

Online Learning in India: Growth, Key Drivers and Challenges

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Abstract: Amidst the COVID-19 period, Indian online education learning has seen an unprecedented increase in the adoption by various education institutions. As a result, the students have to shift from traditional educational models to online learning models in quick time. This research work was specifically undertaken to highlight all key drivers that propel the growth of online education industry and evaluating various bottlenecks that are blocking its successful implementation. By doing so, this study tries to offers a clearer picture of what additional can be done to boost the industry.

Keywords: online education, e-learning, online learning platforms.

1. Introduction

At the end of 2019 in Wuhan, China's high-tech business hubs witnessed an outbreak of an entirely distinctive coronavirus in the 21st century, which killed a few thousand Chinese in the fifty days of spreads and suffered thousands of other people. The novel virus was designated by Chinese scientists as the COVID-19 novel coronavirus (Shereen et al., 2020). This COVID-19 spread worldwide later on, in a shorter time. Because of COVID-19, many countries' economies are badly affected. In addition, within a month, the epidemic altered working conditions across the globe. For many sectors in the world, the effects of a pandemic are unstoppable and uncontrollable. Later, nearly 120 countries stopped face-to-face learning; about one billion students worldwide were impacted by COVID-19 schooling. The bulk of the higher education system began to function through e-learning (Azzi-Huckand Shmis, 2020; Shahzad et al., 2020 a, b). Meanwhile, in order to counter the COVID-19 pandemic, almost all of the country, including the Ministry of Education of India, released an order to shut down public schools and higher education as an emergency measure to avoid the spread of the virus.

Technologies, including artificial intelligence, have transformed the conventional way of education to the new way of learning (DiVaio et al., 2020a). Via blogs, learning portals, video conferencing, Twitter, smartphone applications, and thousands of free websites for blended learning resources, e-learning is thus protected under a wider concept of technology-based learning. E-learning is currently expanding the awareness of students, including university staff and technical and

business people via the internet (Adams et al. 2018; Chopra et al. 2019). Most higher education universities deliver online courses on and off campuses for their students. The government provides a lot of money for higher education in India. Huge Open Online Courses are used by Indian universities, colleges and polytechnics, based on news reports (MOOCs). Over the 2016-2023 forecast period, the growth of the online education market is estimated to be 16.4 percent annually. Maybe university teaching and learning models will be updated in 10 to 15 years with the massive growth of the internet.

Globally, owing to the closure and lockout of COVID-19 outbreak universities, most teachers and students are pleased with the transition to online education. The faculty members of world-renowned universities have started to earn qualifications from online teachers to provide their students with online instruction. Around the same time, faculty members and staff members are learning how to use tools for online learning. Formerly, they only use distribution by face-to-face teaching. The change to the online mode, however, has raised several concerns about the quality of education (Sahu, 2020). In addition, the standard of education and outstanding facilities, such as new computers and the receipt of equipment is now in high demand and universities are changing teaching models with the use of intellectual resources (Alvino et al., 2020; Di Vaio et al., 2020b). Therefore, there are few problems faced by students and lectures despite abrupt transitions from face-to-face learning to online.

Indian education system has seen a transition in the recent times amid COVID-19 as there is surge in the way universities had to adapt themselves to the changing needs of the education industry. Buffering included the fast replacement of classroom-based teaching by online teaching for universities and schools forced to close. The ways we teach and communicate with students during this academic year now and then will be influenced as the length of the COVID-19 pandemic is uncertain. In this viewpoint, the universities have either developed their own online learning platforms or outsource this activity to the third parties to channelize their education. Such firms provide online learning platforms through which teacher and students meet and knowledge dissemination occurs. Firms, offering online learning platforms, are seen adopting various

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features to make the learning more enrich.

2. Online Education Platforms and Learning

The online education system allows teachers and students to build their own learning experience and the versatility of setting a schedule that suits the agenda of everyone has been added. Since the entire world is suffering from a pandemic, it became necessary for us to be prepared for some alternative system and this is where the picture came from online education.

Where, when going through digital learning and education, the value of face-to-face learning is not compromised. As Different learning modes will be evaluated, and only the right approach will replace the conventional modes with digital methods of learning.

The conventional model or brick-and-mortar classes where students have to attend schools and colleges to finish their education are still run by the education system in India. But where the traditional model is the widely recognised formal education system around the world, this conventional education network is open to online education or e-learning.

3. Online Education in Indian Market

The market cap for the Indian e-learning system was USD247 million, compared with 1.6 million users in 2016. 8X growth is projected to hit USD 1.96 billion and the existing user base is expected to grow by 41 percent CAGR to 9.6 million by 2021. The business segment of India's e-learning framework is the second largest segment after the US, which is expected to rise by around 15.64 percent and reach \$48 billion by 2021.

During the 2016-2021 period, the online education market is projected to grow at a 52 percent CAGR. The demand for online higher education has a positive outlook and significant growth can be anticipated in the coming years. Not everybody agrees that online education is an equal replacement for conventional schooling, but it is a hybrid model that can gain future influence.

As they offer the convenience of an online method with the involvement of traditional classroom experience, virtual classrooms can also become more common. As many of the current offerings are theoretical, both hybrid models and virtual classrooms could allow a more realistic component to be added to online education in nature.

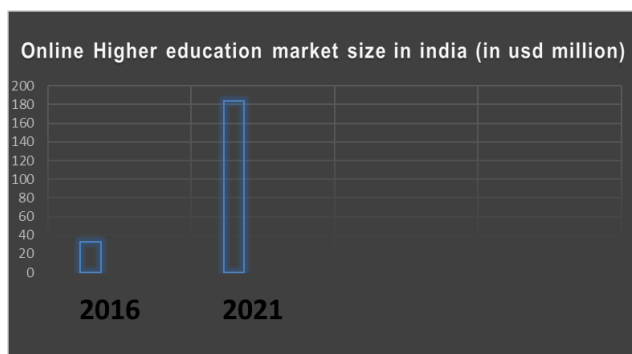


Fig. 1. Online higher education market size in India (in USD million)

Source: KPMG in India's research and analysis 2017

4. Key points of E-learning Growth in India

A. Growth in the penetration of the Internet and smartphones

As the number of Internet users is projected to hit 730 million by 2020, this is almost double what it is currently at 432 million. In order to have the second largest users after the US, India will replace China.

B. Online education costs are very low

Without setting up a physical infrastructure or incurring administrative costs such as staff wages, stationery, books, etc., online education providers can penetrate and capture the whole market. The cost reductions are, thus, turned over to the consumers.

C. Online channel provides quality education to potential students

A major difference in educational qualifications between the urban and rural Indian population is the availability of quality education, but areas where the availability of quality of offline education is poor observe higher acceptance of non-traditional methods of education. States like Kerala-Bihar and Jammu and Kashmir, for instance.

D. Government Initiatives to drive adoption of online education

Government Initiatives such as SWAYAM, E-Basta, Rashtriya Madhyamik Shiksha Abhiyan (ANSA). Skill India and Digital India will enable the infrastructure needed by students to study online.

5. Challenges for Online Education in India

- About 30 per cent of the population of the world is not computer literate. Some of them don't even know how to start a machine.
- A computer or a laptop cannot be afforded by all. Some parts of society may face difficulties buying a laptop, such as farmers, maids, home cleaners, sweepers and waiters. Many educators are not familiar with the modern education format. For on-line education courses, they are not well educated. Besides this, in the online classroom, it is not necessary for a good classroom teacher to be a good teacher.
- A limited number of tools are available in India for conducting an online review. Besides this, there is a limitation for the number of questions that can be asked in the exam.
- Some types of subjects and courses cannot be taught in the digital education space, such as science and performing arts.
- The online education system is more like a sort of screen-based learning system that limits the realistic performance of students.
- Internet access everywhere is not healthy. There are several towns in India where 2G or 3G internet services are still used by people.
- For online education, good concentration and self-motivation are needed. These skills may be missing in students under the age of 17 years.

Table 1
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App Name	Focus Area	Speciality	Features	Gamified Features
BYJU's	Main to higher education and some entrance exams such as IIT-JEE, NEET, CAT, IASS	BYJU provides original content, watch-and-learn videos, animations, and immersive simulations that help students understand things in a fun and easy way.	-Courses for every classes -Scholarship -Preparation for competitive exams -Coding for kids	-play games - earn reward points -This sort of gamification results in a win-win situation for the app as well as its users.
Unacademy	On SSC, UPSE, STATE PSE, Banking, Railway, Defence IIT & AIMS Exams	Live classroom videos by talented educators are given by Unacademy and the same videos are also available offline. While every student has exclusive access to the faculty to ask questions, time may be a major factor.	-Suited for competitive exams -Live classes -Live mock tests	Unacademy allow students to solve mcq's after each lectures and also it helps to set timer option where we can set time to complete each lecture.
Vedantu	Live and interactive courses for students in grades 6-12	LIVE Teacher & Student audio-video link at very low internet bandwidths and Shared student-teacher live learning experience (Whiteboard).	-Focuses mainly on students in school- Kids coding-Live classes	-Quizzes & puzzles through V-Quiz. This is designed to blend the best of education and entertainment, making it highly interactive & engaging for the users.
Toppr	A complete learning app for schools (5-12) and competitive exams	Live coding for young learners, live group classes and doubt clearing session		It has live challenges games with 2x points and different levels of uncovered path to making learning fun.
Doubtnut	A complete crash courses on IIT JEE, some like practice daily quiz & Earn and free All Doubt Clearing	Concepts booster and a unique all doubt clearing platform	-Clears doubts -Video for better understanding -Scholarship programme	To engage and make more interesting on education it has play daily quiz and earn rewards

6. Online Education Platforms

During the ongoing COVID-19 pandemic, online classroom programmes have become the new norm for students and teachers. Students are now interacting with teachers to learn and keep up-to-date with their course remotely every day through video-conferencing apps. There are many online learning and education applications that are available for both Android and iOS devices in India to support students during this period. While some of these learning apps concentrate on general subjects or are used as research aids, others are developed with specialised fields of study in mind. In addition, India's educational apps help you understand concepts in immersive ways, such as animated videos, which make learning more enjoyable and natural than conventional methods. Some apps often come with a live class function to help explain real-time doubts. Here's a list of the best online learning apps in India and their Gamification.

7. Conclusion

This paper presented a key drivers and challenges in online learning in India.

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