

An Omidyar Network India – RedSeer Report 2019-20







TABLE OF CONTENTS

- Executive Summary
- ► The EdTech Opportunity: K12 and Post-K12
- Unlocking Opportunities: K12 and Post-K12
- Closing Thoughts
- Appendix

EXECUTIVE SUMMARY

Introduction

In 2009, India passed the Right of Children to Free and Compulsory Education Act (RTE), envisioning a future with 100% school enrolment for children aged 6–14 years. In the decade since, the proportion of unenrolled children has dropped to 2.8%, the lowest ever in India's history. Although this bodes well, concerns remain about post-primary dropout rates, equal access to quality education, affordability, and outcomes.

The 2019 National Education Policy (NEP)² seeks to address these challenges and extend the scope of RTE to students aged 3–18 years. One of its recommendations is to harness EdTech through app-based learning, online student communities, and lesson delivery beyond 'chalk and talk'. The NEP envisions schools as nodal agencies, through which the underserved can access internet-powered devices. It also recognizes artificial intelligence (AI), virtual reality (VR), and blockchain as inevitabilities in India's education ecosystem. There is a strong parental demand for quality education, which

results in the purchase of after-school learning offerings. Given the growing demand for academic coaching outside school, the EdTech industry attracted \$1.6 billion in funding during 2014–19³ crucial to bridging learning gaps.

One of NEPs recommendations is harnessing EdTech through app-based learning, online student communities, and lesson delivery beyond 'chalk and talk'.

Thus, EdTech becomes a crucial link between enrolment and enhanced learning outcomes. Its scope, however, is not limited to classrooms. Supplementary education, commonly referred to as tuition or coaching, is crucial to bridging learning gaps.

New areas are expected to emerge, allowing EdTech to disrupt traditional education systems and imagine what students are learning in the 21st century. Already, it offers several innovative solutions in building competencies of

^{1.} Annual Status of Education Report, 2018.

^{2.} National Education Policy, 2019.

^{3.} This includes deals from January 2014 to July 2019. Source: RedSeer Analysis.



critical thinking and creativity, or mindsets such as grit and empathy through online coding or arts programmes, ensuring that education remains relevant with changing times.

The issues of quality and relevance affect not only primary and secondary education, but also higher education. Further, professional lives too are getting impacted due to automation. Here too, EdTech plays a crucial role. It can ensure job security by not only making higher and technical education more accessible (for people who could not pursue it in their formative years), but also facilitate up-skilling of working professionals.

Relevant skills and employability is crucial among young graduates, who are the bulwark of a competitive workforce, which in turn is the backbone of a competitive economy. This is outlined in the Global

Competitiveness Report (GCR), one of the most well-respected databanks on economic prosperity, published by the World Economic Forum (WEF). As of 2019, India ranks 68th among 141 countries, down 10 places from 2018.⁴ Although the country fares well on parameters of market size, innovation, and macroeconomic stability, it lags substantially in workforce skills (107th place), which includes vocational training, digital skills, and ease of finding trained employees. India also ranks 120th in information and communication technology (ICT) adoption, despite being a burgeoning internet market.

The internet—and by extension, online education—can catalyse improvements in the kinds and quality of skills imparted. EdTech for adults—whether in the form of vocational skills, tertiary or higher education, or skilling for managerial growth—can make India's workforce more competitive.

Before gauging how EdTech can empower students and professionals in the future, we must understand how it is perceived and used today, and what impedes its adoption. This knowledge will be fundamental in harnessing EdTech's true potential in India, a country with the world's cheapest data rates.⁵

^{4.} Global Competitiveness Report, 2019.

^{5.} Findings of a study by cable.co.uk that analysed the cost of 1GB data in 230 countries.

The EdTech Readiness Framework

The opportunity for EdTech to enable disruption in both K12 and Post-K12 relies on the EdTech Readiness Framework (ERF). The ERF acts as a key metric to track the growth drivers of EdTech market. Its 4 pillars are:

- Digital adoption among families and individual: ~160 MN households with active internet access
- ▶ Awareness of EdTech: ~80% students in K12 aware of EdTech
- Willingness to pay for EdTech solutions: ~60% of aware users willing to pay for EdTech products
- ► Funding in EdTech companies: \$1.6 BN+ private investments flow during 2014 to H12019

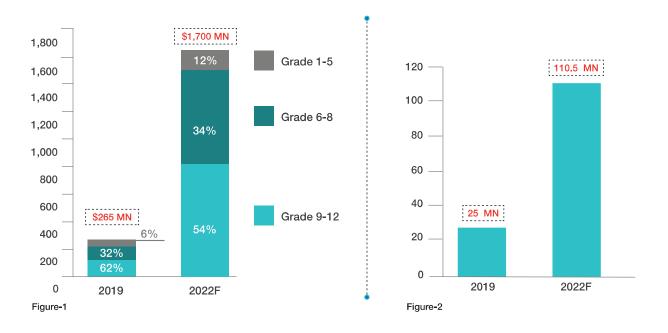
A large untapped market—coupled with burgeoning internet reach, awareness, and the digitization of primary education—yields a promising outlook for EdTech in India. Future outlooks for digitization, user growth, and increased funding are likely to be particularly aggressive. These drivers of growth have led to a watershed moment for EdTech in India. The findings clearly indicate that the education delivery landscape is set for rapid change, with online education offerings poised to disrupt the status quo by disrupting the traditional education landscape.

By 2022, online education offerings across grades 1 to 12 are projected to increase 6.3 times to create a \$ 1.7 BN market, while the Post-K12 market is set to grow 3.7 times to create a \$ 1.8 BN market. This is going to create meaningful opportunity for incumbent players as well as space for multiple new startups.

The K12 EdTech-addressable market is projected to be worth \$1.7 BN by 2022, up more than six-fold from \$265 MN in 2019. While the number of students enrolled in offline coaching for K12 is expected to grow only ~8% by 2022, online education is set to have a much larger increase. Strong growth is likely across all 3 major K12 segments, with grades 1–5 seeing the fastest growth.

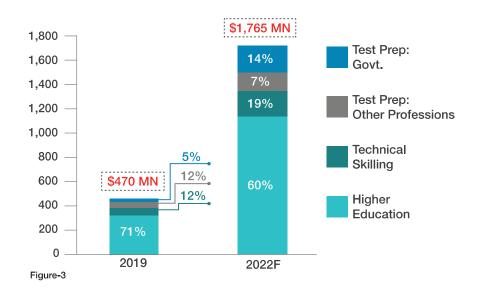
EdTech Market Growth: Grade 1–12 \$MN, 2019–2022F

EdTech User Growth: Grade 1–12 Million Students, 2019–2022F



The Post-K12 EdTech industry is divided into 4 segments, each catering to different education needs and outcomes: higher education, technical skilling, test preparation for government jobs, test preparation for other jobs. There is ample opportunity for market expansion here, provided certain obstacles are adequately addressed. The industry will grow threefold by 2022, swelling to \$1.7 BN in sales. Much of this will come from EdTech offerings focusing on higher education, as it does today.

EdTech Market Growth: Post–K12 Segment \$MN



The Next Half Billion (NHB)

India's sustained economic growth has propelled 540 million people (and counting) to middle- or high-income status. According to Omidyar Network India's research in 2017, half a billion new users are expected to come online for the first time by 2022. This demographic, the Next Half Billion (NHB), would be characterized by a mobile-first approach to the internet and will consist primarily of the aspirer segment. The aspirer segment, consisting of 528 million people, is kaleidoscopic in its array of occupations: domestic help, gigeconomy workers, electricians, masons, plumbers, security guards, shop owners, factory workers, and retail vegetable vendors. This segment earns an annual household income of Rs. 150K- Rs. 250K (~\$2.2K - \$3.7K). Largely under-schooled and deprived of social connectivity, banking, quality healthcare, and convenient transport, they have bold aspirations and want educational and financial security

for their children. They also live in an India that is in the midst of digital disruption, led by mobile phone proliferation, affordable data costs, and government-endorsed technologies for educational and financial inclusion.

To build large businesses that are commercially viable in the long run, they would need to cater to the NHB in order to avoid the risk of creating niche businesses. The NHB is distinct from the first wave of Indians who were introduced to the internet (either through desktops or laptops) at a time when data was available at a premium. About 97% of users now access the internet through their phones. Aspirers, for whom communication, social media, and entertainment account for a bulk of internet time,⁶ are yet to warm up to e-commerce, online payments, and aspirational services such as EdTech.





India's aspirers, or the Next Half Billion (NHB), are the country's largest income group, as validated by the World Bank's classification of countries by income levels.

Aspirers, who were traditionally under-served by quality education alternatives and for whom the internet was once out of reach, are expected to latch on to the digital revolution characterized by:

- Affordable data
- Low-cost handsets
- Gradual emergence of vernacular-language apps, sites, and online marketplaces
- Low-cost electronic payments infrastructure

The NHB is expected to be a 100-million-strong EdTech user base by 2022.



K12

Demographically, the NHB segment is expected to drive the growth of the K12 EdTech, creating ~\$400 MN of \$1.7bn opportunity, i.e. about 24%. NHB accounts for less than 5% market today.

The NHB represent over 50% of India's student population in Grade 1–12, yet they represent only about 30% in the

With a growing infrastructure and increasing internet democratization through lower smartphone and data costs, the number of NHBs using EdTech will increase in the next 3 years. By 2022, they will represent nearly half (~46%) of the market by volume. The effects will be seen largely in Tier-2+ regions (towns and villages that are in their digital infancy and require different products and services).

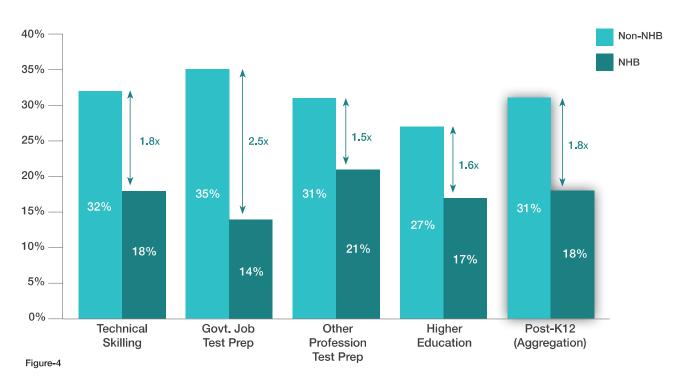
Post-K12

In the Post-K12 segment, there is a large space for the growth of EdTech, especially with a focus on the NHB. The number of job seekers and their need to improve employability is higher in this segment as compared to the numbers in middle- and high-income households. Moreover, across the board, the NHB are less satisfied with EdTech offerings than the middle- and rich-income classes. Our research showed that only 18% of NHB users are happy with the services as compared to 31% of the latter group. The needs of the NHB must be taken into account in order to expand the online market.

Opportunities in the NHB segment are yet to be addressed by EdTech players.

EdTech NPS: Post–K12 Segment N=1,325

NHB users display lagging satisfaction with the current product offering and services



In the interests of India's workforce, increasing user satisfaction for all users will be imperative in the long run. For this to happen, key improvements must be implemented around the 4 pillars of online education: digital adoption, awareness, willingness to pay, and investments in online-learning companies. These pillars are a measure of the maturity and growth trajectory of K12 and Post-K12 EdTech in India.

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Anatomy of the Report

Coverage

The report covers the analysis of EdTech in supplementary education⁷ in the K12 and Post-K12 segments.

K12

Grades 1-5

Typically school children aged below 10 years

Grades 6-8

Typically school children aged 11–13 years

Grades 9-12

Typically school children aged 14-18 years

Figure-5

Note: Kindergarten offerings have not been covered in this study.

Post-K12

Govt. Job Test Prep

Government job entrance exam preparation (college-going students/fresh graduates or working professionals)

Other Profession Test Prep

Postgraduate admission tests and professional certification exams

Higher Education (Dist. Learning)

Distance-based degree programmes (either online/ blended or traditional)

Technical Skilling

Reskill/upskill programmes, typically for technical or functional new-age skills.

Figure-6

Note: The report focuses solely on B2C offerings. B2B platforms providing education technology solutions to education providers have not been covered in this study.

7. Supplementary education refers to education support sought outside school. In India, this is predominantly offline tuition or coaching classes. It also includes non-conventional, new-age learning products that focus on cognitive development and logic building.

Structure

The report follows a two-part structure, listed down below, with key questions that are answered in each part.

- Identifying the opportunity for EdTech: For K12 and Post-K12
 - What is the current state of education in India across K12 and Post-K12, and what are the key challenges?
 - Why is EdTech well-placed to tap into this opportunity over the next few years?
 - What is the size of the opportunity/prize at stake for EdTech players over the next few years?

Unlocking this EdTech opportunity for K12 and Post-K12

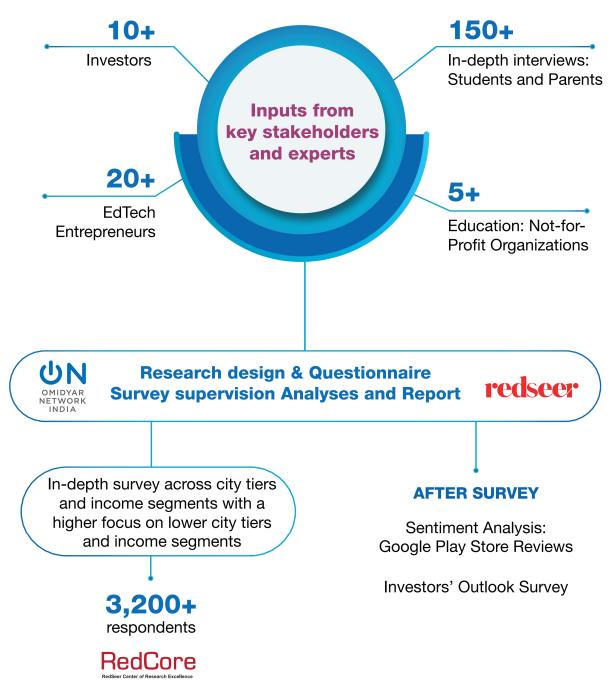
Based on large-scale research, recommendations are generated along the customer journey, which leads to a set of suggestions for entrepreneurs on sales, marketing, and product design.



Research and Analysis Methodology

The research methodology followed a quasi-consulting approach, obtaining inputs from the key stakeholders in the EdTech space – entrepreneurs, investors and customers.

Methodology Overview



Key Insights from The K12 and Post-K12 EdTech Market

India's existing K12 and Post-K12 education ecosystem is ineffective, and it has long been in need of disruption. Increasingly, parents and students have started relying on supplementary education to make up for any gaps in the classroom. In Post-K12, areas such as automation and macroeconomics undergo constant change, which consequently affects employment prospects. Thus, the need for adult education is now being felt more acutely than ever before. Most frequently, such ancillary education comes in the form of offline tuitions.

The data revolution in the past 2 years and the rise of India's "aspirers"—who form the most ambitious and populous income demographic but are severely underserved—has led to the rise of a number of entrepreneurs in education technology, i.e. EdTech. It is here that the next wave of growth will take place, as more and more innovations focus on the "aspirers."

K12

Creating multiple winners in the online education market

India's large EdTech-addressable population of 150 million students cuts across city tiers, income groups, language proficiencies, and curricula. The multiple subsegments make it essential for EdTech companies to make differentiations based on syllabi, language, pricing, pedagogy, offline support, and teacher training.

Reimagining pricing strategies

About 60% of users who are aware of EdTech are willing to pay for a product. However, the current pricing does not meet the product requirement. Users face several hurdles in adopting EdTech as the main source of supplementary education. Only 18% of current users have replaced offline support with EdTech. By offering trials for paid services, EdTech companies can help parents and children understand if and how their product or service is better suited to their needs than offline tuitions. A full-offering product can charge up to 70–80% of offline tuitions. For modular offerings, the pricing can be further lowered.

Leveraging teachers for trust, adoption, engagement, and outcomes

Teachers are the gatekeepers of education-related decisions taken by parents, starting from needs-realization and awareness to purchase decision and experience. Moreover, the 'human element' is essential for EdTech to bypass offline tuition. Teachers have remained underutilized by EdTech players, who must leverage them in two ways: as delivery partners and as promoters. Assisted-learning models have a better NPS of 44 compared to 31 for self-paced learning models. About 31% of parents of children in grades 1–5 were disinclined to purchase EdTech due to the lack of teacher and peer interaction.

Offering vernacular language content

Children are more comfortable communicating in their mother tongue or their local language, even if they study in English-medium schools. On some of India's biggest content platforms, the active users are largely from non-metros and prefer vernacular content. Companies must tailor their solution and incorporate language nuances for effective delivery and user engagement.

► Focusing on cognitive learning and long-term outcomes for younger audiences
Grade 1–5 EdTech users (currently with a low base of ~5 MN users) are going to
leapfrog the offline supplementary adoption, growing at CAGR of 93% over 2019–22
to ~36 MN users. The tendency for EdTech companies to be exam- or resultsfocused is a deterrent for parents of young children. Most companies are yet to mine
opportunities in cognitive development rather than academic performance. EdTech
has the opportunity to take an edge over offline tuition which do not serve the primary
demands of people raising young children i.e. logic building and habit formation.

Reinventing high-value sales

Most EdTech companies with a large number of users have relied on a feet-on-street⁸ sales team and demos to convince people to pay for their products. To ensure affordability for the Next Half Billion (NHB), K12 companies will need to keep sales costs low, by driving efficient digital sales in order to both grow more rapidly and have better unit economics.

Driving engagement, particularly among paid users

The NPS (Net Promoter Score) stands at 45 among paid EdTech users. This is a much higher score when compared to other tech-based industries such as food and wellness, mobility and e-tailing. This is a promising sign for EdTech and should create a ripple effect on product adoption and customer loyalty. It can also be used in word-of-mouth campaigns and testimonials to foster trust among non-paying users.

Increasing trust through brand building, engagement, and outcomes

Entrepreneurs have a unique opportunity to utilize student outcomes to build a brand, e.g. school exam results, college admissions, or learning proficiency. Entrepreneurs should focus on demonstrating student outcomes and utilizing these outcomes for building trust and brand. Among active users, over 55% cite digital ads as their primary source of awareness. The effectiveness of digital ads in creating awareness is equally impressive among non-users, with 45% non-users indicating they became aware of EdTech through online ads. NHB digital usage and habits are evolving. Companies should use digital channels effectively keeping that in mind.



Post-K12

The adult-learning market in India is diverse, especially considering the evolving requirements of its customers. While the willingness to pay is not a primary bottleneck in Post-K12, EdTech companies must establish trust, align on incentives, and focus on tangible career outcomes to succeed in the market.

- Ensuring assistance and social interaction in adult learning
 - Learning is a social exercise, underpinned by interactions between those who impart education and those who imbibe it. This is true across K12 and Post-K12 segments. Around 40% of those in Post-K12 who are inclined to use EdTech for technical skills specifically look for assisted-learning models, and 90% of paying EdTech users rated interactivity as a key engagement driver. EdTech must incorporate tools that enable customers to communicate with peers and teachers to help adults achieve learning outcomes.
- Providing multilingual content and modular offerings for effective monetization in the government job test prep segment
 - There is a great demand for government jobs in India. In this segment, 75% of the students surveyed expressed an inclination to pay for unbundled or monthly test preparation series, and 55% prefer to sign up for bilingual courses. EdTech must ensure that their content offerings are available in multiple languages and that users can purchase relevant modules separately.
- Utilizing the high willingness to pay for technical skilling that culminates in career development
 - With the rise in automation comes changing skills requirements, which has fuelled the aspiration for reskilling for career improvement. More than 80% of mid-level white-collar respondents were willing to pay for technical skilling courses to advance their career development. By 2022, the paid userbase is set to increase 2.5 times to ~1.5 MN users from ~600K in 2019. About 76% of respondents rated career support as a must-have in technical skilling products. EdTech should focus on ensuring career development and will benefit from models such as the Income-Sharing Model, wherein a student pays to the education provider only when they achieve a minimum threshold of outcome.

Building trust by making student testimonials widely available across relevant content platforms

Learners conduct extensive research across platforms before purchasing EdTech products and are proactive in scouting for options. About 68% of the respondents said they conduct research even after word-of-mouth referrals or personal recommendations. Nearly 77% use job portals, 30% use Google and 25% use YouTube as search avenues for career opportunities. Quora and Reddit are other viable yet under-leveraged platforms. Almost 50% of those researching for test-prep products use these two platforms for learning about course pedagogy and benefits.

Integrating life-skills training with curriculum to enhance employability and outcomes
The "India Skills Report" outlines that employers prefer candidates who have
better communication skills and are ready to learn and adapt to changing business
environments. EdTech companies must focus on imparting these soft skills, in addition
to providing technical know-how. This will help provide the required skill set for the



Conclusion

Over the years, India has made tremendous progress in terms of improving literacy rates. However, in both the K12 and Post-K12 market, accessibility and affordability to quality education remain significant barriers in unlocking the youth's potential. This has created a significant market for EdTech offerings, which are poised to disrupt the status quo and change the education delivery landscape. By 2022, the K12 EdTech market is expected to be worth \$1.7 BN and the Post-K12 EdTech market worth \$1.8 BN, a growth of 6.3 times and 3.7 times, respectively, compared to 2019. For EdTech companies who seek to capitalize on this opportunity, this report provides detailed insights and recommendations, which are briefly discussed in the sections above.

This is a turning point for EdTech in India, with digital offerings leading the democratization of education, bridging gaps in access to quality education and addressing key student pain points. For incumbent players, the time is opportune to seize the market.



THE EDTECH OPPORTUNITY

K12 and Post-K12

India's Education Landscape

I. The K12 Supplementary Education Landscape

India has an enrolled student population of 271 MN across grades 1-12. Half of these students belong to aspirer or NHB households.

Overall Student Population

By Grade and Income Level Million Students, 2019 Total = 271

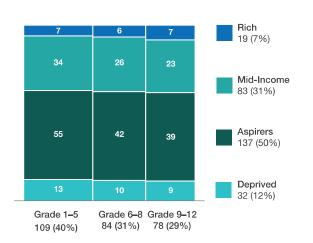


Figure-8
Source: NSSO, DISE, RedSeer Analysis.

By Grade and City Tier Million Students, 2019 Total = 271

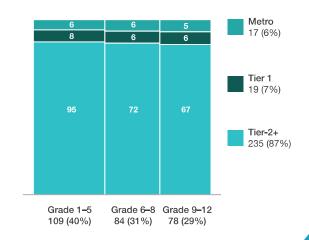


Figure-9



In 2019, students accounted for \$39 BN⁹ in education-related private expenditure. ¹⁰ (This is in addition to the government expenditure on schooling and school infrastructure.) Of this amount, the aspirer cohort accounted for \$12 BN-the second-highest education spend by income level, after students from mid-income households.

The overall K12 private expenditure spend is ~\$39 BN in 2019.

K12: Overall Private Education Spend



^{9.} NSSO, DISE, RedSeer Analysis.

^{10.} Includes course fees, books and stationery, uniforms, school transport, private coaching, and related expenditures.

The Costs of K12 Supplementary Education in India

Of the 271 MN enrolled schoolchildren in India, approximately 90 MN use supplementary education in the form of offline private coaching. The majority of them—55%—come from NHB households. The cumulative expenditure on supplementary education is estimated to be \$16 BN, of which NHB households account for \$5.8 BN, i.e. 36%. In terms of market value, this is second only to the mid-income group spending.

Grade 1–12: Supplementary
Education Adoption by Grade
Million Students
Total = 90 MN Students



Figure-13
Source: NSSO, DISE, RedSeer Analysis.

Grade 1-12: Supplementary Education Market by Grade \$BN, 2019 Total = \$16 BN

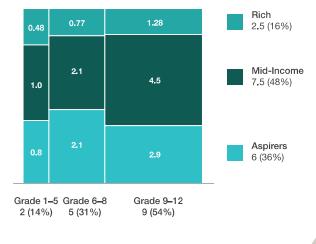
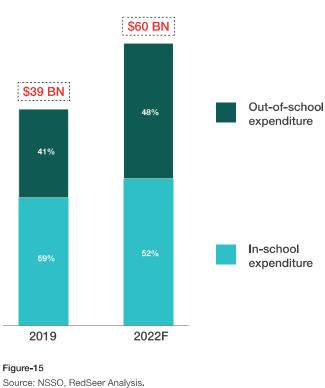


Figure-14

In sum, households with children enrolled in grades 1–12 currently use 41% of their education expenditure on supplementary education. By 2022, this share will increase to 48% due to the growing need for out-of-school coaching, driven by increasing aspirations, competitiveness, and demand for quality education.

Grade 1–12: Private Education Spend \$BN, 2019-2022F



K12 Shortcomings and the Need for Offline Coaching

India suffers many impediments to learning outcomes. In the context of grades 1–12 education, these include teacher shortages, poor teacher training, disparities in teacher-student ratios across geographies, disparities in access to quality education due to varying costs of education, and absence of pedagogy that focuses on teaching at the right level.¹⁴

Key Pain Points:

- Lack of personal attention and poor teaching pedagogy;
- Value relative to cost of education; and
- Lack of international standards,
 particularly among mid-income aspirer segments.

For grades 6–8, the findings show that lack of world-class education and infrastructure standards are sore points among aspirers in metros and among higher-income households in Tier-2+ cities. Of the interviewees in Tier-1 and Tier-2+ areas, 44% and 35%, respectively, noted the lack of personal attention to students as the prime concern. Half of all metrobased respondents—notably those from the aspiring segment—expressed concerns regarding the lack of access to quality education at par with that of expensive schools. For 47% of the children from metro-based households, poor syllabus coverage has been a major barrier to proper education.

For grades 9–12, 51% of metro respondents cited the lack of quality teachers as the biggest challenge to quality education. Lack of world-class education standards and infrastructure were concerns for 52% of Tier-2+ households; here too, aspirers made up a bulk of the majority. In Tier-1 areas, 38% across all income group expressed dissatisfaction with teaching approaches.



What are the key challenges in attaining quality education?

		Metro	Tier-1	Tier-2+
High PTR: ¹¹ lack of personal attention	•	56%	44%	35%
Lack of quality	•	55%	36%	34%
Lack of international standards	•——	49%12	37%	34%
Poor content quality/syllabus	•	47%13	23%	22%
Issues with the teaching pedagogy in school	•	22%	15%	11%

Figure-16

Source: RedSeer Analysis.

^{11.} Pupil-Teacher Ratio.

^{12.} Especially in the aspirer segment, parents feel that their child is missing out on higher standards of education available in private schools.

^{13.} Optimized content and syllabus coverage pain point is relatively high among users in metros.

Grades 9–12 Key Challenges in Attaining Education % of respondents, N = 931

What are the key challenges in attaining quality education?

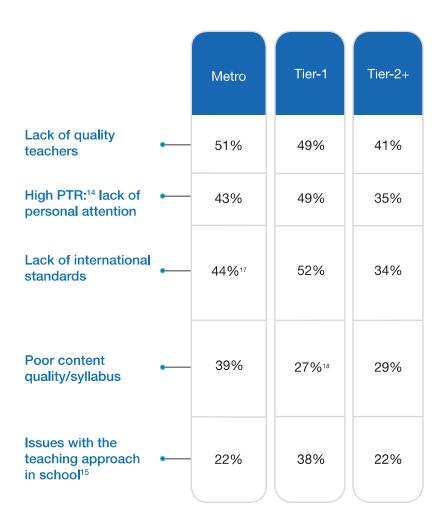


Figure-17
Source: RedSeer Analysis.

^{14.} Pupil-Teacher Ratio.

^{15.} Issues such as expediting the course at the cost of clarity of teaching, allowing less time, or none, for doubt clearance.

^{16.} As identified by NITI Aayog's Three Year Action Agenda, 2017–20.

^{17.} Aspirer and middle-class parents feel that their child is missing out on higher standards available in private schools.

^{18.} In Tier-1 cities, across income segments, teaching pedagogy¹⁶ is a key pain point.





"Most of the tuition centres are now becoming commercial, and they are taking a greater number of students, and the classroom is also crowded because of which there is no individual attention. To fill this gap of individual attention, we have purchased the online tuition."

—Parent of Grade 7, Student, EdTech User, Mid-Income, Tier-3 City



"I don't know much about education. I want my child to get educated and improve our financial situation. I want my child to get a good, paying job."

—Parent of Grade 11, Student,

Non-EdTech User, Aspirer, Metro City







"I was happy with my daughter's schoolteachers initially. But after her classes started, I felt there were gaps between the syllabus, reference books, and lessons. That is when I decided to give EdTech a go."

-User, Middle Class, Metro City

II. The Post-K12 Supplementary Education Landscape

The gross enrolment ratio (GER) for higher education is a measure of the number of schoolchildren who go on to become undergraduates (UG), postgraduates (PG), or diploma holders. Currently, India has a GER of 26% for tertiary or college-going students, lagging substantially behind USA (~86%), Russia (~82%), and China (50%). Additionally, several employability and talent shortage issues plague India's universities and employers.



"NASSCOM says 6 MN people are required in cybersecurity by 2022. But we have a skills shortage. The top 10 IT companies hire only 6% of all engineering graduates. What happens to the remaining 94%?"

-C.P. Gurnani, Tech Mahindra

In 2019, India had 37.6 MN UG, PG, and diploma enrolments. By 2022, enrolment in diploma and other integrated courses as a percentage of overall enrolment is expected to increase, driven by changing student preferences. However, UG enrolments are expected to rise at a relatively lower rate.

India currently has a GER of 26% for tertiary or college-going students, far behind USA (~86%), Russia (~82%), and China (50%). The MHRD stated its ambition to double GER to 52% by 2024.

Estimates for 2022:

- 1. 41 MN students will be enrolled in higher education.
- 2. 21 MN citizens will be white-collar employees, mostly in the service sectors.
- 3. The white-collar employees will constitute the Indian workforce, indicating a growth rate of 7.2% from 2019.

Enrolments in Higher Education

Number (Millions), 2016-22F

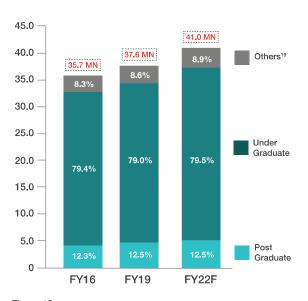
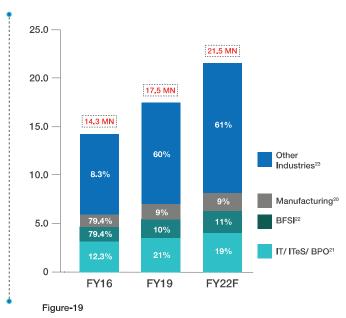


Figure-18
Source: Government of India employment statistics, NASSCOM,
AISHE, RedSeer Analysis.

Organized White-Collar Employee Base

Number (Millions), 2016–22F



- 19. Others include Diploma, Certificate, and Integrated courses.
- Manufacturing includes Automotive Industry, Food
 Processing Industry, Textile Industry, Steel Industry,
 Petroleum Industry, Chemical Industry, Consumer Electronic
 Industry, Paper Industries, and other manufacturing sectors.
- IT/ITeS/BPO includes IT Service companies, IT Product Companies, BPO, KPO and eCommerce companies.
- BFSI includes Banks, Financial Services, Insurance, and Financial Advisory companies.
- Other industries include service industry such as Retail, Healthcare, Education, Logistics, Hospitality, Advertising and Media, Consulting, and Not for Profit.



Gap in employment generation %, Millions, 2019

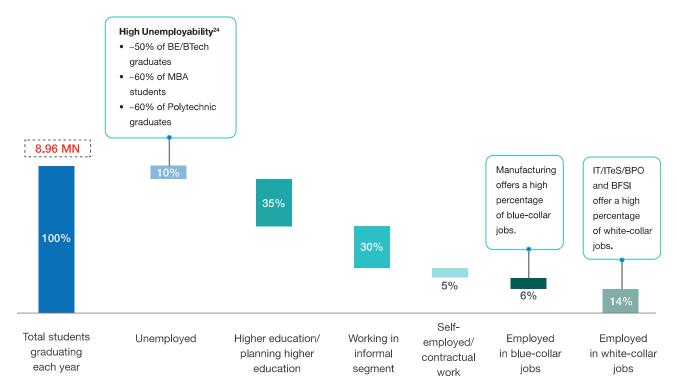


Figure-20 Source: AISHE, Nasscom, MOSPI, GOI Unemployment Statistics, RedSeer Analysis.



"Less than 1.5% of engineering students from IT branches can correctly compile code. Employability for mechanical and civil engineers was ~6%, while it was as low as 1.7% for chemical engineering."

-Aspiring Minds Study



The Problem?

There are more graduates than available jobs, and less than half of all graduates are considered employable.



The Solution

EdTech can help provide industryfocused skills, typically absent in offline curricula.

Online Education Readiness

The previous section delineates the challenges faced in traditional education. EdTech can address these issues and promises to be a disruptive medium in both K12 and Post-K12.

I. How Post-K12 EdTech Can Service the Market

EdTech is positioned to create an impact around skill and employability-related challenges.

Key Pain-Points

Lack of jobs

Number of white-collar jobs created are much lower than higher-education graduations per year.

Unemployability

Less than 50% of graduates are employable by industry standards.

Curriculum mismatch

There is a lack of industry-focused skills in curriculum.

How EdTech Addresses These

Industry-focused training

Teaching skills that are in demand in the job market, which in turn will provide employers with candidates that have job-relevant skills and need limited on-the-job training.

Discussing gaps in the current curriculum with employers, use their feedback to create curriculum for skill development

Better economy

Better employment

Reduced unemployment

Figure-21

Source: GOI, AICTE, India Skills Report 2019, RedSeer.

II. Evaluation Framework for EdTech Opportunity

For EdTech to successfully deliver these benefits, the following 4 pillars are essential:

- 1. Awareness of EdTech
- 2. Willingness to pay for EdTech solutions
- 3. Digital adoption among families (and individuals)
- Funding in EdTech companies

EdTech Readiness Framework (ERF) acts as a key metric to track the growth drivers of EdTech market.

Total Addressable Market Opportunity in EdTech



We are at a tipping point for EdTech to accelerate!

The following section enumerates how India is currently very well-positioned on all 4 of these pillars.

1. Digital adoption among families (and individuals) is accelerating.

Currently, about 580 MN Indians have access to the internet, of which 350 MN are active users. By 2022, this number is expected to surge to half a billion.

Growing Internet Penetration: This active user base points to a bevvy of possibilities. The most notable, for EdTech entrepreneurs and investors, are the 150 MN K12 students with steady access to the internet.

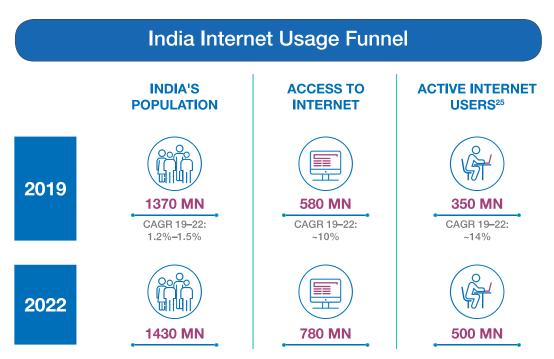
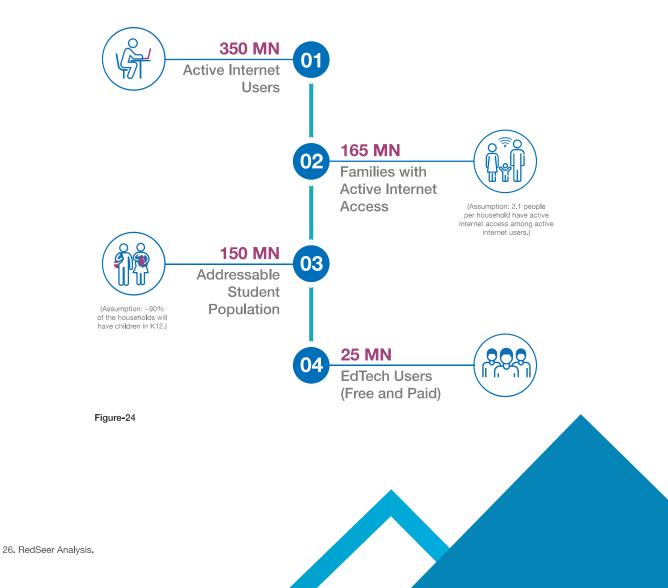


Figure-23

A Large EdTech-Addressable Population: India's K12 EdTech-addressable population, as of 2019, is 150 MN (see figure below). Digital adoption for Post-K12 education is largely spearheaded by 18–24 year olds, due to their familiarity with the digital world. The internet is, and will be, more of a utility than luxury for this demographic, which uses mobile data far more than other age groups. The findings reveal that Post-K12 students in the NHB segment spend nearly twice the time studying on their mobile phones than they do on laptops.²⁶

Increasing smartphone penetration and cheap data will continue to push existing and future EdTech players to innovate for children from mobile-first, lower-income families, i.e. aspirers.

Digital Adoption for EdTech (2019)



A Digitally Savvy and Aware Addressable Population in Post-K12: To illustrate this point, consider the example of a government test prep. About 80% of all government exams aspirants already use free EdTech services (see figure below).

Digital Adoption for Government Test Preparation 2018 Estimates

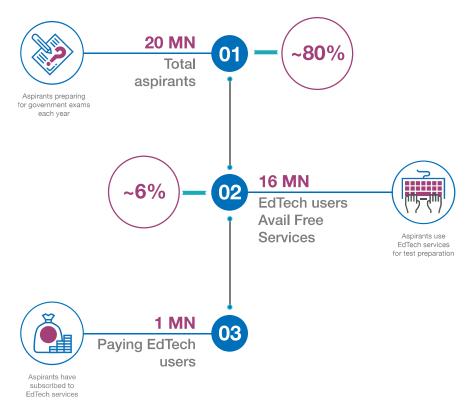


Figure-25

2. Awareness about EdTech is high (and growing).

Massive Open Online Courses (MOOCs), virtual classrooms, distance education, and online job searches are becoming exceedingly familiar to India's digital natives.

The internet first became part of the Indian education ecosystem in the form of online searches for school and college projects. Then came distance learning and online test administration. Later, hybrid study models incorporating videos, online course materials, and study groups blurred the line between brick-and-mortar and online education.

Now, Massive Open Online Courses (MOOCs), virtual classrooms, distance education, and online job searches are becoming exceedingly familiar to India's digital natives.

Although more prevalent in upper- and mid-income groups, EdTech awareness has trickled into the NHB segment, in part due to government's Digital India push and in part because of the aggressive expansion by startups.

- 1. The startup **e-Basta** is a framework to digitize schoolbooks and make them easily downloadable via desktop or app (Android).
- 2. Government-backed **Swayam**, whose core audience is students from Grade 9 to PG, has been instrumental in introducing MOOCs to Tier-2+ populations that were unaware of largely American and English-language products such as Coursera. Swayam courses are free and have helped spread the word about EdTech among aspirers, with over 3.9 MN users across aspirers and non-aspirers using the platform.²⁷

Private players too have aggressively promoted EdTech, making it visible on traditional and digital media platforms. Billboards, TV ads, school events, sponsorships, and YouTube ads have made it near-impossible to overlook EdTech's existence.

Among internet users, there has been a dramatic increase, to 80%, in the awareness about EdTech as a supplemental education alternative to offline tuitions.²⁸ About 70 million students in grades 1–12 now constitute a monetizable base for EdTech.

^{28.} Customer interviews; N = 1883.

Large Base of Aware (and Monetizable) EdTech Users in India (K12):

EdTech has made headway in customer mindshare, with changes in lesson delivery and the way tests are conducted. With major examinations such as JEE and MBA admission tests moving online, the reluctance to use EdTech as a learning supplement is waning, even amongst those who are not tech-savvy. As internet access improves, EdTech players must scale up by spreading further awareness.

EdTech User Awareness Funnel: N = 1883

Grade 1–12 Market: 2019

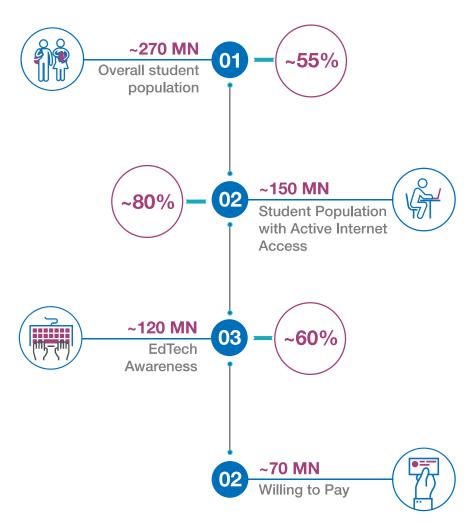


Figure-26
Source: NSSO, ASER, customer interviews, RedSeer Analysis.



"It is the urban and rich segment who are worried about screen time and don't trust online material. People in small towns have no distrust for them; online is the only option that really works."

-EdTech Entrepreneur



"Now that competitive exams have moved online, the openness and acceptance of the online medium have increased significantly. Parents are more open to trying online platforms and are increasingly seeing them as a necessity."

-EdTech Entrepreneur



"There is a digital push like never before. My son's school also advised us to get acquainted with online education and tests, because competitive exams like JEE are now moving online. That is when I started considering EdTech as a tool to prepare my child for the future."

-User, Aspirer, Tier-2 City

There is a significant scope for the funnel to expand in accordance with a rise in the number of active internet users, growing awareness and willingness to try EdTech.

High Digital Awareness and Adoption among Government Job Aspirants:

This high digital savviness is indicated by the chart below, indicating that 90% of all government exams aspirants are aware of EdTech offerings already.

EdTech User Awareness Funnel: N = 600

Government Test Preparation Market 2019

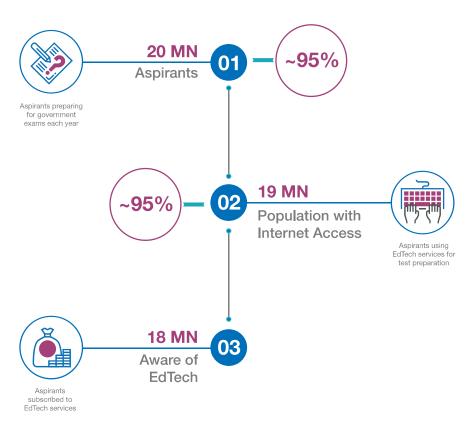


Figure-27
Source: Individual exam registrations, customer interviews, RedSeer Analysis.

3. Willingness to pay for online education is moderate to high.

K12 EdTech Pricing: In K12 EdTech, there is a gap between the prices of current online offerings and the price an average consumer is willing to pay. A majority of users who pay for EdTech spend Rs. 14,200–17,300 (about \$200–250) per annum, which is 3 times higher than what the majority of non-paying users and non-users is willing to pay (\$70–100 per annum).

However, among aware users (120 MN), the willingness to pay for K12 EdTech is 60% (70 MN). To facilitate wider adoption, the K12 EdTech pricing must be reconsidered to bridge the current gap or product must be redesigned to replace the current offline spend.

Despite the willingness to pay being restricted, there is sufficient inclination to spend on high-quality education.

Grade 6–12: Price Willingness to Pay vs. Available Options

% of respondents, 2019



Figure-28

Post-K12 EdTech Pricing (Technical Reskilling): In Post-K12 EdTech, pricing is not a challenge. The willingness to pay is high, even among the NHB—almost at par with the current course pricing.

Pricing is not a restriction in reskilling adoption.

Technical Skilling: Price Willingness to Pay vs. Available Options % of respondents, 2019

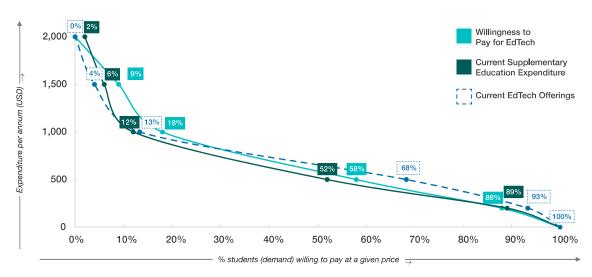


Figure-29

Post-K12 EdTech has one significant advantage over K12 EdTech. For the latter, the user (student) has little to no purchasing power (i.e. the buyer tends to be one or both parents). However, the Post-K12 buyer and user is, more often than not, the same person. This makes them more independent in executing purchase decisions. That said, adult learning is also complex in scope and adoption. A mid-level employee who uses EdTech for career growth may be more likely to spend more as compared to a government-job aspirant in a Tier-2+ town.

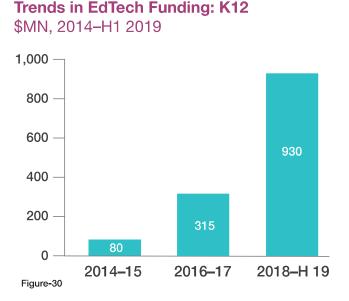
Understanding the basic needs, drivers, and learning outcomes of various segments is fundamental in pinpointing a target customer's willingness to pay.

4. Funding ecosystem around online education is highly supportive.

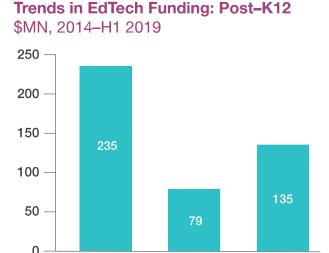
Like most consumer-facing internet businesses, the amount of funding in Indian EdTech will determine the acceleration and direction of the industry.

From 2018 to H1 2019 alone, funding worth \$930 MN trickled into India's K12 EdTech market—nearly thrice the investment that the industry received in 2016–2017. Non-profit organizations such as Khan Academy, as well as startups such as Byju's, Doubtnut and Vedantu, offer part free but curriculum-aligned lessons to K12 students. This has bolstered the EdTech cause, driven by which, K12 EdTech is expected to grow six-fold by 2022.

Funding in India's K12 EdTech market, 2014–19: Investments in EdTech have only started to accelerate and are expected to grow.



Funding in India's Post-K12 EdTech market, 2014–19: From 2018 to 2019, funding worth \$136.5 MN trickled into the Post-K12 EdTech market. But unlike K12 EdTech, which is witnessing a year-on-year increase in investments, the Post-K12 funding landscape is trickier to navigate. This is because people who enrol for postsecondary learning are so varied in their professions, ambitions, and outcomes, it is tough to zero in on one gap, one demographic, and in effect, one market.



EdTech Growth Pillars: A Recap

A large untapped market, coupled with burgeoning internet reach, awareness, and the digitization of primary education yields a promising outlook for EdTech in India. Future outlooks for digitization, user growth, and increased funding are set to be particularly aggressive.

Drivers of Growth

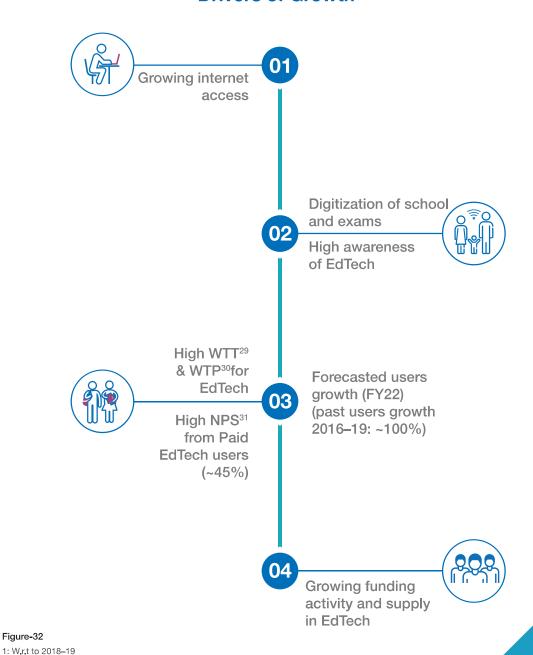


Figure-32

Magnitude of Opportunity: EdTech-K12 and Post-K12

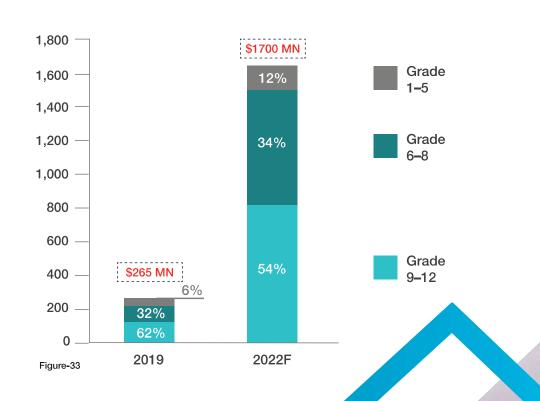
K12 EdTech user-base is expected to cross the offline supplementary education by 2022.

I. K12 EdTech: 2019–22 Opportunity

The K12 EdTech-addressable market is projected to be worth \$1.7 BN by 2022, up more than six-fold from \$265 MN in 2019. While the number of students enrolled in offline coaching for K12 is expected to grow only ~8% by 2022, online education is set to have a much larger increase. Strong growth is likely across all 3 major K12 segments, with grades 1–5 seeing the fastest growth.

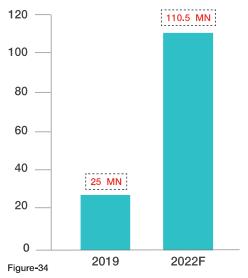
In the next 3 years, the K12 EdTech market will be worth ~\$1.7 BN.

EdTech Market Growth Forecast: Grade 1–12 \$MN, 2019–2022F



Growth in the K12 EdTech opportunity will be driven by a strong growth in user base, with EdTech users growing proportionately faster than overall student base.

EdTech User Growth Forecast: Grade 1–12Million Students, 2019–2022F



Source: Customer Interviews (N=1883), RedSeer Analysis.





"Our son tried a couple of platforms, and he liked the faculty in this particular one as he understood the concepts better. Now he uses the app for all the portions where he has doubts."

- Free EdTech User, Tier-1 City

No. of Students: Grade 1–12 Million Students, 2016 - 2022F

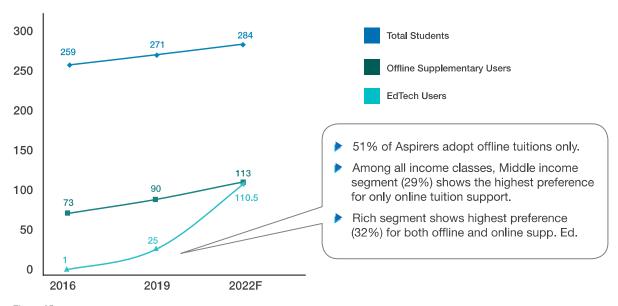


Figure-35

Note: EdTech and supplementary users are not mutually exclusive.

Source: NSSO, Customer Surveys (N = 1883), RedSeer Analysis.

The EdTech user base will grow ~5.5x in the next three years.

By 2023, over 4 in 5 families will adopt EdTech, by virtue of:

- having access to the internet,
- transacting online (products or basic services)
- having a child in grades 1–12

Accelerated growth/adoption in EdTech will close the gap between offline tuition and EdTech adoption.



II. Post-K12 EdTech: 2019–22 Opportunity

The Post-K12 EdTech industry is divided into 4 segments, each catering to different higher education needs and outcomes: higher education, technical skilling, test preparation for government jobs, test preparation for other jobs. There is ample opportunity for market expansion here, provided certain obstacles are adequately addressed.

At \$335 MN, higher education—specifically management offerings—is the most lucrative Post-K12 EdTech segment, despite having the lowest adoption due to a high per-capita cost.



Total Market Opportunity for Post-K12 EdTech in 2022

The industry will grow threefold by 2022, rising to \$1.7 BN in sales.³² Much of this will come from EdTech offerings focusing on higher education, as it does today.

EdTech's share in overall online higher education distance market (both pure online and blended) is slightly low at 6%, which points to a high growth opportunity for EdTech.

32: RedSeer Analysis.

EdTech Market Growth Forecast: Post-K12 Segment 2019–2022F

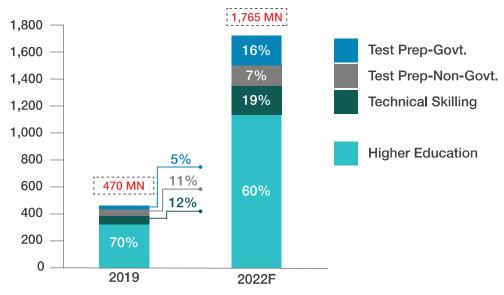


Figure-37

1. Online/Blended Distance Higher Education

The online/blended higher-education market is dominated by MBA/PGDM offerings. Executive part-time MBA/PGDM courses generate a revenue of ~\$30 MN. Of the overall Post-K12 segment, MBA/PGDM constitutes 50%.

Online Distance Higher Education: Market Size \$MN, 2019

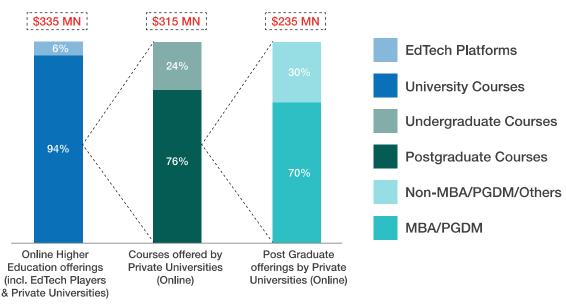


Figure-38

 $Source: MCA, Financial \ declarations, \ Expert \ interactions, \ RedSeer \ Analysis.$

Note: Numbers are rounded to nearest multiple of 5.

2. Technical Skilling

Growing demand for technical skilling fuels the second-largest Post-K12 segment after MBA programmes. Currently valued at \$153 MN, much of the growth in the market for skilling comes from IT or tech workers.

Tech is the biggest segment, with ~ \$105 MN in revenues.

Online Technical Skilling: Market Size \$153 MN, 2019

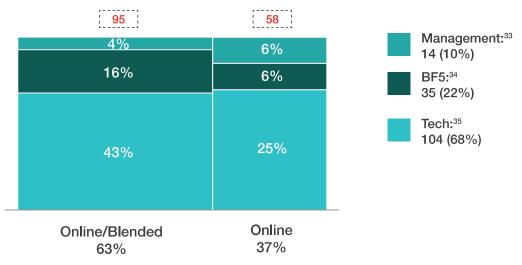


Figure-39
Source: MCA, Financial declarations, Expert interactions, RedSeer Analysis.

- 33. Management: Includes tech-oriented management courses such as Product Management, PMP, Lean Six Sigma, and other short-term certifications, e.g. Entrepreneurship, Strategic Management, Brand Management, CAPM Certification.
- 34. Includes short-term financial courses such as Wealth Management, Investment Banking courses, and Financial Analysis. Test Preparation courses for CFA and FRM are not included here.
- 35. Includes Data Science, Digital Marketing, Advanced Tech courses such as Block Chain, IOT, Cloud Computing, Dev Ops, and other broader tech offerings, e.g. Basic Programming, Web Design, App Design, Animation.

3. Online Test Prep: Other Professions

The online test-preparation market geared primarily towards graduate admission tests preparation is worth ~\$55 MN. Graduate admission entrance tests contribute to ~85% of Online Test Prep (Others) market. Approximately 1.6 MN students use EdTech for test preparation, and the majority of them utilize online offerings to prepare for graduate admission entrance tests. Since 91% of the market is still on-ground, there is substantial scope for entrepreneurs to find their niches. During FY 2019–22, the online test preparation segment is expected to grow at a CAGR of ~25%.

Other Professions Test Prep: Market Size \$MN, 2019

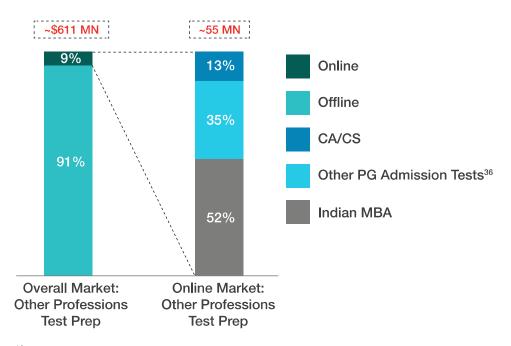


Figure-40
Source: RedSeer Analysis.

36. Other PG Admission Tests comprises courses pertaining to preparation for entrance examinations into post-graduation offering (non-Indian MBA/PGDM). E.G. GATE, GMAT, GRE, etc

4. Online Government Test Prep: Market Segmentation

Despite an increase in the number of aspirants for private-sector white-collar jobs, the clamour for government and public-sector posts has remained unparalleled.

Reasons for government test prep adoption:

- 1. Competition pressure (extremely low ratio of number of job openings to applicants, delay/irregularity in exam schedule)
- 2. To assist with vast syllabus across different subjects, latest current affairs updates

The current online market is dominated with 5 players, capturing ~3/5th of the market, with many small players competing for the remaining share.

Market Landscape

Govt. Test Prep Online Coaching Market Breakdown by Exams, 2019

The online government test-prep coaching in India is a \$23 MN market, with UPSC and Bank PO being the leading segments.

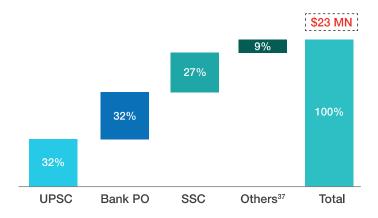


Figure-41

37. Others includes exams such as Railway Recruitment Board, RBI, and LIC. Source: RedSeer Analysis.

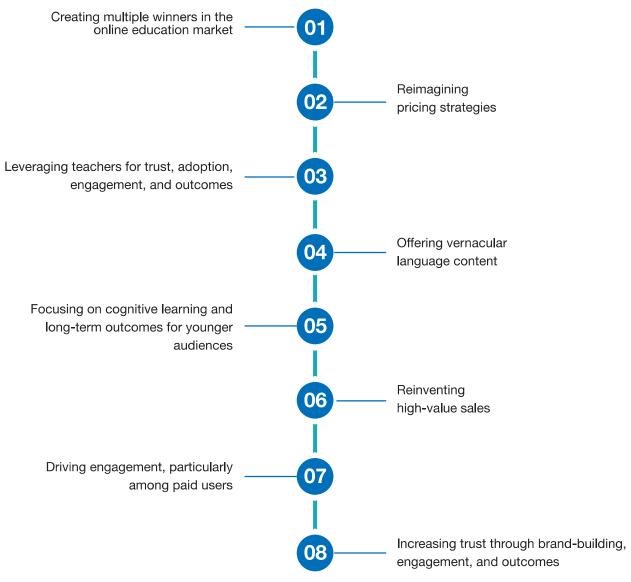


"The success rate for competitive exams is between 1–3 percent on average."

- Entrepreneur







1. Creating multiple winners in the online education market

India's current EdTech-addressable population of 150 MN students cuts across city tiers, income groups, language proficiencies, and curricula. The many subsegments and their varying preferences make it difficult for EdTech companies to cater to large swathes of the population. As such, differentiation is necessary, which will rest chiefly on the broad verticals of syllabi, language, pricing, pedagogy, offline support, and teacher training.

One size will not fit all.

1. Syllabi

Each state in India has its own education board, in addition to central boards (ICSE or CBSE). Even within one board, there are varying focus areas for courses. For example, junior grades require a focus on cognitive development, while senior grades require a focus on academics and outcomes in grade improvement.

2. Language

The NHB segment, largely unfamiliar with English content, needs more vernacular options. Language availability on EdTech platforms will be a key determinant of adoption. Thus, India has the potential for a flourishing multilingual EdTech market.

3. Pricing

While full-stack models are the order of the day, there is a dearth of unbundled solutions that cater to specific student needs. Recognizing the need for affordability across grades, income groups, and regions, EdTech can become a low-cost, purpose-driven market.

4. Pedagogy and modes of delivery

Diversity in teaching techniques will manifest in future EdTech options. Self-learning and assisted-learning models that focus on conceptual clarity, inquiry or problem- solving are popular, but there is ample scope for solutions that focus on:

- Open-ended instruction, with an emphasis on hypothesizing and exploring complex concepts;
- Experiential and project-based learning, i.e. learning through hands-on experience through field trips and internships;
- A hybrid model that incorporates self-learning in a group/peer setting without tutors; and
- Pedagogy that integrates life-skills, socio-emotional learning with academic course teaching.

5. Customer support

As EdTech scales, companies must consider differentiation by way of customer support (24x7, live chat, social media, and offline support in the form of face-to-face, telephonic, and text-based outreach).

6. Training/support

Tutors can play a vital role in expanding the EdTech user base. The kind of teachers hired—their personal brand, popularity, level of experience, etc.—and the support provided to teachers could further help differentiate platforms.



Varying individual needs and complexity for players in effectively delivering across segments will enable vertical play in the market.

1. Coverage

1a. Grade levels:

- ▶ 1–5
- **▶** 6–8
- ▶ 9–12

1b, Courses:

- ▶ Boards alignment: CBSE, ICSE, State Boards etc.
- Exams focus: JEE, NEET, CLAT, Olympiads, etc.
- Core subjects: Science, Math
- Complementary subjects:
 English, History,
 Commerce, etc.

2. Offering Type

2a. Offering type:

- ► Full-stack courses
- Unbundled/ modular offering

2b. Pricing method:

- Free
- Freemium
- Premium
- ▶ Pay as you use

3. Core Delivery

3a. Mode of delivery:

- ▶ Live: one-on-one
- ▶ Live: one-to-many
- Pre-recorded videos, content
- ▶ E-Books/Notes
- Al-based offerings

3b. Language:

- English only
- ► English + Vernacular
- Vernacular only

3c. Outcome focus

- Grades
- Creative and Cognitive
- ▶ Holistic development

4. Support Elements

4a. Type of support:

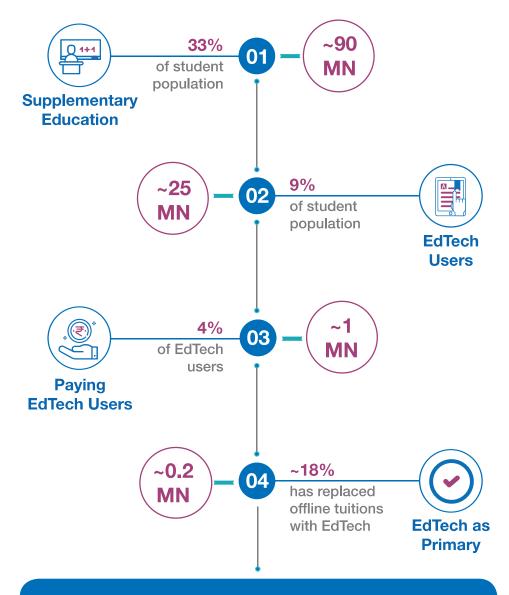
- Teacher connect
- Peer connect/community
- Parent connect
- ➤ 24*7, email, live chat or telephonic support

5. Teacher Support/Training Services

5a. Teacher support:

- Admin Support
- Child feedback, personalized
- Personalized feedback on teaching pedagogy telephonic support

2. Reimagining Pricing Strategies



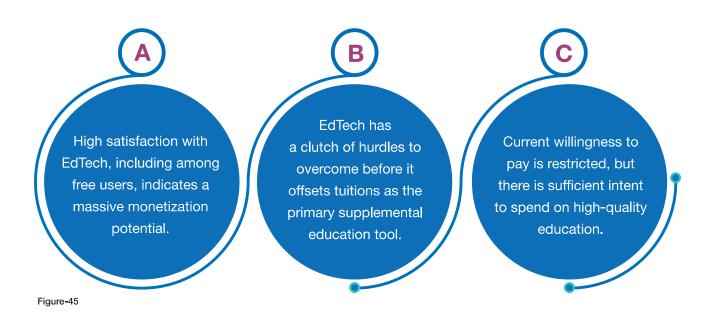
How to increase EdTech's wallet share:

- 1. Wider Adoption of EdTech
- 2. EdTech as primary source of supplementary education

Figure-44

EdTech must command higher wallet share and adoption.

Aspects to Consider



A. High satisfaction with EdTech

Tech-based sentiment analysis was carried out based on Google Play Store reviews of EdTech platforms. The findings were significantly positive.

The net sentiment for K12 is ~58% positive.

The net sentiment score for each player is calculated by analyzing all reviews for the given player on Google Play Store over April 2018 to March 2019. Simple average of sentiment scores for players under scope was taken to avoid biases driven by larger players.

Players under the Scope of Analysis



Figure-46

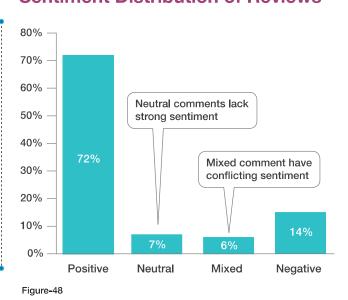
Note: Simple average taken to avoid biases driven by bigger players.

Net Sentiment



Figure-47 Note: Byju's and GradeUp constitutes 82% of the above sample Source: RedSeer Analysis.

Sentiment Distribution of Reviews



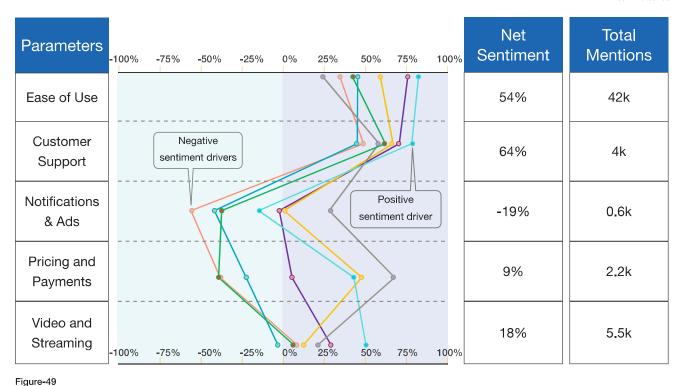
EdTech users are especially happy about the 'ease of use' and 'customer support' offered by the platforms.

The negative sentiments are primarily driven by notifications and ads; however, such mentions are minimal.

Reviews Clustered into Common Themes

Overall Net Sentiment for K12

n = 147 k



Note: Each line indicates an EdTech Player. These are based on Google Play Store Reviews between 1 April 2018 and 31 March 2019.

B. A clutch of hurdles

There are several hurdles for EdTech to overcome before it can become the primary source of supplementary education.

Hurdles in EdTech Adoption as primary source of Supplementary Education

Value Reinforce Trust Self-Motivation Perceived Demonstrable benefits relevance. Productive screen time and including e.g. curriculum propensity for self-discipline improved alignment **Challenges** while learning online academic to performance, Reassurance **Overcome** ▶ Belief that EdTech can provide through improved confidence personal touch, support like that in a physical classroom Swift issue Wider acceptance of EdTech Monetise the EdTech as primary Trials to build trust user base supplement source

Figure-50

Entrepreneurs who develop strategies to overcome these challenges will be best poised to introduce EdTech as an alternative to offline tuition.

Offline coaching, more so for older students or for the purpose of acing competitive examinations, is getting less affordable by the day. Yet, Indian parents are willing to spend on it simply because it is familiar. For EdTech to resonate with aspirers, it must unseat offline tuition classes and become the default for after-school academic guidance. Today, among existing EdTech users, only 18% use it as the main mode of supplementary education.



"I have thought about paying for an EdTech product for my daughter, but only if it's affordable. If it's a product that costs Rs. 2,000 (\$28) a month, I'd rather my child just go to a coaching class or tuition teacher than use the internet at all for study guidance."

-Housewife, Husband's Monthly Income: Rs. 5000-6000 (\$71-85), Meerut (Uttar Pradesh)



C. Restricted willingness to pay but sufficient intent to spend on high-quality education

Pricing strategy must be revisited to drive wider paid adoption.

K12: Price Willingness to Pay vs. Available Options% of Respondents

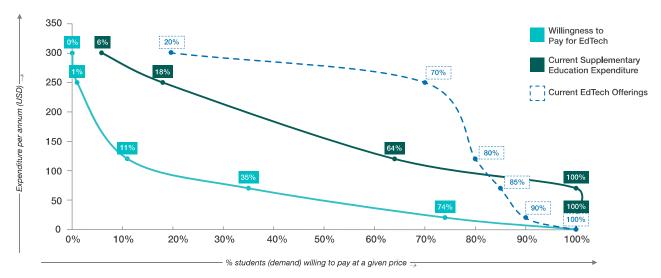


Figure-51
Source: Customer Interviews (N = 1883), RedSeer Analysis.

About 60% of EdTech-aware customers are willing to pay for a product. However, as showcased in the graph above, they are not willing to pay the current prices. Data shows that EdTech users would rather pay 4 times more on offline tuition than on EdTech.

Moreover, within digital offerings, there is no dearth of free content (such as tutorial videos on YouTube). A majority of the consumers currently use free EdTech and are satisfied with the experience.

A failsafe way to ease people into EdTech is to introduce trials. EdTech must offer trials for paid services to help parents and children understand why a product or service is better suited to their needs than offline tuitions. This will boost EdTech adoption. One must consider making 'premium' features, such as personalized doubt resolution and mock tests, available to all. The length of the trial period is as important as the education imparted in this time frame. The study reveals that 30% of aspirers purchased EdTech after a month-long trial.

Entrepreneurs should reimagine pricing and acquisition strategies, as the propensity to pay is higher within a few days after the trial period is over.

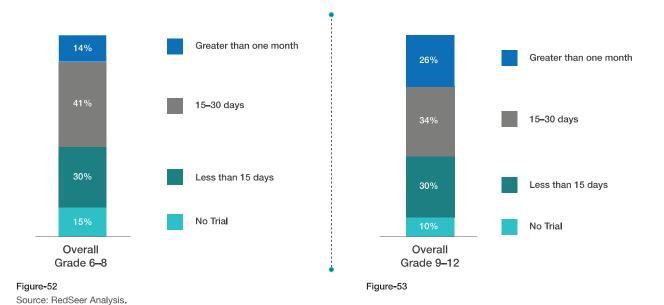
Duration of Trial Period Grade 6–8 EdTech Paid User

% of respondents, N = 109

Duration of Trial Period Grade 9–2 EdTech Paid User

% of respondents, N = 130

The Number of Days of Trial after which Purchase Decision was Taken



India's EdTech market is dominated by offerings that are "full stack" in nature. These typically include course materials for an entire academic year. Modular offerings (specific practice tests, doubt clearance packages, etc.) are few and far between. While full-stack courses can effectively replace offline tuitions, to get there, companies must have modular product offerings as well as optimum trial strategies to drive trust in the product and eventually replace offline tuitions.





"My child uses EdTech for doubt-solving. I think online education is a productive way to use the internet, compared to the nonsense children are exposed on internet these days. But I wish paid courses were cheaper. I can't spend Rs. 25,000 (\$357) for a year for EdTech when I have school fees and other expenses to look after. Give me something I can afford."

-Shopkeeper, Monthly Income: Rs. 35,000 (\$500), Munnar (Kerala)



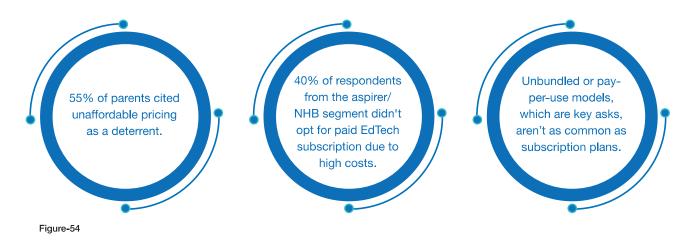
"I want my child to have access to EdTech, and I am willing to pay for it. But what is currently available is too expensive in lieu of school fees. Monthly plans or specific plans for exam preparations would have been nice."

-- Parent of Grade 6-12 Student, Tier-2 City



The willingness to pay suggests that the post-trial introductory price of an EdTech product can be 70–80% that of offline tuitions for a full-offering product to attract more paying users. For modular offerings, the pricing can be further lowered.

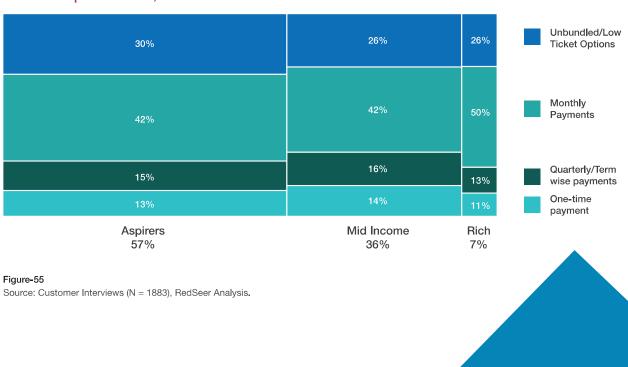
EdTech Pricing: Too Much at Once?



Flexible payment options are more in sync with offline alternatives and will enable wider paid adoptions.

Preferred Payment Options

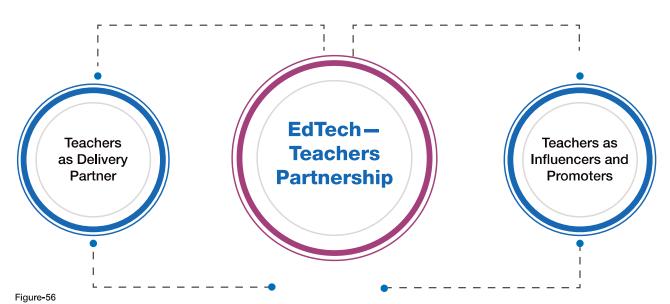
% of respondents, N = 1883





EdTech has the potential to provide personalized learning paths and instant feedback on student performance. Teachers play a critical role, especially in providing high-order feedback and, more importantly, in being the adult who has the power to motivate, instil a love for learning, and offer a sense of caring that is generally missing in automation.

Teachers must be leveraged as both delivery partners and promoters.





"I purchased a full course from leading EdTech provider for my daughter. Although it helped her school grades, there was no feedback on how she was doing and whether there was any room for improvement, like real teachers."

-Father of Grade 6 Student, Mumbai



About 20% of parents of K12 students cited teacher quality as driving trust in EdTech products.³⁸

Teachers are Delivery Partners: Self-Paced and Assisted-Learning Models EdTech companies must find a balance between self-paced and assisted-learning models.

- 1. Self-paced learning hinges on pre-recorded videos, e-notes, and pre-programmed tests. It offers flexibility in learning (time of the day).
- 2. Assisted-learning delivery includes interaction with teachers in addition to self-paced learning content. This can be in the form of interactive, live classes (either private or group lessons) where students come on a platform at a prescheduled timeslot and are taught by a teacher. It mimics offline classrooms and has a personal touch.

The 'human element' is essential for EdTech to bypass offline tuition. NPS: 44 Assisted Learning Model

Positives

- + Direct Interaction with Teacher
- + Instant query resolution
- Personal connect with teacher

Negatives

- Higher Cost of Service
- Revolving faculty

Figure-57

NPS: 31 Self-paced Learning Model

Positives

- + Flexibility of learning
- + Standard content

Negatives

- Limited Personalization
- Improper Feedback
- No Teacher–Student feedback loop

Figure-58

Source: Customer Interviews (N = 1883), RedSeer Analysis.

About 31% of parents with children in grades 1–5 were disinclined to purchase EdTech due to the lack of teacher and peer interaction. However, despite the marked influence of educators, less than half of major EdTech platforms in India onboard teachers. And only 20% leverage them as promoters.

Case study

Vedantu's Live Tuition Model

Assisted learning models that offer a high degree of personalization through highly interactive classes with teachers as well as personalized post-class support are better placed for adoption for the following reasons:

- Instant doubt resolution: This is essential to cementing parental trust in EdTech.
- Personal, actionable suggestions by teachers:It can boost student satisfaction and engagement.



Teachers in non-metros and smaller towns remain gatekeepers in education-related decisions.

Teacher Testimonials





"Vedantu is a model of how technology can unlock the potential in each of us to become great teachers. Some students remind me of my younger days, when my parents could not afford private tuition. EdTech platforms like Vedantu are ushering innovations in the art of private teaching."

-IIM-I Alumnus and Vedantu Teacher



"I am semi-retired after a 16-year IT career. Teaching was my dream job as a child, and I always had a passion for physics and maths. I just decided to follow up on my interest through EdTech. I now carry my classroom on my laptop and teach students wherever I go. I've taught students from 10 cities thus far."



-IIT-B Alumnus and Vedantu Teacher

Teachers as Influencers:

Key Influencer in Educational Decisions

% of Respondents, N = 1883

Key Influencers for Purchasing the Product

The role of school and tuition teachers as promoters and influencers to buy EdTech increases from metro to tier 1 to tier 2 cities. Entrepreneurs should actively think about how to leverage these stakeholders as important promoters.

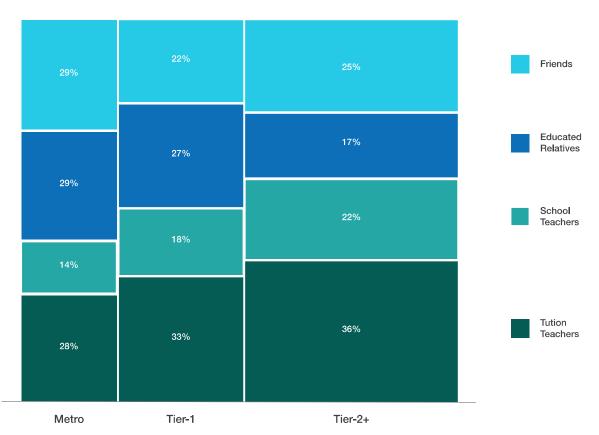


Figure-59

Source: Customer Interviews (N = 1883), RedSeer Analysis.

Note: According to our IDI's teachers influence was coming high in Tier-2 and Tier-3 cities.



"I have not studied much, but I want my son to get the best education. I seek the advice of his teachers since they are best placed to know my child's potential, after my husband and myself. His maths teacher, Mr Arun, recommended that we try a few learning apps. I noticed my son was more focused on academia after using an EdTech app. I am grateful to Mr Arun for introducing us to EdTech."

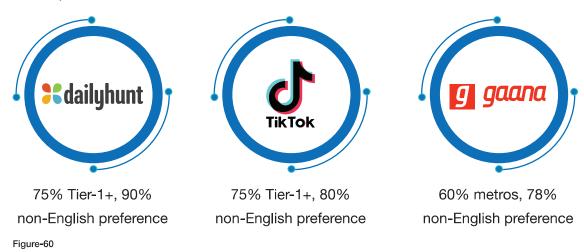
-Housewife, Husband's Monthly Income: Rs. 19,000 (\$267) (Government Employee), Gaya (Bihar)



4. Offering vernacular language content

Parents in the NHB segment, although not native English speakers, have aspirations for their children to become proficient in the language. However, children, whether they study in English-medium schools or not, are more comfortable communicating in their mother tongue or local language. Thus, there is a gap between the ability to communicate in English and being at ease with it. Tailoring EdTech to meet their needs requires understanding such nuances involved in language use.

As evident on some of India's biggest content platforms, the active users are largely from non-metros and prefer vernacular content.³⁹



Vernacular Language vs. English Users across Content Platforms

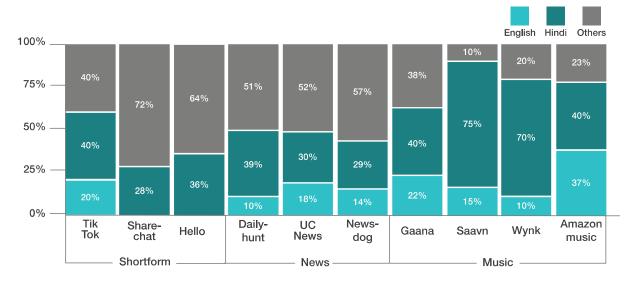


Figure-61
Source: RedSeer Analysis, Industry Reports, RedSeer IP, expert interviews.

Note: MAU is for Web + App combined

39. RedSeer Analysis, April-June 2019.

Given the NHB's vernacular usage, EdTech will benefit from offering vernacular options in education apps while catering to the NHB population.

Case Study

DoubtNut: A Multilingual Learning App Focused on the NHB

A majority of Indian students prefer to study in their local language. To cater to this demand, the company offers the app experience in 12 regional languages. Today, one-third of their users navigate the app in vernacular languages. Furthermore, the videos are in Hinglish (Hindi + English), and the company is now expanding its library of videos to include other regional languages as well. The approach has resulted in strong growth in student engagement and traction for the company. With a >1m daily active student base, the company is able to take EdTech across the nooks and corners of the country.



"My child learns English at school, but the major language of instruction is in Hindi. Their comfort is higher with Hindi. Even on mobile, we use Whatsapp and read the news on Dailyhunt in Hindi only."

-Father of Grade 7 Student, Soya Bean Trader, Monthly Household Income: Rs. 30,000 (\$420), Hoshangabad (Madhya Pradesh)







"Bengali is the only language we are fluent in. We speak a smattering of English and can barely talk in Hindi. I doubt if EdTech would be effective even if my daughter was inclined to use them. She needs guidance in Bengali, at least for now."

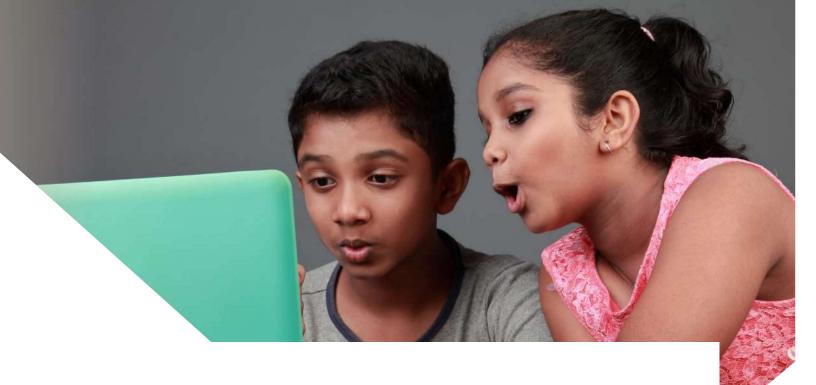
—Homemaker, Monthly Household Income: up to Rs. 30,000 (\$422), Binnaguri (West Bengal)



"My son studies in a state board school in Coimbatore, where the language of instruction is mostly Tamil. He wanted to try online education and used a few EdTech apps, but he was struggling to keep pace with the videos and understand everything that was being said. A Tamil-English bilingual course would have probably helped him retain the lessons better."

—Security Guard, Monthly Income: Rs. 10,000 (\$253), Coimbatore (Tamil Nadu)





5. Focusing on cognitive learning and long-term outcomes for younger audiences

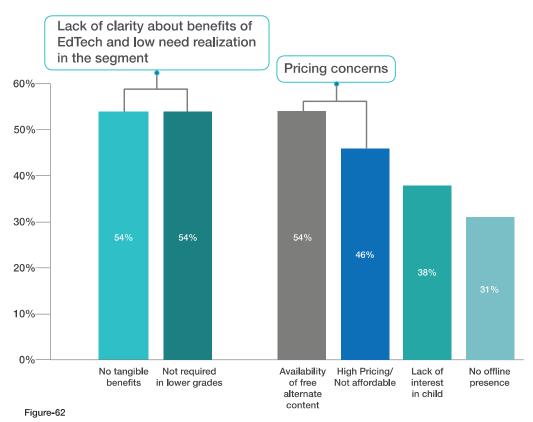
"EdTech for grades 1–5 has the opportunity to take an edge over offline tuition, which is lagging in delivering solutions logic building and habit formation ... the primary asks of people with young children."

Supplementary education has become synonymous with academic pursuit that prioritizes extrinsic value (academic performance) over intrinsic value (comprehension, complex thinking). That grades 9–12 account for 56% of the current market is testimony to the fact that test and exam preparation are the dominant motivators for EdTech use. On the other hand, parents with children in younger grades (grades 1–5) demand extra curriculum solutions or those that focus on the long-term development of a child. Consequently, these parents (compared to those with older schoolchildren) have a marked disinclination for EdTech, as it is associated with core academic focus grades.

Most of the current EdTech solutions focus on curriculum, resulting in the reduced uptake of EdTech. About 54% of the respondents felt that online education was not required in lower grades, and an equal number of parents stated that EdTech offered no tangible benefits for younger children. Companies such as "White Hat Jr.," offering coding and logic-building for kids, and "Stories and Beyond," focusing on inculcating a reading habit among children deliver solutions that address parents.

The realized need for EdTech and supplementary education is very low in Grade 1–5.

Reasons for Not Proceeding with EdTech Platforms: Grade 1–5 % of respondents, N = 120



Source: Customer interviews, RedSeer Analysis.

Supplementary Education Adoption by Grade Level, 2019

Increasing adoption of "out-of-school" supplementary education by grade level



"I do not send my child to tuition classes. He goes to the school and then plays sports in the evening. I don't want to give unnecessary pressure of studies now."

--Parent of Grade 1-5
Student, Mid-Income,
Metro City



"My child performs well without any tuition right now, so we don't find the need of tuitions. When he reaches grade 9, we will explore options as then it will be required."

-- Parent of Grade 6-8 Student, Aspirer, Tier-1 City



"I send my child for offline classes for JEE preparation. My child is very hard working. He looks up videos online also to get his concepts clear."

-- Parent of Grade 9-12 Student, Aspirer, Tier-2 City



"My child does not attend tuitions yet. He goes out to play hours after coming home from school. I don't want to burden him with just studies right now."

-Parent of Grade 1-5 Student



If EdTech models incorporate key needs of young children, it is better primed to replace offline tuition as a default.

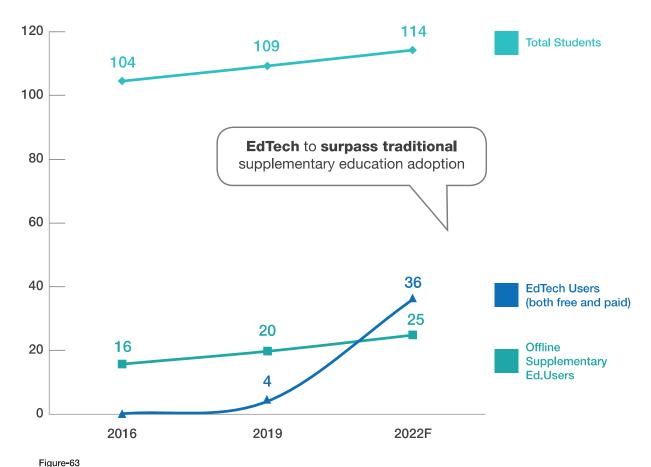
The tendency for EdTech companies to be exam-or results-focused is a deterrent for parents of young children. Most companies are yet to mine opportunities of activity-based learning, which focuses on cognitive development rather than academic performance. EdTech for grades 1–5 has the opportunity to take an edge over offline tuition, which lacks modules to serve the primary asks of people with young children—logic building and habit formation.

Currently, approximately 18% of the student population in grades 1–5 opt for offline supplementary education. The difference in adoption is particularly stark between the aspirers and the rich, at 18% and 35% respectively. Our analysis estimates that while offline supplementary education adoption will grow at a modest 8% CAGR over 2019–22, Grade 1–5 EdTech users (currently with a low base of ~5 MN users) are going to leapfrog the offline supplementary adoption, growing at CAGR of 93% over 2019–22 to ~36 MN users.



EdTech adoption will surpass offline supplementary adoption in younger grades (Grade 1–5).

No. of Students: Grade 1–5, Growth Forecast Million Students, 2016–2022F



Source: NSSO, Survey Results, RedSeer Estimates.

Currently, only 4% of overall students base are free EdTech users in grades 1–5, and the overall paid population is also low. In 2022, grades 9–12 will still account for maximum EdTech adoption. However, the highest relative growth will come from grades 1–5.

Introducing younger children to technology will soon become inevitable, and it will also be the ideal time to nudge parents into paying for quality offerings. Parents of primary school children tend to be the most involved. Models that encourage personalized feedback will, therefore, be more likely to retain buyers than products that have a standardized teaching pedagogy and feedback approach.

Introducing EdTech to younger children can make offline tuition irrelevant/redundant.

Grades 1-5: Reason for Adoption of EdTech Platforms

% of respondents, N = 80

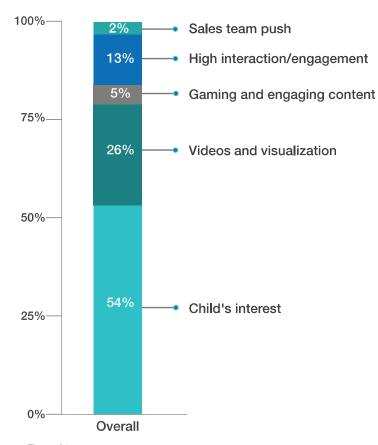


Figure-64
Source: Customer Interviews, RedSeer Analysis.



"It's been 2 years since my daughter is attending ABACUS in her school itself. Most of the EdTech platforms seem to be focused on science and maths, not things like concentration and cognition. If I come across something like that in EdTech, I will make sure to try it at least once."

—Homemaker, Monthly Household Income:

Rs. 18,000 (\$253), Jamnagar (Gujarat)

Differentiated Product Offerings: Key to Engaging Students

Need of Grade 1-5 users

Inputs

Activity-Based Learning

 Children prefer the activity-based learning models and gamification concepts.

Why

Examples

 A child's interest is a key factor in determining engagement and repeat purchase decision-making.

Flintobox







Parental Feedback

- ▶ Parents are more involved in this age group; there is a high preference for regular and personalized feedback.
- ▶ High feedback should not be mixed with high parental involvement requirement as it leads to engagement breakdown.

toppi





Social Interaction/ Mediation in Delivery

- ➤ Children in this age group require assistance/ mediation while consuming content; fully self-paced learning models have low engagement.
- ➤ Teacher involvement is considered important by over 50% of the respondents.







Figure-65

Source: Secondary Research, RedSeer Analysis.



6. Reinventing high-value sales

To ensure affordability for NHB, K12 companies must drive efficient digital sales in order to both grow and have better unit economics.

There are 3 major sales channels for EdTech:

- Digital sales: This is done entirely online, using multiple digital channels, both organic and inorganic. The digital sales technique is geared towards optimum messaging and digital channel-mix, which is successful in creating awareness and resonates with the customer. It also uses assisted features, such as relevant info on the landing page, chats, FAQs, and testimonials. It is the most cost-effective option, if done right.
- 2. Inside Sales/Tele-Sales: All leads are approached over the phone to push a product, answer their questions, ensure easy on-boarding experience, etc. This is also a cost-effective approach.
- **3. Feet-on-street:** Feet-on-street salesforce refers to a company appointed salesforce that engages in door-to-door sales (push-sales tactic) by offering product demos and clarifications to convince and convert leads into paying customers. The customer acquisition cost is high.

Digital and traditional campaigns play a pivotal role in awareness creation, but they aren't as effective as feet-on-street sales (which includes on-ground and telephonic sales) in yielding paid users. This is primarily because cautious parents prefer a personal touch while easing into an EdTech platform. Most companies with a large number of users have relied on feet-on-street salesforce and demos to convince people to pay for their products.



Major EdTech companies rely on feet-on-street sales to drive high-ticket sales.

Players with High-Ticket Items and their Offline Presence

Player	Sales Strategy	Average Price ⁴⁰
BYJU'S The Learning App	 Assisted sales team operates on the hub-and-spoke model, covers ~100+ cities and towns Organizes meet and greet events for top performers Conducts test for scholarships and lead generation 	\$300–700
toppr	 Assisted sales team conducts free product demo at home, covers ~top 25 cities Regularly organizes mass offline counselling sessions for students 	\$180–400
Vedantic LIVE ONLINE TUTORING	 Offline presence—assisted sales team—operating in top 7 metros Organizes VSAT at offline centres scholarships and lead generation 	\$750–1000+
cuemath making kids great at math	 Offline centres for live physical tuitions, covers~top 8 cities Provides free demo classes followed by counselling sessions to enable paid adoption 	~\$300–350
Extramarks K-12	 Assisted sales teams, covers ~30 cities Operating on a hub-and-spoke model providing free counselling sessions Heavy offline presence in coaching 	\$250–400

Figure-66



"The company representative who visited us gave us a demo of the EdTech app we were thinking of trying out. We didn't make a decision right away but had a window to try the app for 10 days. I noticed that my son was looking forward to studying more because of it, so I went ahead and bought a subscription for his IIT preparation, more so because they even offered EMI options."



-Police Constable, Monthly Income: Rs. 22,000 (\$310), Anand (Gujarat)

Assisted sales can be a critical bridge between product trial and product adoption, helping parents and students to gauge just how well a product can address pain points such as pedagogy and syllabus coverage. It is important to note that digital acquisition channels must not be ruled out for the NHB. A digital sales focus for more affordable products will ensure that the cost of acquiring a customer does not exceed the value of such an acquisition.

There are several examples of EdTech companies operating in the Post-K12 segment that have driven sales without feet on the street. Government job test-preparation players such as UnAcademy, Adda 247, and Testbook drive top-of-the-funnel growth and convert players through tele-sales team. Similarly, other Post-K12 players rely only on tele-sales team to convert leads. To ensure affordability for NHB, K12 companies will need to drive efficient digital sales to both grow and have better unit economics. Companies like Doubtnut are able to build a large top of the funnel which is highly engaged. This provides them with an advantage of converting users into paid subscribers directly through the product.

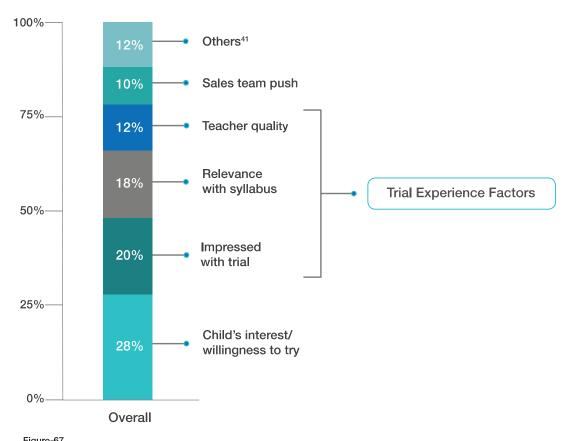
In the case of grades 9–12, nearly 30% of metro-based respondents stated that they were impressed with the trials. Trials enable users to gauge how well lessons are imparted and how relevant the course coverage is to their syllabi, before they decide to pay (or not) for an offering. We found that instructor quality and syllabus adherence were the primary triggers for EdTech adoption in Tier-1 and Tier-2+ areas, respectively.

Positive trial experience to enable trustbuilding in the offering, coupled with inside sales team push, are key levers employed by EdTech companies to incentivize paid adoption.

Reason for Adoption of EdTech Platforms: Grade 9–12

% of respondents, N = 130

Main Reason for Purchasing the Product



rigule-or

Source: Secondary Research, RedSeer Analysis.

Summary:

- Satisfaction from trial and the child's interest (or parent's desire to provide the best for the child) are the primary forces driving EdTech adoption.
- In Tier-1 cities, teacher quality observed during the trial is the primary trigger for adoption.
- In Tier-2+ cities, syllabus-relevance is the key trigger for adoption.
- ▶ 85% of the respondents who were given product demo through school (24% of respondents) started using the product, indicating the higher conversion rates when launched through schools.

7. Driving engagement, particularly among paid users

Among the paid EdTech users, the NPS (Net Promoter Score) stands at an impressive 45%, which is an industry-leading NPS. This is a promising sign of the times to come for EdTech. A high NPS has a ripple effect on product adoption and customer loyalty and can be used in word-of-mouth campaigns and testimonials to foster trust among non-paying users.

Paid user NPS for EdTech is notably high.

Industry-leading NPS

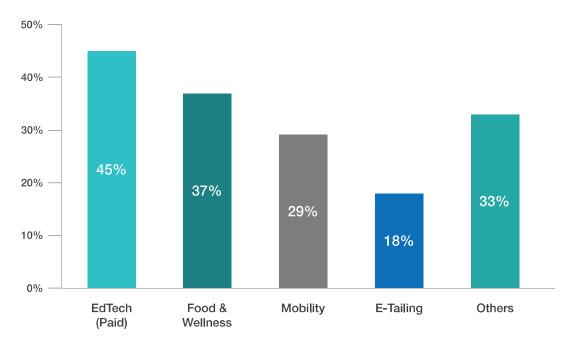


Figure-68

Others: Content, Hotel, UPI/Wallets, Real-Estate, Ticketing

Source: RedSeer IP.



"Our daughter has become more confident, and her grades have improved ever since she started using EdTech. Earlier she was shy to ask teacher her doubts; now she uploads a photo and gets an answer without any hesitation. She seems to understand topics quicker now. I think EdTech apps have been very helpful in her progress and preparation."

-Electrician, Monthly Income: Rs. 15,000 (\$211), Dispur (Assam)



Engagement metrics are promising, with engagement being primarily driven by good quality videos, quick query resolution, and relevant course content (linked to outcomes). However, EdTech players must address the factors leading to engagement breakdown across the customer journey.

Goals

Tangible benefits:

22% of K12 respondents did not purchase due to the lack of tangible benefits from EdTech.

Relevance of syllabus:

22% of K12 respondents did not purchase the product due to the lack of relevance to school curriculum and because it will not support the child in academics.

Usage

Product demo:

13% of K12 paid EdTech users considered demo experience as the key basis for product familiarization during trial period.

Differentiation from free content:

20% of K12 respondents do not purchase due to the availability of free content.

Assisted learning elements:

31% of Grade 1–5 respondents did not purchase the product due to the lack of offline elements such as peer interaction, teacher interaction.

Teacher quality:

~20% of K12 respondents develop trust in the product inspired by high-teaching quality.

Support

Customer support:

Majority of the respondents believe that instantaneous customer support is essential with reference to pricing and payment issues.

Pricing optimization:

55% of K12 respondents do not purchase the product due to high and unaffordable pricing.



The high NPS is reflected in engagement metrics observed among paid users. A paid user spends an average of 2.5 hours per week on online education platforms. Expectedly, the time spent on self-paced learning platforms is lower than on assisted-learning platforms, primarily because assisted doubt-solving drives engagement and scheduled one-to-one or one-to-many classes are more effective in engaging students.

Multimedia elements such as videos and gamification have been instrumental in engaging students on self-paced learning platforms.

While gamification is popular among older students, it does not always work. Videos, in contrast, are popular across age groups. About 80% of the respondents have a clear preference for visualizations. Middle-income and aspirer students in grades 9–12 attached more importance to video quality than their younger counterparts.

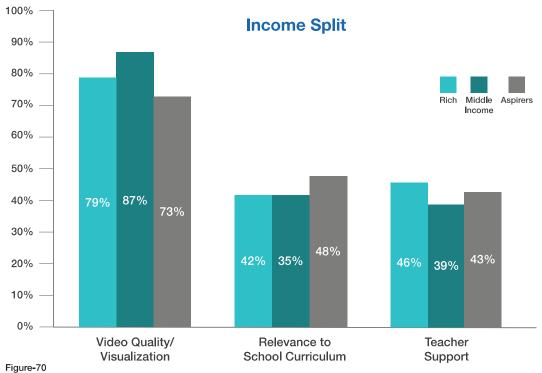
For paid users, engagement is primarily driven by good quality videos, quick query resolution and relevant course content (linked to outcomes).

Engagement Drivers in Grades 6–12

Engagement Drivers: Income and City Split (Users)

% of respondents, N = 579

Top 3 Positive Features of the EdTech Platforms



Source: Secondary Research, RedSeer Analysis.

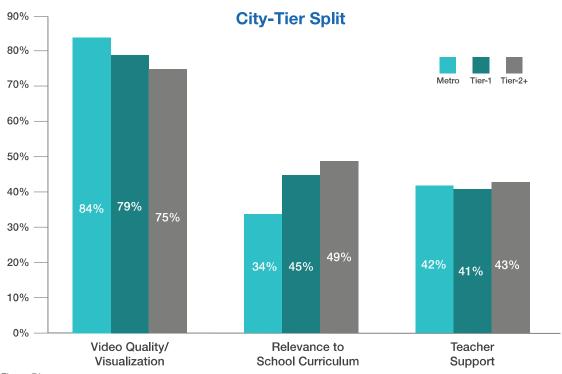


Figure-71
Source: Secondary Research, RedSeer Analysis.

Engagement drivers, interestingly, do not vary significantly by income groups and city tiers. While users in metros and higher-income groups give a relatively higher weightage to video quality/visualization aspects, aspirers and lower-city users consider it more important for the content to be relevant to the school curriculum. Thus, it is of singular importance that EdTech products align with secondary and higher secondary curricula, given the emphasis on academic performance.



"Videos are easy to follow and cover all topics extensively. The game mode was irrelevant for me because it slowed my progress and diverted me away from the topic at hand."

-Grade 10 Student, New Delhi





"The best feature by far is the video series. The in-depth, easy-to-follow analyses on each topic makes learning fun."

-Grade 8 Student, Coimbatore



8. Increasing trust through brand building, engagement, and outcomes

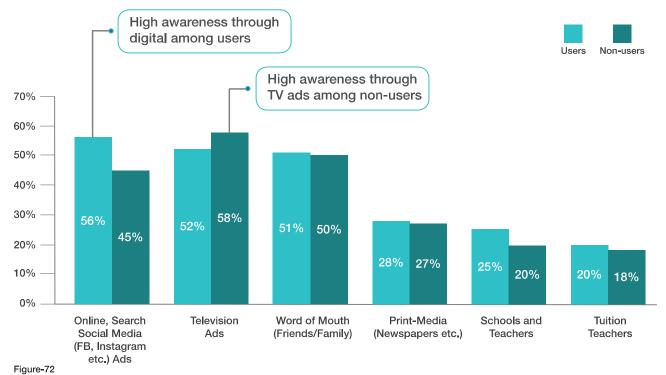
Trust and brand building are crucial for EdTech. Currently, it is often used only as a secondary supplement to primary supplements, i.e. offline tuitions. To scale up and have a real impact, EdTech needs to replace offline tuitions. In order to get there, positive engagement and results are critical, since that will convince customers to pay more, i.e. have trust to make EdTech the primary supplement and replace offline tuitions. Digital channels can be used more effectively to build a brand and reach a wider audience. The ones that have worked well until recently may not work for NHB, since their digital usage and habits are different

Given that EdTech relies on the online medium, it is expected that "digital" is the preferred channel for promotions. Our research shows that digital ads are the primary source of awareness for online education platforms. Among active users, over 55% cite digital ads as their primary source of awareness. The effectiveness of digital ads in creating awareness is equally impressive among non-users, with 45% non-users becoming aware of EdTech through online ads. Entrepreneurs should drive marketing communications through TV ads, digital media, and design incentives for word-of-mouth referrals.

Digital marketing is a strong driver of consumer awareness.

Primary Source of EdTech Platform Awareness: Key Channels % of respondents, N = 1249 (Users: 579; Non-users: 670)

Channels/Sources of Awareness for EdTech Platforms

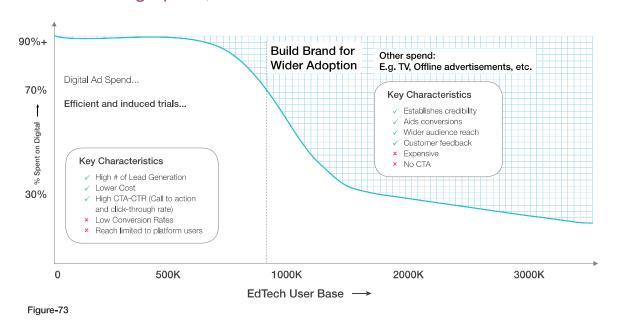


Source: Secondary Research, RedSeer Analysis.



Digital ads are here to stay. They are the primary marketing spend category for EdTech platforms.

Percentage Spend on Digital Media by EdTech Platform % of Marketing Spend, 2019



Digital ad spends on social media, over the top (OTT) platforms, mobile apps, etc. are significantly lower than traditional media spends. The digital push generates a large number of leads, which sales teams can then follow up on, whether online or offline. It is only when companies attain a customer base, i.e. 500,000–1 MN strong that alternate channels are required to reach a larger audience.





"My son, who is in grade 11, used my phone to watch many shows on Zee5 and Hotstar. He must have seen some EdTech ads on those platformsbefore trying them out. He told me he likes online education so far and is currently using 2 apps."

-Ramesh Dutt, Lab Technician, Monthly Income: Rs. 15,000 (\$211), Haldwani (Uttarakhand)



The focus of digital ads needs to shift towards emerging platforms. The expenditure on such ads can be prioritized based on digital usage behaviour of customers.









Digital Ad Spends

Platforms	EdTech Ad Spend	Customer Time	Areas Where Digital Spending Can be Channelled
Vernacular Platforms (e.g. Dailyhunt)			Most customers in the aspirers income group and lower city tiers consume vernacular first/vernacular intermediate content (~30% prefer vernacular first content on their devices).
Messengers (e.g. WhatsApp, Hike)			There is a high consumption of messenger platforms across customer groups (90% of the respondents consume messengers).
Social Content Platforms (e.g. Facebook)			Customers, particularly in Tier-2 cities (~70% of the respondents), are very active on social platforms, e.g. Facebook.
OTT Free (e.g. YouTube)			YouTube has the highest MAU base (~90% of the respondents claim to use regularly) among all platforms; EdTech platforms are targeting adequate spend here.
Google Ads			Organic search is relatively low by users.

Figure-74

Going forward, it will also become important to highlight student outcomes that can be attributed to EdTech for building a trusted brand. These outcomes can include school grades, ranks in competitive exams, proficiency in languages or other subjects, or building of cognitive skills. This is similar to offline counterparts where brands have been built on the back of the student outcomes. EdTech, by virtue of tech, has also the ability to collect performance and progress data at scale. Leveraging the data, EdTech can support students on their learning path and show individual student progress at a higher frequency to the parents.

Post-K12 EdTech

Key Insights for EdTech Entrepreneurs around Specific Areas

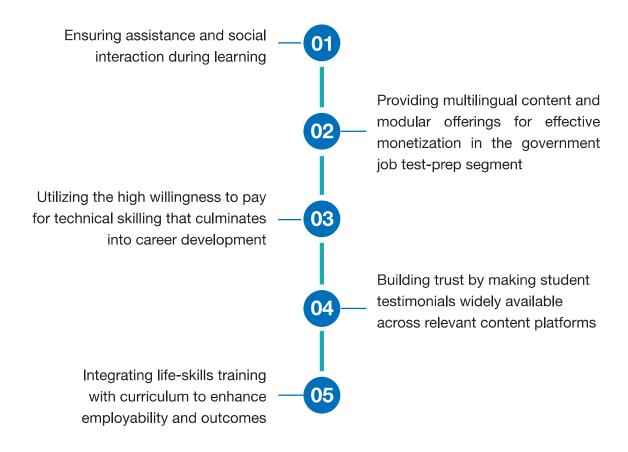


Figure-75

1. Ensuring assistance and social interaction during learning

The process of learning, even if done online, is an inherently social activity. Teacher–student and student–peer interactions and doubt resolution are central to participation, in formal education. It allows learners to get a better understanding of subjects and motivates them to come back and learn more. In a 2016 study about social interaction in MOOCs, Carnegie Mellon University (CMU) found that a chatbot, despite prompting participants to discuss and revise lessons, was insufficient in keeping them motivated. A feature that let students simply chat and share notes with their peers, however, was responsible for an astounding 70% drop in attrition rates.⁴² These findings were integral to the creation of "Bazaar," CMU's publicly available EdTech architecture, first introduced in statistics courses throughout colleges in California, USA.

Unlike in K12 EdTech, where consumers (children) generally have less control over the choice of product than buyers (parents), Post-K12 learners exercise greater autonomy with their EdTech picks. They also have more responsibilities and more distractions, which makes it even more important to offer assistance and collaborative learning opportunities to hold their interest.

"We had skill development lessons in the office where we were shown videos and made to participate in quizzes. It was also great to have an instructor around to answer queries and more importantly, tell us how we can apply the new skills to some of our projects. Understanding how we can apply new and improved skills to our jobs is of utmost importance."



-Data Analyst, Kolkata (West Bengal)

58% of the people we interviewed cited the assisted-learning model in Ed-Tech solutions as a major influencer in the purchase decision. In the case of technical skilling, half of all respondents cited the absence of assisted-learning elements (teacher and peer interactions) as a reason for not buying EdTech. Around 40% of those who were inclined to use EdTech were specifically looking for assisted learning models. Among those who did purchase EdTech, 90% rated interactivity in the form of offline events and forums as a key engagement driver. Missing offline classes (39%) and low peer interaction (34%) emerged as the prime barriers to engagement, even if product quality ticked all the right boxes. In sum, assistance is a must at different stages of the Post-K12 customer journey.

Lack of the human element is a key engagement barrier in EdTech products for technical skilling.

Engagement Drivers and Technical skilling

% of respondents

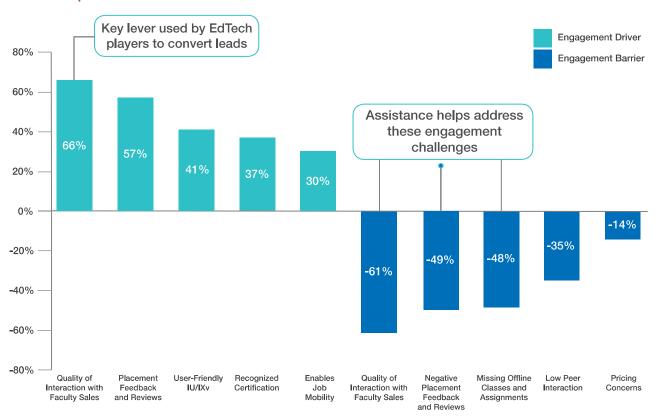


Figure-76

"I'd signed up for an online Python programming course, but I couldn't stick to it for long despite the content being good. I thought it was very standardized, with no avenues to question the instructors or discuss certain points with them. I would prefer learning from someone I can interact with."

–B. Tech student from Graphic EraUniversity (Dehradun, Uttarakhand)





EdTech companies provide varying, not consistent levels of assistance throughout the technical skilling journey. Most players are already providing assistance across different stages of the customer journey, as seen in the table below.

EdTech Company Type				
Technical Skilling:	Player 1			
Large Global EdTech Companies (Self-paced	Player 2			
Learning)	Player 3			
	Player 4			
Technical Skilling: Large Indian	Player 5			
Companies (Assisted Learning)	Player 6			
	Player 7			
Technical Skilling: Indian	Player 8			
EdTech Companies; Income Share	Player 9			

Onboarding Assistance ⁴³
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Social Interaction and Support ⁴⁴
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Career Support ⁴⁵
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Neutral/Medium

Figure-77

Agreements Model

Player 10

^{43.} Telesales assistance, product selection

^{44.} Post-purchase engagement of the student by providing continuous feedback and analysis on areas of improvement

^{45.} Resume building, job applications and placement assistance



"Course completion is a problem for many EdTech players because of an absence or lack of instructor-student interaction. Keeping someone motivated from start to finish is very challenging. The first rule of thumb is to not make people feel like they're learning alone. While designing our products, we ensured there were enough interaction points between instructors and learners. We also follow the batch approach, where students can create WhatsApp groups to take their discussions off Coding Ninjas. That way, they don't feel straitjacketed in their interaction choices."

-An EdTech Founder

NPS of assisted vs. self-learning technical skilling courses among NHB and non-NHB segments

Assisted learning models with stronger interaction and support have better overall NPS compared to self-paced learning platforms (pre-recorded content delivery platforms).

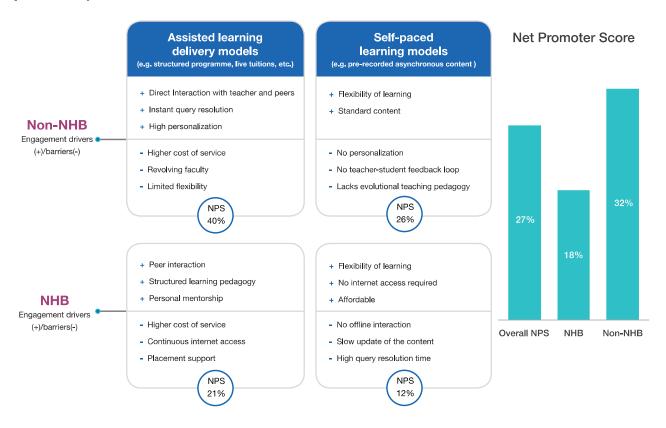
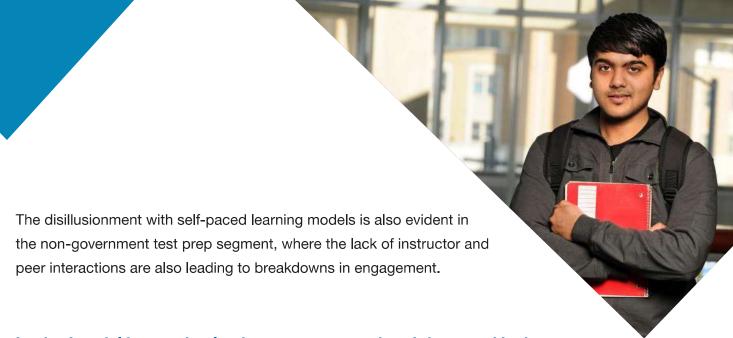
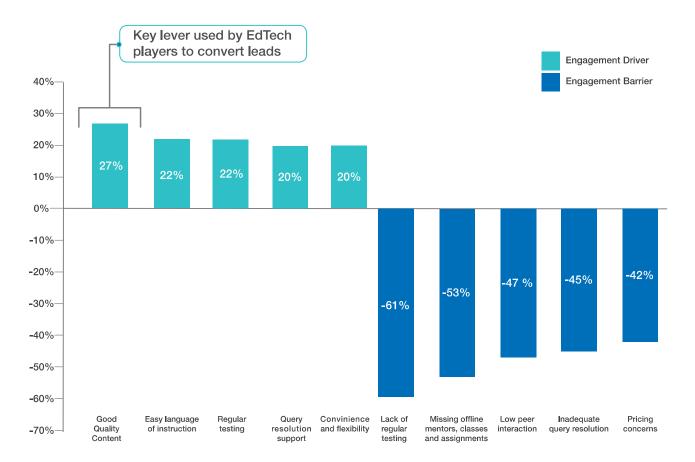


Figure-78
Source: Customer Interviews (N = 495), RedSeer Analysis.



Lack of social interaction leads to engagement breakdown and is the most common barrier in EdTech products for other professions test prep.

Engagement Drivers & Deterrents – Other Profession Test Prep % of Respondent, 2019



Need to focus on increasing interaction to drive engagement

Figure-79 Source: Customer Interviews (N = 254), RedSeer Analysis.

2. Providing multilingual content and modular offerings for effective monetization in the government job test- prep segment

India's private sector boom since the 1990s has created millions of jobs, but the clamour for government jobs is still intact. In recent years, job crises in multiple industries have triggered the rush for public sector careers. For example, in Maharashtra (India's second-most populous state), nearly 3,200,000 people applied for 32,000 state government jobs between December 2018 to August 2019 alone. A rising number of skilled graduates and post-graduates are vying for clerical and supervisory posts simply for the sake of job security, diminishing one's chances of being picked on academic accomplishments alone.

The cutthroat nature of government job applications is magnified by India's employment elasticity, i.e. the number of jobs created in relation to economic growth. India's employment elasticity was only 0.01 in the country's high GDP years, a clear indicator that economic growth and employment opportunities can be mutually exclusive.

This macro context is essential for EdTech players, who target government job aspirants, because people in this group spend over 3 years on an average preparing for government examinations. Aspirers and people from rural areas make up a significant portion of those vying for government jobs. Many of them are public-schooled, nonnative speakers of English, and engage in self-study. The practice of self-study among aspirers and people from rural areas is primarily due to 2 reasons:

1. Lack of quality offline offerings in Tier-2+ cities

2. Lower ability to pay, especially if they have to re-locate to Tier-1 cities for preparation

Our survey with the students suggests that those who enrol for offline coaching find the pedagogy and course materials lacking. Over 80% of government job aspirants consider mock tests availability at offline centres to be inadequate for their preparation.

EdTech offerings in the space are capitalizing on this gap and offering affordable, yet quality solutions. Over 90% of the respondents believe that mock tests provided by EdTech platforms are critical for their exam readiness.



"I have been preparing for UPSC for nearly 2 years now and have access to the requisite material. But I was delighted to come across an app where I could take mock tests. I've spent Rs. 300 (\$4.2) for it over the past 3 months, but it is money well spent."

-Sumeet Singh, UPSC Aspirant and Graduate from IIT-Roorkee, Faridabad



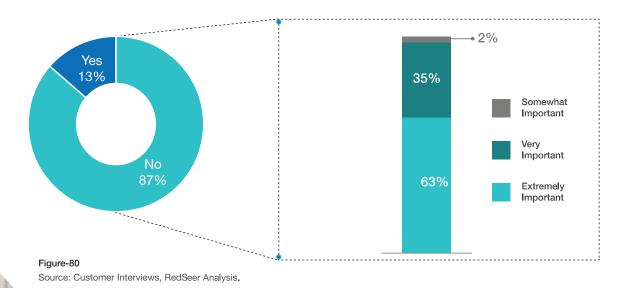
Importance of Online Tests

% of Respondents, N = 100

Importance of Online Tests for Exam Preparation

Do you think offline mock Tests are adequate for exam preparation?

If not, how important are online mock tests for exam preparation?





Important to offer bilingual or multilingual content

Although India has 125 MN English speakers, second only to the US (268 MN), English still remains the language of elite, urban India. The 2011 Census revealed that English was the mother tongue of 256,000 people, while Hindi was the primary language of 528 MN Indians. The survey further reveals that 55% of respondents in the government test prep segment, which has a majority of people from Tier 2+ regions, prefer to sign up for bilingual courses.





"I was reading up on preparing for the UPSC examinations and stumbled upon Quora. It was there that I came across a list of online education options for UPSC prep. I was unaware that there were so many platforms to choose from; I read up more about the apps and websites being talked about and am now considering giving EdTech a go."

-UPSC aspirant, Trichy (Kerala)



"I'd tried an EdTech app after reading about it, but almost all its videos were in English, which made it difficult for me to follow what was being said. Fortunately, I came across 2 platforms that have instructors talking in Hindi. It is not only easier to grasp what is being said, but also encourages me to go back to those platforms every day."

-User, State Bank of India Clerk, Raipur (Chhattisgarh)



Several EdTech offerings have realized this need and customized their solution accordingly.

EdTech Player	Vernacular	Star Teacher	Offline Presence	Comments
adda 241		×	V	 Has offline presence through physical centres Particularly strong presence in Tier 2+ cities and Hindi-speaking belt
_ unacademy		V	X	 Vernacular video-led courses in multiple regional languages with significant learners who are bilingual (who learn both Hindi and English) USP is renowned faculty/star teachers
VISIONIAS INSPIRING INNOVATION		V		 Mainly offline, but have shifted focus towards online learning with content available on the freemium model
CAREER LAUNCHER	×	×	V	 Focus on Bank PO and UPSC, with online-only, offline-only and hybrid learning models Offers in-person doubt clearing sessions
TIME.	×	×	V	 Focus on Bank PO only, with online-only, offline-only and hybrid learning models Offers in-person doubt-clearing sessions
BYJU'S The Learning App			×	 Strong presence in online UPSC preparation Absent from other govt. test preparation

Figure-81

Availability of free content reduces the willingness to pay.

While 64% of respondents believe that EdTech is sufficient to prepare for government examinations, the segment has ample free alternatives available (chiefly, video tutorials on YouTube). About 78% of people surveyed said they refer to free content online. Of this group, as many as 75% cited YouTube as the main prep resource. This reflects why roughly 16 MN people use EdTech to prepare for government examinations, but only 1 MN pay for it.

Given the popularity of the medium among the students, most of the EdTech players in the segment also leverage the platform for their student acquisition:

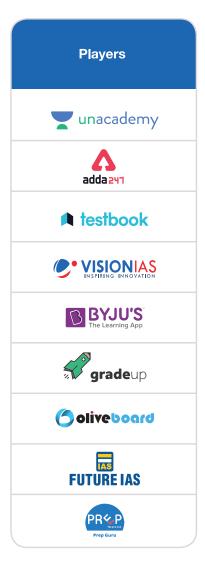
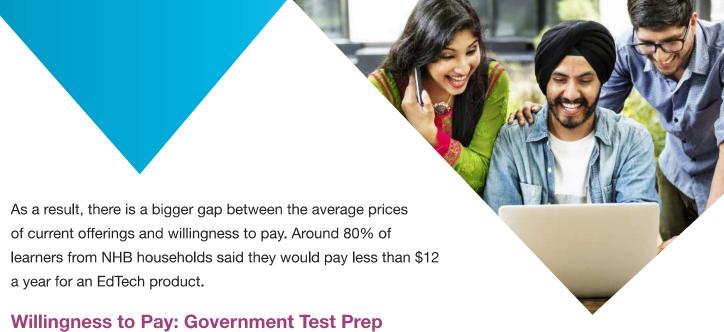




Figure-82 As of August 2019. Source: (N = 320), RedSeer Analysis.



Willingness to Pay: Government Test Prep % of Respondents, 2019

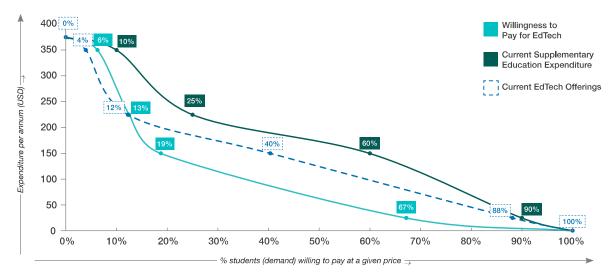


Figure-83

Modular offerings, as being currently offered by several players in the segment, is driving early demand. This is especially important among aspirers vying for government jobs. Around 75% of the students surveyed expressed an inclination to pay for unbundled or monthly test preparation series. The willingness to shift to paid EdTech for core content is more gradual. This is mainly due to:

- 1. The availability of free content online
- 2. High adoption of offline coaching adoption, where core content preparation is already offered

Once companies are able to demonstrate outcomes at scale, more students should start replacing the offline offerings with comprehensive online packages.

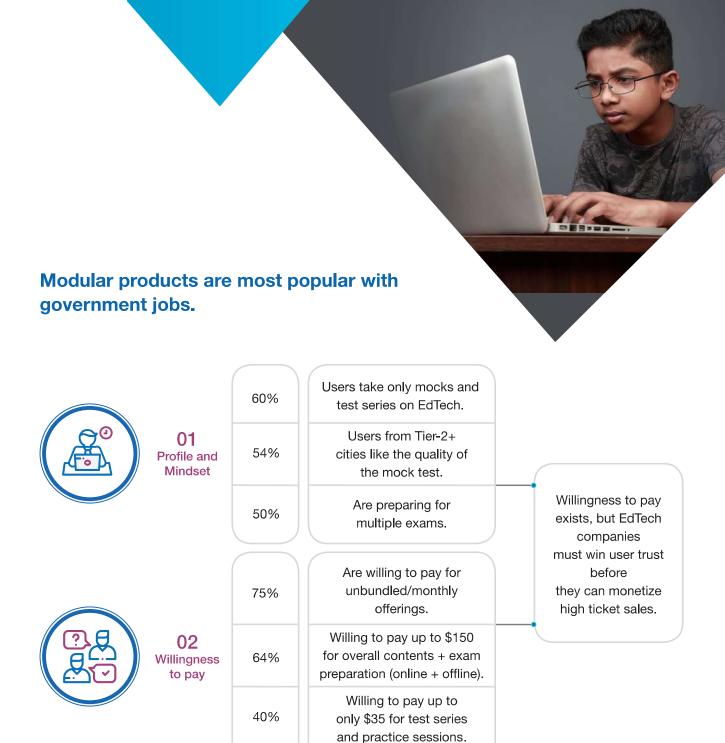


Figure-84

3. Utilizing the high willingness to pay for technical skilling that culminates into career development

To understand why people believe technical skilling is integral to their jobs, we must first understand that a changing world demands evolving skillsets. Consider Big Data, which has created a full-blown need for data architecture and analysis. This brings with it the need for upskilling in existing roles, e.g. systems engineering, software development, and database administration. Companies are increasingly considering reskilling employees (expecting them to have new competencies) so they can even transition to completely new roles.

Skilling is required to future proof oneself as automation becomes a norm, rather than an exception.

The majority of people who enrol for technical skilling are mid-level white-collar workers, notably from the IT industry. Our research suggests that more than 80% of them are willing to pay for technical skilling courses.

Organized White-Collar Workforce

Millions, 2019

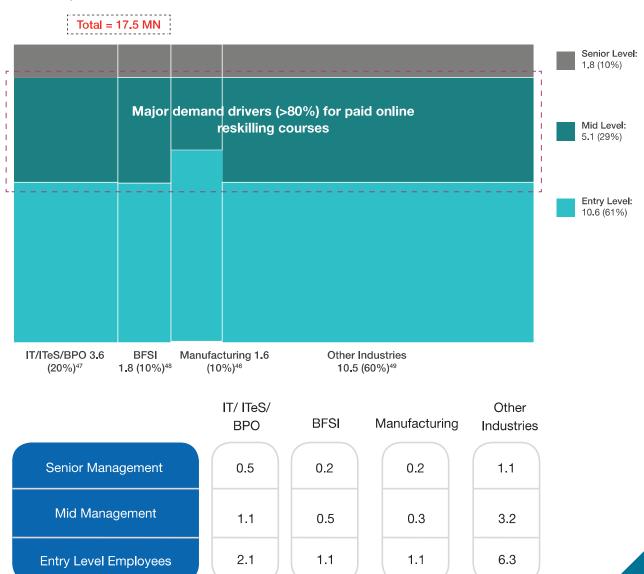


Figure-85

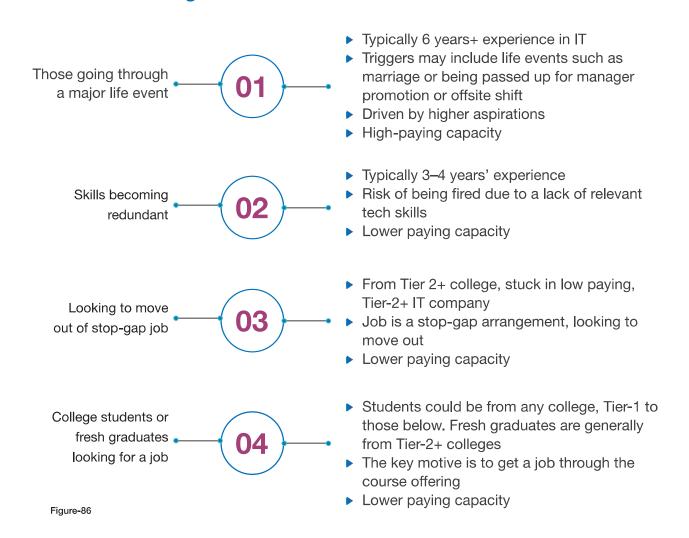
Source: Customer Interviews(N = 256), RedSeer Analysis.

Note: The individual data labels are rounded to the nearest decimal point and therefore total may not add to 17.5 MN

- 46. Manufacturing includes Automotive Industry, Food Processing Industry, Textile Industry, Steel Industry, Petroleum Industry, Chemical Industry, Consumer Electronic Industry, Paper Industries, and other manufacturing sectors.
- 47. IT/ITeS/BPO includes IT Service companies, IT Product Companies, BPO, KPO, and eCommerce companies.
- 48. BFSI includes Banks, Financial Services, Insurance, and Financial Advisory Companies.

However, the emphasis in the reskilling space is not limited to working professionals. The need to adapt with the times is also required for college students and fresh graduates, as the college curriculum is still catching up with the changing environment. As a result, college students and graduates looking to upskill have started opting for programmes such as coding bootcamps, which is leading to the overall expansion of the addressable market. The kind of skilling programme they opt for chiefly depends on their level of work experience, job status, and purchasing power.

The 4 main personas and their underlying need for technical skilling



Given the widespread need for (up) skilling across age groups, we expect massive growth in the technical skilling segment going forward. We estimate the paid user base to grow to 2.5x by 2022 i.e. ~1.5 MN users from ~600K currently.

Technical Skilling: India EdTech User Base and Forecasts Thousand Users, 2019

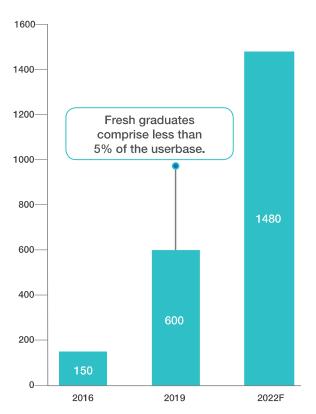


Figure-87
Source: Customer Interviews(N = 256), RedSeer Analysis,

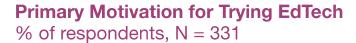
Facilitating job opportunities will drive the willingness to pay.

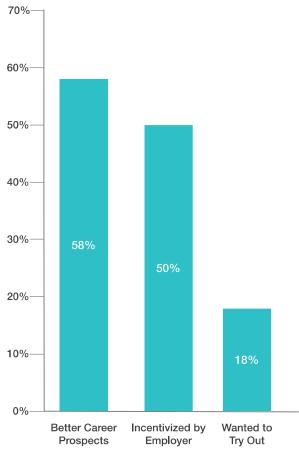
In order to build brand and trust, EdTech companies providing technical skills have built affiliations with either universities or corporates. Most users also expect a payoff in the form of job opportunities, which will drive the willingness to pay. To them, the true value of technical skilling lies in how instrumental it is in (a) placing them in emerging jobs, or (b) giving them a fillip in their existing jobs, mostly in the form of promotions or better salaries.

In this tumultuous job market, 62% opt for reskilling in hopes of a better salary, while 53% do so in order to switch jobs.

76% of respondents rated career support as a must-have in technical skilling products. Around 80% were looking for further industry-specific knowledge, with an emphasis on hands-on learning, which adds to credibility during interviews.

As a result, companies are increasingly focusing on outcomes and starting to align their interests closely with that of the students. For instance, several companies that have emerged in the past 2 years operate on Income Share Agreements (ISAs) model.









"I enrolled in an online technical skilling course in order to boost my hiring prospects. It has been good so far, but what's reassuring is that the company also helps with our resumes and pushes them out to corporates. I'm hoping to get a suitable job soon."

-User, Data Analyst, 3 Years' Experience in Infosys

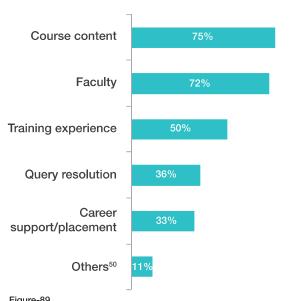


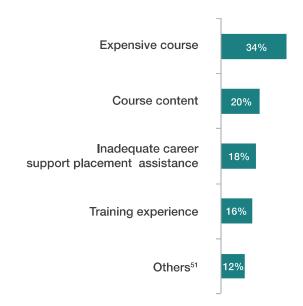
Students become champions/influencers of the brand only after course completion, once outcomes materialize.



In our research with existing students, career support accounted for just 33% of all positive sentiment drivers, behind course content (75%), faculty (72%), training experience (50%), and query resolutions (36%). In this segment, the feedback is positive once outcomes are realized (i.e. among ex-users rather than existing users). Also, the feedback from a user who is yet to find a job compared to one who has a job may vary significantly. As a result, the companies need to deliver on outcomes and also provide enough support during the course period to build a trusted relationship with the students.

Positive and negative sentiment drivers among people who use EdTech for technical skilling





Source: Customer Interviews (N = 725), RedSeer Analysis.

Positive Sentiment Drivers

Top 6 Positive Factors about the Platform Used for Studying

Key Pain Points

Top 5 Negative Factors about the Platform Used for Studying

^{50.} Others (positive sentiment): Case Studies, Networking, etc.

^{51.} Others (pain point): Exam Conduction Patterns, Assignment load, etc.

Outcomes and Satisfaction: Users vs. Non-Users

N = 495

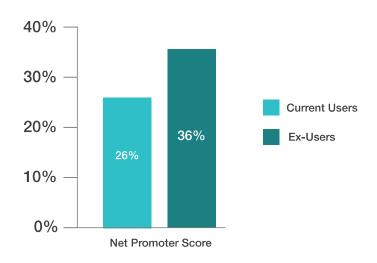


Figure-90

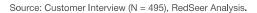
Case study

SimpliLearn

SimpliLearn started as a blog in 2006. It now has more than 2,000 instructors, who train users across the disciplines of cloud computing, data science, digital marketing, and cyber-security. Up to 95% of over 1 MN professionals trained by SimpliLearn are English-speaking and hail from India's metros. The programme offers support elements that are traditionally associated with offline classes, such as teaching assistants for doubt resolution.



While it is primarily B2C-oriented, SimpliLearn also caters to B2B, since a growing number of companies want to build skills within their organizations. These include banks and FMCG companies. B2B-facing companies in the technical-skilling sector have the advantage of lower acquisition costs per customer. Interestingly, SimpliLearn did not offer placement support in the beginning, because many of its learners already had jobs. However, the company has now started offering career support to its students.



THE ISA MODEL

An Income-Sharing Agreement (ISA) model, which has become popular in the western countries, is one way to link incentives of an education provider to outcomes for a student.

In a typical ISA model, a student pays to the education provider only when they achieve a minimum threshold of outcome (X salary). The amount of payment is calculated as a percentage of monthly income (17% typically for 24 or 36 months) over a period (4–5 years), and the overall payment is capped at a certain value (Y upper-limit payment amount). Given the large student debt in countries like the US, an ISA is an innovation that shifts the burden from students to the education provider, where students who do not achieve their employment outcomes do not have to pay anything.

In India, new training providers—especially in the coding bootcamp space—are experimenting with an "ISA" model. These companies sign an upfront agreement with students. Later, they partner with NBFCs, who typically issue loans to students once they receive their employment offer letter and the first salary. The income to NBFCs come from the subvention (25–35%) they charge the training provider. Most of these loan agreements are based on the amount of the first salary instead of a variable salary over the course of payment period per the ISA. This is one major difference between the regular ISA model and the variation that we see in India.

Such payment models, though few and far between, are expected to mushroom given students would prefer to pay only for courses that yield clear-cut professional payoffs.

Over a dozen companies are providing skilling in coding programmes under the ISA model. With this model, the burden of outcomes shifts to the training provider. A high-quality training provider then focuses on building a brand based on the outcomes instead of worrying about building it on the back of star teachers or money spent on advertising. Thus, the key to the success of an ISA model is outcomes-oriented high-quality education.

Besides aligning student incentives with those of training providers, the ISA model also makes programmes more accessible. In India, where student loans are still inaccessible to the people who need them the most, this model opens up the opportunity for deserving students to access high-quality education without creating a burden on their parents.

4. Building trust by making student testimonials widely available across relevant content platforms

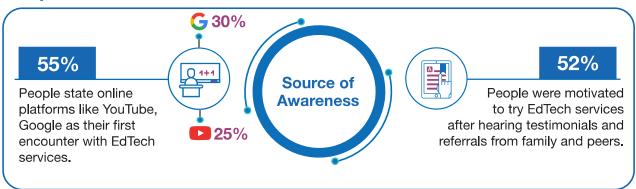
Tertiary education learners tend to be better informed about existing products and are proactive in scouting for options.

Job portals is a popular channel among students researching on career opportunities.

The typical customer journey starts with online searches. About 55% of respondents name Google (30%) and YouTube (25%) as their awareness gateways into EdTech. With growing awareness comes the need to conduct research prior to investing in an EdTech offering. Here, job portals gain significant influence. As many as 77% of interviewees use job portals to find out more about an EdTech course or programme, and 68% conduct research after word of mouth referrals or recommendations from people they know.

Technical Skilling Customer Journey: Source of Awareness, Mode of Research, Consideration-set & option evaluation % of respondents, N = 495

Step 1



Step 2

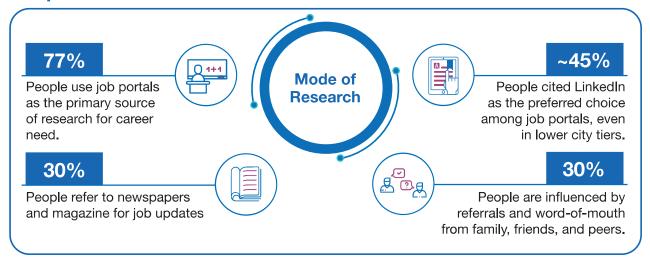
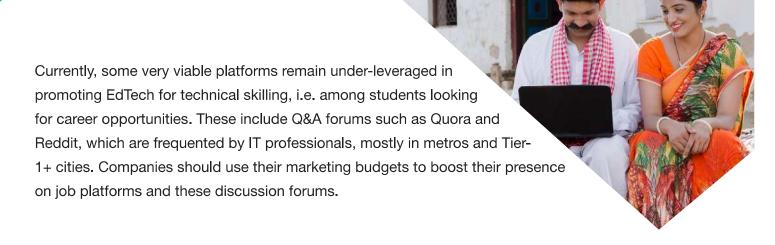


Figure-91



Customer Journey: Consideration Set Build Up, Technical Skilling % of Respondents, N = 495

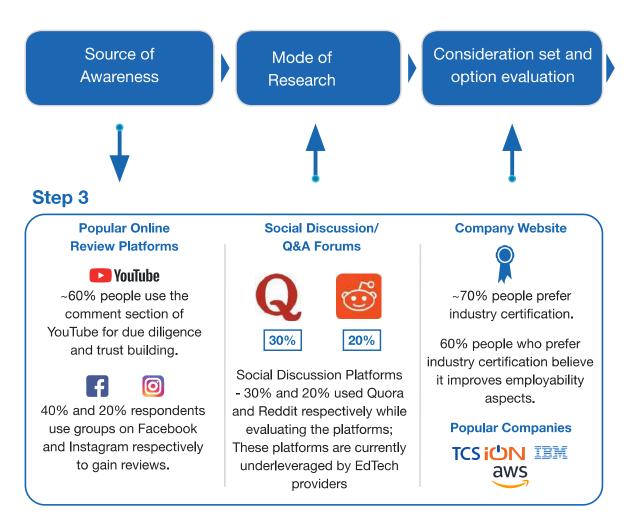


Figure-92

The phenomenon is similar for those using test-prep products.

Learners who consider using EdTech for other professions, test prep are even more dependent on Quora. Almost 50% use the platform, as well as Reddit, to learn more about course pedagogy and benefits.

As many as 84% peruse YouTube comments for reviews, while 60% read reviews on Facebook. Nearly 50% check app and product reviews on the Google Play Store and company websites, highlighting an openness to learn on mobile devices.

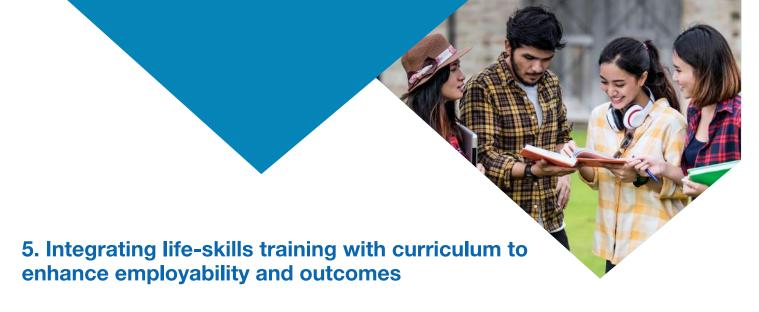
Other Professions – Test Preparation: Customer Journey: Source of Awareness, Mode of Research, Consideration-set & option evaluation

Need Source of Consideration set and option evaluation Trigger Awareness Updated content on Offline Channels EdTech: 27% - Billboards, Tele Sales (70%) Test Practice: 25% Social Discussion/Q&A **Popular Online Company Website Review Platforms Forums** YouTube ~84% people check the Google play comment section for 35% reviews and content quality. ~50% people check Social Discussion Platforms the company reviews - 35% and 15% used Quora on play store and company and Reddit respectively while websites. 60% & 20% respondents evaluating the platforms; use groups on Facebook These platforms are currently and Instagram, resp., underleveraged by EdTech to gain reviews. providers

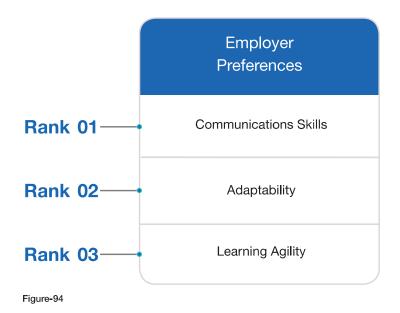
Figure-93

Source: Customer Interviews (N = 320), RedSeer Analysis.

% of respondents, N = 254



For EdTech companies to succeed in the Post-K12 market, it is imperative that they build trust in their offerings by showing outcomes in the form of tangible career advancement of users. Technical knowledge, while important, is not the only differentiator among candidates competing for limited jobs on offer. Job applicants in the current business environment are expected to go through multiple evaluations, including communication- and psychometric-based tests. As outlined in the "India Skills Report," employers prefer candidates who have better communication skills and are ready to learn and adapt to changing business environments.



As EdTech companies further develop their product offerings and orient their focus on outcomes, i.e. tangible career advancement of users, integrating life-skills training with technical skills is expected to be the norm going forward.

EdTech companies, particularly in technical-skilling and higher education (with a focus on providing career outcomes) must incorporate the important element of "life-skills" in the curriculum. As an exception, test-preparation-focused EdTech companies can get away with covering limited aspects that are tested in the exams, e.g. grammar, language use, and vocabulary.

IN CONCLUSION

Today, there are roughly 270 MN students enrolled in K12 in India. If this population were to be a standalone nation, it would be the fifth-most populous in the world. These students are served by the government and private schools combined, along with a sizeable number of out-of-school supplementary education providers. While India has made tremendous progress in terms of improving literacy rates, accessibility and affordability to quality education remain significant barriers in unlocking the youth's potential.

EdTech offerings are poised to disrupt the status quo and change the education delivery landscape. By 2022, the K12 EdTech market is expected to be a \$1.7 BN market, i.e. 6.3x growth from today. Similarly, the Post-K12 EdTech market is expected to grow 3.7x to be a \$1.8 BN market opportunity. This will create meaningful opportunity for incumbent players as well as space for multiple new startups.



The EdTech opportunity in India is driven by 3 major shifts:

- 1. Digitization of schools, colleges, and exams, coupled with the decreasing cost of smartphones and data, which had led to the democratization of internet, making digital services accessible to the wider, previously underserved population
- 2. Increasing supply of quality EdTech offerings, backed by venture funding (EdTech has received over \$1.6 BN in funding during 2014–19)
- 3. Dissatisfaction with the current education offerings, which EdTech players are being able to capitalize on to drive demand from students/parents

Among paid users, the NPS for EdTech companies is a staggering 45%, which is a leading NPS score compared to some of the other major consumer internet verticals.

The confluence of these factors has led to a watershed moment for EdTech in India. Digital offerings are leading the democratization of education, bridging gaps in access to quality education and addressing key student pain points. EdTech players who seek to capitalize on this opportunity would benefit from:

- Focusing on the NHB, tailoring messaging and products to the largest customer segment. Building vernacular or bilingual products for making content accessible to all.
- 2. Reimagining pricing strategies to open up wider customer segments and facilitate customer acquisition.
- 3. Leveraging teachers and emerging digital, vernacular platforms to build trust drive, adoption and effectively reach the audience.
- 4. Driving engagement by customizing products for different customer types and demonstrating outcomes to build a strong brand.
- 5. Ensuring outcomes for learners in achieving grade proficiency, better exam results, college admissions, or career movements.



GLOSSARY OF KEY TERMS

EdTech		Educational Technology. Comprises software to enhance learning and improve education outcomes.
EdTech user	-	A person who uses an EdTech platform for at least 30 minutes on average per week. For this reason, simple app downloads or dormant users are not categorized as users.
Conversion	-	\$1 = Rs. 70
Income groups		
Aspirers	•	Households with an income of \$1150–4500 per annum. Also known as the Next Half Billion (NHB) in this paper. While NHB also includes the "deprived" group, for the purpose of this paper, it refers only to aspirers. ⁵²
Deprived	-	Households with annual income of less than \$1150.
Deprived Mid- income/middle class	-	Households with an income of \$4500-18,500 per annum.
Rich	-	Households with an annual income greater than \$18,500.
City Tiers		
Metros	-	Top 8 Indian cities by population considered metros for this study: Ahmedabad, Bengaluru, Chennai, Delhi-NCR, Hyderabad, Kolkata, Mumbai, and Pune.
Tier-1	—	Non-metro cities with a population of more than 1 million.
Tier-2+	-	Cities and towns with a population between 0.5 million to 1 million.
Tier-3	-	Cities and/or rural areas with a population of less than 0.5 million.
K12	-	Short for "kindergarten to grade 12".
Post-K12	•	Education sought after higher secondary or class 12. Includes test preparations for government and private jobs, online and long-distance education, and courses for technical- and soft-skills enhancement.
Supplementary		Education support sought outside school. In India, this is predominantly offline tuition or coaching classes. It also includes non-conventional new-age learning products that

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