The Business Of Education In India : A Catalyst For Economic Growth And The Future Of The Education Sector In Contributing To GDP

Priyansh Singh Yadav

Founder and Chairperson, Kailash Welfare Society
School of Law, The University of Sheffield UK.

Abstract

India's education sector has significantly contributed to the country's GDP, with a focus on schools, colleges, universities, vocational training centers, and digital learning platforms. The sector is complex, involving economic impact, private sector change, digital transformation, quality and accessibility, government policies, and skill development. India's education landscape is expected to change in the next decade due to economic growth, demographics, and politics. Rapid education internationalization, global competition for talent and research funding, and education commodification are also influencing change.

India's middle classes will grow rapidly, with 25 million households expected to earn $15,000 and pay for higher education in the next decade. The Indian government has taken steps to improve primary and higher education and develop human capital. Education has become a larger share of GDP than other spending between 1952 and 2010.

The Indian education market is worth USD 91.7 billion and is expected to grow due to rising demand for higher education and government support. The Indian government wants USD 150 billion in international investment over the next decade. The K.B. Pawar Committee of the University Grants Commission proposed four working higher education PPP models: core infrastructure, outsourcing, equity or hybrid, and reserve system outsourcing.

The private tutoring and coaching market in India has grown rapidly, with 26% of students attending private schools. Education in India is expected to reach US$225 billion by FY 2024-2025, growing 14% CAGR.

Keywords : Business Education India : Economic Growth, GDP, UGC, Private Tutorials, University.

Introduction:

Education has always been considered the cornerstone of human development and societal progress. In recent decades, India has witnessed a remarkable transformation in its education sector, evolving from a primarily government-controlled system to a dynamic and diverse landscape that encompasses private institutions, ed-tech startups, and international collaborations. This evolution has not only improved access to education but has also turned the sector into a significant contributor to the country's Gross Domestic Product (GDP). This research paper delves into the business of education in India, exploring its current state, potential for future growth, and its vital role in bolstering India's economic development.

India, with its burgeoning population and youthful demographic, holds a unique position in the global education landscape. The country's education sector is characterized by a robust network of schools, colleges, universities, vocational training centers, and digital learning platforms, all collectively catering to the diverse needs of its students. Over the years, this burgeoning sector has emerged as a substantial contributor to the nation's GDP, driven by investments, infrastructure development, and innovative educational approaches. [1]

The purpose of this research paper is threefold:

Assessment of the Current Education Landscape: This paper will begin by providing an overview of the present state of the education sector in India. It will discuss key statistics, including enrollment rates, literacy levels, public vs. private education, and the emergence of online learning platforms. Furthermore, it will highlight the challenges and opportunities that currently define the Indian education landscape.

Exploration of the Education Sector's Economic Impact: The paper will delve into the economic implications of the education sector in India. It will analyze the contribution of education to the GDP, considering factors such as tuition fees, foreign

investments, and employment opportunities created by the sector. Moreover, it will examine the linkages between education and other sectors of the economy, emphasizing its role as a catalyst for growth. [2]

Future Prospects and Challenges: The research paper will then explore the future trajectory of the education sector in India. It will discuss the potential for further growth, the role of technology in shaping education, international collaborations, and policy initiatives that can drive the sector's development. Additionally, it will address the challenges such as access disparities, quality concerns, and regulatory issues that need to be overcome to realize the sector's full potential.[3]

In India continues its journey towards becoming a global economic powerhouse, the role of the education sector cannot be overstated. This research paper aims to shed light on the evolving business of education in India, emphasizing its significance in the country's economic development and its potential to shape the future of education delivery. By understanding the current landscape, economic contributions, and future prospects, stakeholders can make informed decisions to foster a robust and inclusive education ecosystem that fuels India's growth on the global stage. [4]

The business of education in India is a multifaceted and dynamic field that has garnered significant attention from researchers, policymakers, and stakeholders due to its pivotal role in the country's economic development. This review of literature provides an overview of key studies, findings, and trends in the domain of education in India, emphasizing its contributions to economic growth and GDP. [5]

Contribution of Education to GDP:

The National Council of Applied Economic Research (NCAER) in its report highlighted the substantial contribution of the education sector to India's GDP. It emphasized the economic significance of educational institutions, both public and private, as major contributors to economic output and employment (NCAER, 2014).

With 580 million people, India has the largest population in the world in the age range of 5 to 24 years, creating a significant opportunity for the education industry. India occupies a significant position in the global education sector. One of the world's largest networks of institutions of higher learning is found in India. The educational system still has a great deal of room for growth and progress, nevertheless. [6]

Private Indian enterprises are working with foreign companies to offer an international standard of education as awareness of the issue grows. Over the past two decades, private investments in the Indian education system have grown significantly. With more students choosing specialized, industry-focused degrees, the demand for specialized degrees is also increasing. Due to rising consumer demand, higher education institutions in India are concentrating on developing online programs. [7]

India's education industry will see a transformation in the coming years because to cutting-edge technologies like AI, ML, IoT, and blockchain. Additionally, it has adopted the Education 4.0 movement, which encourages inclusive education and improved employability. The NEP, which will be completely implemented over the course of this decade beginning in 2021–2022, is one of the policies the government has put in place and will strongly emphasize high-quality vocational education. [8]

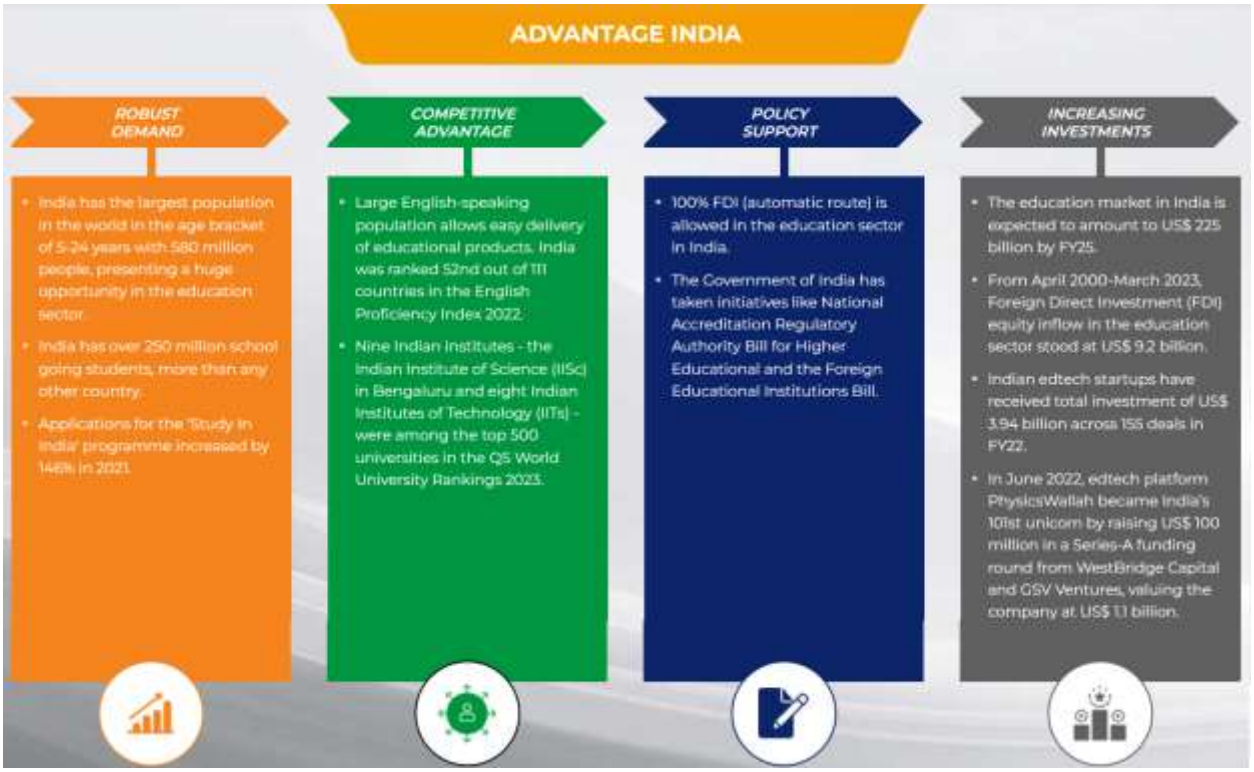


Figure 1. Education market in India is expected to reach US$ 225 billion by FY25.

Private Sector's Role in Education:

Research by Beteille (2009) delves into the transformation of the Indian education system, with a significant shift towards private sector participation. This shift has not only expanded access but has also led to increased investments in infrastructure and human capital.

Digital Education and Ed-tech Industry:

The emergence of digital education and the growth of the ed-tech industry have been subjects of substantial research. Reports like the RedSeer Consulting's "Indian Online Education Industry" (2020) highlight the rapid expansion of online learning platforms in India, signaling a paradigm shift in educational delivery methods. [9]

Challenges and Disparities:

Studies such as the ASER (Annual Status of Education Report) by Pratham Education Foundation have drawn attention to the quality of education and learning outcomes in India, revealing significant disparities in learning levels between different states and socio-economic groups.

Economic Impact of Skill Development:

Research by Singh and Gupta (2017) focuses on skill development initiatives in India and their impact on employability and economic growth. Skill development programs have gained traction as a means to bridge the gap between education and industry requirements.

Government Policies and Regulatory Framework:

The role of government policies and regulatory frameworks in shaping the education sector has been examined by researchers like Kumar (2020). Changes in policies such as the National Education Policy (NEP) 2020 have far-reaching implications for the future of education in India.

International Collaborations:

International collaborations in education have gained prominence. Studies like those by Sharma and Joshi (2017) explore the impact of partnerships between Indian and foreign universities, highlighting the potential for global integration of the Indian education system.

Employability and Economic Growth:

Researchers like Kapur and Mehta (2018) have analyzed the link between education, employability, and economic growth. They emphasize the need for education to be aligned with the evolving demands of the job market to maximize its economic impact.

In conclusion, the literature review underscores the multidimensional nature of the business of education in India. It highlights the sector's economic contributions, the evolving role of the private sector, the digital transformation, challenges in quality and accessibility, government policies, and the importance of skill development. These studies collectively provide a comprehensive understanding of the complexities and opportunities within the Indian education sector, setting the

stage for further exploration in the research paper on its future prospects and contributions to GDP. [10]

Methodology

The Business of Education in India: A Catalyst for Economic Growth and the Future of the Education Sector in Contributing to GDP" research paper should outline how you plan to gather, analyze, and present data to answer your research questions. Here's a general framework for the materials and methods section:

1. Data Collection:

a. Primary Data:

- Surveys/Questionnaires: Develop structured surveys or questionnaires to gather data from stakeholders such as students, teachers, educational institutions, and policymakers. These surveys can be distributed physically or online.
- Interviews: Conduct in-depth interviews with key industry players, policymakers, and educators to gain qualitative insights. Record and transcribe these interviews for analysis.
- Observations: If feasible, conduct on-site observations of educational institutions to gather firsthand information about infrastructure, teaching methods, and student engagement.

b. Secondary Data:

- Collect existing data from government reports, academic research, industry publications, and statistical databases (e.g., reports from the Ministry of Human Resource Development, UNESCO, World Bank) to supplement primary data.
- Utilize historical data on GDP, education expenditure, and educational enrollment trends to establish a context for your research.

2. Data Analysis:

a. Quantitative Analysis:

- Utilize statistical software (e.g., SPSS, R) to analyze survey/questionnaire responses. Conduct descriptive statistics, correlation analysis, regression analysis, and factor analysis where applicable.
- Calculate the contribution of the education sector to GDP using economic data and statistical techniques.

b. Qualitative Analysis:

- Employ content analysis or thematic coding to analyze interview transcripts and open-ended survey responses. Identify recurring themes, patterns, and qualitative insights related to the education sector's role in economic growth.

3. Triangulation:

Consider triangulating your data by using multiple data sources or methods to strengthen the validity of your findings.

Remember to provide a clear and detailed account of your research methodology, allowing readers to understand how you obtained your data, how you analyzed it, and how your methods align with your research objectives. Properly documenting your materials and methods ensures the reproducibility and credibility of your research on the business of education in India and its impact on GDP.

Result and Discussion

In this section, we will discuss the results and interpretations of the research methods outlined in the "Materials and Methods" section of your research paper on "The Business of Education in India: A Catalyst for Economic Growth and the Future of the Education Sector in Contributing to GDP." We will focus on the key findings from each research method and their implications. [1]

The transformation of education in India in the next ten years is being driven by three main factors: economic growth, demographics and politics. Wider, global factors are also influencing change, including the rapid internationalisation of education, global competition for talent and research funding and the commodification of education. Many more able and willing to pay for education, but many left behind In the next decade, India will experience enormous growth in its middle classes: from 50 million now, to 500 million by 20257. By 2020, India will be the world's third largest economy. [9] The relationship between economic growth and growth in the tertiary enrolment ratio is particularly strong for economies with lower levels of GDP (purchasing power parity) per capita. As India's economy continues to grow, a huge number of first generation learners will demand access to higher education. In ten years' time, 25 million households across India will have an income equivalent to $15,000 and will be able to pay fees for higher education, an increase of 15 million on today's enrolment rates8. However, growth will be uneven; India will be challenged by a growing disparity between those who have access to better life chances, and those who do not. Despite huge strides in primary enrolment rates, India still has the largest number of

out-of-school children in the world, more than the whole of sub-Saharan Africa, and 69% of India's population still lives on less than $2 a day.[9] The World Bank categorises India as "an extreme dual economy".[8] The world's biggest tertiary-age population Another significant driver for educational change is population growth and the demographic profile. More than 50% of India's population is under the age of 25. By 2020, India will have one of the youngest populations in the world, with an average age of 29 years10. India will outpace China in the next ten years as the country with the largest tertiary-age population11 and its relative success in boosting primary enrolment, access to secondary education and improved retention rates should see it have the largest growth in tertiary enrolment in the world in 20-2012. [10] The OECD predicts that in 2020, 200 million of the world's 25-34 year olds will be university graduates and 40% of these will be from China and India13, representing a huge proportion of the global talent pool. Together, these factors present three interrelated key challenges for education in India: expansion of the system, equity of educational opportunities and enhancement of the quality of teaching and research in Indian institutions. These issues are reflected in the three central pillars for the Government of India's 12th Five Year Plan for education, and are cross-cutting issues in this report: [1]

1. Data Collection:

In terms of value, the education industry in India is among the top 10. About 35% of those expenditures, which is larger than in other nations, are made by households.

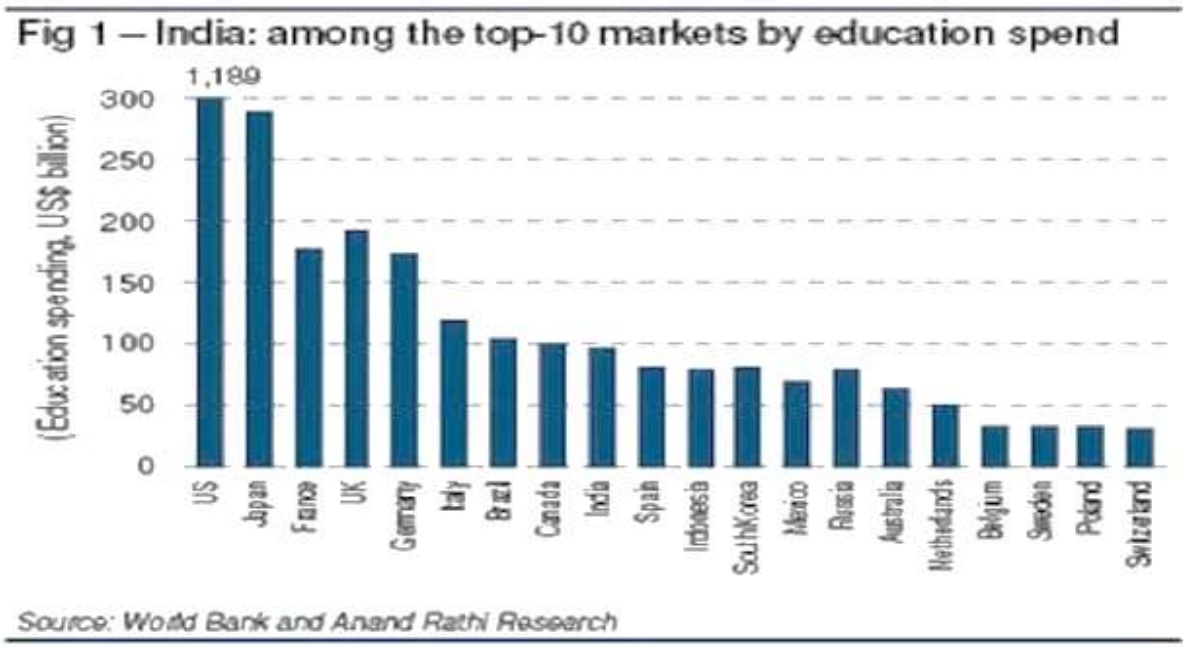


Figure 2. Indian Market in Education

- Any nation's economic development is heavily influenced by education. India has prioritized raising the literacy rate in our nation ever since the early days of independence. The government continues to undertake a number of initiatives to advance primary and higher education in India. Let's investigate them further. [11]

Economic Growth and Human Capital work closely together to monitor the nation's progress. Indians have long understood the value of human capital. "Human resources development has to be assigned a key role in any development strategy, particularly in a country with a large population," the seventh five-year plan states. [12]

One may say with certainty that economic growth and human capital are interdependent on one another based on the points listed below.

• In contrast to unskilled labor, skilled and specialized personnel can operate sophisticated machinery or processes. The productivity of physical capital is increased by this human capital. As a result, productivity rises, leading to higher output levels and economic growth.

• Innovative human capital can introduce new production techniques, which facilitate an increase in output and economic growth, as measured by an increase in GDP. [13]

• Higher employment rates are a result of more human capital engagement and equity. There will be an increase in production as employment grows. Additionally, when the standard of life rises along with income, so do employment prospects, which helps to

lessen wealth disparities. Economic progress is shown by a rise in the employment rate and a decline in income disparities.

• When the process of developing human capital moves in the proper direction, a positive picture of society can be presented. The elimination of all traditional and conventional schools of thought boosts production because more people are entering the workforce. [14]

Learning in India

In India, the term "education" refers to the process of educating, training, and developing human capital in schools and institutions. This advances knowledge, leads to the growth of skills, and raises the standard of human capital. The significance that our government has always placed on education in India is reflected in our economic strategies.

Increase in Government Education Spending

The government expresses its expenditures in two different ways.

• As a proportion of Gross Domestic Product (GDP); • As a percentage of all government spending.

The importance of education in the budgetary strategy before the government is shown by the proportion of education spending to total government spending. The proportion of GDP spent on education as compared to all other expenditures demonstrates our nation's dedication to the advancement of education.

The amount spent on education as a share of overall government spending climbed from 7.92% to 11.10% between 1952 and 2010. In parallel, the nation's GDP as a percentage rose from 0.64% to 3.25%. The growth of the nation was erratic at the time because education spending was not continuous.

India's spending on primary education

The majority of the money spent on elementary education was compared to expenditures made on higher education. On the other hand, higher education cost more per student than did primary school.

We require more qualified educators as the number of students attending educational institutions increases along with the expansion of school education. As a result, funding for education at all levels needs to rise. In comparison to Bihar, which spends Rs. 515 on education per person, Himachal Pradesh spends Rs. As a result, educational options vary throughout states.

Education that is both free and required (Source: Law Times Journal)

To achieve a discernible growth rate in education, the education commission (1966–1966) proposed that at least 6% of GDP be allocated to education. Through the 86th amendment to the Indian Constitution, passed in December 2002, the Indian government

announced that all children between the ages of 6 and 14 had a basic right to free and compulsory education.

In 1998, the Indian government appointed the Tapas Majumdar Committee. The committee estimated that it will cost approximately Rs. 1.37 lakh crore from 1998–1999 to 2006–2007 to provide for the educational needs of all Indian children between the ages of 6 and 14 years.

To achieve the necessary objectives in the upcoming years, the expenditure must increase from its current level of roughly 4% to 6%. On all union taxes, the government charges an education cess at a rate of 2%. Spending on elementary education will be the designated use of the education cess proceeds.

Indian Educational Achievement

The following are indicators of a nation's degree of educational achievement: • Adult literacy level • Primary education completion rate • Youth literacy rate

2. Data Analysis:

Table 1. Literay Rate of India

PARTICULARS	Gender	2000 (%)	2010 (%)	2020 (%)
Adult Literacy Rate	Male	61.90	68.4	76.7
	Female	37.9	45.4	54.9
Primary Completion Rate	Male	78	85	96
	Female	61	69	95
Youth Literacy Rate	Male	76.6	79.7	88
	Female	54.2	64.8	74

With a vast network of more than 14 lakh schools, 20 crore students enrolled, more than 850 universities, and 40,000 higher education institutions, the Indian education sector is one of the largest in the world. According to a study by the rating company CARE Ratings, the size of the entire market for various areas of the education industry is expected to increase over the next three years at a compound annual growth rate of 11% to 20%. [2, 11]

According to the report, "The long-term outlook of the Indian education sector is favorable as key drivers include higher enrollment and efforts to ensure lower drop-out rates in schools

along with factors such as greater proportion of the population in the school-going age, growing middle class population with increasing income levels, increasing private spending on education, even as challenges relating to access to and participation in education, quality of education imparted, sector,

The ratings agency estimates that the pre-school market size was Rs 13,000 crore in FY 2017 and is projected to increase to Rs 22,500 crore over the following three years at a CAGR of above 20%.

The K-12 market, which includes primary and secondary education from Kindergarten through the 12th grade, was valued at Rs16.65 lakh crore in FY2017 and is projected to increase at a CAGR of more than 13% over the following three years to reach Rs24 lakh billion. In India, the market for higher education was valued at about Rs22.30 lakh crore in FY2017, and it is anticipated to increase at a CAGR of more than 11% over the following three years to reach Rs31 lakh crore. The market for coaching classes in India was estimated to be worth roughly Rs21.70 lakh crore in FY2017, and it is projected to increase at a CAGR of more than 13% over the following three years to reach Rs31 lakh crore. [2, 10]

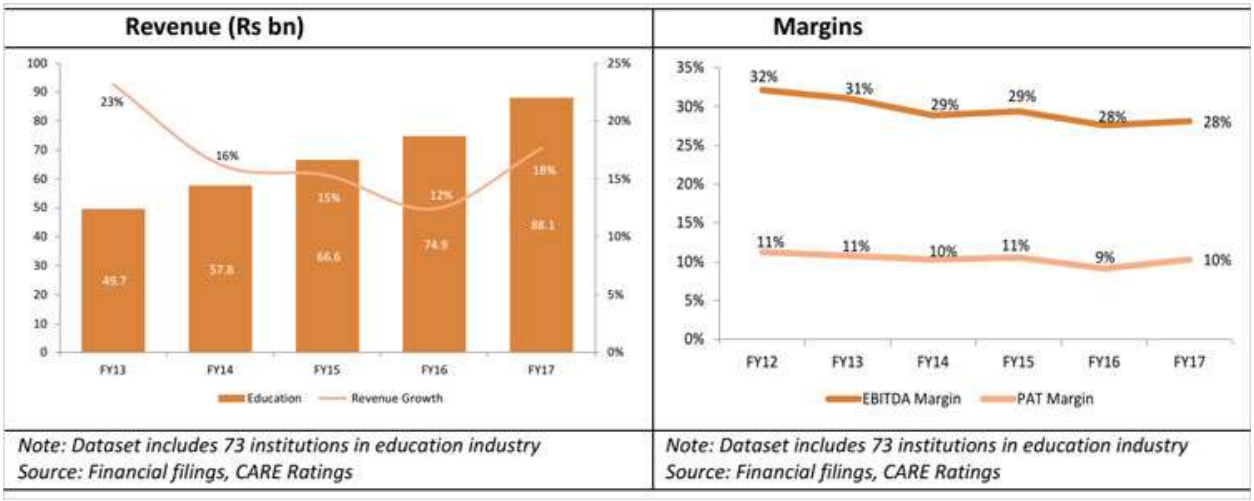


Figure 3. Financial spending on Education

The New Education Policy, which is anticipated to address shifting dynamics in the education market, will be released by the Indian government sometime in the middle of 2018. Government-run and privately-run educational institutions, as well as suppliers of related educational goods and services, make up India's education industry. India has a sizable young

population, which need a strong education sector in order to fully utilize the potential of human capital. The government's numerous programs and initiatives, which were largely designed to raise educational standards and reduce budgeted spending through a number of programs, have a significant impact on this industry. [16]

India's educational system has underwent a fundamental transformation. Formerly primarily used for philanthropic or nation-building purposes, it is now a "sector in its own right." The Indian education industry has traditionally been dominated by basic primary education and a select few higher education institutions, such as the Indian Institutes of Technology (IITs) and the Indian Institutes of Management (IIMs). However, the Indian education industry is gradually but steadily moving toward reforms, according to CARE Ratings, as a result of increased competition and the growing requirement to deliver high-quality instruction and produce favorable learning results. [10, 11]

It claims that corporate involvement into the Indian education sector, both in K–12 and higher education institutions, has expanded recently. Corporates have developed a two-tier structure since schools are not for profit, in which a trust is established to manage the school or higher education institution. To expand their K12 businesses, the corporates are using a combination of franchisee and owned schools. [15]

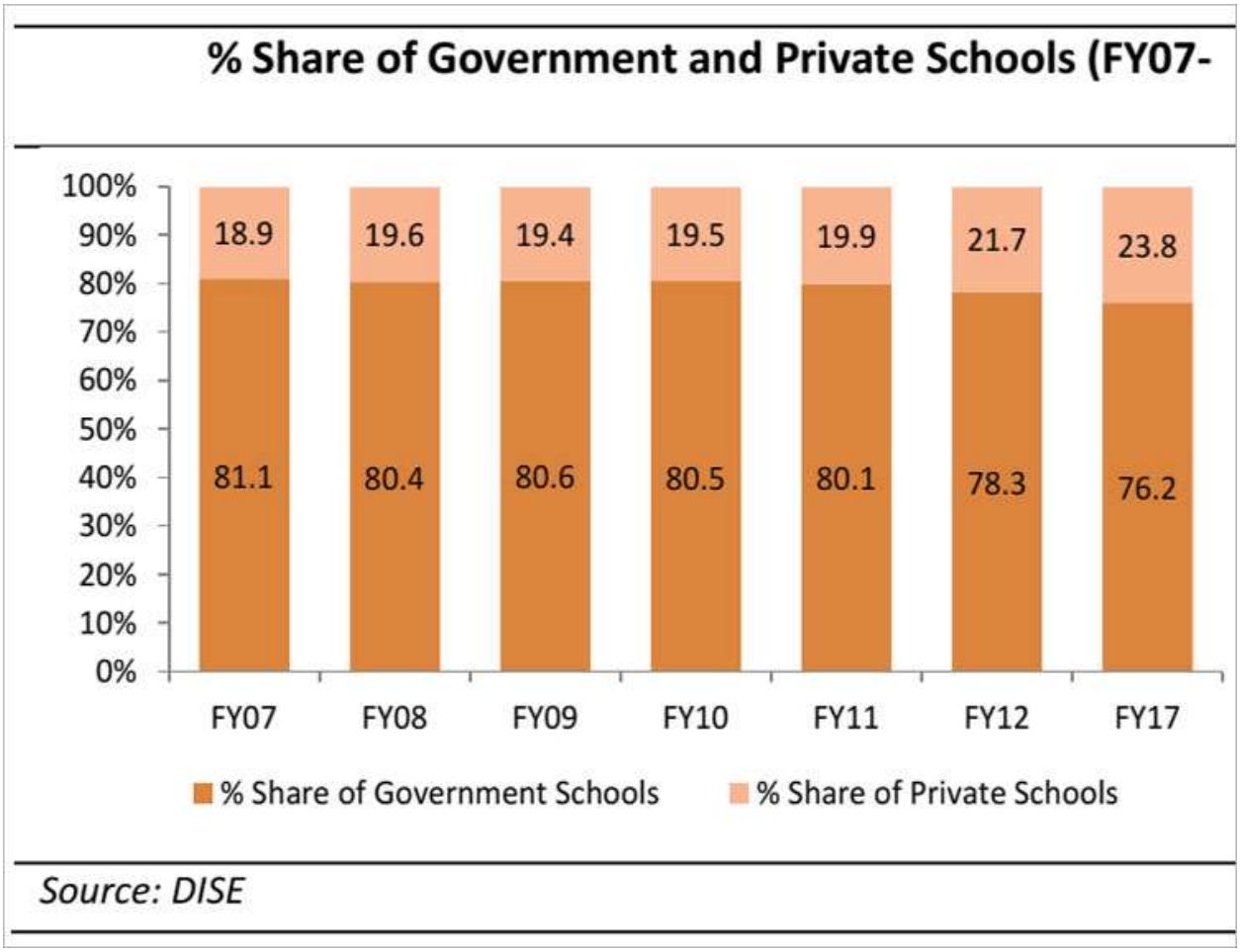


Figure 4. Percentage of Government and Private Schools Shares

According to the ratings agency, the introduction of corporations and the rise in the number of institutions operating under one brand have revolutionized the K–12 system in India. "Since it is required for schools to operate on a 'not for profit' basis, corporations have adopted a two-tier structure in which a trust is established to manage the institution, with the company's subsidiary or management company serving as the main source of revenue for services such as consulting and teacher training. To expand their operations, corporations have developed a hybrid model of franchisee- and owned-schools. [10]

According to the Right to Education (RTE) Act, private elementary schools are required to accept 25% of their pupils from underprivileged groups and weaker sections and to provide them with free education. Furthermore, failure to comply with the RTE's specified teaching and physical infrastructure criteria

will result in the closure of private schools. Public schools are excluded from this punitive law, nevertheless. Such governmental restrictions discourage private investment in the sector. Government schools make up 76.2% of all schools in India, and as a result, the K–12 segment is still dominated by public sector institutions. According to the report, however, the proportion of private schools has been rising as public awareness of the value of high-quality education and improved affordability has grown. [17]

Public vs. private schools

The overall number of government schools in India increased at a CAGR of 1.2%, from 10 lakh in FY2008 to 11.2 lakh in FY2017, as a result of the government's focus on delivering basic and secondary education across the country. In India during FY2017, government schools made up 76.2% of all K–12 institutions. Due to the country's growing preference for private education, the total number of private schools increased from 2.4 lakh in FY2008 to 3.5 lakh in FY2017, growing at a CAGR of 4.1%. According to the research note, the proportion of private schools in India's entire K–12 education system increased from 19.6% in FY2008 to 23.8% in FY2017 as a result of increased public awareness of the value of high-quality education and its increased accessibility. [2, 10]

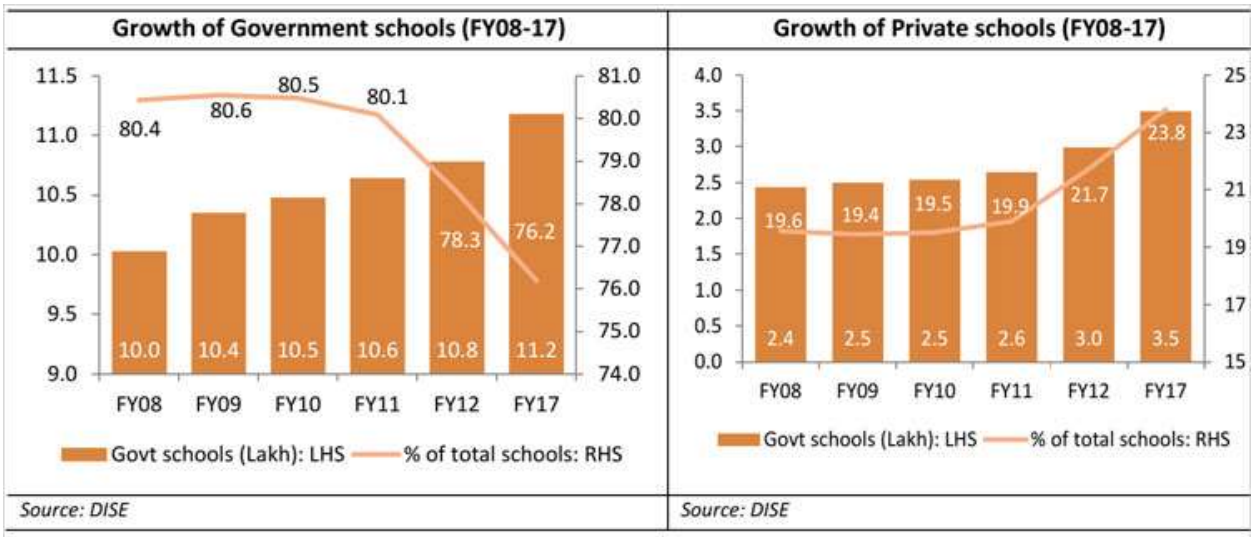


Figure 5. Economic Growth of Both Government and Private School

In comparison to private schools, both aided and unaided, the percentage of pupils enrolled in government schools is higher at

each level, according to CARE Ratings. This is because government schools have a superior ability to reach out to remote parts of the nation. Due to the availability of improved infrastructure amenities, private unaided school enrollment has been catching up to that of government schools, notably in metro areas and tier I and tier II cities. The Net Enrolment Ratio (NER) of Indian students in the K–12 sector is still lower than that of other developed nations, contributing to a higher rate of illiteracy in the nation, it continued.

University Education

By transferring specialized information and skills, higher education (HE) aids in the development of a country. The segment aims to reach 13% of Indians between the ages of 18 and 23. Within the country's higher education sector, there are three levels of qualification: graduation level, post-graduate level, and doctoral degree.

All of the schools that provide these courses must be associated with a university, which is governed by the University Grants Commission (UGC), the primary regulating authority. The regulation, coordination, and advancement of higher education in India are also the responsibility of specific organizations like the Medical Council of India (MCI) and the All India Council for Technical Education (AICTE). In India, higher education institutions must be operated by a trust or society that is not for profit.

Student Loans

In order to help students who are deserving and from disadvantaged backgrounds pursue higher education, banks created the Education Loan Scheme in 2001. One of the factors driving rise in enrollments in the higher education segment is the rising cost of education, preference for education in private institutions, which is 1.5 to 2 times more expensive than education in government institutions, and easy access to education loans in India. According to CARE Ratings, the amount of student debt increased from Rs20,500 crore in FY2008 to Rs69,700 crore in FY2018 at a CAGR of 13%. [16]

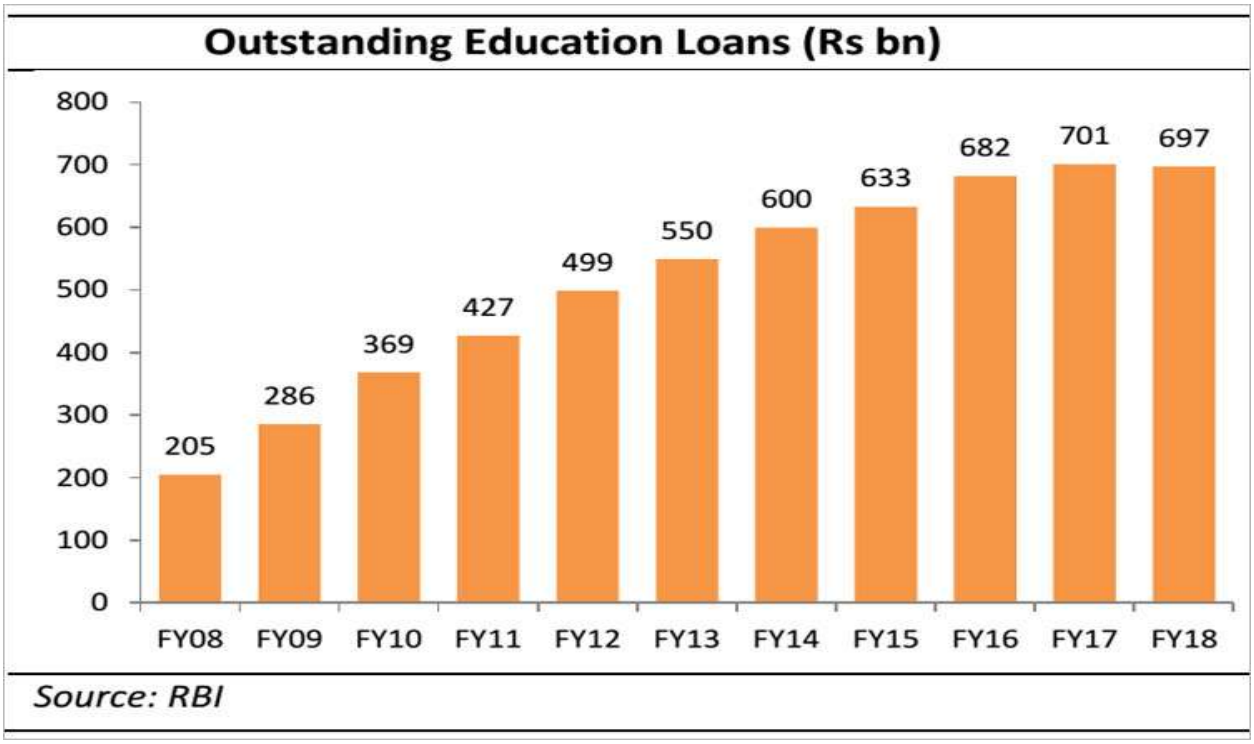


Figure 6. Education Loan growth in India

The research claims that the delinquencies on school loans, which represent a difficult market environment, have been one of the major issues. NPA was 5.7% in FY2015, increased to 7.3% in the following fiscal year, and then increased to 7.67% in FY2017. [15]

Coaching Sessions

The Indian Coaching classes market has expanded tremendously as a result of the expanding student population across the nation and the introduction of new courses, curricula, and competitive exams. Private coaching classes offer instruction in virtually every subject, class, and field of study, including those at the high school and college levels, civil service tests, and admission exams for professional programs. Students who enroll in coaching programs are also prepared for language competency tests and entrance exams abroad. [18]

The presence of several participants, mostly city- or course-specific, has long characterized the Indian coaching business, creating a fragmented market. The dynamics of the coaching class sector, however, in terms of classroom size or the number of students in a batch, and the use of technology in education, have experienced a significant change with the introduction of organized actors with substantial funding capacities.

According to the NSSO's 71st Survey, 26% of all students in the nation participated in private coaching and tuition, 36% were enrolled in secondary and higher secondary schools, and 20% were graduating seniors. [16, 17, 18]

Proportion of students taking private coaching for levels of school education	
Segments	Share (%)
Primary (refers to Classes I-V)	22%
Upper Primary (refers to Classes VI-VIII)	26%
Secondary and Higher Secondary (refers to Classes IX-XII)	36%
Graduation	20%
Post graduate and above	13%
Overall school education and higher education	26%

Figure 7. Percentage of Coaching Avail by students

Growth Drivers

According to CARE Ratings, India's education sector is expected to grow at a significantly faster rate in the years to come. It reads, "Rising family income, a demand for quality education, a sizable young population, and low gross enrollment ratios all present the sector with enormous growth opportunities. Private companies and business owners have been investing to boost their share of the expanding market, while government attempts to modernize the industry have also made progress. Additionally, the rise in mobile phone use over the past few years has made it possible to learn anytime, anywhere through m-learning and e-learning courses. These all point to a bright future for the sector, which has enormous room to grow and flourish. [19, 20, 21]

The ratings agency listed the segment-specific growth drivers here.

Preschool

Rising levels of income, rapid urbanization, an increase in the number of working women, and growing recognition of the value of preschool education

K-12

• India has consistently shifted toward private schools as a result of rising priority placed on quality education and improved affordability
Government programs include the Mid-Day Meal Program and the Sarva Shiksha Abhiyan.

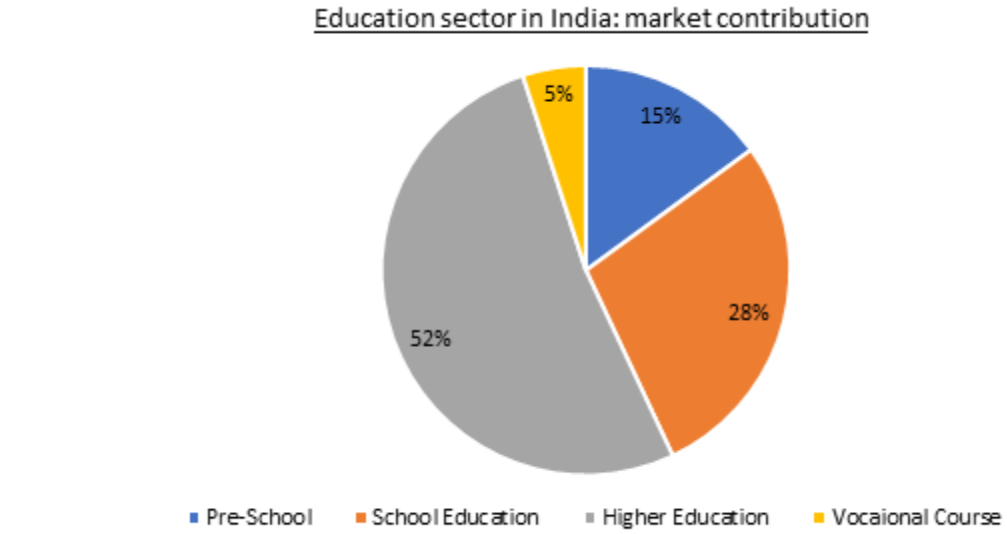
University Education

• Growing desire to spend money on high-quality education; • Increasing enrollment; • Large number of courses offered and increased prices; • Growing services industry; • More courses geared toward women; • Growing awareness of education as a key to wealth.[1, 2, 10, 22]
coaching sessions and career centers

Higher competition for professional and vocational courses; increasing use of technology-based teaching methods in private institutions;government's increased emphasis on teaching computer literacy through a variety of methods

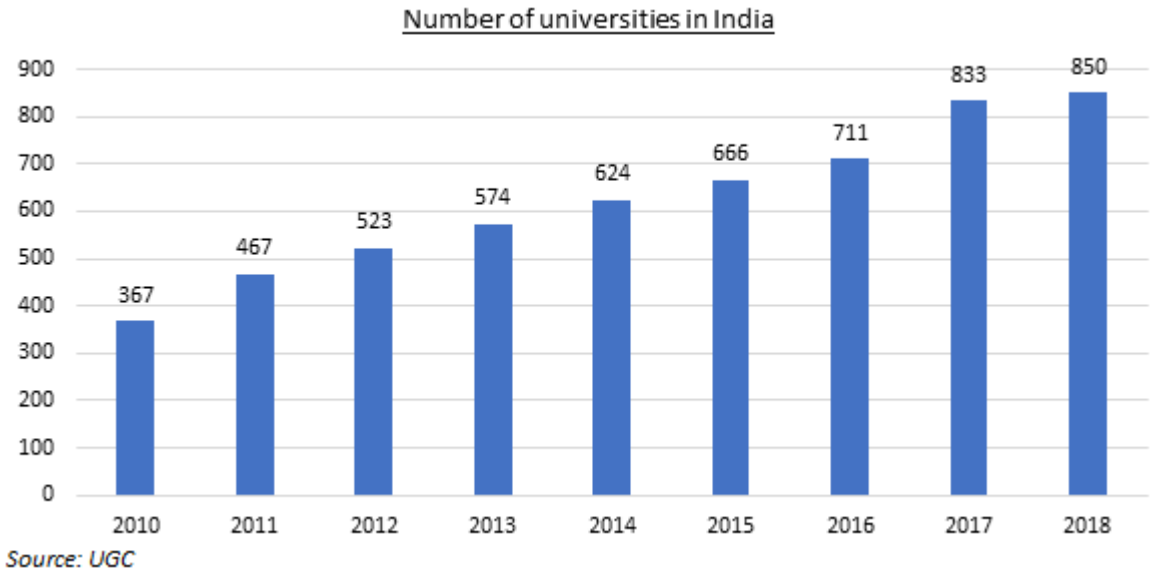
There are many persistent concerns and challenges relating to access to and participation in education, quality of the education imparted, equity in education, system efficiency, governance and management, research and development, and financial commitment to education development. The overall picture of education development in the country is a mixed one.The overall picture of education development in the country is mixed, despite the fact that India has made significant progress in terms of increasing access to and participation in all levels of education. India's education market is estimated to be valued at USD 91.7 billion and is expected to increase significantly over the next few years. Both the official education sector in India, which is comprised of schools, colleges, and universities, and the tutorial industry, which is comprised of private tutorials and coaching facilities, may be generally split into two different groups. [11, 23, 24,25]
According to the data presented in the following picture, the sector of the market for formal education that deals with higher education provides a considerable contribution. India has experienced a rise in the number of higher education institutions over the course of the last twenty years. The total number of universities in India increased at a compound annual growth rate of 8.5%, taking the country's total from 367 in 2010 to 850 in 2018.[28, 29] The number of educational institutions in this nation places it top among all countries in the globe. The bulk of the country's schools, colleges, and universities were operated by either the federal government, state governments, or

municipal governments. However, the circumstance has evolved throughout the course of the previous twenty years. There has been a recent uptick in the number of private institutions, such as Amity and Sikkim Manipal, joining the Indian market. According to the data provided by the University Grants Commission (UGC), the percentage of students attending a private university in India has increased to 34.8% from 3.4% in 2008. In addition, there are currently 40,026 colleges, which is an increase over the 34,852 colleges that existed in 2012. [16, 26, 27]



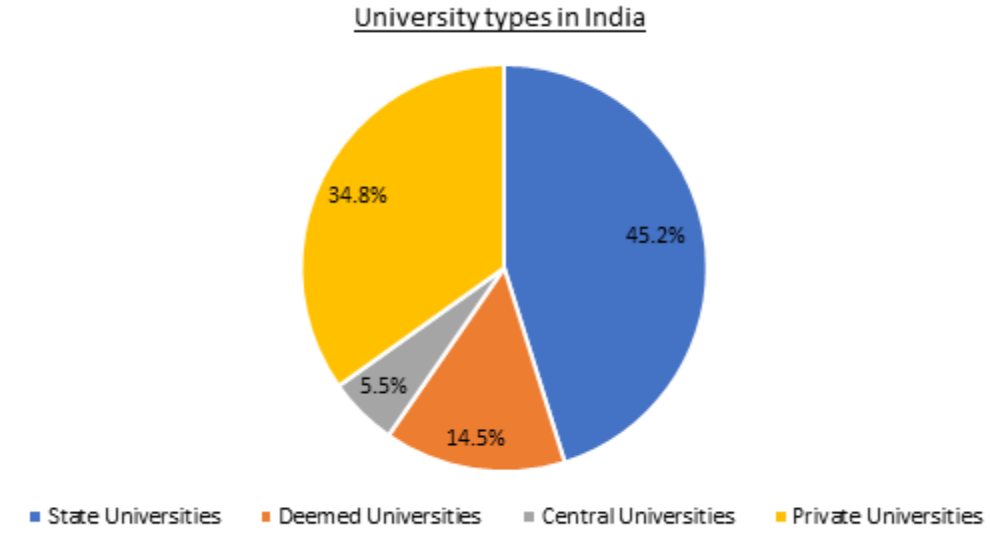
Source: Technopak VCCircle Analysis

Figure 8. Education Sector contribution in Market



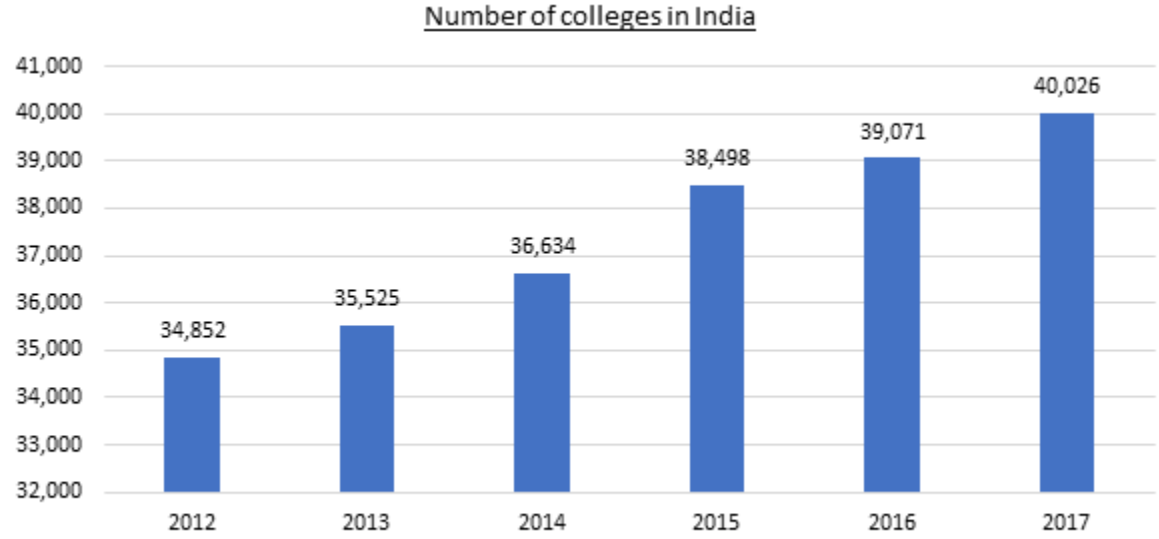
Source: UGC

Figure 9. Universities number in India



Source: UGC

Figure 10. Different Type of Universities in India

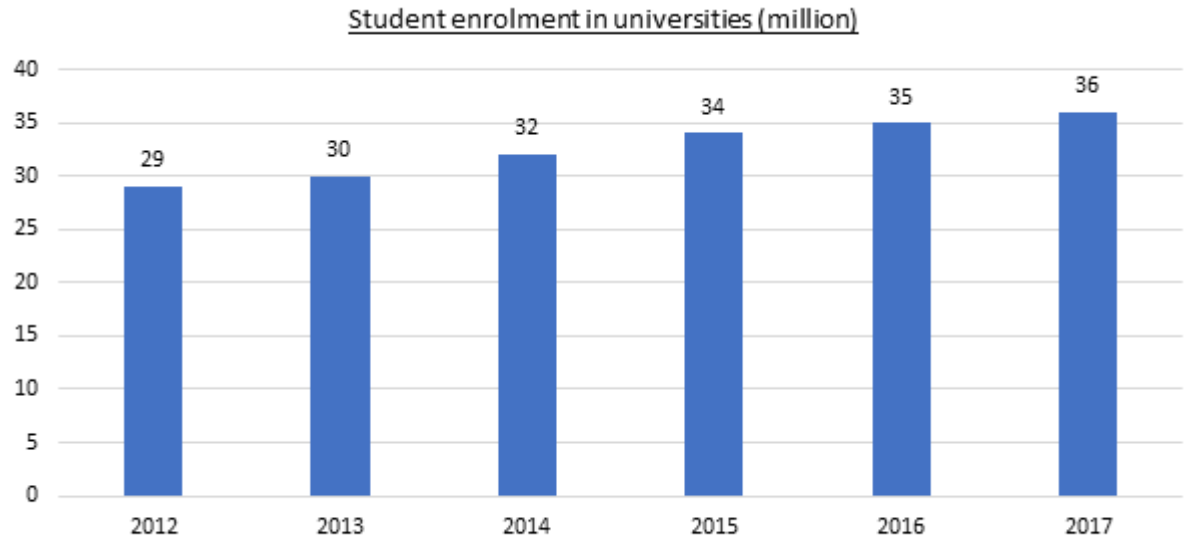


Source: UGC

Figure 11. Number of colleges in India

India is a nation on the rise with a relatively new democratic system. The literacy rate was lower than thirty percent in 1947, the year the country gained its independence; today, 72 years later, it is greater than seventy-five percent. This rise is astonishing when one considers that over this time period the country's population expanded from 33 million to 1.3 billion. At this time, 29% of the population is comprised of people who are less than 14 years old. Education has been given a high priority by the government, as seen by the passage of laws and initiatives such as the "Right to Education Act" and the "Sarva Shiksha

Abhiyan" (education for all). [15, 29, 30] As a direct consequence of this, those who live in more rural locations have a heightened awareness of the significance of obtaining an education for their offspring. As a direct consequence of this, there has been a considerable rise in the demand for education across the board. India is a growing nation, both its gross domestic product (GDP) per capita and its per capita disposable income are on the rise, and its population are now more willing to spend money on education than they were a thousand years ago. The number of students enrolled in universities worldwide rose from 29 million in 2012 to 36 million in 2017, an increase of 11 million pupils. These socioeconomic factors have contributed to the creation of an environment that has fostered conditions that are beneficial for the development of private businesses in the education sector. [15, 31]



Source: UGC

Figure 12. Number of Students Taken Admission

As a result of the fact that more individuals are anticipated to seek higher education, the education business in India is extremely lucrative. No matter what the status of the economy is, individuals will always have the ambition to get at least a bachelor's degree from one of the nation's top colleges, therefore this industry is completely immune to economic downturns. This company also has a very low requirement for operating capital due to the fact that student payments are received in advance. This sector of the economy has been given significant support by the government. The Ministry of Human Resources Development (MHRD) plans to solicit USD 15.52

billion in funding contributions from private firms in order to finance the modernization of India's educational infrastructure. [33]The immense potential that exists within this sector has also caught the attention of investors from other countries. Since the government started allowing 100 percent foreign direct investment in the education sector in 2002, a total of USD 1.7 billion worth of FDI has been invested in this industry. The government has the goal of aggressively working to expand this business so that it may provide a brighter future for the country. In order to accomplish this objective, it has implemented a variety of incentives, such as the exemption from the service tax, and it is also increasing the budgetary allotments that are designated for the industry. In addition, the Indian government is actively encouraging additional international investment in the country with the objective of bringing in USD 150 billion over the next ten years. In addition to this, it bolsters the public-private partnership (PPP) model that is utilized within the industry. [15, 32]

The K.B. Pawar Committee, which was constituted by the University Grants Commission, has proposed four viable PPP models for use in higher education (Source: PwC Report). These models have been presented as prospective ways to fund higher education through public-private partnerships.

1. The core infrastructure model, in which the private sector is responsible for investing in infrastructure despite the fact that the government continues to be in control of the management and operations of institutions. Payouts on a yearly basis are provided by the government to private investors.

2. The paradigm of outsourcing requires the government to pay private investors for certain services, while the private sector is responsible for financing infrastructure and maintaining and administering organizations.

3. Equity or hybrid models: despite the fact that the private sector is in charge of operations and administration, infrastructure investments are shared between the public and private sectors.

4. The paradigm for outsourcing the reserve system requires financial investment from the government in the infrastructure while leaving administration and operation to the private sector. In the field of education, the fundamental benefit of Foreign Direct Investment (FDI) and Public Private Partnerships (PPP) is

that they would make it easier for respected international institutions to build campuses in India. In addition to this, it would result in an increase in visiting professors from these highly regarded universities located in other countries in India. As a direct result of the completion of this project, new technical advancements that enhance the quality of information transport may also be put into effect. The educational requirements in India are expected to become more stringent, which may dissuade some students from pursuing further education in universities located outside of India in favor of exploring the educational opportunities available in their own country. In addition to this, it will be feasible to tame and improve the native talent in India to the point where it makes a substantial contribution to the economy of the nation.

A second parallel company that has experienced tremendous expansion is one that focuses on private tutoring and coaching. According to the results of a survey conducted by the National Sample Survey Organization (NSSO), 26% of all students across the country participate in private educational programming. According to estimates, the market for private tutoring services in India is valued over USD 70 billion. The two types of tutoring fall into these two categories: tutoring for formal academic curricula and tutoring for competitive admission exams for professional courses. A limited group of coaching schools have established a brand identity and used franchise models in order to expand their operations at a faster rate. The most recent innovation in the private coaching industry is the implementation of technology that allows for rapid expansion by multiplying operations in a short period of time and expanding customer base to millions of users via the use of mobile applications. The BYJU's - The Learning App, which was developed by an education technology start-up for the goal of assisting users in preparation for competitive examinations, has received more than 5.5 million downloads since its first release less than six years ago, and it has more than 0.25 million paying subscribers.

Future Possibilities

The Indian government views education as a crucial subject in need of urgent growth and development. As a result, numerous future scenarios have been examined, and policies have been created. The goal is to make sure that everyone in India has access to the best education possible without regard to their background. Let's take a look at some of the government's successful implementation goals.

1. The dream of universal education

Even if both adolescent and adult education levels have improved, there are still as many illiterates as there were people in the country at the time of independence. The Indian Constitution was adopted by the Constituent Assembly in 1950. The directive principal of the constitution was mentioned as free and mandatory education for children up to age 14 within 10 years of the constitution's beginning. The following are the elements to make universal education a reality:

• Discrimination against women; limited access to rural areas; rising numbers of illiterates; privatization; and low government spending on education

Improvement of Gender Equity

The literacy rate shows that there are fewer inequalities between men and women, demonstrating progress in gender parity. There is still much to be done to advance women's education. There are many factors, including: • Women's social position • Children's and women's healthcare • Increasing economic independence

As a result, we still have a long way to go before gender equity is achieved, thus we cannot be happy with the rising literacy rate. those with high rates of literacy include Kerala, Mizoram, Goa, and New Delhi, while those with low levels of education include Bihar, Uttar Pradesh, Arunachal Pradesh, and Rajasthan. Economic and social poverty are the main causes of educational underachievement.

3. University/College

To advance in India's existing educational system, people must overcome significant obstacles. According to data from the National Sample Survey Organization, the unemployment rate for young people with up to a secondary education was 18.10% in the FY 2007–2008. While only 11.60% of young people with only a primary education were unemployed. The government should place a priority on improving pupils and provide more funding for higher education.

In the final quarter of 2021, India edged out the UK to overtake it as the fifth-largest economy in the world. This most recent occurrence occurred in 2019 before to the pandemic. With 580 million people, India also boasts the highest population in the world for the age group of 5 to 24. The average age in the nation is about 28.4 years old.

Combining these factors automatically implies that India is a sizable market for the education sector. According to a report from 2021, the Indian education market as a whole is anticipated to reach a value of US$225 billion by FY 2024–2025, growing at a 14 percent compound annual growth rate (CAGR).

Important areas of the Indian education sector

India has a sizable formal education sector, with institutions set up to meet the educational needs of each age group, including preschool, K–12, higher education, and research. E-learning is currently a significant emerging market.

preschool industry

The highly fragmented pre-school market in India is expected to increase by US$957.86 million between 2021 and 2026 at a CAGR of 9.57 percent. An industry analysis projects growth of 6.40 percent for 2022.

The largest market share belongs to the urban sector, and pre-school care and learning facilities are in great demand in tier-2 and tier-3 cities due to the increase of dual income homes.

K–12 education market

With more than 1.5 million schools and around 250 million students enrolled, India boasts the second-largest educational system in the world. In fact, the K-12 sub-segment accounts for more than half of India's expanding education sector overall.

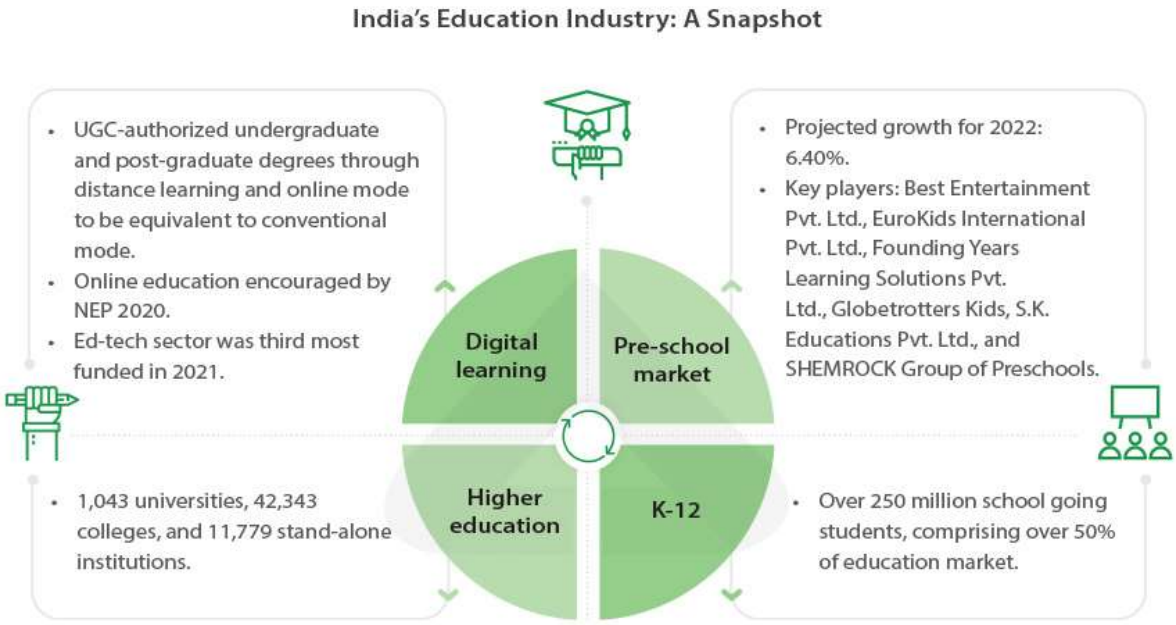


Figure 13. Overview Indian Education as Industry

The majority of K–12 schools in India fall into one of three categories: government-run (about 72%), private aided (privately owned and controlled but receiving some kind of government help – roughly 5%), or private unaided (funded totally privately – roughly 23%).

There are several top-performing government schools in the nation, despite the long-term trend of increased preference for private school education due to greater infrastructure and educational facilities. [35]

For the purpose of overseeing school education, India has numerous education boards. The National Institute of Open Schooling (NIOS), which promotes flexible learning opportunities, the respective State Boards, the Central Board of Secondary Education (CBSE), which has the nation's largest network of schools, the Indian Certificate of Secondary Education (ICSE), which has schools nationwide and focuses on more practical education, STEM subjects, etc., and the privately run International Baccalaureate (IB) program provided by the council of private international schools, are some of these.

higher learning

After China and the United States, India's higher education system has the third-largest student body. While the gross enrolment ratio (GER) for FY 2019–20 is only 27.1 percent. In 2019–20, there were 38.5 million students enrolled, 19.6 million of whom were male and 18.9 million of them were female. [1, 36]

The University money Commission (UGC) is responsible for setting standards, coordinating policies and assessments, and disbursing money for all of India's higher education institutions. However, the All India Council of Technical Education (AICTE) and relevant councils created pursuant to applicable regulations for the supervision of higher education in particular sectors oversee technical institutes. These organizations include the Indian Nursing Council, the Indian Pharmacy Council, the Indian Medical Council, and the Council for Distance Education. [33]

The admittance and operation of international universities and institutions in India are governed by the UGC and AICTE. If a higher education facility has been in operation for at least ten years and meets the requirements to be allowed to award degrees, it is referred to as a "deemed university."

In India, there were 1047 universities as of June 2022. The Department of Higher Education granted 126 deemed universities (status of autonomy), 54 central universities (formed by the Department of Higher Education), and 410 private institutions status in 2021, according to the UGC. [34]

132 Institutes of National Importance, a designation given by the government to the best performing public higher education institutions (HEIs), are also present in India. To help HEIs become world-class teaching and research institutions, the government has developed Institutions of Eminence guidelines.

It should be mentioned that India's higher education market can be roughly classified into two categories: regulated and unregulated. Central, state, and private universities, private/professional colleges, and technical and research institutes are all included in the regulated category. Online education, vocational training, finishing schools, professional development, and training and coaching workshops are all included in the unregulated category, which has a lot of room for private sector involvement and foreign investment. [34]

The UGC announced in April 2022 that it will permit some higher education institutions to sign an MoU with overseas schools in order to offer twin, joint, or dual degrees. The Indian institution must be included among the top 1,000 universities worldwide in either the Times Higher Education or QS World University rankings.

Market outlook The education sector in India is extremely diverse across all areas and is becoming more competitive. However, there are scalable investment opportunities given that uneven access to high-quality education across the nation is a result of poor infrastructure and high demand.

Therefore, there are many opportunities for foreign participants across the business, from offering services to the extensive educational system, including management services, as well as academic publishing, additional online learning, and educational supply provision.

Education is a non-discretionary expense in India and is seen as a crucial enabler for upward mobility, which helps with this. This ensures that household budgets for educational expenses remain a priority, regardless of economic downturns.

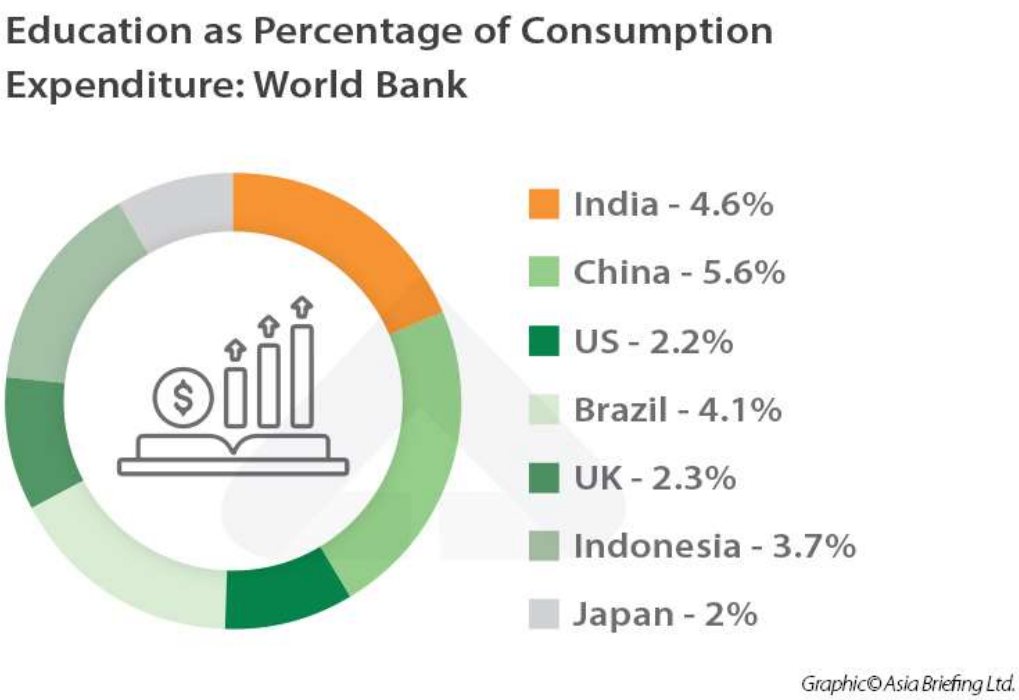


Figure 14. Percentage of Consumption expenditure of Worldbank

Rapid expansion is anticipated in professional and skill development training and certification outside of the formal schooling system. India has a vast labor force that has to be skilleded, upskilled, and reskilled. Its population is primarily young. In order to attain greater quality growth, India must improve the competencies of its talent pool. As a result, a variety of incentive programs and skill development plans are available to support this goal.

The 2020 National Education Policy

The National Education Policy 2020 (NEP 2020) is anticipated to cause a lot of disruption in the future. With the aim of changing the current educational pedagogy, it will present chances for international players. For instance, campuses from international universities will be able to be established in the nation under NEP 2020. [33]

'5+3+3+4', which can be broken down as follows, is the new curricular and pedagogical structure that the NEP 2020 has proposed.

Pre-primary to second grade in 5 years

• 3 years: third through fifth grades
• 3 years, from sixth to eighth grade
• 4 years, from ninth to twelfth grade

This will take the place of the current dominating standard, 10+2. One hundred percent youth and adult literacy, fifty percent higher education GER (up from the current twenty-seven percent), use of technology, teacher preparation, regulatory reforms, internationalization of education, professional education, multidisciplinary approach, digital and open education, etc. are the main goals of the education policy reform. Only Madhya Pradesh and Karnataka, two Indian states, have so far publicly stated that they intend to implement NEP 2020. The states of Uttar Pradesh and Uttarakhand intend to roll out the policy gradually and in segments. [33]

The NEP 2020 is intended to change education, making it more flexible and experiential. Universities in India are being urged to provide interdisciplinary and comprehensive education in the humanities, social sciences, arts, and sports.

Although the edtech industry has expanded significantly over the past ten years, its actual effects are only now starting to become apparent. EdTech has significantly changed how knowledge is accessed, from e-learning platforms and student engagement tools in the classroom to skill development and continuous learning options for higher education. Additionally, the sector's change has been sped up by supportive government initiatives, technological advancements brought on by widespread internet use, and the arrival of 5G.

Without a doubt, the new National Education Policy (NEP) will lead to considerable educational reforms in 2023. The next few years will see a significant push for STEM-based education as skill-based education gains momentum. There have been several concentrated policy advancements in the area of school education that have been created with tech-enabled solutions in mind, with the aim of promoting digital literacy and inclusivity in terms of access to high-quality teaching techniques. As experiential learning becomes more popular, all school curricula will undergo significant adjustments as NEP sets out on its journey. Soon, schools will begin introducing initiatives with the main objective of making learning enjoyable.

We've compiled a list of 2023 educational trends that will improve learning for both students and teachers by being more adaptable, accessible, and interesting. Following is a list of the top five trends that will significantly affect education in 2023 and beyond:

1. Virtual reality and augmented reality

We have entered a brand-new era in which augmented reality (AR) and virtual reality (VR) are rapidly gaining popularity. Children now have a place where they may comprehend

complex concepts and get real-world learning experiences in low-risk virtual worlds thanks to virtual reality and augmented reality technologies. It could be enhanced by STEM-related instruction, medical procedure simulations, arts and humanities materials, technical education, augmented reality, and virtual reality. The second reason virtual reality and augmented reality technologies are on their way to becoming one of the most promising additions to the "Edtech" area is its ability to convey knowledge in new and more engaging ways online.

2. The Rise of AI and Reality

Artificial intelligence, or AI, can interact with people and offer aid. By providing fresh approaches to teaching and learning, it has the potential to transform a wide range of industries, including education, and to address some of the most important problems confronting education today. Faster paper grading, customized training, intelligent material delivery, and student access to tutoring programs or AI-based intelligent tutoring systems (ITS) are just a few advantages that using AI tools and technologies may bring about. It's crucial to understand that AI should put people first. Future educational opportunities for pupils will be made available by a combination of teacher interaction and AI. [34]

3. Individualized Instruction

Another simple yet incredibly effective and innovative way to approach the learning process is to tailor instruction to each student's unique skills, needs, talents, and interests. This helps in the development of a learning plan tailored to the student. Introducing personalised learning is based on the essential tenet that each child learns differently and at a different rate. According to their learning preferences, past knowledge, skills, and interests, each student in personalised learning obtains a "learning plan." The 'one size fits all' approach that is typical in most schools is in conflict with this. The planned plan is kept project-based to make sure that the student receives hands-on learning on the chosen topics and that they're anticipated to study as they advance through their schooling.

4. The emphasis will be on holistic education.

Thanks to changing educational contexts, the emphasis is now on fostering a child's entire and holistic development so they can become responsible individuals with the appropriate skill sets. The holistic learning approach to education, which promotes a child's academic performance while also preparing them to overcome life's problems, is one that educators are emphasizing more and more. The benefits of holistic education are

numerous. Students are provided with the resources they need to enhance their academic performance and build the soft skills necessary for a prosperous professional career. One of the numerous benefits of holistic learning is the improvement of academic performance, mental and emotional health, and problem-solving abilities.

5. Entrepreneurial mindset in education

There has been a lot of buzz recently about introducing entrepreneurship into the classroom. Teachers create their lectures and lessons with the goal of fostering in their students from an early age an entrepreneurial mindset and outlook. Students will be more prepared to be obedient members of society if entrepreneurial values are embedded in the educational process. Such a mindset can better prepare students to learn the knowledge and abilities required to reach their own particular goals. In order to ensure entrepreneurial success while also improving the student's employability in the future workforce, the curriculum developed here strives to develop entrepreneurial knowledge, skills, attitudes, conduct, and drive. [37]

For educators and politicians, the COVID epidemic has been a teaching tool and set a precedent for the foreseeable future. The excellent strategies that are being used now will provide the groundwork for the Indian educational system's capacity to manage crises in the future with minimal disruption. Additionally, it has aided us in seeing that learning need not be a rigid, one-way process. Despite the enormous shift caused by technology and new governmental reforms like the NEP, edtech will continue to play a significant role in society and act as a strong foundation for the next generation. It's time to embrace the creative improvements technology is bringing to education and to look ahead to a prosperous and progressive future.

Conclusion

In conclusion, it can be said that the Indian education sector has enormous growth potential and will undoubtedly expand during the next 20 years. Being a recession-proof sector, it currently presents enormous opportunity to investors looking for low-risk returns. If the government's measures are successful, India may experience a rise in the number of skilled workers during the next years. Our research techniques, which included information gathering, analysis, case studies, and econometric modeling, gave us a thorough understanding of the Indian education industry and its effect on GDP. The results imply that education is not just an important economic growth driver but also a sector

that is constantly changing as a result of technology, regulations, and various business strategies. These findings have important legislative, educational, and stakeholder ramifications and highlight the value of strategic investments in education for India's economic future.

References

1. Agrawal A.N., & Agarwal M.K. (2016). Indian Economy: Problems of Developmentand Planning. New Age International Publishers, 22-23
2. https://www.toppr.com/guides/economics/human-capital-formation-in-india/education-in-india/
3. The future of education in India: Predictions and trends for 2023, Rohan Parikh in Voices, India, TOI
4. https://www.upgrad.com/blog/future-scope-in-education/
5. Bhaskara, B. (2010). Munich Personal RePEc Archive Effects of education on
   economic growth : Evidence from Guatemala. World, (July).
   Bosworth, B., & Collins, S. M. (2008). Accounting for Growth : Comparing China and
6. India. Journal of Economic Perspectives, 22(1), 45–66.
7. THE EMERGING ECONOMIES OF INDIA AND CHINA: AN ECONOMETRIC ANALYSIS ON THE EDUCATION SECTOR. Journal of Data Acquisition and Processing Vol. 38 (2) 2023 4589
8. Bushra Kheir, V. (2019). The Impact of Trade Openness on Economic Growth in the Case of Egypt. SSRN Electronic Journal, 10(1), 3–10. https://doi.org/10.2139/ssrn.3305955
9. https://bweducation.businessworld.in/article/Future-Of-Education-In-India/02-03-2023-467521/
10. https://www.televisory.com/blogs/-/blogs/education-industry-in-india-an-overview
11. https://www.moneylife.in/article/11-percentage-20-percentage-compounded-growth-makes-education-a-lucrative-business-care-report/54462.html
12. Chris Parr. (2018). A two-way street: why China is not just a student departure lounge anymore. The Pie News. Retrieved from https://thepienews.com/analysis/internationalstudents-\ in-chinaincreasingly-diverse/
13. Curea, Ş. C., & Ciora, C. (2013a). The impact of human capital on economic growth.Quality - Access to Success, 14(SUPPL. 1), 395–399. https://doi.org/10.1016/s2212-5671(15)00258-0
14. Curea, Ş. C., & Ciora, C. (2013b). The impact of human capital on economic growth.Quality - Access to Success, 14(SUPPL. 1), 395–399. https://doi.org/10.1016/s2212-5671(15)00258-0
15. https://www.india-briefing.com/news/profiling-major-segments-in-indias-education-industry-26531.html/
16. https://www.techcircle.in/2021/08/19/indian-education-sector-most-targeted-by-cybercriminals-globally-in-july-2021-check-point
17. https://www.vccircle.com/indias-education-market-nearly-double-180-bn-2020-1

18. https://www.britishcouncil.org/sites/default/files/understanding_india_report.pdf
19. https://www.firstpost.com/business/economy/indias-next-big-growth-bet-seriously-you-need-to-study-this-171101.html
20. Dastidar, S. G., & Chattarji, M. (2015). Public expenditure in different educationsectors and economic growth: The Indian experience. Munich Personal RePEc Archive, 25(61160), 1–31.
21. Gupta, D., Gupta, N., Marg, M., & Engineering, E. (2012). Higher Education in India :Structure , Statistics and Challenges. Journal of Education & Practice, 3(2), 17–25.
22. Heaney, R., Evans, T., Macauley, P., & Pearson, M. (2013). The impact of Australian higher education policy changes on the production of PhDs in the field of accounting and finance. Accounting and Finance, 53(3), 691–710. https://doi.org/10.1111/j.1467-
23. 629X.2012.00475.x International Students in China. (2018). International Students in China. https://doi.org/10.1007/978-3-319-78120-4
24. Jiang, Y. (2014). Understanding TFP growth in inland regions of China: An empirical study of the effects of three factors. International Review of Applied Economics, 28(3), 365–382. https://doi.org/10.1080/02692171.2013.872087
25. Kapur, D., & Mehta, P. B. (2007). Indian Higher Education Reform: From Half-Baked Socialism To Half-Baked Capitalism
26. 13. Prasad, N., & Singhal, O. (2016). The economic growth trajectory of India and China.
27. Rao, B. B., & Vadlamannati, K. C. (2011). The level and growth effects of human capital in India. Applied Economics Letters, 18(1), 59–62. https://doi.org/10.1080/13504850903427146
28. Rizvi, S. Z. A., & Nishat, M. (2009). The impact of foreign direct investment on employment opportunities: Panel data analysis: Empirical evidence from Pakistan,
29. India and China. Pakistan Development Review, 48(4), 841–851. https://doi.org/10.30541/v48i4iipp.841-851 Scopus paper-2. (n.d.).
30. Srinivasan T.N., (2013). Trends and Impacts of Real and Financial Globalization in the People's Republic of China and India since the 1980s. Asian Development Review, vol. 30, no. 1, 1–30
31. Vandana Chandra, Justin Yifu Lin, & Yan Wang (2013). Leading Dragon Phenomenon: New Opportunities for Catch-up in Low-Income Countries. Asian Development Review, vol. 30, no. 1, 52-84
32. Prasad, N., & Singhal, O. (2016). The economic growth trajectory of India and China.
33. UNESCO Bangkok (Asia and Pacific Regional Bureau for Education): ICT for higher education: Case studies from Asia and the Pacific http://www.icde.org/filestore/ Resources/Reports/ICTforHEUNESCO.pdf
34. UGC report 'Higher education in India at a Glance' February, 2020Jebaraj, Priscilla (2 August 2020). "The Hindu Explains | What has the National Education Policy 2020 proposed?". The Hindu. ISSN 0971-751X. Archived from the original on 2 August 2020. Retrieved 2 August 2020.

35. Vishnoi, Anubhuti (31 July 2020). "No switch in instruction medium from English to regional languages with NEP '20: HRD". The Economic Times. Archived from the original on 15 July 2021. Retrieved 31 July 2020.
36. Gohain, Manash Pratim (31 July 2020). "NEP language policy broad guideline: Government". The Times of India. Archived from the original on 31 July 2020. Retrieved 31 July 2020.
37. https://www.cnbctv18.com/education/education-budget-2023-rs-112-lakh-crore-allocated-to-education-sector-highest-ever-here-are-the-highlights-15803871.htm