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Growth analysis of educational technology market in India

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Abstract-

India will be one of the fastest growing EdTech market in the world by 2022. EdTech market will see spectacular growth from 2019 to 2022. With more than 260 million students at 1.5 million schools, 50,000 higher education institutions and 13,000 Industrial Training Institutes (ITIs), India is the quiet giant of global education markets. However, this is set to change with technology, policy and economic development traction India is one of the world’s largest, most dynamic and fastest growing education markets. . Global player will invest huge amount in India's EdTech sector by 2022. The country has a massive youth bulge – the largest in the world – with 600 million young people under the age of 25. Nearly 30% of the population is under 14 years of age, more than 30 babies are born every minute and the UN projects that Delhi will become the largest city in the world with 37 million people by 2028. Nature of Research- Research is exploratory and descriptive in nature. Type of Data used- Secondary data is used for the analysis. People are getting aware about to EdTech platform mostly by online and social media, TV Advertisement & word of mouth publicity. Friends, educated relatives, private tuition teachers, school teachers were major influencers for purchasing EdTech platform services. Child’s interest or students interest, good video-visualization, high interaction, engaging content, major reason for adoption of Ed-Tech platform.Good trial experience,syllabusrelevance, good teacher’s quality were the major reason for purchasing EdTech platform services. Research report found Course content, good faculty, good training experience, good query resolution, good placement for career are the major positive sentiments for upgrading technical skills.

Keywords:Educational Technology, Digital Adaptation,Higher Education, Technical Skills

Introduction:-

With more than 260m students at 1.5m schools, 50,000 higher education institutions and 13,000 Industrial Training Institutes (ITIs), India is the quiet giant of global education markets. However, this is set to change with technology, policy and economic development traction. India is one of the world's largest, most dynamic and fastest growing education markets. The country has a massive youth bulge – the largest in the world – with 600 million young people under the age of 25. Nearly 30% of the population is under 14 years of age, more than 30 babies are born every minute and the UN projects that Delhi will become the largest city in the world with 37 million people by 2028.While India might be currently overshadowed by other education giants, the drivers for change are building to deliver India as one of the most important education markets globally within the next five years. Key drivers such as technology connectivity, mobile first learning, capital flows and education innovation deliver clear signals of things to come.India has huge population and India is providing internet access to to the large population residing in cities and rural areas. India's active internet users are also increasing inconsiderable size.

Market Size of Indian education system-

Indian education system can be divided into schooling, professional education, vocational education and ancillary segment. Schooling consists of learning of children till grade 12, professional education consist of of graduation post-graduation and Ph.D. degrees, vocational education is given related to manufacturing and service sector, ancillary segment consists of of textbook ok and allied services. Market size of schools till grade 12 is $ 52 billion while for professional education is $ 15 billion, for vocational education is $ 5 billion and ancillary segment $ 28 billion. Annual growth rate for or schooling And Higher Education is 14%, it for professional education 20%, for vocational education 20%, and for ancillary segment 22%

Sr No	**Points For Comparison**	**Schooling & Higher education**	**Professional education and skill development**	Vocational education & Skill Development	**Ancillary segment**
1	Constituents	Primary and secondary (k-12 schools)	Graduation, post-graduation and Ph.D.	Vocational education in manufacturing and services	Textbooks and e-learning allied services
2	Market size	$ 52 billion	$ 15 billion	$ 5 billion	$ 28 million
3	CAGR	14%	20%	20%	22%

Infrastructure of Indian educational system-

Indian educational infrastructure has 1.5 schools, 35000 colleges, 751 universities and 22000 training centers. Indian primary and secondary schools have 260 million students, Indian higher education colleges have 29 million students, and vocationalcentres have 4.5 million students. In case of annual intake school has 18 million capacities, colleges have 5 million capacities, and vocational training centres have 3 million capacity. To provide good services in Indian education system 2 million teachers are additionally required in schools, while 1.7 faculty and 1 million trainers are required in colleges and vocational centers respectively. Huge investment is required in Indian education system because primary and secondary schools need additional $ 60 billion for the resources, colleges and Universities need $ 100 billion for the resources, vocational centres need $ 40 billion for the resources,

Sr No	Points For Comparison	Schools	Colleges	Vocational training centers
1	Nos	1.5 Mn	Colleges 35539 Universities 751	Vocational training centers 22,000
2	Infrastructure	Government schools 1.1 million Private schools 0.4 million	Government 8000 Private 28000	Government ITI 2571 Private ITI 9673 Polytechnic 9900
3	Number of students	260 million	29 million	4.5 million
4	Annual intake	18 million	5 million	3 million
5	Additional capacity required	40 million	20 million	20 million
6	Additional requirement for Teachers, Faculty, Trainers	2 million	1.7 million	1 million
7	Additional resources	60 billion	100 billion	40 billion

Online higher & lifelong education

The online higher education and lifelong learning market size stands at $0.5 billion at present, which could grow to anywhere between $4 billion and $6 billion by 2025.Covid-19 and the need for social distancing has become what the report describes as an "unfortunate catalyst" for EdTech in higher education. Many education programmes have moved entirely to the online space, which makes EdTech a virtual necessity.

Review of Literature-

Khan (1997) concludes that online learning is nothing but thedelivery of instruction to remote customers using the web as an intermediary.

Elaine Allen, Jeff Seaman (2011) concludes that Online learning as courses those in which 80 percent of the coursecontent is delivered online and Face-to-face instruction are those courses in which less than 30 percent of the content is delivered online.

(Kearsley, 2000; MacKinnon &Aylward, 1999; Presby, 2001; Simonson, Smaldino, Albright, &Zvacek, 2003) concludes that tendency of the online education platform to offer learning courses at post-secondary level is growing significantly.

(Reymen et al., 2016).Concludes that devising and developing a sustainable ed-tech business model remains one of the major problems oftechnology-based firms, due to high levels of technological and business uncertainty and theunpredictability of commercialization options.

(Dr. Fahad N. Al-FAHAD 2009) concludes that the students' attitudes andperceptions of 186 University Student's from different colleges towards effectiveness of mobilelearning in their studies. Students have positive mindset towards mobile learning students are using mobile learning for improving communication and learning.

(Herman, T., & Banister, S. 2016) concludes that if we do comparison of cost and learning outcomes oftraditional and Online coursework. online learning significant cost adding value in terms of learning important concepts in less times, supports students learning environment, ease learning process and save significant cost and wastage of money in non-essential activities.

(Stacey & Rice, 2002) concludes that it is very difficult to find out exact motivation behind offering e-learning courses online. whether the motive is economical or pedagogical. Researcher are also studying in details exploring how learning outcomes are achieved in e-learning environments

(Sosna et al., 2010, Demil&Lecocq, 2010) concludes that marketing and business model for edtech products and services are created and re-designed at different points in time as part of a dynamic process.

According to Stack, Steven Dr. (2015) concludes that online education has proliferated in the last 10 years. Hisfindings in the research study have not found significant difference in the scores of the students taking online course and face to face classes.

Research Methodology-

- Nature of Research- Research is exploratory and descriptive in nature.
- Type of Data used- Secondary data is used for the analysis.
- Source of data - Many research reports, research papers, government websites, private companies websites, books, magazine are used to collect the data. Authentic sources are used so that accurate and realistic findings and conclusions to be withdrawn.
- Data Analysis - Data is analyzed using graph charts percentage and ratio.
- Softwares Used - MS Excel and SPSS software where used to analyze the data. Most of the data is collected for India. Whenever required global statistics are used for analysis.
- Measures taken for analysis- Precaution is taken to collect data within past 2 to 3 years so that analysis is contemporary and relevant to current situation. Secondary data collected is cross verified from various sources to maintain accuracy
- Presentation of data - Data is presented in suitable format to conclude the results.

India's growing private education expenditure

Indian population is gradually adapting digital Edtech platforms which is seen by 2019 statistics
Indian education system is one of the largest systems in the world in terms of both value and volume. In 2019 private education expenditure was 39 billion dollar out of which 69% expenditure reported for in school activities while 41% expenditure reported for out of the school activities. It is forecasted in 2022, private expenditure will rise to 260 billion dollar out of which 62% expenditure will be made for in school activities while 48% expenditure will be made for out of the school activities.

Private Education Spend		
	2019	2022
In School expenditure	69%	62%
Out of school expenditure	41%	48%
	$ 39 Bn	$ 60 Bn

India's growing digital adaptation for EdTech services platforms

There are many key challenges faced in providingEdTech services. Lack of personal attention is major challenge reported by 56% people in Metro region, followed by lack of quality education 55 %, followed by international standards 49%, followed by poor content quality 47%, followed by wrong teaching pedagogy 22%

Digital adoption for EdTech (2019)	
Active Internet Users	350 Mn
Familis with Active Internet Access	165 Mn
Addressable student population	150 Mn
Edtech users	25 Mn

NPS for EdTech platform services

The NPS (Net Promoter Score) stands at 45 among paid EdTech users. This is amuch higher score when compared to other tech-based industries such as food andwellness, mobility and e-tailing. This is a promising sign for EdTech and should createa ripple effect on product adoption and customer loyalty. It can also be used in wordof-mouth campaigns and testimonials to foster trust among non-paying users.The reason for getting more investment in EdTech sector is more number of users are ready to pay for the EdTech services. EdTech services has highest NPS percentage, EdTech has 45% NPS followed by foot and Wellness services 37%,followed by mobility services 29%, followed by e-tailing services 18%

Industry-leading NPS (Paid Users)	
EdTech	45%
Food & Wellness	37%
Mobility	29%
E-tailing	18%

Pricing potential for EdTech platform services in India-

As EdTech sector is in initial phase very few people are utilizing paid services as people are not aware of the benefits EdTech platform provides to the needy person. India has 90 million student populations out of which 25 million are EdTech users. Most of the EdTech uses are availing free services only 1 million EdTech users are paying for the services. It is interesting to know that gradually e-it platforms are replacing tuitions currently and 0.2 million students have shifted themselves to EdTech platformfrom tuitions

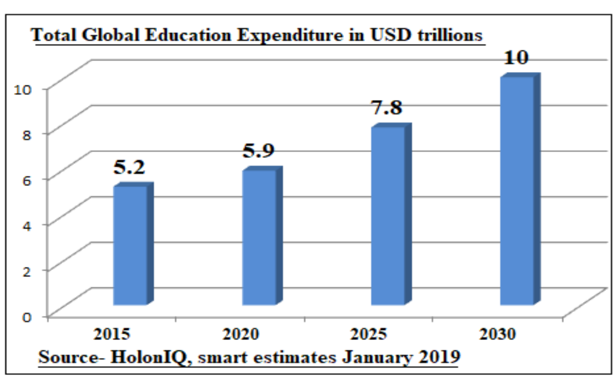
Pricing potential of EdTech	
Student Population	90 Mn
EdTech Users	25 Mn
Paying EdTech Users	1 Mn
Replaced Offline Tutions with EdTech	0.2 Mn

SWOT analysis of EdTech platform-

SWOT analysis of EdTech platform	
Strength of EdTech platform 1. high level of internet penetration 2. Large volume or market size 3. Large population of digital natives 4. World's second largest MOOC enrollment 5. Low development cost	**Weakness of EdTech platform** 1. High pricing 2. Ambiguous regulatory framework 3. Credibility of online qualification 4. Low acceptability at job interviews 5. Lack of awareness 6. Lack of content in regional language 7. Low retention
Opportunities for EdTech platform 1. Demand for global education 2. Embedded soft skill modules 3. Co-branded certification 4. Government support and policies 5. Large private sector presence 6. Preference for online certification	**Threats for EdTech platform** 1. Lack of infrastructure 2. Faculty resistance for adoption 3. Low quality service providers 4. Non acceptance of online degrees

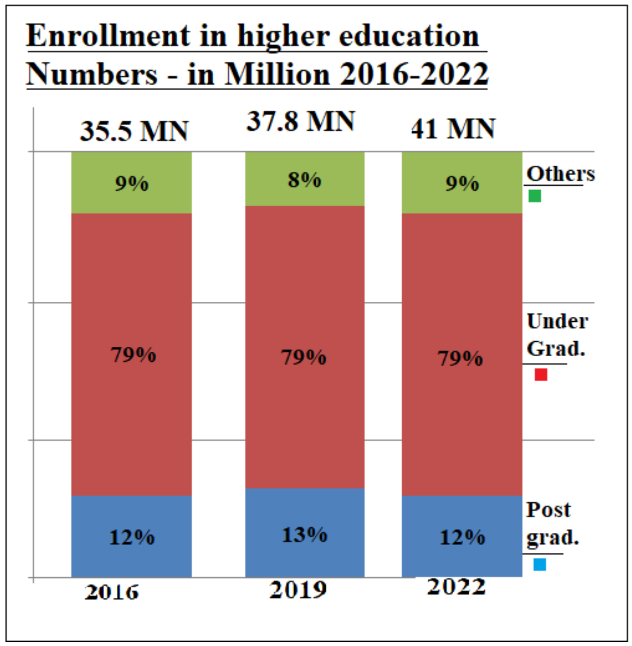
Total Global education expenditure in US $ Tn-

Expenditure on education and training from governments, parents, individuals and corporates continues to grow to historic levels and is expected to reach USD$10T by 2030.



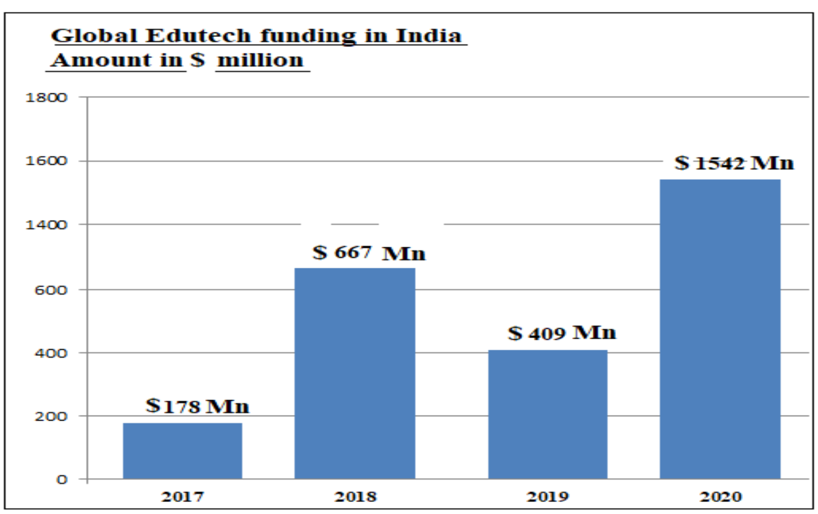
Enrollment in higher education in EdTech platform services-

Higher education place vital role in the growth of any Nation in India number of of individuals aspiring for the higher education will increase from 35.5 million to 41 million from from 2016 to 2022. Growth rate of students admitting two post graduation courses will increase by 12% from 2016 to 2022 similarly undergraduate enrollment will increase by drastically 79% growth rate. Other courses will also see growth rate of 9%



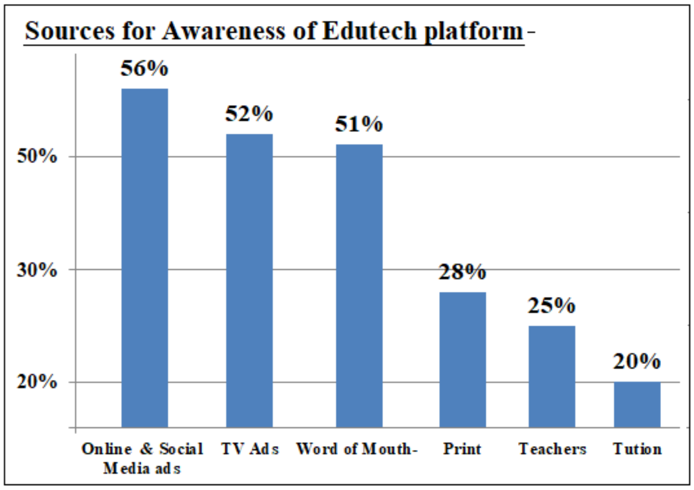
Global education funding in India-

India is very lucrative market for EdTech funding. Global player are investing huge amount in India's EdTech sector. EdTech funding in India increased from 178 million dollar to 1542 million dollar by 2020



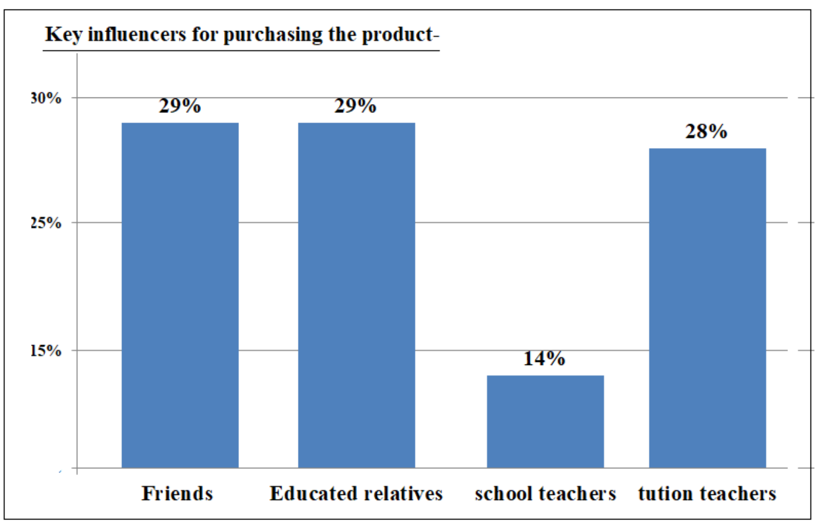
Sources for Awareness of EdTech platform services in India-

Awareness of EdTechsector is important in availing the services of EdTech platform. People are introduced to EdTech platform mostly by online and social media 56%, followed by TV Advertisement 52%, followed by word of mouth publicity 51%, followed by print advertisement 28% , followed by teachers 25%, followed by private tuitions 20%.



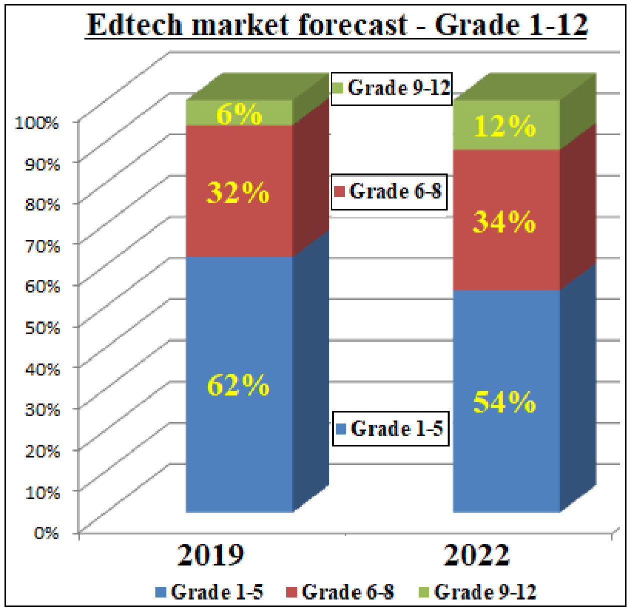
Key influencer for purchasing EdTech platform services-

Consumer buying behavior research reported that it reports it that friends,relatives, school teachers and private tuition teachers influenced students to purchase EdTech services. Friends and educated relatives were major influences for purchasing EdTech services 29% each, followed by private tuition teachers 28% followed by school teachers 14%



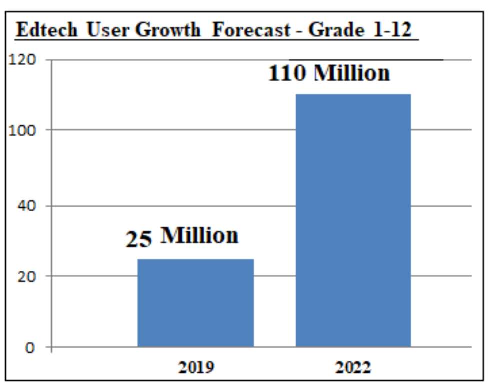
EdTech market forecast for grade 1 to 12 (Growth rate)

EdTech market will see spectacular growth from 2019 to 2022. In 2019 EdTech market reported significant growth from grid 1 to grade 12. Grade 1 to 5 hasgrown by 62%, grade 6 to 8 has grown by 32%, and grade 9 to 12 has grown by 6%. Similarly in 2022 it is forecasted that grade 1 to 5 will grow by 54%, grade 6 to 8 will grow by 34%, and grade 9 to 12 will grow by 12%.



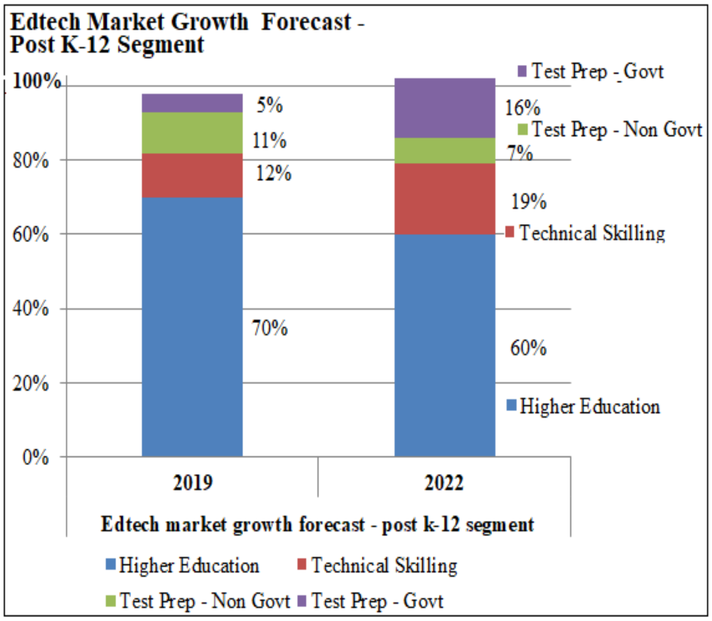
EdTech growth forecast for grade 1 to 12 (Numbers)

EdTech sector growth is very promising in India, it is expected that grade 1 to 12 students will grow from 25 million in 2019 to 110 million in 2022 making India one of the fastest growing market in the world



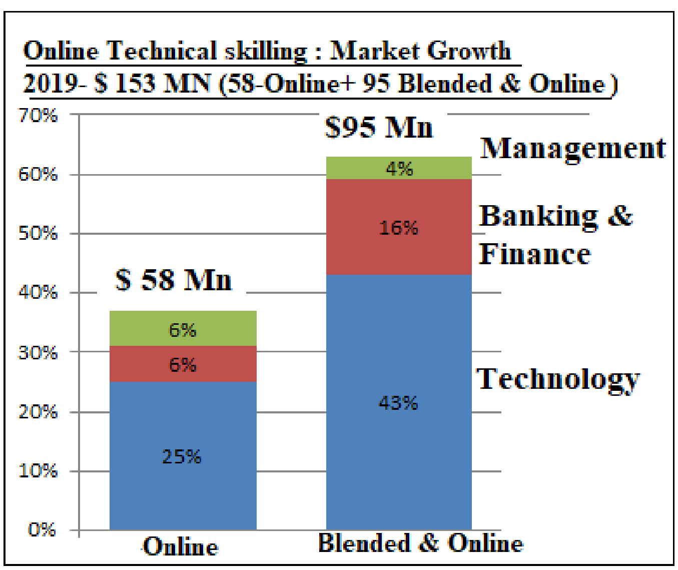
EdTech market growth forecast for post k-12 segment (Growth rate)-

India will be one of the fastest growing EdTech market in the world by 2022. In 2019 post k-12 segment reported promising growth rate and it will continue till 2022. In 2019 higher education segment has reported 70% growth rate, followed by technical skilling segment 12% followed by test preparation -non government segment 11%, followed by test preparation government segment 5%. Similar trade will also forecasted in 2022. Higher education segment will report 60% growth rate, technical skilling segment will report 19% growth rate, test preparation non-government segment will report 7% growth rate, test preparation government segment will report 16% growth rate.



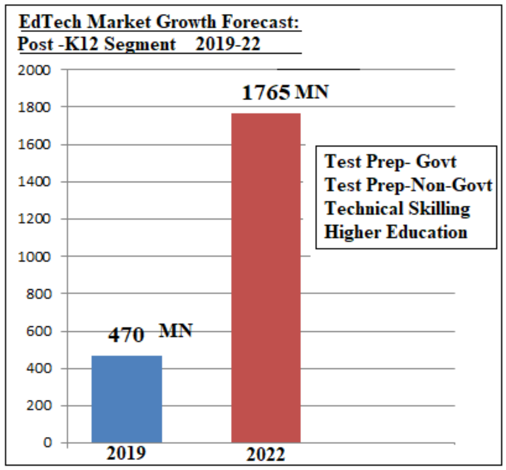
Online technical skilling market growth (2019) -

Online technical skilling market consists of both online and blended online customers. In 2019 online technical skilling market has market value of 153 million dollar out of which online segment accounted for 58 million dollar and blended and online segment accounted for 95 million dollar. Technology segment has reported maximum growth rate 25% in online segment and 43% in blended and online segment. Banking and Finance segment has grown 6% in case of online segment and 16% in case of blended and online segment. Management segment it has grown 6% in case of online segment and 4% in case of blended and online segment



EdTech market growth forecast post k-12 segment 2019 to 2022-

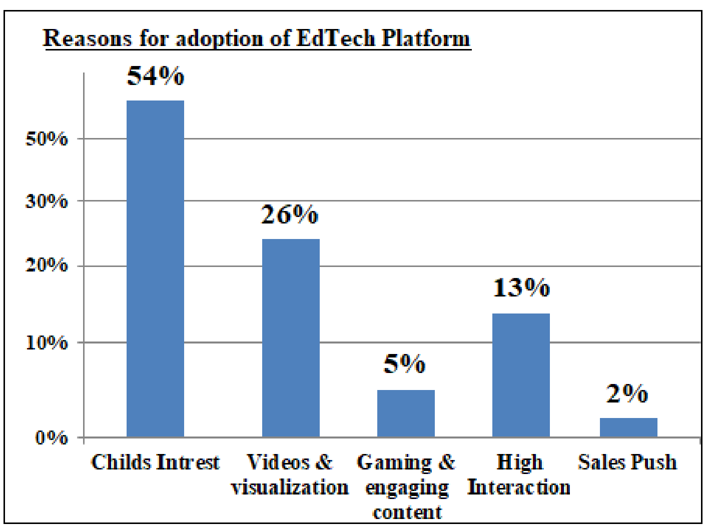
In case of post K12 segment, number of users will grow from 470 million to 1765 million.



Factors Influencing purchase decision of EdTech platform services in India.

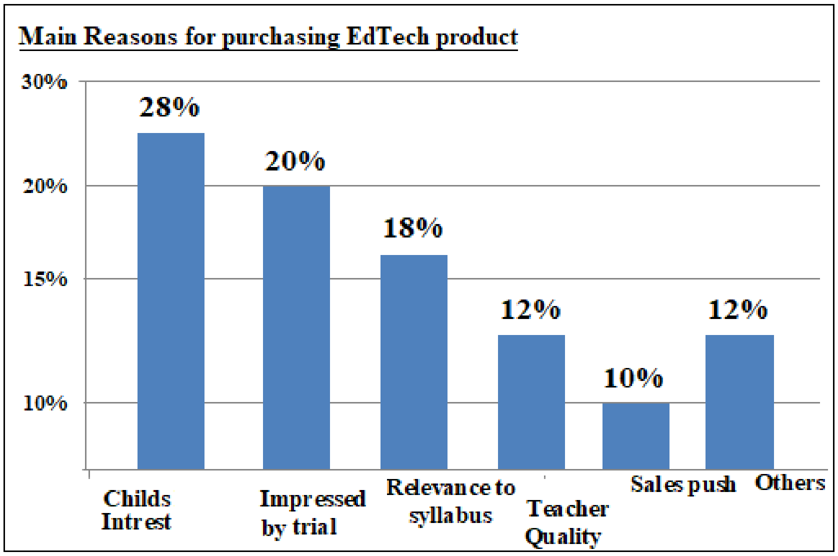
Reason for adoption of EdTech platform

In EdTech report child's interest or students interest what's the major reason for adoption of EdTech platform which is 54 %, followed by good video and visualization 26%, followed by high interaction 13%, followed by engaging content 5%, followed by sales push 2%



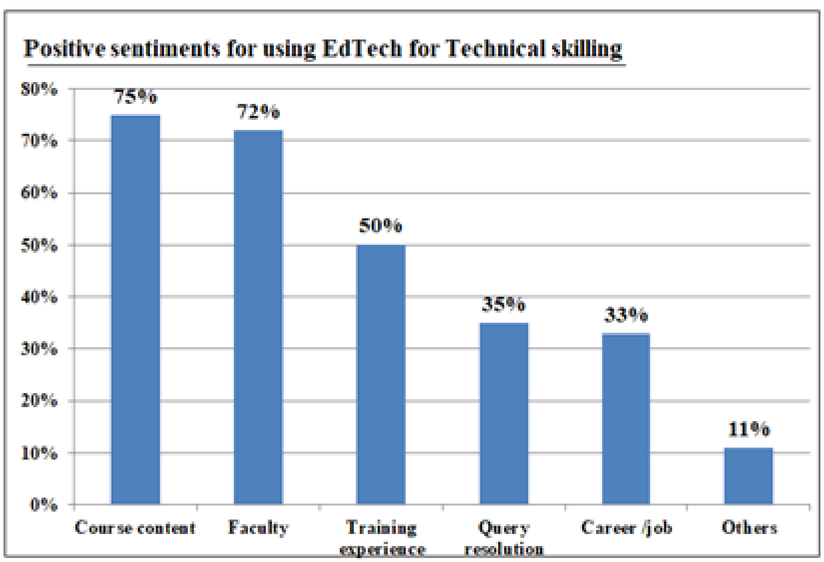
Main Reason for purchasing EdTech product-

child or students interest was the major reason for purchasing EdTech platform services which is 28%, followed by good trial experience 20%, followed by relevance to syllabus 18%, followed by good teachers quality 12%, followed by sales push 10%



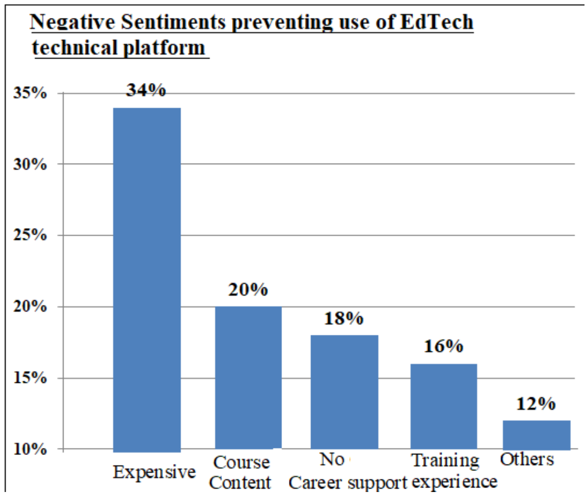
Positive sentiments for using EdTech for technical skilling-

EdTech Research report found many positive sentiments for upgrading technical skills. Course content was the major positive sentiment searched to use for availing tech platform 75%, followed by good faculty 72%, followed by good training experience 50%, followed by good query resolution satisfaction 35%, followed by good placement for career or job opportunities 33%



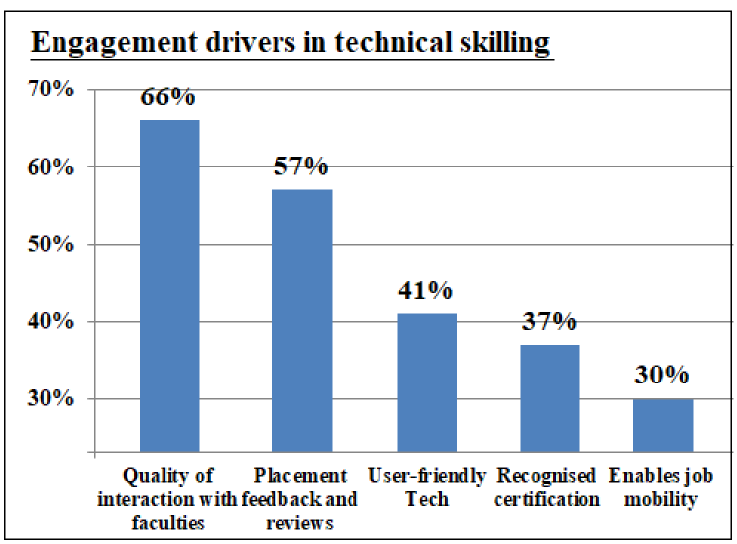
Negative sentiments preventing use of EdTech for technical skilling

EdTech Research report found many negative sentiments for not opting for EdTech platform. Expensive package or high price was the major negative sentiments preventing use of EdTech technical platform 34%, followed by course content 20%, followed by no job for placement opportunities 18%, followed by lack of experience d faculty 16%.



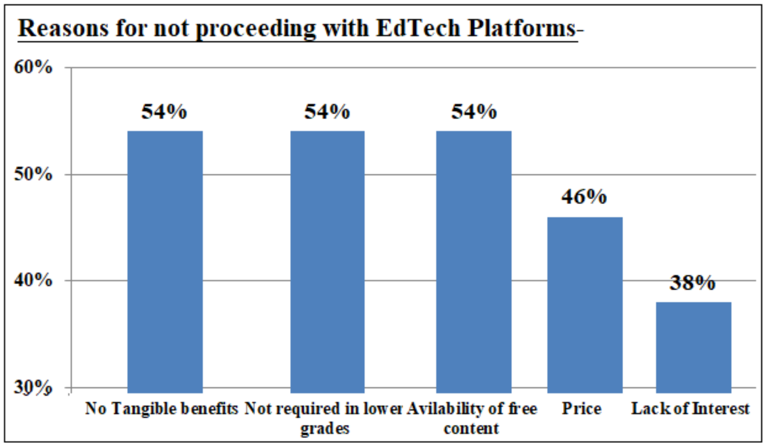
Engagement drivers for technical skilling-

EdTech Research report found 5 engagement drivers in technical skilling, Quality of interaction with faculties was the major engagement driver reported by 66% individuals, followed by placement feedback and reviews 57%, followed by user friendly Technology and interface 41%, followed by recognized certification 37%, followed by job, placement or career support 30%.



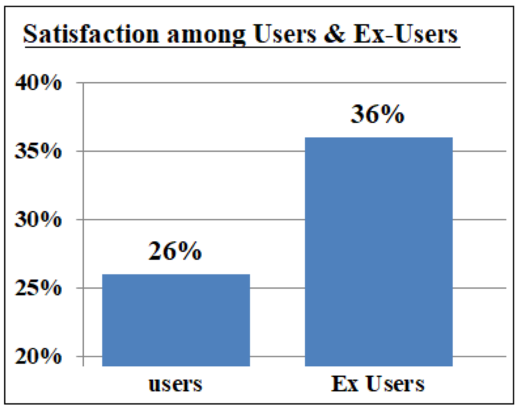
Reasons for not proceeding with EdTech platform-

EdTech Research report found 5 reasons for not proceeding with paid EdTech platform services. No tangible benefits was the major reason preventing use of paid EdTech platforms reported by 44% people, followed by not required in lower grades 54%, followed by the availability of the free content 54%, followed by price 46%, followed by lack of interest 38%.



Satisfaction level among the EdTech users

EdTech Research report found very low customer satisfaction level among the EdTech users and Ex users. Only 26% customers are satisfied with the existing EdTech services why 36% EdTech users are satisfied



Challenges in attaining education through aEdTech platform services

EdTech platform services have some challenges which are preventing the use of paid services. It is found that lack of personal attention was the major challenge reported by 56% individuals, followed by lack of quality 55%, followed by international standards 49%, followed by poor quality content 47%, followed by teaching pedagogy 22%.

Key Challenges in Attaining Education	
	Metro
Lack of personal attention	**56%**
Lack of Quality	**55%**
International stds.	**49%**
Poor content quality	**47%**
Teaching pedagogoy in school	**22%**

Findings of the research study:-

1. EdTech funding in India increased from 178 million dollar to 1542 million dollar by 2020.

2. People are introduced to EdTech platform mostly by online and social media 56%, followed by TV Advertisement 52%, followed by word of mouth publicity 51%, followed by print advertisement 28%.

3. Friends and educated relatives were major influences for purchasing EdTech services 29% each, followed by private tuition teachers 28% followed by school teachers 14%

4. EdTech sector growth is very promising in India, it is expected that grade 1 to 12 students will grow from 25 million in 2019 to 110 million in 2022

5. Higher education segment will report 60% growth rate, technical skilling segment will report 19% growth rate, test preparation non-government segment will report 7% growth rate, test preparation government segment will report 16% growth rate.

6. child or students interest was the major reason for purchasing EdTech platform services which is 28%, followed by good trial experience 20%, followed by relevance to syllabus 18%, followed by good teachers quality 12%, followed by sales push 10%

7. EdTech Research report found many positive sentiments for upgrading technical skills. Course content was the major positive sentiment searched to use for availing tech platform 75%, followed by good faculty 72%, followed by good training experience 50%, followed by good query resolution satisfaction 35%, followed by good placement for career or job opportunities 33%

8. EdTech Research report found 5 engagement drivers in technical skilling, Quality of interaction with faculties was the major engagement driver reported by 66% individuals, followed by placement feedback and reviews 57%, followed by user friendly Technology and interface 41%, followed by recognized certification 37%, followed by job, placement or career support 30%.

Conclusion-

India will be one of the fastest growing EdTech market in the world by 2022. EdTech market will see spectacular growth from 2019 to 2022. Expenditure on education and training is continuously growing from governments, parents, individuals and corporates. Enrollment in higher education in EdTech platform services are growing. Students admitting two post-graduation courses have grown significantly. Global player will invest huge amount in India's EdTech sector by 2022. People are getting aware about to EdTech platform mostly by online and social media, TV Advertisement & word of mouth publicity. Friends, educated relatives, private tuition teachers, school teachers were major influencers for purchasing EdTech platform services. Child’s interest or students interest, good video- visualization, high interaction, engaging content, major reason for adoption of EdTech platform. good trial experience, relevance to syllabus, good teachers quality were the major reason for purchasing EdTech platform services. Research report found Course content, good faculty, good training experience, good query resolution, good placement for career are the major positive sentiments for upgrading technical skills.

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