdTech world in order to educate Norwegian EdTech SMEs and give information on opportunity level for Norwegian companies in the markets.

The content of this report is based on questions formulated by the Innovation Norway team and the Oslo EdTech Cluster. The main focus in the report is on educational technologies such as digital learning tools, digital educational content, learning management systems (LMS) and administration tools. The report is individually shaped for each country due to country specific reasons.

This report is divided into three parts. First, there is an introductory part, which gives an overview over the lower and higher education system and political strategies. Second, there is a market information part, where an overview over the market and trends is given. Third and finally, an evaluation of the market opportunities and some general tips are given.

Innovation Norway's Rio de Janeiro office intend to further develop the work of prospective market scanning of relevant markets in the EdTech sector.

Enjoy reading!

Innovation Norway Rio de Janeiro office

Overview: The Brazilian Education System

The current education system in Brazil is centralised and is under the Ministry of Education (*Ministério da Educação - MEC*), which is a cabinet-level federal ministry of Brazil. The current Minister of Education is Mr. Ricardo Vélez Rodríguez and he is responsible for coordinating the national education policy and daily affairs, from early childhood to the post-graduate level. The federal states must follow the National Curriculum Framework (*Base Nacional Comum Curricular - BNCC*) regarding structure, curriculum and strategies stated by the Ministry.

The structure of the Brazilian education system is defined by two main legislatures. They are the Law of Directives and Bases of Education - Law No. 9,394 of 1996, known as LDB - and the general guidelines of the Federal Constitution of 1988 - that within Chapter III determines that basic education is a right of all citizens. These guidelines authorize government spheres to conduct and maintain educational programs, which are designed from the National Curriculum Framework (*Base Nacional Comum Curricular - BNCC*).

BNCC is envisaged in the LDB as a set of student learning guidelines to achieve educational goals. That is, it seeks to ensure that all students have access to basic and indispensable knowledge, regardless of where they came from or their conditions of study. Together, it is the Union, the States, the Federal District and the Municipalities to plan, finance, maintain and execute education policies that are in accordance with the BNCC, LDB and the constitutional guidelines. In addition to these laws, various agencies are responsible for the functioning of our educational system. At the federal level, they are the Ministry of Education (MEC) and the National Council of Education (*Conselho Nacional de Educação - CNE*).

There is a predominant common structure divided into four parts as explained by the Brazilian Ministry, which captures the core of the system:

- Pre-school level (age 0 – 5)
- Primary level 1 (age 6-10) level 2 (age 11-14)
- Secondary level (age 15-17)
- Tertiary level (age 18+)

The **Pre-school level** (*Educação Infantil*) is entirely optional. Nursing school is for children up to 3 years old and kindergarten for children from 4 to 5 years old

The **Primary level** (*Educação fundamental*) is compulsory in Brazil between ages 6 and 14, and free at public schools. Children under 6 may attend optional the pre-school level before enrolling for 5 years at primary school. This level has a duration of nine.

The **Secondary level** is also known as High School (*Ensino Médio*), has a duration of three years and is free at public schools. It is mandatory to have completed the primary school to join the secondary level. In this level, it is also offered a technical High School (*Ensino Médio Técnico*) in extra-class periods. The duration can vary and can be from 1 to 3 years.

The **Tertiary level** includes Universities (Bachelor`s degrees and School teachers) and technology training. High school education is a prerequisite for entering tertiary institutions, as is a competitive vestibular entrance examination. Undergraduate degrees require 4 year`s study (*Bacharelado*). School teachers

must follow a separate 4 year (*Licenciatura*). Others prefer to follow 2 to 4 years of technology training. The normal range of graduate education is offered too. In Brazil, it is possible to combine study with working in a company simultaneously. At this level, vocational education is included as well.

In Brazil the public universities are the most competitive and the ones that most employ graduated students, unlike public schools, which have very precarious facilities and low-quality teaching, except for a few exceptions. In this way, education in Brazil is not equal, they are for those who can afford a private school with a high-quality education to enter public schools.

Concerning the Brazilian market, it is relevant to mention that there are around 56 million pupils and around 48,8 million students in the 186,100 schools, being 21,5% of private schools in 2016 and around 8 million students in the 2.407 universities/university colleges. It is a large market to explore.

Political strategies for digital education

In April 2018, the Federal Ministry of Education in cooperation with the National Bank of Economic and Social Development (BNDES) launched a public call named as “Connected Education – Implementation and application of digital technologies in Education”, which will have an investment of R\$20 million. Public schools throughout the country will receive funding to support the development of projects to incorporate digital technologies into basic education, which will cover all the stages, from kindergarten until high school.

The project foresees the improvement of the infrastructure and connection in schools, which includes the expansion of terrestrial broadband network, connectivity services, infrastructure of wi-fi, purchase of devices and acquisition of a satellite that will carry internet of at least 10 Mb rural schools, places where the terrestrial structure is not viable or costly. The project strategy focuses on the following actions: 1- Communicating digital education, 2- Strengthening the digital infrastructure and 3- Supporting strategic organizational development.

The actions are limited to strength the digital infrastructure in the schools. Brazil is a large country and there are schools without access to internet network. In this direction, the project does not foresee the adjustment of the curriculum to include digital tools for a more digitalised learning process or training of competence of educators concerning digital education.

Meanwhile the government does not manifest itself on this issue, private companies have invested huge amounts in electronic equipment and software and educational institutions are creating technology rooms, using tablets and other mobile devices to promote digital content that strengths the learning process. Private schools have been inserting coding class in their curriculum or as an extracurricular course, which reflects the trend in the current scenario.

Despite the actions described in the previous section not seeming favorable, it is relevant to mention that the EdTech market in Brazil is large and has challenges that serve any audience that needs educational solutions. However, most of the audience still focuses on private education institutions and the corporate market - the latter with great business potential. In the next section, we will look deeper into the Brazilian market to understand the perception of the market and describe the current scenario of the Brazilian EdTech market.

EdTech Market information

This section will describe deeper the EdTech market in lower and higher education and as this market works in business.

The sector in Brazil still has innumerable inefficiencies, both qualitative and quantitative, but during the last few years Brazil has advanced a lot in this segment and, consequently, there are numerous opportunities to be undertaken. Brazil has immense potential to develop it, not only in its youth, but also in people who are already in the labor market the longest. The vocational education, for example, moves more than R\$35 billion and suffers from numerous problems of evasion and employability of its students, and this gap could be seen as a great business opportunity to develop.

The EdTech market is specially driven at Higher Education Institutions (*Instituições de Ensino Superior – IES*) and is still quite typical of private universities. However, the government investment rate in the coming years is 10% of GDP - current, it reaches 5.7%, there is an optimism for greater reach of public universities in the future. It is relevant to mention that public administration in Brazil faces very-early challenges in this segment, which makes negotiating with the government a very hard strategy. This analysis will not cover the public sector, because the market understands that in public schools or Universities this matter is still an early stage and that there are still many obstacles to be overcome, but it is a relevant slice and it is impossible not to mention.

Regarding the Private High Education Institutions, this analysis will focus on two main directions: 1- The Learning Management Systems (LMS), known as *Ensino a Distância – EAD*, and 2- Specific courses within the University that search for EdTech solutions.

According to the latest Learning Management Systems Census Brazil (*Censo EAD Brasil*) issued in 2017, among the 351 institutions, which replied the survey, 54% are from the private Universities (33% for-profit and 20% non-profit), while 26% are public universities. The other institutions are concentrated in: 10% institutions of the System S (Senai, Sesi, Sebrae, Senac, Senar etc.), 7% public bodies or governments and 3% non-governmental organizations (NGOs) and third sector.

The LMS is already very present in private Universities in Brazil, both in capitals and inland regions. Most of the institutions are in the Southeast region (42%), especially in São Paulo (22%). It is estimated that about 1.5 million Brazilians choose for distance education - 18.6% of total enrolments. In 2004, they were only 60 000, 4.2% of the total. The number of students enrolled in this modality in higher education grew by 21.4% from 2015 to 2016 and already represents 28% of new students. On the other hand, the number of students who entered to the in-class education modality was reduced by 3.7% in the same period. Specialists highlight this increase because of the flexibility that the LMS offers and the significant reduction of tuition, that can be up to 65% cheaper than the in-class education modality.

Realizing that this trend is more and more consolidated in Brazil, the Ministry of Education instituted a new regulation that mobilizes the institutions that work in the sector to face the challenge of expanding the offer and guaranteeing the quality of teaching. The expansion of the distance learning offer is followed by the growing interest of students in joining technology to obtain a university education.

However, according to the opinion of the participants of the Census, for an extension of the Distance Education System, technological and administrative innovation are required, in addition to technological infrastructure and support to the students must be higher when compared to the in-class education modality. This is can be a bottleneck for some Higher Education Institution.

It is inevitable to think how technology favors the educational process at all levels of learning, from basic education to academic training. Access to it enables educators and educators to broaden their concepts and narrow their physical and virtual relationship. What is learned in the classroom, with specificities of a certain subject, can easily be studied in a larger scope, in which other aspects or variables of the same subject are noted. This means that technology becomes an extension of the classroom in search of more knowledge, since new ways of learning and teaching can be proposed.

When it comes to specific courses that gain spaces in the private universities, specialists in the sector highlight that there is a need in the Brazilian Market for companies providing simulators, virtual labs and Artificial Intelligence to Universities in Engineering, Mathematics, Physics and Health sector.

Regarding LMS for corporate in Brazil, it is worth mentioning that when used as a strategy, it can increase the productivity and efficiency of organizations, since qualified employees become a competitive differential because they add value and knowledge to the business.

The Brazilian corporate market has surrendered to the innovations and facilities that come from e-learning. With the increasing use of the Internet, companies have realized that virtual courses are an efficient way to empower their employees. Most of the corporate courses demanded in the market, according to the Brazilian Association of Direct Marketing (ABEMD), are of professional initiation, updating, improvement, operational training and languages.

According to the LMS Brazil 2017 Census, the free corporate and non-corporate courses were the ones that grew the most and received enrollments. The highlights were for professional initiation and operational training, with 1,880,165 and 1,001,819 enrollments, respectively.

In Brazilian business, EdTech products are also playing a larger role. According to the 12th Edition of the Overview of Training in Brazil 2017/2018, from the 738 companies, which replied the survey, 77% use LMS. It also reports that companies in Brazil allocate 10% the payroll as an annual investment in Training & Development. When it comes to the sector, commerce is the one which invest more per employee, followed by services and industry in LMS products.

The report also reports an increase of 9% of the trainings in LMS, when compared to 2015/2016, and the number of companies that do not use LMS products decreased 4%. It was also reported that the search for more complex and efficient methodologies increased 67% in the use of mixed methodologies - which combine in-class modality and LMS products.

The 12th Edition of the Overview of Training in Brazil 2017/2018 highlighted that the use of live e-learning (webinar or web conferencing), which grew 33% over last report and, in addition to remote live training, represents 21% of e- learning. Another highlight is e-learning via mobile technologies that grew in 2017/2018 in use (38%), but is still not very representative, with only 4% of e-learning actions. This movement is certainly due to the technological and cultural evolution that the country is experiencing. Specialists are no doubt that these two items will continue to grow year after year.

Concerning the use of EdTech in private school, it is difficult to precisely present how many Brazilian schools are using LMS products. On the other hand, having a deeper look into how media reports this a trend in education in Brazil and several relevant media articles report that the usage of digital learning tools in schools is growing and they believe that in a few years, most technology companies will be focused on education, including corporate education. The reason for not finding data, it may be that this sector is still starting, but there is an excellent prospect of growth.

Market Fairs in EdTech

BettEducar is the largest education and technology trade in Latin America. The next fair is held in São Paulo from 11 – 17 May 2019. It annually brings together over 230 national and international companies, over 19 industry startups and about 22,000 participants from the educational community of all Brazilian states, who are seeking inspiration, discussing the future of education and paper that technology and innovation play in the education of all educators and students.

In 2018, IN Rio participated at BettEducar and they explicitly demonstrated interest in Norwegian Education companies and aim to bring together for the next edition in 2019. They have already worked with Norwegian companies in BettEducar London and had great experience. This fair works also as an information sharing place for digital education.

In your second edition, EdTech Conference 2018 brought together about 1,500 people in São Paulo. The conference is organized by StartSe, Brazil's largest startups ecosystem, and brought together education experts, Edtechs and representatives from educational institutions to discuss the future of education and the ways technology can advance the evolution of the learning process. EdTech Conference 2019 is held also in São Paulo on 21st February.

Main potential system integrators

Positivo Group is a Brazilian multinational company specialized in technology and innovation. Founded in 1989, the company's initial objective was manufacturing and selling computers for Positivo Group's customer schools throughout Brazil. Over the years they have reinvented themselves and have realized the changes in the tech market and today they are present with your products in more than 40 countries, have 3,000 sale points in Argentina and 10,000 in Brazil. In its portfolio includes computers, tablets, smartphones, mobile phones and telemedicine devices, as well as equipment for schools.

They have transferred their knowledge in technology to the classroom and have very innovative methodologies to improve learning, from elementary to high school. They have their own schools in Brazil, where they can practice their methodology and products. In addition, they have a center of expertise where they support the start-ups to develop their products until commercialization of them.

Helington Marques and Márcio Faria are the Executive Managers of Mathematics and Development of Positivo Group. They are located in Curitiba, the South Region in Brazil.

Ilumino is also a contact point for start-ups who wish to develop the product. They are the largest network of universities in Latin America and the Caribbean. The company offers integrated solutions for higher

education institutions. They implement services, processes and technology to support institutions to grow and modernize in a sustainable way.

João Jacomel works at Ilumno and is Virtualization Manager. He is located inside the University Veiga de Almeida in Rio de Janeiro, in the Southeast in Brazil. According to the Dean of the University, Arlindo Vianna, the University were only able to double the number of students due to the cooperation between them and Ilumno.

Evaluation of opportunities: Bottlenecks and Outlooks

As a general advise when dealing with the Brazilian market, it is advised to be present with a representative with knowledge of the local language and business culture. To companies who do not have a representative or are not able to be represented directly in Brazil, it is advised to find business partners who can function as a link between the Norwegian company and the Brazilian market.

Innovation Norway's offices abroad provide services such as market insight and partner search. In Brazil, Innovation Norway works with single customer projects (1:1) and with one to many (1:many) projects, and we see a trend as more companies can benefit from the resources and the group effect can have positive effects. The 1:many approach also entails larger attention for the companies on the Brazilian market, which can make it easier to get into contact with potential Brazilian partners instead of coming alone. On the other hand, the 1:1 approach is more focused in the companies' need and we can develop a customized agenda to the customer.

Companies should be aware that Brazil is a large country, which has five main regions and to get around it is necessary to go by plane, which can make it a bit costly. However, when it comes to state which are more develop in the EdTech market, São Paulo is more structured than the others. São Paulo city is considered the most developed city in Brazil in many sector, such as financial, agriculture, health and education.

Innovation Norway Brazil is located in Rio de Janeiro, but our network is large, and our Team Norway located in São Paulo support us with finding the potential Brazilian partners for Norwegian companies. Rio de Janeiro is just 40 minutes far from São Paulo by plane and to Curitiba, where the Positivo headquarters is located, it takes around two hours also by plane.

This report is mainly focused at private education institutions, and there has not been much available meta information on EdTech in public schools and universities. As mentioned earlier, it is relevant to mention that public schools and universities could be possible to target for Norwegian companies, but not in a near future.

This analysis can only deliver a general market opportunity overview of the Brazilian EdTech market, as it would be out of scope of this analysis to provide concise evaluations on all EdTech niches. Overall, the Brazilian market is heated, and according to relevant magazines in the sector, education startups grow 20% a year confirming strength of the sector. In general aspects, the Brazilian market is competitive, but the market is still preliminary. So, there is room for improvement and newcomers. If companies manage to overcome the bottlenecks (low level of network infrastructure, competitiveness of Brazilian companies) there could be a great market potential for Norwegian companies.

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